ABA Preparatory Course

PRACTICE 2

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ETHICS

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ETHICS AND PROFESSIONAL CONDUCT

After reviewing this chapter, you should be able to:

1. *Apply the ACAT Code of Ethics to maintaining client confidentiality, setting fees, maintaining independence, identifying who may perform professional services, and avoiding conflicts of interest.*

2. *Apply IRS Circular 230 in the filing of tax returns.*

Reference Material: IRS Publication Circular 230

ACAT credential holders face complicated decisions. A course of action that may mean relatively high short-run profits may also involve conduct that, though legal, is not ethical. How, indeed, does an individual know that he or she is facing an ethical issue in reaching a particular business decision? To answer this question, we must first look at the concept of ethics and determine what comprises an ethical issue.

Essentially, an ethical issue is one that transcends its subject matter to pose a fundamental, structural question such as, What is fair? What is just? Or what makes this outcome more socially desirable than another? One of the best definitions of ethics from a business point of view is “Ethics is a process by which individuals, social groups, and societies evaluate their actions from the perspective of moral principles and values. This evaluation may be on the basis of traditional convictions, of ideals sought, or goals desired, of moral laws to be obeyed, of an improved quality of relations among humans and with the environment. When we speak of ‘ethics’ and ethical reflection, we mean the activity of applying these various yardsticks to the actions of persons and group.”

A society’s ethical values, whether related to business or otherwise, rest on a collection of shared beliefs. Indeed, it is the sharing of beliefs and the desire to spread these beliefs that cause people to organize as groups. The collection of basic values accepted by most members of society constitutes the prevailing morality of that society. We must bear in mind, however, that what constitutes an ethical concern of a society may change as the values of that society change. What was ethical conduct in the United States ten years ago may be considered unethical today, although ten years from now it may once again be considered ethical.

For accounting and tax professionals, ethical issues arise because of competing interests in the business world among clients, purchasers and sellers of businesses, employees, and others. Ethical problems may arise when there is a conflict between the goals of different individuals or businesses. It is frequently difficult to determine who has the responsibility to voice concern over the quality of accounting and tax records. It is often the accountant or tax professional who has the knowledge upon which an ethical dilemma turns. All too often the accountant or tax professional, in such a case, is in a no-win situation. He or she must be concerned with the reaction of the business owner as well as with the reaction of any employee involved. Disclosing or not disclosing problems places a great deal of pressure upon the accountant or tax professional. How do you decide whether it is your ethical responsibility to disclose accounting or tax problems? What if the situation is clearly under someone else's control and that person is obviously content to ignore what you personally perceive to be unethical conduct?

ACAT's mission is:

> "To accredit professionals who have demonstrated knowledge of the principles, practices, and ethical standards of accounting, taxation, information technology, and related financial services in order to maintain the highest level of service to the public; to promote the value, recognition, and use of the ACAT credentials; and to protect the ability to use the earned credential."

Those accredited recognize the importance of making known to the profession and to the general public the principles that guide our efforts to provide services to our clients. Ethical dilemmas occur when values are in conflict.

THE ACAT CODE OF ETHICS

Accredited individuals further agree to abide by the ACAT Code of Ethics. These eleven principles codify the basic elements of ethical and professional conduct for individuals accredited by ACAT. They signify the ideals and values embraced by each accredited individual.

Principle 1—Client Confidentiality

ACAT credential holders may be placed by clients in positions of trust and confidence. The ultimate source of such public trust is the ACAT credential holder’s personal integrity. In deciding what is right and just, an ACAT credential holder should rely on his or her integrity as the appropriate touchstone. Integrity demands honesty and candor, which must not be subordinated to personal gain and advantage. Within the characteristic of integrity, allowance can be made for innocent error and legitimate difference of opinion; but integrity cannot co-exist with deceit or subordination of one’s principles. Integrity requires an ACAT credential holder to observe not only the letter but also the spirit of this Code.

Principle 2—Contingent and Unconscionable Fees

ACAT credential holders may not consider charging a contingent fee when providing audit, review, or compilation services, including the period of time covered by any historical financial statements involved while performing the engagement. In these engagements, it is unethical for a credentialed individual to charge a fee on what might occur. Fees are not regarded as being contingent if fixed by courts or other public authorities or, in tax matters, if determined on the basis of results of judicial proceedings or the findings of governmental agencies. Additionally, accredited individuals may not charge an unconscionable fee for representing a taxpayer before the Internal Revenue Service. The term “unconscionable” is defined as not being guided or controlled by conscience, not in accordance with what is right and wrong, unreasonable, undue, unjustifiable, unwarrantable, or unwarranted.

Principle 3—Required Independence in Financial Reporting—Disclosure

ACAT credential holders shall not express an opinion on financial statements of an enterprise unless they and their firm are independent with respect to such an enterprise. Independence will be considered to be impaired if, for example:

A. During the period of professional engagement, or at the time of expressing their opinion, they or their firm:

1. Had or was committed to acquire any direct or material indirect financial interest in the enterprise; or
2. Had any joint closely held business investment with the enterprise or any officer, director, or principal stockholder thereof which was material in relation to their or their firm's net worth; or
3. Had any loan to or from the enterprise or any officer, director, or principal stockholder thereof. This provision does not apply to the following loans from a financial institution when made under normal lending procedures, terms, and requirements:
4. Loans obtained by a credential holder or his firm which are not material in relation to the net worth of such borrower; or
   a) Home mortgages; or
   b) Other secured loans, except loans guaranteed by a credential holder's firm which are otherwise unsecured.

B. During the period covered by the financial statements, during the period of the professional engagement, or at the time of expressing an opinion, they or their firm
   1. Was connected with the enterprise as a promoter, underwriter or voting trustee, a director or officer, or in any capacity equivalent to that of a member of management or of an employee; or
   2. Was a trustee of any trust or executor or administrator of any estate if such trust or estate had a direct or material indirect financial interest in the enterprise; or was a trustee for any pension or profit-sharing trust of the enterprise.

The above examples are not intended to be all-inclusive.

<u>Principle 4—Allowing Others to Practice</u>

ACAT credential holders will only permit partners, professional corporation co-shareholders, and employees to perform professional services within their firms.

Principle 5—Conflict of Interest

ACAT credential holders shall not concurrently engage in any business or occupation which impairs their objectivity in rendering professional services.

Principle 6—Expression of Opinion on Financial Statements

ACAT credential holders shall not express an opinion that financial statements are presented in conformity with generally accepted accounting principles if such statements contain any departure from an accounting principle promulgated by the body establishing such principles which has a material effect on the statements taken as a whole, unless the credential holder can demonstrate that due to unusual circumstances the financial statements would otherwise have been misleading.

In such cases their report must describe the departure, the approximate effects thereof, if practicable, and the reasons why compliance with the principle would result in a misleading statement. There is a strong presumption that adherence to officially established accounting principles would in nearly all instances result in financial statements that are not misleading. It is difficult to anticipate all of the circumstances to which such principles might be applied.

The rule therefore recognizes that upon occasion there may be unusual circumstances where the literal application of accounting principles would have the effect of rendering financial statements misleading. In such cases, the proper accounting treatment is that which will render the financial statements not misleading. The question of what constitutes unusual circumstances is a matter of professional judgment involving the ability to support the position that adherence to a promulgated principle would be regarded generally by reasonable individuals as producing a misleading result.

Principle 7—Use of Credential Holder's Name with Special Purpose Statements

ACAT credential holders shall not permit their name to be used in conjunction with any forecast of future transactions in a manner which may lead to the belief that the credential holder vouches for the achievability of the forecast. This does not, however, prohibit a credential holder from preparing or assisting a client in the preparation of forecasts of the results of future transactions. When a credential holder's name is associated with such forecasts, there shall be the presumption that such data may be used by parties other than the client; therefore, full disclosure must be made for the sources of the information used and the major assumptions made in the preparation of the statements and analyses, the character of the work performed by the credential holder, and the degree to which they are responsible.

Principle 8—Commissions

ACAT credential holders shall not receive a commission for recommending or referring any product or service to a client or for recommending or referring any product or service to be supplied by a client. If the accredited individual performs an audit or review of the client's financial statement, or a compilation of a financial statement when it can reasonably be expected that a third party will use the financial statement and the accredited individual's compilation report does not disclose a lack of independence or an examination of prospective financial information, then the accredited individual shall not receive a commission.

Principle 9—Advertising

ACAT credential holders shall not "advertise," to call public attention to in order to sell, in a manner that is false, misleading, or deceptive. As defined by the Federal Trade Commission, deception generally means that the advertisement may be interpreted in more than one way and that one of those interpretations is false or misleading. Deception may involve a false statement or claim about a quality of service or product, price, and reliability. Deception also may occur when an advertisement omits important facts or information. Additionally, advertisements will often be considered deceptive if their statements are not supported by adequate evidence.

Principle 10—Name usage

ACAT credential holders are permitted to practice accounting using any form of entity classification allowed by law or regulation. An accredited individual shall not practice under a firm name which is misleading.

Principle 11—Referral Engagements

ACAT credential holders receiving referrals from another practitioner shall not discuss or accept an extension of their services beyond the referral engagement without first consulting with the referring practitioner. Accredited individuals hold professional relationships with the highest degree of integrity and trust.

This Code of Ethics sets our credential holders apart from others who provide similar services to the public, as it imposes a set of principles we work by. This same code promotes quality, expertise, and integrity, setting out principles and guidance on professional conduct needed to sustain public confidence in the accounting, tax, technology, and financial service profession. The ACAT Code of Ethics is a positive point of difference between accredited ACAT credential holders and others in similar professions.

COMMON LAW AND STATUTES

Accountants play a major role in a business's financial system. Accountants are subject to standards of conduct established by codes of professional ethics, by state statutes, and by judicial decisions. They are also governed by the contracts they enter into with their clients. When accountants enter into a contract, they must perform all the services for which they were hired, in addition to following the standard accounting procedures.

Under both common law and statutory provisions, accountants face potential legal liability in their work. Common law imposes liability for breach of contract, negligence, and fraud. An accountant may also be subject to federal statutory liability under the Securities Act of 1933 and under the Securities Exchange Act of 1934. When violated, these two acts impose civil and criminal liabilities. Considering the many potential sources of legal liability that may be imposed upon accountants, an accountant should be well aware of his or her legal obligations.

A. Under common law, accountants are liable to clients for breach of contract, negligence, or fraud.

1. Breach of Contract

Under common law, accountants face liability for any breach of contract. An accountant owes a duty to his or her client to honor the terms of the contract and to perform the contract within the stated time period. If the accountant fails to perform as agreed in the contract, then he or she has breached the contract, and thus the client has the right to recover damages from the accountant. An accountant may be held liable for expenses incurred by his or her client in securing another accountant, for penalties imposed upon the client in failing to meet time deadlines, and also for any other reasonable and foreseeable monetary losses that arise from the accountant's breach.

When a client brings an action against an accountant for breach of contract, the accountant may not claim, and hope to be successful, that the services rendered conformed to generally accepted accounting and auditing standards. Liability is based upon the accountant's breach of contract—not upon fault. The accountant may not successfully claim contributory negligence as a defense and assert that his or her client's negligence prohibits the client from recovering. The client may recover, notwithstanding any negligence on his or her part.

2. Liability for Negligence

Accountants occupy a position similar to that of other professionals who render professional services for compensation. When a person holds himself or herself out as an accountant, he or she is held to the care, knowledge, and judgment generally possessed by accountants in the community acting under the same or similar circumstances. An accountant is measured against a hypothetical, reasonably prudent and skillful accountant.

As long as an accountant conforms to generally accepted accounting principles and acts in good faith, he or she will not be held liable to the client for incorrect judgment. As a general rule, an accountant is not required to discover every impropriety, defalcation, or fraud in his or her client's books. If the impropriety, defalcation, or fraud has gone undiscovered because of negligence or failure to perform an express or implied duty, an accountant will be liable for any resulting losses suffered by his or her client. An accountant who uncovers suspicious financial transactions and fails to fully investigate the matter or to inform his or her client can be held liable to the client for the resulting loss. Typically, the amount of the loss resulting from an accountant's failure to exercise reasonable care according to the generally accepted standards is substantially higher than the fee the client was to pay the accountant.

A violation of generally accepted accounting principles and generally accepted auditing standards will be considered *prima facie* evidence of negligence. Compliance with generally accepted accounting principles and generally accepted auditing standards, however, does not necessarily relieve an accountant from potential legal liability. An accountant will still be held to standards of conduct established by state statutes and by judicial decisions.

If an accountant is deemed guilty of negligence, the client may collect any reasonable and foreseeable damages that arose from the accountant's negligence. An accountant, however, is not without possible defenses to a cause of action for damages based on negligence. Possible defenses include allegations that:

a) The accountant was not negligent.
b) If the accountant was negligent, this negligence was not the proximate cause of the client's losses.
c) The client was contributorily negligent.

Sometimes accountants are hired to perform "write up" work or to prepare unaudited financial statements. While a lesser standard of care is typically required with a "write up," accountants may still be held both civilly and criminally liable in this situation. Accountants may be subject to liability for failing, in accordance with standard accounting procedures, to delineate a balance sheet as "unaudited." An accountant will also be held liable for a failure to disclose to a client facts or circumstances that gave rise to a reason to believe that misstatements had been made or that a fraud had been committed.

3. Liability for Fraud

Actual fraud and constructive fraud present two different circumstances under which an accountant may be found liable. An accountant may be held liable for actual fraud when he or she intentionally misstates a “material fact” to mislead his or her client, and the client detrimentally relies on the misstated fact. A material fact is one that a reasonable person would consider important in deciding whether to act. Constructive fraud, on the other hand, will be found when an accountant is grossly negligent in the performance of his or her duties. The intentional failure to perform a duty in reckless disregard of the consequences of such a failure would constitute gross negligence on the part of an accountant. Both actual and constructive frauds are potential sources of legal liability under which a client may bring an action against an accountant.

When a client is dissatisfied with the performance of an accounting firm, he or she will often sue on all three common law theories in the alternative. The Federal Rules of Civil Procedure permit a pleader, in a claim or defense, to make two or more statements which are not necessarily consistent with each other. A plaintiff may sue on several theories.

INDEPENDENCE IN COMPILATION AND REVIEW

In the course of providing bookkeeping services, typical bookkeeping is not considered financial statement preparation; however, these services generally result in a submission of financial statements. Preparation of financial statements should be avoided by the accountant who also performs management and/or consulting services for his or her compilation, review, and audit clients. Some of these management and/or consulting functions may include providing services as a part-time controller, managing accounting personnel, signing checks, and negotiating with banks or investors.

Accountants should be particularly cognizant with respect to the small client for whom they perform such engagements as bookkeeping, payroll, and financial statement preparation. Although the accountant may, indeed, be independent in undertaking the engagement, there may be an appearance of a lack of independence. Due care should be exercised in undertaking this type of dual-task engagement.

When independence is impaired, an accountant is precluded from issuing a review report on the financial statement; however, a compilation report may be issued with the disclosure of the lack of independence. The reason for the lack of independence should not be described.

Christopher Bauer, Ph.D., in his book *A 'Preventive Maintenance' Approach,* states, "Most ethics violations—including those by accountants—have little or nothing to do with either a lack of knowledge of the relevant ethics code(s) or a lack of professional skills. Violations result when an individual's personal wishes and values 'rub' against ethical or legal mandates and that 'rub' goes either unseen or unaddressed. Our behavior is governed by our personal wishes and values. Every choice we make is based—consciously or not—on answering the question, 'What is the most important thing for me to do right now?' Most of us rarely take the time to consciously examine what our values really are. Knowing your wishes and values will help you identify the areas where your judgment might most easily be compromised. That, in turn, is at the heart of a 'preventive maintenance' approach to ethical practice."

Ethics concern your conduct, behavior, and practice when carrying out professional work. The institutionalization of Codes of Conduct and Codes of Practice is common with many professional bodies as rules for their members to observe. Any "code" may be considered to be a formalization of experience into a set of rules. A code is adopted by a community because its members accept the adherence to these rules, including the restrictions that apply.

CIRCULAR 230

Circular 230, Federal Code of Regulation, covers regulations governing the practice of Attorneys, Certified Public Accountants, Enrolled Agents, Enrolled Actuaries, and

Appraisers before the Internal Revenue Service. As part of an ongoing effort to improve ethical standards for tax professionals and to curb abusive tax avoidance transactions, the Treasury Department and the Internal Revenue Service have issued final regulations amending Circular 230 to achieve the strategic goal of ensuring that attorneys, accountants, enrolled agents, and other tax practitioners adhere to professional standards and follow the law. These latest revisions to Circular 230 provide standards of practice for written advice that reflect current best practices and are intended to restore and maintain public confidence in tax professionals. These revisions ensure that tax professionals do not provide inadequate advice, and they increase transparency by requiring tax professionals to make disclosures if the advice is incomplete.

Unscrupulous tax return preparers do exist and can cause considerable financial and legal problems for their clients. Examples of improper and unethical business practices by unscrupulous preparers include:

1. Preparation and filing of false income tax returns that claim inflated personal or business expenses.
2. Claiming false deductions.
3. Claiming unallowable credits.
4. Claiming excessive exemptions.
5. Manipulating figures to obtain fraudulent tax credits, such as the Earned Income Tax Credit.

The Internal Revenue Service Criminal Investigation Return Preparer Program (RPP) was implemented in 1996 and established procedures to foster compliance by identifying, investigating, and prosecuting abusive return preparers. The program was developed to enhance compliance in the return-preparer community by engaging in enforcement actions and/or asserting appropriate civil penalties against unscrupulous or incompetent return preparers. Abusive return preparers frequently prepare bad returns for large numbers of taxpayers who, at best, are stuck with paying additional taxes and interest and, at worse, depending on culpability, are subject to penalties and perhaps even criminal prosecution.

Recent criminal investigations involving unscrupulous or abusive return preparers have found that these preparers derive financial benefit from the fraud in a number of ways, including:

1. Diverting a portion of the refund for their own benefit.
2. Charging inflated fees for the return preparation service.
3. Increasing their clientele by advertising guaranteed larger refunds.

Unscrupulous tax return preparers are generally prosecuted for violations of Title 26, United States Code Section 7201, Attempt to Evade or Defeat Tax, a felony offense that carries a recommended imprisonment of not more than 5 years and a fine of not more than $250,000, or Title 26, United States Code, Section 7206 (1) and (2), Fraud and False Statements, which carries a recommended imprisonment of up to 3 years and fines of up to $250,000.

Circular 230, Federal Code of Regulations—Subpart B—Duties and Restriction Relating to Practice before the Internal Revenue Service

A paid income tax return preparer can be subject to civil penalties for knowingly preparing tax returns or claims for refund which understate the tax liability or overstate the refund based on unrealistic information. They can also be barred from limited practice for unethical and improper conduct. While not required to examine or review a document or other evidence to independently verify the taxpayer's information, the preparer must make reasonable inquiries if it appears to be incorrect or incomplete. A district court decision illustrates how a tax return preparer can wind up liable for preparer penalties for not adequately reviewing the work of an assistant and not making adequate inquiries of a client's claimed deductions. In *Schneider v. Commissioner,* the court rejected the preparer's argument that, because he did not substantially prepare a return he signed, he was not liable for preparer penalties. In addition, the fact that the taxpayer did not go a step further and make a reasonable inquiry of information used as a basis for a return deduction was also cited by the court as a reason not to excuse the preparer penalty.

The unenrolled return preparer is guided by the same standards as the enrolled preparer. Accompanying the taxpayer to an IRS examination of their return, the unenrolled return preparer is expected to recognize questions, issues, and factual situations related to the tax return. [Revenue Procedure 81-38]

Key ethical and professional conduct provisions of Circular 230

A. **Section 10.20 information to be furnished**

   1. To the Internal Revenue Service: No attorney, certified public accountant, enrolled agent, or enrolled actuary shall neglect or refuse promptly to submit records or information in any matter before the Internal Revenue Service, upon proper and lawful request by a duly authorized officer or employee of the Internal Revenue Service, or shall interfere, or attempt to interfere, with any proper and lawful effort by the Internal Revenue Service or its officers or employees to obtain any such record or information, unless he or she believes in good faith and on reasonable grounds that such record or information is privileged or that the request for, or effort to obtain, such record or information is of doubtful legality.
   2. To the director of practice (director of the office of professional responsibility): It shall be the duty of an attorney or certified public accountant, who practices before the Internal Revenue Service, or enrolled agent, when requested by the Director of Practice, to provide the Director with any information he may have concerning violation of the regulations in this part by any person, and to testify thereto in any proceeding instituted under this part for the disbarment or suspension of an attorney, certified public accountant, enrolled agent, or enrolled actuary, unless he or she believes in good faith and on reasonable grounds that such information is privileged or that the request therefore is of doubtful legality. [Amended by 57 FR 41093-41096, September 9, 1992]

B. Section 10.21 Knowledge of client's omission: Each attorney, certified public accountant, enrolled agent, or enrolled actuary, who, having been retained by a client with respect to a matter administered by the Internal Revenue Service, knows that the client has not complied with the revenue laws of the United States or has made an error in or omission from any return, document, affidavit, or other paper which the client is required by the revenue laws of the United States to execute, shall advise the client promptly of the fact of such noncompliance, error, or omission. [42 FR 38352, July 28, 1977; amended by 57 FR 41093-41097, September 9, 1992] July 26, 2002, modified the existing duty in Section 10.21 to require the practitioner to both notify the client of the fact of the noncompliance, error, or omission and advise the client of the consequences of the noncompliance, error, or omission. This notification is to be done in writing, stating the amount due, penalty, and interest assessed. A copy of this notification to the taxpayer should be retained in the tax preparers' files for three years.

C. Section 10.22 Diligence as to accuracy Each attorney, certified public accountant, enrolled agent, or enrolled actuary shall exercise due diligence:

1. In preparing or assisting in the preparation of, approving, and filing returns, documents, affidavits, and other papers relating to Internal Revenue Service matters;
2. In determining the correctness of oral or written representations made by him or her to the Department of the Treasury; and
3. In determining the correctness of oral or written representations made by him or her to clients with reference to any matter administered by the Internal Revenue Service. [35 FR 13205, August 19, 1970, as amended at 42 FR 38352, July 28, 1977; amended by 57 FR 41093-41096, September 9, 1992] A practitioner is presumed to have exercised due diligence if the practitioner relies on the work product of another person and the practitioner uses reasonable care in engaging, supervising, training, and evaluating that person, using common sense and experience in guiding their conduct.

E. Section 10.23 Prompt disposition of pending matters No attorney, certified public accountant, enrolled agent, or enrolled actuary shall unreasonably delay the prompt disposition of any matter before the Internal Revenue Service. [Amended by 47 FR 41093-41096, September 9, 1992] A practitioner is required to respond promptly to proper and lawful requests for records and information unless he or she believes, in good faith and on reasonable grounds, that the records or information is privileged.

F. Section 10.24 Assistance from disbarred or suspended persons and former Internal Revenue Service employees No attorney, certified public accountant, enrolled agent, or enrolled actuary shall, in practice before the Internal Revenue Service, knowingly and directly or indirectly:

1. Employ or accept assistance from any person who is under disbarment or suspension from practice before the Internal Revenue Service.
2. Accept employment as associate, correspondent, or subagent from, or share fees with, any such person.
3. Accept assistance from any former government employee where the provisions of section 10.25 of these regulations or any Federal law would be violated. [FR 10773, August 13, 1966, as amended at 35 FR 13205, August 19, 1970, 44 FR 4940, January, 1979; amended by FR 41093-41096, September 9, 1992]

G. Section 10.26 Notaries No attorney, certified public accountant, enrolled agent, or enrolled actuary shall perform any act as a notary public with respect to any matter administered by the Internal Revenue Service. A practitioner who is a notary public shall not take acknowledgments, administer oaths, certify papers, or perform any official act in connection with matters in which he or she is employed as counsel, attorney, or agent, or in which he or she may be in any way interested before the Internal Revenue Service. [26 OP Atty. Gen. 236]

H. Section 10.27 Fees Generally,

1. practitioners may not charge an unconscionable fee for representing a client in a matter before the Internal Revenue Service.
    a. Contingent fees for return preparation: A practitioner may not charge a contingent fee for preparing an original return. A practitioner may charge a contingent fee for preparing an amended return or a claim for refund (other than a claim for refund made on an original return) if the practitioner

reasonably anticipates at the time the fee arrangement is entered into that the amended return or claim will receive substantive review by the Service. A contingent fee includes a fee that is based on a percentage of the refund shown on a return or a percentage of the taxes saved, or that otherwise depends on the specific result attained. [Amended by 57 FR 41093-41096, September 9, 1992; revised by TD 8545, 59 FR 31523-31529, June 20, 1994]

Final regulations adopted on July 26, 2002, implemented the proposed clarification governing the prohibition on contingent fees in connection with advice rendered in connection with a position taken or to be taken on an original tax return.

I. Section 10.28 Return of client's records In general, a practitioner must, at the request of a client, promptly return any and all records of the client that are necessary for the client to comply with his or her Federal tax obligations. The practitioner may retain copies of the records returned to a client. The existence of a dispute over fees generally does not relieve the practitioner of his or her responsibility to return a client's records. In the case of a dispute over fees for services rendered; the practitioner need only return those records that must be attached to the taxpayer's return. The practitioner, however, must provide the client with reasonable access to review and copy any additional records of the client retained by the practitioner under state law that are necessary for the client to comply with his or her Federal tax obligations.

For purposes of this section, records of the client include all documents or written or electronic materials provided to the practitioner, or obtained by the practitioner in the course of the practitioner's representation of the client, that preexisted the retention of the practitioner by the client. The term also includes materials that were prepared by the client or a third party (not including an employee or agent of the practitioner) at any time and provided to the practitioner with respect to the subject matter of the representation.

The term also includes any return, claim for refund, schedule, affidavit, appraisal or any other document prepared by the practitioner, or his or her employee or agent, that was presented to the client with respect to a prior representation if such document is necessary for the taxpayer to comply with his or her current Federal tax obligations. The term does not include any return, claim for refund, schedule, affidavit, appraisal or any other document prepared by the practitioner or the practitioner's firm, employees, or agents if the practitioner is withholding such document pending the client's performance of its contractual obligation to pay fees with respect to such document.

J. Section 10.29 Conflicting interest No attorney, certified public accountant, enrolled agent, or enrolled actuary shall represent conflicting interests in his practice before the Internal Revenue Service, except by express written consent of all directly interested parties after full disclosure has been made. [31 FR 10773, August 13, 1966, amended by 57 FR 41093-41096, September 9, 1992] The final regulations modify this section. Written consent must be obtained to allow representation by a practitioner when the representation of one client will be directly adverse to another client or there is a significant risk that the representation of one or more clients will be materially limited by the practitioner's responsibilities to another client and clients with the practitioner's own interest. The practitioner is required to retain the written consent for at least 36 months after conclusion of the representation and will provide a copy to the IRS if so requested.

K. Section 10.30 Solicitation Advertising and solicitation restriction

1. No attorney, certified public accountant, enrolled agent, enrolled actuary, or other individual eligible to practice before the Internal Revenue Service shall, with respect to any Internal Revenue Service matter, in any way use or participate in the use of any form of public communication containing:

   a) A false, fraudulent, unduly influencing, coercive, or unfair statement or claim; or

   b) A misleading or deceptive statement or claim.

2. No attorney, certified public accountant, enrolled agent, enrolled actuary, or other individual eligible to practice before the Internal Revenue Service shall make,

directly or indirectly, an uninvited solicitation of employment in matters related to the Internal Revenue Service. Solicitation includes, but is not limited to, in-person contacts and telephone communications. This restriction does not apply to:

a) Seeking new business from an existing or former client in a related matter;
b) Communications with family members;
c) Making the availability of professional services known to other practitioners, so long as the person or firm contacted is not a potential client;
d) Solicitation by mailings; or
e) Noncoercive in-person solicitations by those eligible to practice before the Internal Revenue Service while acting as an employee, member, or officer of an exempt organization listed in section 501 (c)(3) or (4) of the Internal Revenue Code of 1954. [26 USC] Any targeted direct mail solicitation, i.e., a mailing to those whose unique circumstances are the basis for the solicitation, distributed by or on behalf of an attorney, certified public accountant, enrolled agent, enrolled actuary, or other individual eligible to practice before the Internal Revenue Service shall be clearly marked as such in capital letters on the envelope and at the top of the first page of such mailing. In addition, all such solicitations must clearly identify the source of the information used in choosing the recipient.

Fee information:

1. Attorneys, certified public accountants, enrolled agents, or enrolled actuaries and other individuals eligible to practice before the Internal Revenue Service may disseminate the following fee information:
   a) Fixed fees for specific routine services.
   b) Hourly rates.
   c) Range of fees for particular services.
   d) Fee charged for an initial consultation.
2. Any statement of fee information concerning matters in which costs may be incurred shall include a statement disclosing whether clients will be responsible for such costs.

3. Attorneys, certified public accountants, enrolled agents, or enrolled actuaries and other individuals eligible to practice before the Internal Revenue Service may also publish the availability of a written schedule of fees.
4. Attorneys, certified public accountants, enrolled agents, or enrolled actuaries and other individuals eligible to practice before the Internal Revenue Service shall be bound to charge the hourly rate, the fixed fee for specific routine services, the range of fees for particular services, or the fee for an initial consultation published for a reasonable period of time, but no less than 30 days from the last publication of such hourly rate or fees.

Communications

Communication, including fee information, may include professional lists, telephone directories, print media, mailings, radio and television, and any other method: *provided* that the method chosen does not cause the communication to become untruthful, deceptive, unduly influencing or otherwise in violation of these regulations. It shall be construed as a violation of these regulations for a practitioner to persist in attempting to contact a prospective client, if such client has made known to the practitioner a desire not to be solicited. In the case of radio and television broadcasting, the broadcast shall be prerecorded and the practitioner shall retain a recording of the actual audio transmission. In the case of direct mail communications, the practitioner shall retain a copy of the actual mailing, along with a list or other descriptions of persons to whom the communication was mailed or otherwise distributed. Such copy shall be retained by the practitioner for a period of at least 36 months from the date of the last transmission or use.

Improper associations

A practitioner may not, in matters related to the Internal Revenue Service, assist, or accept assistance from, any person or entity who, to the knowledge of the practitioner, obtains clients or otherwise practices in a manner forbidden under this section. [Approved by the Office of Management and Budget under Control No. 1545-1726]

L. Section 10.31 Negotiation of taxpayer checks: A practitioner who prepares tax returns may not endorse or otherwise negotiate any check issued to a client by the government in respect of a Federal tax liability.

M. Section 10.32 Practice of law: Nothing in the regulations in this part may be construed as authorizing persons not members of the bar to practice law.

N. Section 10.33 Best practices for tax advisors: Best practices. Tax advisors should provide clients with the highest quality representation concerning Federal tax issues by adhering to best practices in providing advice and in preparing or assisting in the preparation of a submission to the Internal Revenue Service. In addition to compliance with the standards of practice provided elsewhere in this part, best practices include the following:

1. Communicating clearly with the client regarding the terms of the engagement. For example, the advisor should determine the client's expected purpose for and use of the advice and should have a clear understanding with the client regarding the form and scope of the advice or assistance to be rendered.
2. Establishing the facts, determining which facts are relevant, evaluating the reasonableness of any assumptions or representations, relating the applicable law (including potentially applicable judicial doctrines) to the relevant facts, and arriving at a conclusion supported by the law and the facts.
3. Advising the client regarding the import of the conclusions reached, including, for example, whether a taxpayer may avoid accuracy-related penalties under the Internal Revenue Code if a taxpayer acts in reliance on the advice.
4. Acting fairly and with integrity in practice before the Internal Revenue Service. Procedure to ensure best practices for tax advisors. Tax advisors with responsibility for overseeing a firm's practice of providing advice concerning Federal tax issues or of preparing or assisting in the preparation of submissions to the Internal Revenue Service should take reasonable steps to ensure that the firm's procedures for all members, associates, and employees are consistent with the best practices set forth in paragraph (a) of this section.

O. Section 10.34 Standards for advising with respect to tax return positions and for preparing or signing returns: Realistic possibility standard. A practitioner may not sign a tax return as a preparer if the practitioner determines that the tax return contains a position that does not have a realistic possibility of being sustained on its merits (the realistic possibility standard) unless the position is not frivolous and is adequately disclosed to the Internal Revenue Service. A practitioner may not advise a client to take a position on a tax return, or prepare the portion of a tax return on which a position is taken, unless:

1. The practitioner determines that the position satisfies the realistic possibility standard; or
2. The position is not frivolous and the practitioner advises the client of any opportunity to avoid the accuracy-related penalty in section 6662 of the Internal Revenue Code by adequately disclosing the position, and of the requirements for adequate disclosure.

Advising clients on potential penalties. A practitioner advising a client to take a position on a tax return, or preparing or signing a tax return as a preparer, must inform the client of the penalties reasonably likely to apply to the client with respect to the position advised, prepared, or reported. The practitioner also must inform the client of any opportunity to avoid any such penalty by disclosure, if relevant, and of the requirements for adequate disclosure. This paragraph (b) applies even if the practitioner is not subject to a penalty with respect to the position.

Relying on information furnished by clients. A practitioner advising a client to take a position on a tax return, or preparing or signing a tax return as a preparer, generally may rely in good faith without verification upon information furnished by the client. The practitioner may not, however, ignore the implications of information furnished to, or actually known by, the practitioner, and must make reasonable inquiries if the information as furnished appears to be incorrect, inconsistent with an important fact or another factual assumption, or incomplete.

Definitions. For purposes of this section

1. Realistic possibility. A position is considered to have a realistic possibility of being sustained on its merits if a reasonable and well informed analysis of the law and the facts by a person knowledgeable in the tax law would lead such a person to conclude that the position has approximately a one in three, or greater, likelihood of being sustained on its merits. The authorities described in 26 CFR 1.6662-4(d)(3)(iii), or any successor provision, of the substantial understatement penalty regulations may be taken into account for purposes of this analysis. The possibility that a tax return will not be audited, that an issue will not be raised on audit, or that an issue will be settled may not be taken into account.
2. Frivolous. A position is frivolous if it is patently improper.

P. Section 10.50 Sanctions

1. Authority to censure, suspend, or disbar. The Secretary of the Treasury, or his or her delegate, after notice and an opportunity for a proceeding, may censure, suspend, or disbar any practitioner from practice before the Internal Revenue Service if the practitioner is shown to be incompetent or disreputable, fails to comply with any regulation in this part, or with intent to defraud, willfully and knowingly misleads or threatens a client or prospective client. Censure is a public reprimand.
2. Authority to disqualify. The Secretary of the Treasury, or his or her delegate, after due notice and opportunity for hearing, may disqualify any appraiser with respect to whom a penalty has been assessed under section 6701 (a) of the Internal Revenue Code. Item b. of this section is in reference to Appraisers.

Section 10.51 Incompetence and disreputable conduct

Incompetence and disreputable conduct for which a practitioner may be censured, suspended or disbarred from practice before the Internal Revenue Service includes, but is not limited to:

1. Conviction of any criminal offense under the revenue laws of the United States;
2. Conviction of any criminal offense involving dishonesty or breach of trust;

3. Conviction of any felony under Federal or State law for which the conduct involved renders the practitioner unfit to practice before the Internal Revenue Service;
4. Giving false or misleading information, or participating in any way in the giving of false or misleading information to the Department of the Treasury or any officer or employee thereof, or to any tribunal authorized to pass upon Federal tax matters, in connection with any matter pending or likely to be pending before them, knowing such information to be false or misleading. Facts or other matters contained in testimony, Federal tax returns, financial statements, applications for enrollment, affidavits, declarations, or any other document or statement, written or oral, are included in the term information
5. Solicitation of employment as prohibited under Section 10.30, the use of false or misleading representations with intent to deceive a client or prospective client in order to procure employment, or intimating that the practitioner is able improperly to obtain special consideration or action from the Internal Revenue Service or officer or employee thereof.
6. Willfully failing to make a Federal tax return in violation of the revenue laws of the United States, willfully evading, attempting to evade, or participating in any way in evading or attempting to evade any assessment or payment of any Federal tax, or knowingly counseling or suggesting to a client or prospective client an illegal plan to evade Federal taxes or payment thereof.
7. Misappropriation of, or failure properly and promptly to remit funds received from a client for the purpose of payment of taxes or other obligations due the United States
8. Directly or indirectly attempting to influence, or offering or agreeing to attempt to influence, the official action of any officer or employee of the Internal Revenue Service by the use of threats, false accusations, duress or coercion, by the offer of any special inducement or promise of advantage or by the bestowing of any gift, favor, or thing of value.
9. Disbarment or suspension from practice as an attorney, certified public accountant, public accountant, or actuary by any duly constituted authority of any

State, territory, possession of the United States, including a Commonwealth, or the District of Columbia, any Federal court of record or any Federal agency, body, or board.

10. Knowingly aiding and abetting another person to practice before the Internal Revenue Service during a period of suspension, disbarment, or ineligibility of such other person.
11. Contemptuous conduct in connection with practice before the Internal Revenue Service, including the use of abusive language, making false accusations and statements, knowing them to be false, or circulating or publishing malicious or libelous matter.
12. Giving a false opinion, knowingly, recklessly, or through gross incompetence, including an opinion which is intentionally or recklessly misleading, or engaging in a pattern of providing incompetent opinions on questions arising under the Federal tax laws. False opinions described in this paragraph (i) include those which reflect or result from knowing misstatement of fact or law, from an assertion of a position known to be unwarranted under existing law, from counseling or assisting in conduct known to be illegal or fraudulent, from concealing matters required by law to be revealed, or from consciously disregarding information indicating that material facts expressed in the tax opinion or offering material are false or misleading. For purposes of this paragraph (l), reckless conduct is a highly unreasonable omission or misrepresentation involving an extreme departure from the standards of ordinary care that a practitioner should observe under the circumstances. A pattern of conduct is a factor that will be taken into account in determining whether a practitioner acted knowingly, recklessly, or through gross incompetence. Gross incompetence includes conduct that reflects gross indifference, preparation which is grossly inadequate under the circumstances, and a consistent failure to perform obligations to the client.

Section 10.52 Violation of regulations

A practitioner may be censured, suspended, or disbarred from practice before the Internal Revenue Service for any of the following:

1. Willfully violating any of the regulations contained in this part.
2. Recklessly or through gross incompetence (within the meaning of Section 10.51(l)) violating Section 10.33 or 10.34.

Section 10.53 Receipt of information concerning practitioner

1. Officer or employee of the Internal Revenue Service. If an officer or employee of the Internal Revenue Service has reason to believe that a practitioner has violated any provision of this part, the officer or employee will promptly make a written report to the Director of Practice of the suspected violation. The report will explain the facts and reasons upon which the officer's or employee's belief rests.
2. Other persons. Any person other than an officer or employee of the Internal Revenue Service having information of a violation of any provision of this part may make an oral or written report of the alleged violation to the Director of Practice or any officer or employee of the Internal Revenue Service. If the report is made to an officer or employee of the Internal Revenue Service, the officer or employee will make a written report of the suspected violation to the Director of Practice.
    a. Destruction of report. No report made under paragraph (a) or (b) of this section shall be maintained by the Director of Practice unless retention of such record is permissible under the applicable records control schedule, as approved by the National Archives and Records Administration and designated in the Internal Revenue Manual. The Director of Practice must destroy such reports as soon as permissible under the applicable records control schedule.
    b. Effect on proceedings under subpart D. The destruction of any report will not bar any proceeding under subpart D of this part, but precludes the Director of Practice's use of a copy of such report in a proceeding under subpart D of this part.

Sections 10.60 through Section 10.81 deal with Subpart D—Rules Applicable to Disciplinary Proceedings.

GRAMM – LEACH – BLILEY ACT OF 1999

15 USC, Subchapter I, Sec. 6801-6809, Disclosure of Nonpublic Personal Information

It is the policy of the Congress of the United States that each financial institution [included in the definition of financial institution is tax return preparer] has an affirmative and continuing obligation to respect the privacy of its customers and to protect the security and confidentiality of those customers' nonpublic personal information.

Sec. 6803. Disclosure of institution privacy policy.

Disclosure required

At the time of establishing a customer relationship with a consumer and not less than annually during the continuation of such relationship, a financial institution shall provide a clear and conspicuous disclosure to such consumer, in writing or in electronic form or other form permitted by the regulations prescribed under section 6804 of this title, of such financial institution's policies and practices with respect to:

1. Disclosing nonpublic personal information to affiliates and nonaffiliated third parties, consistent with section 6802 of this title, including the categories of information that may be disclosed;
2. Disclosing nonpublic personal information of persons who have ceased to be customers of the financial institution; and
3. Protecting the nonpublic personal information of customers.

Circular 230—2005 style

I. The American Jobs Creation Act of 2004 confirmed the authority of Treasury to regulate written advice in potentially abusive transactions.

   A. The Act added:

      1. The Secretary may impose a monetary penalty on any representative….if the representative was acting on behalf of an employer or any firm or other entity in connection with the conduct giving rise to such penalty, the Secretary may

impose a monetary penalty on such employer, firm, or entity if it knew, or reasonably should have known, of such conduct. Such penalty shall not exceed the gross income derived (or to be derived) from the conduct giving rise to the penalty and may be in addition to, or in lieu of, any suspension, disbarment, or censure of the representative; and

2. Nothing in this section or in any other provision of law shall be construed to limit the authority of the Secretary of the Treasury to impose standards applicable to the rendering of written advice with respect to any entity, transaction plan or arrangement, or other plan or arrangement, which is of a type which the Secretary determines as having a potential for tax avoidance or evasion.

B. Fees—somewhat similar to regurgitation of fees such as the SEC collects. Cannot be resolved as part of resolution of representative's own taxes since not part of Title 26.

C. Covered Opinion Rules: New regulations were issued on Monday, December 20, 2004, known as the Covered Opinion Rules, with an effective date of June 20, 2005, to be found in 10.35 of Circular 230.

D. Section 10.33 provides aspirational standards as "Best Practices for Tax Advisors." It remains the goal of the Office of Professional Responsibility that practitioners know their obligations and voluntarily comply without enforcement. However, where needed, they are prepared and ready to go forward with enforcement actions.

E. Section 10.35 provides requirements for covered opinions which are a defined class of written advice.

F. Section 10.36 provides procedures to ensure compliance.

G. A practitioner may be disciplined under these rules (except for best practices) for willful violations or violations done recklessly or through gross incompetence.

H. Also published on December 20 were proposed regulations under 10.39 on state or local bond opinions. They preserve the "unqualified" opinion practice for bonds by permitting a statement of facts, application of law, and discussion of significant Federal tax issues to be in a separate written advice to the bond issuer.

Definitions and Opt Out Procedures under Circular 230

A. The following terms will assist in whether the written advice is covered under Circular 230.

1. <u>Principle Purpose of Tax Avoidance or Evasion</u> Includes transactions in which the costs exceed the nontax benefits and one which a prudent and informed person would not enter into if the tax benefits were not available.
2. <u>Significant Purpose of Tax Avoidance or Evasion</u> Most advice sought from a tax professional would involve a significant purpose of tax avoidance. The question still exists: Is it tax advice? For instance, an e-mail saying "Attached is the relevant IRS Publication; see page 2 for information on this type of transaction" is not advice.
3. <u>Federal Tax Issue</u> Does it concern a federal tax issue? Under the regulations, a Federal tax issue is a question concerning the Federal tax treatment of an item of income, gain, loss, deduction, or credit, the existence or absence of a taxable transfer of property, or the value of property for Federal tax purposes. A Federal tax issue is significant if the IRS has a reasonable basis for a successful challenge and its resolution could have a significant impact, whether beneficial or adverse and under any reasonably foreseeable circumstance, on the overall Federal tax treatment of a transaction.

4. <u>Reliance Opinion</u> This is one of a few **Opt Out** provisions in the regulations. Written advice is a reliance opinion if the advice concludes at a confidence level of more likely than not (50 percent or more) that one or more significant Federal tax issues would be resolved in the taxpayer's favor. An opinion is not a reliance opinion if the practitioner prominently discloses in written advice that it was not intended or written by the practitioner to be used, and that it cannot be used by the taxpayer, for the purpose of avoiding penalties that may be imposed on the taxpayer. Written advice that summarizes the law, discusses the facts, and reaches a conclusion on the tax treatment would be a reliance opinion and is covered.

5. <u>Marketed Opinion</u> Written advice is marketed if you know or have reason to know that it will be used by a person other than yourself in promoting, marketing, or recommending a transaction to one or more taxpayers. This is also an **Opt Out** provision, as unless the advice concerns a listed transaction or a principal purpose transaction, it will not be treated as a marketed opinion if it is prominently disclosed that 1) it was not intended or written to be used and that it cannot be used by any taxpayer to avoid penalties; 2) it was not written to support the promotion or marketing of the transaction addressed by the advice; and 3) the taxpayer should seek advice based on the taxpayer's particular circumstances from an independent tax advisor.

6. <u>Conditions of confidentiality</u> If the practitioner imposes on one or more recipients of the written advice a limitation on disclosure, regardless of whether legally binding, it is subject to conditions of confidentiality. A claim that the transaction is proprietary or exclusive is not a limitation on disclosure if the practitioner confirms that there is no limitation on disclosure.

7. Contractual protection If the taxpayer has a right to a full or partial refund of fees paid to the practitioner if all or part of the intended tax consequences from the matters addressed are not sustained, or if the fees are contingent on the taxpayer realizing the tax benefits of the transaction, then it is subject to contractual protection.

8. Preliminary Advice Written advice provided to a client during the course of an engagement if a practitioner is reasonably expected to provide subsequently written advice to the client that satisfies the requirements of this section. Preliminary advice is NOT a covered opinion.

B. So It's a Covered Opinion—Now What?
   1. The following represent the practical effects and requirements of being considered a "covered opinion."
      a. Factual Matters—Identify and ascertain facts.
      b. Factual assumptions—A Practitioner must identify in a separate section all factual assumptions relied upon.
      c. Factual Representations—A Practitioner must identify in a separate section all factual representations relied upon.
   2. Relate Law to Facts
      a. Practitioners must relate the applicable law to relevant factors.
      b. Practitioners must not assume favorable resolution, or base opinion on unreasonable legal assumptions, representations, or conclusions.
      c. The opinion must not contain internally inconsistent legal analyses or conclusions.
   3. Evaluation of Significant Federal Tax Issues
      a. Opinion must consider all significant Federal tax issues except to the extent it is a limited scope opinion or when a practitioner is relying on another opinion.

b. A conclusion as to the likelihood of prevailing on the merits with respect to each significant Federal tax issue considered, including the rationale, and facts and analysis supporting the conclusion must be provided.

c. Evaluation based on chances of success on the merits must not be considered in relationship to the chances a return may be audited or that an issue would not be raised on audit or that an issue will be settled.

d. Marketed opinion must provide the conclusion that it is at least more likely than not that the taxpayer will prevail on the merits with respect to each significant Federal tax issue. If the practitioner is unable to reach a more likely than not conclusion with respect to each significant Federal tax issue, the practitioner must not provide the marketed opinion; however, the practitioner may provide an opinion which prominently discloses that a) the advice was not intended to be used and that it cannot be used by anyone other than the taxpayer for the purpose of avoiding penalties; b) the advice was written to support the promotion or marketing of the transaction; and c) the taxpayer should seek independent advice (under 10.35(b)(5)(ii) it is no longer treated as a marketed opinion).

C. Required Disclosures

1. A covered opinion must prominently disclose
   a. Relationship between the promoter and practitioner
   b. Any compensation arrangement
   c. Any referral agreement

2. Marketed opinions must prominently disclose
   a. The opinion was written to support the promotion or marketing of the transaction.

b. The taxpayer should seek advice based on the taxpayer's particular circumstances from an independent tax advisor

Other Written Advice—10.37 Applies to all written advice, including e-mails. It is not limited to transactions with principal or significant purpose of tax avoidance.

- No unreasonable factual or legal assumptions; no unreasonable reliance on representation of the taxpayer or anyone else.
- Practitioner must consider all relevant facts that the practitioner knows or should know. Does not have to describe the relevant facts, the application of the law to those facts, or the practitioner's conclusion.
- Cannot take into account the possibility that the return will not be audited, that an issue will not be raised on audit, or that an issue will be resolved through settlement.
- All facts and circumstances, including scope of the engagement, will be taken into account in determining the practitioner's compliance.
- Opinions to be used in third-party marketing plan with significant tax avoidance purpose must meet a heightened standard of care because of risk caused by practitioner's lack of knowledge of taxpayer's particular circumstances.

Procedures to Ensure Compliance 10.36

A. A Practitioner with principal authority and oversight responsibility must take reasonable steps to ensure that the firm has adequate procedures to comply with 10.35.

B. A Practitioner is subject to discipline if

1. Practitioner willfully does not take steps and subordinates have a pattern or practice of noncompliance, or
2. Practitioner knows or should know that subordinates have engaged in a pattern or practice of noncompliance and the practitioner willfully fails to take prompt action.

Best Practices 10.33

Tax advisors should provide clients with the highest quality representation by following best practices. These are aspirational and not subject to discipline, but they are nevertheless expected.

1. Communicate with client regarding the terms of the engagement.
2. Establish facts, relate law to facts, arrive at a conclusion supported by the law and facts.
3. Advise the client regarding import of conclusions, including whether the taxpayer may avoid penalties by relying on the advice.
4. Act fairly and with integrity in practice before the IRS.
5. Practitioners overseeing a firm’s practice should take reasonable steps to ensure that procedures are consistent with best practices.

II. Sanctions 10.50

Under this section, OPR has the authority to censure, suspend, or disbar a practitioner, or disqualify an appraiser against whom a 6701(a) penalty has been assessed. Examples of incompetence and disreputable conduct under 10.51 for which a practitioner may be disbarred include:

1. Conviction of certain criminal offenses.
2. Giving false or misleading information to the Department of the Treasury, knowing such information to be false or misleading.
3. Willful failure to make a federal tax return.
4. Misappropriation of, or failure to properly remit, funds received from a client for the purpose of payment of taxes.
5. Disbarment or suspension of practice as an attorney, CPA, or actuary.
6. Contemptuous conduct in connection with practice before the IRS, including the use of abusive language.
7. Giving a false opinion, knowingly, recklessly, or through gross incompetence.

OPR had the authority to pursue practitioners for a variety of offenses, including those pertaining to written opinions. The new rules bridge the need to regulate more closely opinion writing, in light of some of the abuses occurring, with the practitioners' need to communicate freely with their clients.

The Professional's Choice

Professionals choose to be professional. They make a conscious decision to hold themselves to higher standards of performance and a more demanding code of conduct than most people use to guide their thoughts and actions.

When you choose to be professional, you are making a commitment to be the best that you can be and do the best that you can do in all aspects of your job, your relationships with others, and your personal development.

When you choose to be professional, you are leaving mediocrity and apathy behind. You are embarking on a lifelong journey of continual growth and the pursuit of excellence.

When you choose to be professional, you are raising the bar on the ideals you set for yourself and the demands you place upon yourself.

When you choose to be professional, you are making the best choice you can possibly make to ensure your self-esteem, success, and happiness.

ETHICS AND PROFESSIONAL CONDUCT
REVIEW QUESTIONS

1. Regarding ACAT Code of Ethics–Principle 1–Client confidentiality, which one of the following characteristics could not co-exist with ethical conduct?

   a. personal integrity
   b. honesty and candor without personal gain or advantage
   c. an innocent error or legitimate difference of opinion
   d. deceit or subordination of one’s principles

2. Regarding ACAT Code of Ethics–Principle 2–Contingent and Unconscionable Fees, which of the following represents a “contingent” fee prohibited by Principle 2 when providing financial statement services?

   a. a fee fixed by the court
   b. a fee on what might occur
   c. a fee determined as the result of a judicial proceeding or finding of a government agency
   d. a fee fixed by a public authority

3. Regarding ACAT Code of Ethics–Principle 2–Contingent and Unconscionable Fees, which of the following is not included in the definition of “unconscionable fees”?

   a. too much for the client to pay
   b. unreasonable
   c. unjustifiable
   d. not controlled by conscience

4. Under ACAT Code of Ethics–Principle 9–Advertising, which of the following would not be prohibited or “deceptive” advertising?
   a. advertising services without prices
   b. ads containing false statements or claims
   c. advertising which omits important facts or information
   d. ads containing statements not supported by adequate evidence

5. Accountants are subject to standards of conduct established by various authorities, including:

   a. state statutes
   b. judicial decisions
   c. contracts
   d. all of the above

6. Regarding Liability for Negligence, which of the following will be considered prima facie evidence of a negligence violation?

   a. incorrect judgment evidenced by the accountant
   b. a violation of generally accepted accounting principles and generally accepted auditing standards
   c. the failure to discover every impropriety in his or her client's books
   d. the failure to discover defalcation or fraud in his or her client's books

7. When independence of the accountant is impaired, an accountant is precluded from issuing a review report on the financial statement; however, a compilation report may be issued with the disclosure of the lack of independence. In the compilation report, the reason for the lack of independence should not:

   a. be purely personal in nature
   b. be subjective
   c. be described
   d. be prejudiced

8. Which of the following are not governed by Circular 230, Federal Code of Regulations?
   a. attorneys and certified public accountants
   b. others authorized to represent taxpayers before the IRS
   c. enrolled agents, enrolled actuaries, and appraisers
   d. employees of the Internal Revenue Service

9. The Internal Revenue Service Criminal Investigation Return Preparer Program was implemented in 1996 and established procedures to foster compliance by identifying, investigating, and prosecuting which of the following groups?

   a. abusive return preparers
   b. unlicensed return preparers
   c. Circular 230 return preparers
   d. all return preparers

10. Section 10.20 of Circular 230–Information to be furnished, the Internal Revenue Service and/or the Director of Practice, now Director of the Office of Professional Responsibility, requires attorneys, certified public accountants, enrolled agents, and enrolled actuaries to promptly submit records or information in any matter before the Internal Revenue Service, upon proper and lawful request by a duly authorized officer or employee of the IRS or its officers or employees, to obtain any such record or information. Identify the correct answer(s) identifying the exceptions an attorney, CPA, Enrolled Agent, or enrolled actuary may take in refusing to submit to such request.

    a. The records are difficult to obtain and/or are very disorganized
    b. It is believed, in good faith and on reasonable grounds, that such record or information is privileged.
    c. It is believed that the request for, or effort to obtain, such record or information is of doubtful legality.
    d. Both b and c are correct.

11. Regarding Section 10.27 of Circular 230–Fees–Final regulations adopted on July 26, 2002, clarifying contingent fees, which of the following returns have a prohibition on contingent fees in connection with advice rendered in connection with a position taken or to be taken?

    a. an amended tax return
    b. an original return
    c. an informational return
    d. a business tax return

12. Under Section 10.28 of Circular 230–Return of client's records, concerning when a client's records must be returned to the client, which of the following is not true?

    a. Copies of client records can be retained by the practitioner when records are returned to the client.
    b. The existence of a dispute over fees generally relieves the practitioner of his or her responsibility for a client's records.
    c. In general, a practitioner must, at the request of a client, promptly return any and all records of the client that are necessary for the client to comply with his or her Federal tax obligations.
    d. In the case of a dispute over fees for services rendered, the practitioner need only return those records that must be attached to the taxpayer's return, but must allow the client access to review and copy the remaining records.

13. Section 10.30 of Circular 230–Solicitation prohibits all of the following types of advertising and solicitation *except:*

    a. false, fraudulent, unduly influencing
    b. coercive or unfair statements or claims
    c. expensive and elaborate forms of public communication
    d. misleading or deceptive statements or claims

14. Under Section 10.34 of Circular 230–Standards for advising with respect to tax return positions and for preparing or signing returns, what is the definition of the realistic possibility standard?

    a. In a reasonable consideration the position taken on the tax return could be sustained.
    b. Based upon industry standards, the deduction is sustainable.
    c. A reasonable and well informed analysis of the law and the facts by a person knowledgeable in the tax law would lead such a person to conclude that the position has approximately a one in three, or greater, likelihood of being sustained on its merits.
    d. A reasonable and well informed analysis of the law and the facts by a person knowledgeable in the tax law would lead such a person to conclude that the position would be sustained by an IRS Revenue Agent upon IRS examination.

15. Section 10.52 of Circular 230–Violation of regulations states the actions which can be taken against a practitioner who willfully violates any of the regulations of Circular 230. Which of the following actions would not be taken against a practitioner by the Office of Professional Responsibility?
    a. censure
    b. suspension
    c. disbarment
    d. loss of ability to e-file tax returns

16. Under the Gramm–Leach–Bliley Act, how frequently must tax return preparers disclose their client confidentiality policy to their clients?

    a. as often as they do work
    b. monthly or semimonthly
    c. initially and not less than annually
    d. not required, as tax return preparers are not considered a financial institution

17. The principle purpose of tax avoidance or evasion is:
    a. to reduce taxes legally.
    b. to aggressively seek a transaction that includes deductible amounts for tax purposes.
    c. a transaction in which the costs exceed the nontax benefits.
    d. to reduce taxes to zero.

18. What constitutes a reliance opinion?
    a. an opinion given by the Securities and Exchange Commission
    b. an opinion a taxpayer can rely upon to be 100 percent sustained upon IRS examination
    c. an opinion the tax professional received from a brokerage firm
    d. written advice concluding with a confidence level of 50 percent that one or more federal tax issues would be resolved in the taxpayer’s favor

19. An opinion is not a reliance opinion if:
    a. the opinion is sent in an e-mail.
    b. the practitioner does not prepare the tax return on which the opinion is used.
    c. the practitioner discloses, in writing, that the opinion was not intended to be used by the taxpayer and that it cannot be used by the taxpayer to avoid penalty.
    d. the practitioner does not charge for the advice.

20. A covered opinion must prominently disclose all but the following:
    a. why the taxpayer should hire the tax professional
    b. the relationship between the promoter and the practitioner
    c. any compensation agreement
    d. any referral agreement

21. Best practices for tax practitioners outlined in Circular 230 are all but the following:
    a. aspirational
    b. mandatory
    c. expected
    d. not subject to discipline by the Office of Professional Responsibility

REVIEW QUESTION SOLUTIONS—ETHICS

1.	B
2.	C
3.	C
4.	D
5.	D
6.	A
7.	B
8.	A
9.	A
10.	B
11.	D
12.	A
13.	B
14.	A
15.	A
16.	A
17.	D
18.	D
19.	D
20.	C
21.	A
22.	D
23.	A
24.	D
25.	D
26.	A
27.	D
28.	D
29.	A
30.	D

ETHICS AND PROFESSIONAL CONDUCT

Explanation of Review Question Solutions

1. **The correct answer is D:** Principle 1 states that “integrity cannot co-exist with deceit or subordination of one’s principles.” Personal integrity is the ultimate source of public trust. Integrity demands both honesty and candor. Within the characteristic of integrity, allowance can be made for innocent error and legitimate difference of opinion.

2. **The correct answer is B:** Principle 2 prohibits a contingent fee when providing audit, review, or compilation services, including the period of time covered by any historical financial statement involved while performing the engagement. It is unethical, in these circumstances, to charge a fee on what might occur. Fees are not considered contingent if fixed by courts or other public authorities or, in tax matters, if determined on the basis of results of judicial proceedings or findings of governmental agencies.

3. **The correct answer is A:** Principle 2 defines “unconscionable” as not being guided or controlled by conscience, not in accordance with what is right and wrong, unreasonable, undue, unjustifiable, unwarrantable, or unwarranted. The client’s inability to pay does not cause a fee to be unconscionable.

4. **The correct answer is A:** Principle 9 defines “deceptive” advertising as that which “generally means that the advertisement may be interpreted in more than one way and that one of those interpretations is false or misleading. Deception may involve a false statement or claim about a quality of service or product, price, and reliability. Deception also may occur when an advertisement omits important facts or information. Additionally, advertisements will often be considered deceptive if their statements are not supported by adequate evidence.” There is no prohibition on the advertising of services, with or without prices.

5. **The correct answer is D:** Accountants play a major role in a business’s financial system. Accountants are subject to standards of conduct established by codes of professional ethics, by state statutes, and by judicial decisions. They are also governed by the contracts they enter into with their clients.

6. **The correct answer is B:** A violation of generally accepted accounting principles and generally accepted auditing standards will be considered prima facie evidence of negligence. As long as an accountant conforms to generally accepted accounting principles and acts in good faith, he or she will not be held liable to the client for incorrect judgment. As a general rule, an accountant is not required to discover every impropriety, defalcation, or fraud in his or her client’s books.

7. **The correct answer is C:** The reason for the lack of independence should not be described. It is sufficient that the review report on the financial statement is precluded and only a compilation report issued, based upon lack of independence. The reason for the lack of independence should not be disclosed. Lack of independence can be affected by issues of subjectivity, prejudice, or other items purely of personal nature, but they would not affect the presentation of the compilation report.

8. **The correct answer is D:** Circular 230 publishes regulations governing the practice of Attorneys, Certified Public Accountants, Enrolled Agents, Enrolled Actuaries, and Appraisers as well as others authorized to represent taxpayers before the IRS, including those with "limited" practice. Employees of the Internal Revenue Service not being authorized to represent taxpayers before the IRS are not included within the governing regulations of Circular 230.

9. **The correct answer is A:** the Criminal Investigation Return Preparer Program (RPP) was implemented in 1996 and established procedures to foster compliance by identifying, investigating, and prosecuting abusive return preparers. Unlicensed return preparers, Circular 230 return preparers, and all other return preparers are governed by the guidance of Circular 230 in their ethical and professional conduct.

10. **The correct answer is D:** Section 10.20 of Circular 230 states that "unless he [attorney, CPA, enrolled agent, or enrolled actuary] believe, in good faith and on reasonable grounds, that such record or information is privileged or that the request for, or effort to obtain such record or information is of doubtful legality" are the only two stated exceptions under which the request for records or information can be denied.

11. **The correct answer is B:** Final regulations adopted on July 26, 2002, enforced the proposed clarification governing the prohibition on contingent fees in connection with advice rendered in connection with a position taken or to be taken on an original tax return.

12. **The correct answer is B:** Section 10.28 states, in part, "The existence of a dispute over fees generally does <u>not</u> relieve the practitioner of his or her responsibility for a client's records," making (B) the false answer. Further, Section 10.28 states, "In general, a practitioner must at the request of a client, promptly return any and all records of the client that are necessary for the client to comply with his or her Federal tax obligations. The practitioner may retain copies of the records returned to a client and in the case of a dispute over fees for services rendered; the practitioner need only return those records that must be attached to the taxpayer's return. Further, the practitioner must provide the client with reasonable access to review and copy any additional records of the client retained by the practitioner under state law that are necessary for the client to comply with his or her Federal tax obligations [when there is a dispute over fees for services rendered]."

13. **The correct answer is C:** Section 10.30 (1) states, "No attorney, certified public accountant, enrolled agent, enrolled actuary, or other individual eligible to practice before the Internal Revenue Service shall, with respect to any Internal Revenue Service matter, in any way use or participate in the use of any form of public communication containing:

    a. A false, fraudulent, unduly influencing, coercive, or unfair statement or claim; or
    b. A misleading or deceptive statement or claim.

14. **The correct answer is C:** Section 10.34—d. Definitions. For purposes of this section—1. Realistic possibility. A position is considered to have a realistic possibility of being sustained on its merits if a reasonable and well informed analysis of the law and the facts by a person knowledgeable in the tax law would lead such a person to conclude that the position has approximately a one in three, or greater, likelihood of being sustained on its merits. No other definition is offered, making (C) the only acceptable answer.

15. **The correct answer is D:** Section 10.52 states "A practitioner may be censured, suspended or disbarred from practice before the Internal Revenue Service." The Office of Professional Responsibility will take no action to prohibit the practitioner from preparing tax returns, electronic or paper. The Department of Justice may take an action against a practitioner prohibiting such action.

16. **The correct answer is** C: Annually—Sec. 6803–Disclosure required. At the time of establishing a customer relationship with a consumer and not less than annually during the continuation of such relationship, a financial institution shall provide a clear and conspicuous disclosure to such consumer, in writing or in electronic form or other form permitted by the regulations prescribed under section 6804 of this title. 15 USC, Subchapter I, Section 6801-6809 defines tax return preparers as financial institutions and Section 6803 determines the frequency of such disclosure.

17. **The correct answer is C:** The definition under Circular 230 for tax avoidance or evasion is a transaction in which the costs exceed the nontax benefits and one which a prudent and informed person would not enter into if the tax benefits were not available. Incorrect answers A, B, and D alone do not fit the definition of tax avoidance or evasion, if an economic investment is made.

18. **The correct answer is D**: the definition of a reliance opinion is one in which written advice concludes with a confidence level of 50 percent that one or more federal tax issues would be resolved in the taxpayer's favor. A is incorrect because Circular 230 governs practice before the Internal Revenue Service, not the Securities and Exchange Commission. B is incorrect because 100 percent sustained is not included within the Circular 230 definition of reliance. C is incorrect because Circular 230 governs practice before the Internal Revenue Service, not brokers.

19. **The correct answer is C:** known as an "opt out" provision; to disclose the taxpayer cannot rely upon the opinion or use the opinion to not get a penalty eliminates the reliance definition. A is incorrect, as Circular 230 defines written opinions to include e-mail. B is incorrect, as preparation of the tax return bears no relationship to a written opinion. D is incorrect, as charging for the opinion bears no relationship to a written opinion.

20. **The correct answer is A,** a covered opinion would not include the benefits of hiring a particular tax professional. B is incorrect, as Circular 230 states a covered opinion must disclose the relationship between the promoter and the practitioner. C is incorrect, as Circular 230 states a covered opinion must disclose any compensation agreement. D is incorrect, as Circular 230 states a covered opinion must disclose any referral agreement.

21. **The correct answer is B**: best practices are aspirational and expected but not mandatory. Circular 230–10.36 lays out the mandatory conduct for practitioners. A is incorrect, as best practices as outlined in Circular 230 are aspirational only. C is incorrect, as best practices as outlined in Circular 230 are expected from the tax professional community. D is incorrect, as best practices as outlined in Circular 230 are not subject to disciplinary action because they are aspirational.

Table of Contents

STATEMENTS OF STANDARDS FOR ACCOUNTING AND REVIEW SERVICES

STATEMENTS OF STANDARDS FOR ACCOUNTING AND REVIEW SERVICES

After reviewing this chapter, you should be able to understand:

1. *SSARS 1 {section 100)*
2. *SSARS 2 (section 200)*
3. *SSARS 3 (section 300)*
4. *SSARS 4 (section 400)*
5. *SSARS 6 (section 600)*

The Accounting and Review Services Committee of the AICPA issues statements on Standards for Accounting and Review Services (SSARS); the senior technical committee of the Institute is designated to issue pronouncements in connection with the unaudited financial statements or other unaudited financial information of a nonpublic entity.

SSARS 1 (AR Section 100) defines the compilation of financial statements and the review of financial statements of a nonpublic entity and provides guidance to accountants concerning the standards and procedures applicable to such engagements. An understanding of the definition of certain terms is imperative to the proper implementation of this statement.

Nonpublic Entity – An entity other than one a) whose securities are traded in a public market (i.e., on a stock exchange or in the over-the-counter market, including those quoted only locally or regionally); b) that has filed with a regulatory agency in preparation for the sale, in a public market, of any class of its securities; or c) that is a subsidiary, corporate joint venture, or other entity controlled by an entity described in a or b.

Financial Statements – Balance sheet, statement of income, statement of cash flows, statement of retained earnings, statement of changes in owners' equity, statement of assets and liabilities (with or without owners' equity accounts), statement of revenues and expenses, summary of operations, statement of operations by product lines, or statement of cash receipts and disbursements. A financial statement may be, for example, that of a corporation, a consolidated group of corporations, a combined group of affiliated entities, a not-for-profit organization, a government unit, an estate or trust, a partnership, a proprietorship, a segment of any of these, or an individual. Financial forecasts, projections, and financial presentations included in tax returns are not considered financial statements for SSARS 1. The method by which that statement was prepared (manual or computer) is irrelevant in defining a financial statement.

Compilation of Financial Statements – Presenting information that is the representation of management in the form of financial statements without undertaking to express any assurance on the statements. The accountant may perform other accounting services (preparing a working trial balance) to enable him/her to compile the financial statements.

The accountant must issue a compilation report whenever a compilation of a nonpublic entity's financial statements in compliance with SSARS 1 has been completed. The accountant can not issue any unaudited financial statements to the client or others unless the accountant has at least complied with the provisions that apply to a compilation. The accountant's name should not appear in documents or written communications containing unaudited statements unless the accountant has compiled them and the report is included, or there is a clear indication in the documents that the accountant has not compiled the statements and the accountant assumes no responsibility for them. If an accountant becomes aware that his or her name has been used improperly, the client should be advised that the use of the accountant's name is inappropriate, and the accountant should consider consulting an attorney.

An accountant must, at a minimum, comply with the provisions applicable to a compilation when submitting unaudited financial statements of a nonpublic entity to his or her client or others. Submission of financial statements is defined as presenting to a client or others financial statements that the accountant has generated, either manually or through the use of computer software or modified by materially changing account classification, amounts, or disclosures directly on client prepared financial statements.

The following services do not constitute a submission of financial statements:

a. Reading client prepared financial statements.

b. Typing or reproducing client-prepared financial statements, without modification, as an accommodation to a client.

c. Proposing correcting journal entries or disclosures to the financial statements, either orally or in written form, that materially change client-prepared financial statements, as long as the accountant does not directly modify the client-prepared financial statements.

d. Preparing standard monthly journal entries (standard entries for depreciation and expiration of prepaid expenses).

e. Providing a client with a financial statement format that does not include dollar amounts, to be used by the client to prepare financial statements.

f. Advising a client about the selection or use of computer software that the client will use to generate financial statements.

g. Providing the client with the use of, or access to, computer hardware or software that the client will use to generate financial statements.

SSARS 1 does not apply to such accounting services as preparing a working trial balance, assisting in adjusting the books, consulting on accounting and tax matters, preparing tax returns, providing manual or automated bookkeeping or data processing services (unless the output is in the form of financial statements), or processing financial data for the clients of other accounting firms.

The accountant must reach an understanding, preferably in writing, with the client as to the services to be performed. An engagement letter is recommended. It should include: 1) a description of the nature and limitations of the compilation, 2) a description of the report that the accountant expects to render, and 3) a statement that the engagement can not be relied upon to disclose errors, irregularities or illegal acts, and that the accountant will inform the appropriate level of management of any material errors of which the accountant becomes aware, and any irregularities or illegal acts that come to his or her attention, unless they are inconsequential.

The following guidelines apply to a compilation engagement:

1. To compile financial statements that are appropriate in form for a particular industry, the accountant must understand the accounting principles and practices of the client’s industry. The accountant need not

possess this knowledge when accepting the engagement as long as the accountant can acquire it through appropriate means.

2. The accountant must possess a general understanding of the nature of the client's business transactions, the form of its accounting records, the stated qualifications of its accounting personnel, the accounting basis used for the financial statements, and the form and content of the financial statements. This knowledge is usually acquired through experience with the client or inquiry of the client's personnel.

3. The accountant is not required to make additional inquiries or to perform any other procedures designed to verify, corroborate, or review the information that the client supplies for a compilation. However, if the information furnished appears to be incorrect, incomplete, or otherwise unsatisfactory, the accountant should request additional or revised information. If the client refuses to provide it, the accountant should withdraw from the compilation engagement.

4. Before issuing the compilation report, the accountant should read the compiled financial statements to be sure they appear to be appropriate in form and free from obvious material errors (such as math mistakes and mistakes in applying accounting principles, including inadequate disclosure).

5. Reporting of Financial Statements

   a. Statements compiled by the accountant should be accompanied by a report that a compilation has been performed in accordance with Statements for Accounting and Review Services issued by the AICPA, a compilation is limited to presenting, in the form of financial statements, information that is the representation of management, and the statements have not been audited or reviewed and, therefore, no opinion or other form of assurance is expressed on them.

b. The report should not mention any other procedures the accountant may have performed.

c. The report should be dated as of the date of completion of the compilation.

d. Each page of the financial statement should contain a reference such as "See Accountant's Compilation Report."

e. The accountant is not precluded from issuing a compilation report on one financial statement (balance sheet) and not on others.

6. The accountant may be asked to compile financial statements that omit substantially all the disclosures required by GAAP (or another comprehensive basis of accounting). The accountant can do so as long as the accountant feels the omissions are not designed to mislead the users of the statements and the accountant clearly indicates in the report that the disclosures are omitted. If the client omits most disclosures but does disclose a few matters in the form of notes to the financial statements, the disclosures should be labeled "Selected Information—Substantially All Disclosures Required by Generally Accepted Accounting Principles Are Not Included." When the financial statements are prepared on a comprehensive basis of accounting other than GAAP and the basis is not disclosed in the statements (including the notes), the basis must be disclosed in the accountant's report.

7. The accountant may compile financial statements with which the accountant is not independent. While the reason for the lack of independence should not be disclosed, the last paragraph of the report should specifically disclose the lack of independence.

The accountant may become aware of a departure from GAAP that is material to the financial statements. Appropriate action includes first asking the client to revise the financial statements so that they conform with GAAP. If the statements are not revised and if the departure is not the omission of substantially all disclosures from financial statements that have been compiled, the accountant should consider whether the departure can be adequately disclosed by modifying the standard report. If it can, a separate paragraph should be used to disclose the departure and its effects (if they have been determined by management or are known through the accountant's procedures). If management has not determined the effects of the departure, the accountant is not required to determine them if the accountant does not already know the effects, as long as the accountant states in the report that no such determination was made. The accountant would not usually modify the report because of an uncertainty including an uncertainty about the entity's ability to continue as a going concern, or an inconsistency in the application of accounting principles if the financial statements provide adequate disclosure. However, the accountant is not precluded from emphasizing such a matter in a separate paragraph of the report. In cases where the accountant believes the deficiencies can not be adequately disclosed by modifying the report, the accountant should withdraw from the compilation engagement and not provide any further services regarding those financial statements.

After the date of the compilation, the accountant may become aware that facts may have existed at that date which, had the accountant been aware of them, might have caused the accountant to believe that the information the client supplied was incorrect, incomplete, or otherwise unsatisfactory. The accountant should consult Section 561 of Statement on Auditing Standards No. 1 to help determine the appropriate course of action. Because of legal implications involved in actions contemplated under section 561 of SAS No. 1, the accountant should consider consulting an attorney.

In cases where the basic financial statements are accompanied by information that is presented for purposes of supplementary analysis, the accountant should clearly indicate the responsibility, if any, that the accountant is taking with respect to the information. The compilation report should include the supplementary data when the accountant has compiled the supplementary information to be presented with the basic financial statements.

SSARS 2 applies when reporting on comparative financial statements of a nonpublic entity when the financial statements of one or more periods presented have been compiled in accordance with SSARS 1. The following definitions apply for the purposes of this statement.

> **Comparative Financial Statements –** Financial statements of two or more periods which are present in a columnar format.
>
> **Continuing Accountant –** Engaged to compile the current period's financial statements and has compiled those of one or more consecutive periods immediately prior to the current period.
>
> **Updated Report –** Issued by the continuing accountant. It takes into account information the continuing accountant becomes aware of during the current engagement. In it, the continuing accountant will either re-express the previous conclusion on the prior period statements or, in some cases, express a different conclusion on the prior-period statements as of the date of the continuing accountant's current report.
>
> **Reissued Report –** Issued after the date of the original report, but bearing the same date as the original report. If it must be revised because of the effects of specific events, it should be dual-dated; using the original date and a separate date that applies to the effects of such events.

The accountant should issue an appropriate report, which covers each of the periods presented in the comparative financial statements. It is permissible for the client to include client-prepared financial statements of some periods that have not been compiled by the accountant on separate pages of a document containing financial statements on which the accountant has issued a compilation report, provided that they are accompanied by an indication from the client that the accountant has not compiled those statements and, therefore, the accountant does not assume any responsibility for them. If the accountant becomes aware that, within the comparative financial statements, the client has included in a columnar format some information that the accountant has not compiled and some that the accountant has, and the report on the latter or the accountant's name is included in the documents containing the comparative statements, the accountant should advise the client that this is inappropriate. Statements that omit substantially all GAAP disclosures are not comparable to financial statements that include such disclosures. Therefore, the accountant should not issue a report on comparative statements when statements for some, but not all, of the periods presented omit substantially all the disclosures required by GAAP. A reference such as "See Accountant's Report" should be included on each page of the comparative financial statements.

The continuing accountant should update the report on the financial statements of a prior period that are presented with those of the current period when the accountant compiled the prior-period statements and the current-period statements. The accountant should include in the compilation report, on the current-period financial statements, a paragraph that describes the responsibility the accountant is assuming for the prior-period statements. Circumstances or events may come to the accountant's attention, during the current engagement, which affect the prior-period financial statements that are presented (including the adequacy of their disclosure). If the accountant's report on the comparative statements includes a changed reference to a departure from GAAP, a separate explanatory paragraph should be included in the report indicating the date of the accountant's previous report, the circumstances or events that caused the accountant to refer to the change and, when applicable, that the prior-period financial statements have been changed. A changed reference includes a reference that is different from the one made in the previous report, the removal of a prior reference, or the inclusion of a new reference.

At the client's request, a predecessor accountant may reissue the compilation report on the prior-period financial statements. However, the predecessor accountant does not have to do so. When a predecessor accountant has compiled the financial statements of a prior period (that are presented for comparative purposes) but does not reissue the compilation report, the successor accountant should either include an additional paragraph(s) in the report on the current-period financial statements which makes reference to the predecessor's report on the prior-period financial statements or perform a compilation of the prior-period financial statements and issue an appropriate report. The additional paragraph(s) should include a statement that another accountant compiled the prior-period financial statements (the predecessor should not be named), the date of the predecessor's report, a description of the standard form of disclaimer or limited assurance that appeared in the report, and a description of any modifications which were made to the standard report and any paragraphs that were included to emphasize a matter(s) in the financial statements.

A predecessor should consider whether the report on the prior-period financial statements is still appropriate before the predecessor reissues it. In this regard, the predecessor should consider the current form and manner of presentation of the prior-period financial statements, subsequent events that the predecessor was not aware of at the time of the original report, and if there are any changes in the financial statements that would require the predecessor to either add or delete modifications to the standard report. Before reissuance of the compilation report, the predecessor should read the current-period financial statements and the report of the successor accountant, compare the prior-period financial statements with those that were previously issued and with those of the current period, and obtain a letter from the successor indicating whether any matters came to his or her attention which, in the successor's opinion, might have a material effect on the prior-period statements, including disclosures. The predecessor should not refer to the successor's letter or report in the reissued report.

If the predecessor becomes aware of information that may affect the financial statements of the prior period and/or the report on them, the predecessor should make inquiries or perform analytical procedures similar to the ones the predecessor would have performed at the date of the report on the prior-period statements had the predecessor been aware of the information, and perform any other necessary procedures. Examples include discussion with the successor and/or review of the successor's working papers on the matter. The date of the previous report should be used when issuing a report. This avoids any connotation that the predecessor performed any procedures after that date. Dual-dating is appropriate if the predecessor revised the report or if the financial statements are restated. The predecessor should obtain a written statement from the former client that states the information currently acquired and its effect on the prior-period financial statements and, if applicable, includes an expression of the former client's understanding of the information's effect on the predecessor's reissued report.

Either the predecessor or the successor should report on prior-period financial statements that have been changed. When reporting, the predecessor should adhere to the guidelines for reissuing a compilation report. The successor should comply with SSARS 1. The successor should not refer to the predecessor's previously issued report in the successor's report.

It is possible that the restatement may be for reasons other than a change in accounting principles or their application (revision to correct an error). In this case, as long as the financial statements adequately disclose the matter, the accountant may decide to include an explanatory paragraph in the report, concerning the restatement. However, the accountant should not modify the report beyond this.

Even though an accountant may have compiled financial statements that did not omit substantially all the disclosures required by GAAP, the accountant may later be asked to compile financial statements for the same period that do omit substantially all the disclosures required by GAAP so that the statements can be presented in comparative financial statements. In this case, the accountant may report on these statements as long as an additional paragraph is included in the report, which indicates the nature of the previous service and the date of the previous report.

The requirements of SSARS 1 and SSARS 2 are applicable when the unaudited financial statements of a nonpublic entity are included in a prescribed form. SSARS 3 amends SSARS 1 and SSARS 2 to provide for an alternative form of standard compilation report when the prescribed form or related instructions call for departure from generally accepted accounting principles by specifying a measurement principle not in conformity with GAAP or by failing to request the disclosures required by GAAP.

This statement also provides additional guidance applicable to reports on financial statements included in a prescribed form.

A prescribed form is any standard preprinted form designed or adopted by the body to which it is to be submitted, for example, forms used by industry trade associations, credit agencies, banks, and governmental and regulatory bodies other than those concerned with the sale or trading of securities. A form designed or adopted by the entity whose financial statements are to be compiled is not considered to be a prescribed form. There is a presumption that the information required by a prescribed form is sufficient to meet the needs of the body that designed or adopted the form and that there is no need for that body to be advised of departures from GAAP required by the prescribed form or related instructions.

If the accountant becomes aware of a departure from GAAP, other than departures that may be called for by the prescribed form or related instructions, the accountant should follow the guidance in SSARS 1 regarding such departures. The sentence introducing the separate paragraph of the report disclosing the departure might read as follows; "However, I did become aware of a departure from generally accepted accounting principles that is not called for by the prescribed form or related instructions, as described in the following paragraph." If the accountant becomes aware of a departure from the requirements of the prescribed form or related instructions, the accountant should consider that departure as the equivalent of a departure from GAAP in determining its effect on the report. The accountant should not sign a preprinted report form that does not conform with the guidance in this statement or SSARS 1, as amended, whichever is applicable. In such circumstances, the accountant should append an appropriate report to the prescribed form.

SSARS 4 provides guidance to a successor accountant who decides to communicate with a predecessor accountant regarding acceptance of an engagement to compile the financial statements of a nonpublic entity. It requires the predecessor accountant to respond promptly and fully in the event of such communications in ordinary circumstances. This Statement also provides guidance on additional inquiries a successor accountant may wish to make of a predecessor, and the predecessor's responses to facilitate the conduct of the successor's compilation engagement. It also requires a successor accountant who becomes aware of information that leads him or her to believe the financial statements reported on by the predecessor accountant may require revision to request that the client communicate this information to the predecessor accountant.

The successor accountant is the accountant who has been invited to make a proposal for an engagement to compile financial statements or who has accepted such an engagement. The predecessor accountant is the accountant who has resigned or who has been notified that his or her services have been terminated and who, at a minimum, was engaged to compile the financial statements of the entity for the prior year or for a period ended within twelve months of the date of the financial statements to be compiled by the successor.

A successor accountant is not required to communicate with a predecessor accountant in connection with acceptance of a compilation engagement; but a successor may decide to do so when the information obtained about the prospective client and its management and principals is limited or appears to require special attention, the change in accountants takes place substantially after the end of the accounting period for which financial statements are to be compiled, or there have been frequent changes in accountants. Except as permitted by industry rules of conduct, an accountant is precluded from disclosing any confidential information obtained during a professional engagement without the consent of the client. Accordingly, when the successor accountant decides to communicate with the predecessor, the successor should request the client to permit the successor to make inquiries of the predecessor accountant and authorize the predecessor accountant to respond fully to those inquiries. If the client refuses to comply with this request, the successor accountant should consider the reasons for, and implications of, that refusal in connection with acceptance of the engagement.

When the successor accountant decides to communicate with the predecessor, inquiries may be oral or written and ordinarily would include inquiries concerning information that might bear on the integrity of management, disagreements with management about accounting principles or the necessity for the performance of certain procedures, the cooperation of management in providing additional or revised information, if necessary, or the predecessor's understanding of the reason for the change of accountants.

The predecessor accountant should respond promptly and fully, on the basis of known facts. However, if the predecessor decides, due to unusual circumstances such as pending litigation, not to respond fully, the predecessor should indicate that his or her response is limited. The successor accountant should consider the reasons for, and implications of, such a response in connection with acceptance of the engagement.

The successor accountant may wish to make other inquiries of the predecessor to facilitate the conduct of the compilation engagement. Examples of such inquiries, which may be made either before or after acceptance of the engagement, might include questions about prior periods regarding inadequacies noted in the entity's underlying financial data, the necessity to perform other accounting services, or areas that have required an inordinate amount of time in prior periods. A successor accountant may also wish to obtain access to the predecessor's working papers. In these circumstances, the successor should request the client to authorize the predecessor to allow such access. It is customary for the predecessor to be available to the successor for consultation and to make available certain working papers. The predecessor and successor should agree on those working papers that are to be made available and those that may be copied. Ordinarily, the predecessor should provide the successor access to working papers relating to matters of continuing accounting significance and those related to contingencies. Valid business reasons (unpaid fees), however, may lead the predecessor to decide not to allow access to the working papers. The successor accountant should not refer to the work of a predecessor accountant in his or her own report, except as is specifically permitted by SSARS 2 regarding the financial statements of a prior year.

If, during an engagement the successor accountant becomes aware of information that leads to a belief that financial statements reported on by the predecessor accountant may require revision, the successor should request the client to communicate this information to the predecessor accountant. SSARS 1 provides guidance to the predecessor accountant in determining an appropriate course of action. If the client refuses to communicate with the predecessor or if the successor accountant is not satisfied with the predecessor's course of action, the successor should consider withdrawing from the engagement and would be well advised to consult with an attorney.

SSARS 6 provides an exemption from adherence to SSARS 1, as amended, for reporting on personal financial statements included in written personal financial plans. An accountant may submit a written personal financial plan containing unaudited personal financial statements to a client without complying with the requirements of SSARS 1, as amended, when the accountant establishes an understanding with the client that the financial statements will be solely to assist the client and the client's advisers to develop the client's personal financial goals and objectives, and will not be used to obtain credit or for any purpose other than developing these goals and objectives and nothing comes to the accountant's attention during the engagement that would cause the accountant to believe that the financial statements will be used to obtain credit or for any purposes other than developing the client's financial goals and objectives.

An accountant using the exemption provided by this statement should issue a written report. The following is an illustration of such a report:

> The accompanying Statement of Financial Condition of (client's name), as of December 31, 2000 was prepared solely to help you develop your personal financial plan. Accordingly, it may be incomplete or contain other departures from generally accepted accounting principles and should not be used to obtain credit or for any purposes other than developing your financial plan. We have not audited, reviewed, or compiled the statement.

REVIEW QUESTIONS
STATEMENTS OF STANDARDS FOR ACCOUNTING AND REVIEW SERVICES

1. Blue Company, a privately held entity, asked its tax accountant, King, to reproduce Blue's internally prepared interim financial statements on King's microcomputer when King prepared Blue's quarterly tax return. King should not submit these financial statements to Blue unless, at a minimum, King complies with the provisions of:

   a. Statements on Responsibilities in Tax Practice.
   b. Statements on Standards for Accounting and Review Services.
   c. Statements on Responsibilities in Unaudited Financial Services.
   d. Statements on Standards for Attestation Engagements.

2. Which of the following accounting services may an accountant perform without being required to issue a compilation report under the Statements of Standards for Accounting and Review Services?

   I. Preparing a working trial balance
   II. Preparing standard monthly journal entries

   a. I only
   b. II only
   c. Both I and II
   d. Neither I or II

3. The authoritative body designated to promulgate standards concerning an accountant's association with unaudited financial statements of an entity that is not required to file financial statements with an agency regulating the issuance of the entity's securities is the:

   a. Financial Accounting Standards Board.
   b. General Accounting Office.
   c. Accounting and Review Services Committee.
   d. Auditing Standards Board.

4. An accountant is required to comply with the provisions of Statements on Standards for Accounting and Review Services when:

   I. Processing financial data for clients of other accounting firms
   II. Consulting on accounting matters

   a. both I and II
   b. only I
   c. only II
   d. neither I or II

5. Statements on Standards for Accounting and Review Services (SSARS) require an accountant to report when the accountant has:

   a. typed client-prepared financial statements, without modification, as an accommodation to the client.
   b. provided a client with a financial statement format that does not include dollar amounts to be used by the client in preparing financial statements.
   c. proposed correcting journal entries to be recorded by the client that change client-prepared financial statements.
   d. generated, through the use of computer software, financial statements prepared in accordance with a comprehensive basis of accounting other than GAAP.

6. Must an accountant in public practice be independent in fact and appearance when providing the following services?

	Compilation of personal financial statements	Preparation of a tax return	Compilation of a financial forecast
a.	No	No	No
b.	No	No	Yes
c.	Yes	No	No
d.	No	Yes	No

7. When compiling the financial statements of a nonpublic entity, an accountant should:

   a. review agreements with financial institutions for restrictions on cash balances.
   b. understand the accounting principles and practices of the entity's industry.
   c. inquire of key personnel concerning related parties and subsequent events.
   d. perform ratio analyses of the financial data of comparable prior periods.

8. Which of the following procedures is ordinarily performed by an accountant in a compilation engagement of a nonpublic entity?

   a. Reading the financial statements to consider whether they are free of obvious mistakes in the application of accounting principles.
   b. Obtaining written representations from management indicating that the compiled financial statements will not be used to obtain credit.
   c. Making inquiries of management concerning actions taken at meetings of the stockholders and the board of directors.
   d. Applying analytical procedures designed to corroborate management's assertions that are embodied in the financial statement components.

9. Which SSARS states that the accountant should not issue any report on the unaudited financial statements, of a nonpublic entity, or submit such financial statements to their client or others unless they comply with the provisions of that statement?

   a. SSARS 1
   b. SSARS 2
   c. SSARS 4
   d. SSARS 6

10. Which of the following constitutes the submission of financial statements?

    a. Proposing correcting journal entries.
    b. Changing account classification on client-prepared financial statements.
    c. Preparing standard monthly journal entries.
    d. Reading client-prepared financial statements.

11. If compiled financial statements presented in conformity with the cash receipts and disbursements basis of accounting do **not** disclose the basis of accounting used, the accountant should:

    a. recompile the financial statements using generally accepted accounting principles.
    b. disclose the basis in the notes to the financial statements.
    c. clearly label each page “Unaudited.”
    d. disclose the basis of accounting in the accountant’s report.

12. Which of the following should be used as the date of the accountant’s report?

    a. The date of completion
    b. The date of the engagement letter
    c. The date of the financial statements
    d. The date of the management representation letter

13. Which SSARS establishes standards for reporting on comparative financial statements?

    a. SSARS 1
    b. SSARS 2
    c. SSARS 3
    d. SSARS 4

14. Miller is engaged to compile the financial statements of Web Company, a nonpublic entity, in conformity with the income tax basis of accounting. If Web’s financial statements do **not** disclose the basis of accounting used, Miller should:

    a. disclose the basis of accounting in the accountant’s compilation report.
    b. clearly label each page “Distribution Restricted – Material Modifications Required.”
    c. issue a special report describing the effect of the incomplete presentation.
    d. withdraw from the engagement and provide no further services to Web.

15. When the financial statements, of a prior period, have been compiled by a predecessor accountant whose report is not presented, the successor should make reference to the predecessor's report and include all of the following **except**:

    a. the name of the predecessor accountant.
    b. a statement that the financial statements of the prior period were compiled by another accountant.
    c. the date of the report.
    d. a description of the standard form of disclaimer or limited assurance included in the report.

16. According to SSARS 4, the successor accountant should request from the client all of the following **except**:

    a. the name of the predecessor accountant.
    b. permission to make inquiries of the predecessor accountant.
    c. authorization for the predecessor accountant to respond to inquiries.
    d. authorization to see the predecessor accountant's work papers.

17. Jones Retailing, a nonpublic entity, has asked Winters to compile financial statements that omit substantially all disclosures required by generally accepted accounting principles. Winters may compile such financial statements provided the:

    a. reason for omitting the disclosures is explained in the engagement letter and acknowledged in the management representation letter.
    b. financial statements are prepared on a comprehensive basis of accounting other than generally accepted accounting principles.
    c. distribution of the financial statements is restricted to internal use only.
    d. omission is **not** undertaken to mislead the users of the financial statements and is properly disclosed in the accountant's report.

18. Which SSARS provides for an exemption from SSARS 1 for personal financial statements that are included in personal plans prepared by an accountant?

    a. SSARS 2
    b. SSARS 3
    c. SSARS 4
    d. SSARS 6

19. SSARS 1 requires:

    a. engagement letters for compilation engagements.
    b. engagement letters for review engagements.
    c. separate engagement letters for quarterly financial statements.
    d. none of the above.

20. An accountant may compile entity's financial statements that omit all of the disclosures required by GAAP only if the omission is:

    I. Clearly indicated in the accountant's report.
    II. Not undertaken with the intention of misleading the financial statement users.

    a. I only.
    b. II only.
    c. Both I and II.
    d. Either I or II.

21. Which kind of opinion may be rendered from a compilation?

    a. Compilations do not issue opinions on financial statements.
    b. Assurance that the financial statements reflect the financial position of the business entity.
    c. Only a piecemeal assurance.
    d. None of the above are correct.

22. All of the following are circumstances which would cause the practitioner to withdraw from a compilation engagement **except**:

    a. the accountant determines that management intends to mislead users of the financial statements.
    b. management refuses to accept a modification of the report due to a departure from GAAP.
    c. the predecessor accountant refuses to comply with the successor accountant's request for information.
    d. management wishes to omit all disclosures normally found in the financial statements.

23. Clark compiled and properly reported on the financial statements of Green Co., a nonpublic entity, for the year ended March 31, 1999. These financial statements omitted substantially all disclosures required by GAAP. Green asked Clark to compile the statements for the year ended March 31, 2000, and to include all GAAP disclosures for the 2000 statements only, but otherwise present both years' financial statements in comparative form. What is Clark's responsibility concerning the engagement?

    a. Clark may **not** report on the comparative financial statements because the 1999 statements are **not** comparable to the 2000 statements that include the GAAP disclosures.
    b. Clark may report on the comparative financial statements provided the 1999 statements do **not** contain any obvious material misstatements.
    c. Clark may report on the comparative financial statements provided an explanatory paragraph is added to Clark's report on the comparative financial statements.
    d. Clark may report on the comparative financial statements provided Clark updates the report on the 1999 statements that do **not** include the GAAP disclosures.

24. The successor accountant must request that the client communicate with the predecessor if:

    a. the prospective client information is limited or requires special attention.
    b. the change in accountants occurs substantially after the end of the accounting period for which financial statements are to be compiled.
    c. the client has frequently changed accountants.
    d. the prior-period financial statements reported on by the predecessor require revision.

25. Which of the following is required by SSARS 1, for cash balances in financial statements, which have been compiled?

    a. Examine the company's bank reconciliation.
    b. Trace outstanding checks to the bank reconciliation.
    c. Verify that prior-period outstanding checks have cleared the bank.
    d. Disclose compensating balance arrangements.

26. An accountant has been asked to compile the financial statements of a nonpublic company on a prescribed form that omits substantially all the disclosures required by generally accepted accounting principles. If the prescribed form is a standard preprinted form adopted by the company's industry trade association, and is to be transmitted only to such association, the accountant:

a. need **not** advise the industry trade association of the omission of all disclosures.
b. should disclose the details of the omissions in separate paragraphs of the compilation report.
c. is precluded from issuing a compilation report when all disclosures are omitted.
d. should express limited assurance that the financial statements are free of material misstatement.

27. Statements on Standards for Accounting and Review Services establish standards and procedures for which of the following engagements?

a. Assisting in adjusting the books of account for a partnership.
b. Reviewing interim financial data required to be filed with the SEC.
c. Processing financial data for clients of other accounting firms.
d. Compiling an individual's personal financial statement to be used to obtain a mortgage.

28. Which of the following services is **not** covered by SSARS 1?

a. Preparing a pencil copy of financial statements for management use only.
b. Preparing a tax return that a client submits to his or her banker in lieu of financial statements.
c. Presenting a covenant compliance letter to a client for submission to a bank.
d. Modifying one or more financial statements for a period, while issuing an unmodified report on the other financial statements of the period.

29. One of the conditions required for an accountant to submit a written personal financial plan containing unaudited financial statements to a client without complying with the requirements of SSARS 1 is that the:

    a. client agrees that the financial statements will **not** be used to obtain credit.
    b. accountant compiled the client's financial statements for the immediate prior year.
    c. engagement letter acknowledges that the financial statements will contain departures from generally accepted accounting principles.
    d. accountant expresses limited assurance that the financial statements are free of any material misstatements.

30. Kell engaged March to submit to Kell written personal financial statements. March anticipates omitting certain disclosures required by GAAP because the engagement's sole purpose is to assist Kell in developing a personal financial plan. For March to be exempt from complying with the requirements of SSARS 1 Kell is required to agree that the:

    a. financial statements will **not** be presented in comparative form with those of the prior period.
    b. omitted disclosures required by GAAP are **not** material.
    c. financial statements will **not** be disclosed to a non-CPA financial planner.
    d. financial statements will **not** be used to obtain credit.

REVIEW QUESTION SOLUTIONS—STATEMENTS OF STANDARDS FOR ACCOUNTING AND REVIEW SERVICES

1.	B
2.	C
3.	C
4.	D
5.	D
6.	A
7.	B
8.	A
9.	A
10.	B
11.	D
12.	A
13.	B
14.	A
15.	A
16.	A
17.	D
18.	D
19.	D
20.	C
21.	A
22.	D
23.	A
24.	D
25.	D
26.	A
27.	D
28.	D
29.	A
30.	D

STATEMENTS OF STANDARDS
FOR ACCOUNTING AND REVIEW SERVICES

Explanation of Review Question Solutions

1. The correct answer is B, Statements on Standards for Accounting and Review Services (p.1, paragraph 1).

2. The correct answer is C, both I (preparing a working trial balance, p. 3, paragraph 3) and II (prepare standard monthly journal entries). There are seven services that DO NOT constitute submission of financial statements (p.3, paragraph 2) and do not require an accountant's compilation report under SSARS 1. A compilation report is not required when "for internal use only" statements are prepared with the required engagement letter.

3. The correct answer is C, Accounting and Review Services Committee (p. 1, paragraph 1). This committee is a senior technical committee of the AICPA that issues SSARS.

4. The correct answer is D, neither I (processing financial data for clients of other accounting firms, p. 3, paragraph 3) nor II (consulting on accounting matters, p. 3, paragraph 3). SSARS 1 does not apply to either of these circumstances.

5. The correct answer is D: generated, through the use of computer software, financial statements prepared in accordance with a comprehensive basis of accounting other than GAAP. OCBOA financial statements require that you conform with SSARS. See page 3, paragraph 2, for full discussion.

6. The correct answer is A. Compilation of personal financial statements, preparation of a tax return, or compilation of a financial forecast does not require the accountant in public practice be independent in fact or in appearance.

7. The correct answer is B; see p. 4, paragraph 2, item number 1. Preparing a compilation of statements of a nonpublic entity, the accountant should understand accounting principles and practices of the entity's industry.

8. The correct answer is A. Reading the financial statements to consider whether they are free of obvious mistakes in the application of accounting principles is a normal procedure in performing a compilation.

9. The correct answer is A, SSARS 1. SSARS 1 has to do with compilations of nonpublic entities. SSARS 2 (B) concerns comparative statements of nonpublic entities. SSARS 4 (C) deals with the rules of successor accountants. SSARS 6 (D) is for personal financial plans.

10. The correct answer is B. Changing account classification on client-prepared financial statements constitutes submission of financial statements and comes under SSARS 1 and SSARS 8.

11. The correct answer is D. If the financial statements do not disclose the basis of accounting, the accountant's report should disclose the basis of accounting.

12. The correct answer is A, the date of completion of the accountant's work.

13. The correct answer is B, SSARS 2. SSARS 1 (A) has to do with compilations of nonpublic entities. SSARS 3 (C) is about OCBOA statements. SSARS 4 (D) deals with the rules of successor accountants.

14. The correct answer is A. If the company's financial statements do not disclose the basis of accounting used, the accountant's compilation report should disclose the basis of accounting. This question is identical to #11.

15. The correct answer is A; see p. 13, paragraph 1. Underline the word *except*. The name of the predecessor accountant is not included when financial statements of a prior period are compiled by a predecessor accountant whose report is not presented. The successor references the predecessor's report and a statement that the prior period financial statements were compiled by another accountant, the date of the report, and a description of the standard form of disclaimer or limited assurance is included in the report.

16. The correct answer is A, see p. 13, paragraph 1. Underline the word *except*. According to SSARS 4, the successor accountant should request from the client permission to make inquiries of the predecessor accountant, authorization for the predecessor accountant to respond to inquiries, and authorization to see the predecessor accountant's working papers. The successor accountant should not directly request the predecessor accountant's name.

17. The correct answer is D. Notice the word *not* in the answer. You may not omit disclosures in order to mislead the users of the financial statements. If you think about it, this is a pretty easy question.

18. The correct answer is D, SSARS 6. SSARS 2 (A) deals with comparative statements of nonpublic entities. SSARS 3 (B) is about OCBOA statements. SSARS 4 (C) deals with the rules of successor accountants. SSARS 6 is for personal financial plans.

19. The correct answer is D. SSARS 1 does not require any engagement letters. The only time an engagement letter is required is when the accountant prepares statements for internal use only, as stated in SSARS 8.

20. The correct answer is C, both; see p. 5, item #6. When you omit all the disclosures required by GAAP, the omission must be clearly indicated in the accountant's report and must *not* be undertaken to mislead the financial statement users.

21. The correct answer is A. Compilations give *no* assurance or opinions on financial statements, and so an opinion is not rendered.

22. The correct answer is D; see p. 5, item #6. Underline the word *except*. All of the options would require the accountant to withdraw from the engagement, except the omission of all the disclosures required by GAAP. Omission of disclosures can be clearly indicated in the accountant's report as long as the reason for the omission is not to mislead the financial statement users.

23. The correct answer is A; see p. 8, paragraph 1. You cannot report on comparable financial statements where they are not comparable, which is the case when one includes disclosures and the other omits them.

24. The correct answer is D; see p. 13, paragraph 1. SSARS 4 deals with rules about successor accountants. The successor accountant must request that the client communicate to the predecessor accountant when the successor becomes aware that the prior-period financial statements may require revision.

25. The correct answer is D. Examining company bank reconciliation (A), tracing outstanding checks to the bank reconciliation (B), and verifying that prior-period outstanding checks have cleared the bank (C) are all procedures that one might perform in an audit or review, but not in a compilation. The owner of the business should disclose compensating balances on all cash balances under SSARS 1.

26. The correct answer is A. The accountant need not notify anyone but users of the financial statements of the omission of all disclosures; see p. 5, #6. That notification is within the accountant's report.

27. The correct answer is D. Compiling an individual's personal financial statement to be used to obtain a mortgage is regulated by SSARS 6 (see p. 16).

28. The correct answer is D. According to SSARS 8, information on for-internal-use-only financial statements, and the use of for-management-use-only statements, may not be covered by SSARS 1, if an appropriate engagement letter is used which precludes management from presenting the financial statements to outsiders. Otherwise, SSARS 1 requires that an accountant's report be issued (A). AICPA claims that tax returns that a client submits to a bank in lieu of financial statements come under SSARS 1 and require an accountant's report (B). AICPA and the New York Association of CPAs even had legislation introduced in New York several years back that would prohibit all but CPAs to prepare tax returns that might later be submitted to a bank to obtain a loan.

29. The correct answer is A. The client must agree not to use the personal financial statements to obtain a loan (p. 16, paragraph 1).

30. The correct answer is D (see questions 28 and 29)

ENGAGEMENT LETTERS

After reviewing this chapter, you should be able to:

1. *Understand the accountant's legal liability*
2. *Recognize the need for and purpose of engagement letters*
3. *Understand the contents of engagement letters*
    a. *Illustration—Compilation With Full Disclosure*
    b. *Illustration—Compilation Without Disclosure*
    c. *Illustration—Personal Financial Statements*

Under common law, an accounting professional may be liable to the party contracting for accounting services (the client) and to third parties who, although not party to a contractual relationship, nevertheless are users of professionally prepared financial statements. Third parties may be classified as primary beneficiaries, who are treated much like clients under common law.

An accounting professional's common law liability to clients is based on the contractual relationship between an accounting professional and a client and the accounting professional's status as an independent contractor. A contractual relationship exists because an accounting professional and a client enter into an express written agreement (an engagement letter) for accounting services. The accountant's status as an independent contractor, rather than an agent or employee, results because an accountant's tasks are not controlled by the client. A client may initiate a common law civil action when an accountant is alleged to have failed in carrying out the duties of an accounting services contract. As an example, a client may take action against an accountant when the client sustains a loss from relying on materially misstated financial statements or when the accountant fails to discover a fraud.

The accountant's common law liability to clients is traceable to the first recorded legal action brought against an accountant, an 1887 case in England: ***Leeds Estate, Building and Investment Co. v. Shepard***. Leeds, a lending institution, sued the accountant for breach of duty, winning primarily on the grounds that the accountant was wrongful in not inquiring into a balance sheet's "substantial accuracy." Similar to the Leeds case, an accounting professional's common law liability to clients today is for ordinary negligence. To recover damages, a client has the burden of proving a damage or loss, misstated financial statements, reliance on the financial statements, and deficient accountant conduct. Damages are usually awarded in monetary terms.

When a decision is made to accept (or continue) an engagement, an agreement is reached with management about the professional services to be performed, and an engagement letter should be drafted by the accountant for the chief executive officer's signature. An engagement letter is a written agreement between an accounting professional and client that serves to minimize misunderstanding, alerts the client to the purpose of the engagement and role of the accountant, and helps minimize legal liability for services neither contracted for nor performed. Engagement letters are not required by professional standards, but should be prepared for every professional engagement since the risk of misunderstanding can, and sometimes does, result in serious legal judgments against the independent accounting professional. The engagement letter should include: (1) a description of the nature and limitations of the compilation, (2) a description of the report that the accountant expects to render, and (3) a statement that the engagement can not be relied upon to disclose errors, irregularities or illegal acts, and that the accountant will inform the appropriate level of management of any material errors of which the accountant becomes aware, and any irregularities or illegal acts that come to his or her attention, unless they are inconsequential. SSARS 1 specifically requires that the accountant establish an understanding with the client regarding the services to be performed in connection with a compilation but does **not** require a written engagement letter. History has shown that failure to have a written engagement letter can lead to misunderstandings and potential liability for accountants. Written engagements letters should be designed to fit the specific engagement requirement and the detailed needs of the client. The following pages contain examples of engagement letters for specific compilation services. **These letters are for example only and should not be used in practice until reviewed by legal counsel.**

Engagement Letter—Compilation with Full Disclosure

This letter is to confirm our understanding of the terms and objectives of our engagement and the nature and limitations of the services we will provide.

We will perform the following services:

1. We will compile, from information you provide, the annual balance sheet and related statements of income, retained earnings, and cash flow of XYZ, Inc. for the year ended December 31, 2000, in accordance with Statements on Standards for Accounting and Review Services issued by the American Institute of Certified Public Accountants. We will not audit or review such financial statements. Our report on the annual financial statements of XYZ, Inc. is presently expected to read as follows:

    > We have compiled the accompanying balance sheet of XYZ, Inc. as of December 31, 2000 and the related statements of income, retained earnings, and cash flow for the year then ended in accordance with Statements on Standards for Accounting and Review Services issues by the American Institute of Certified Public Accountants.
    >
    > A compilation is limited to presenting in the form of financial statements, information that is the representation of management. We have not audited or reviewed the accompanying financial statements and, accordingly, do not express an opinion or any other form of assurance on them.

    If, for any reason, we are unable to complete the compilation of your financial statements, we will not issue a report on such statements as a result of this engagement.

2. We will also perform the following services (include a detailed discussion where appropriate).

Our engagement cannot be relied upon to disclose errors, irregularities, or illegal acts, including fraud or defalcations, that may exist. However, we will inform you of any such matters that come to our attention, unless they are clearly inconsequential.

Our fees for these services are as follows: (detail fees).

We shall be pleased to discuss this letter with you at any time.

If the foregoing is in accordance with your understanding, please sign the copy of this letter in the space provided and return it to us.

Sincerely yours,

____
(Signature of accountant)

Acknowledged:

____
Client

____
Date

Engagement Letter—Compilation without Disclosure

This letter is to confirm our understanding of the terms and objectives of our engagement and the nature and limitations of the services we will provide. We will perform the following services:

1. We will compile, from information you provide, the annual balance sheet and related statements of income, retained earnings, and cash flow of XYZ, Inc. for the year ended December 31, 2000, in accordance with Statements on Standards for Accounting and Review Services issued by the American Institute of Certified Public Accountants. We will not audit or review such financial statements. Our report on the annual financial statements of XYZ, Inc. is presently expected to read as follows:

    > We have compiled the accompanying balance sheet of XYZ, Inc. as of December 31, 2000 and the related statements of income, retained earnings, and cash flow for the year then ended in accordance with Statements on Standards for Accounting and Review Services issues by the American Institute of Certified Public Accountants.
    >
    > A compilation is limited to presenting in the form of financial statements, information that is the representation of management. We have not audited or reviewed the accompanying financial statements and, accordingly, do not express an opinion or any other form of assurance on them.

    Because management has elected to omit substantially all disclosures from the financial statements, we will include an additional paragraph in our report that will read as follows:

    > Management has elected to omit substantially all of the disclosures required by generally accepted accounting principles. If the omitted disclosures were included in the financial statements, they might influence the user's conclusions about the Company's financial position, results of operations, and cash flows. Accordingly, these financial statements are not designed for those who are not informed about such matters.

    If, for any reason, we are unable to complete the compilation of your financial statements, we will not issue a report on such statements as a result of this engagement.

2. We will also perform the following services (include a detailed discussion where appropriate).

Our engagement cannot be relied upon to disclose errors, irregularities, or illegal acts, including fraud or defalcations, that may exist. However, we will inform you of any such matters that come to our attention, unless they are clearly inconsequential.

Our fees for these services are as follows: (detail fees).

We shall be pleased to discuss this letter with you at any time.

If the foregoing is in accordance with your understanding, please sign the copy of this letter in the space provided and return it to us.

Sincerely yours,

____
(Signature of accountant)

Acknowledged:

____
Client Date

Engagement Letter—Personal Financial Statements

This letter is to confirm our understanding of the terms and objectives of our engagement and the nature and limitations of the services we will provide.

We will compile, from information you provide, the statement of financial condition of James and Jane Doe as of December 31, 2000, and the related statement of changes in net worth for the year then ended, in accordance with Statements on Standards for Accounting and Review Services issued by the American Institute of Certified Public Accountants. We will not audit or review such financial statements. Our report on the financial statements is presently expected to read as follows:

> We have compiled the accompanying statement of financial condition of James and Jane Doe as of December 31, 2000, and the related statement of changes in net worth for the year then ended, in accordance with Statements of Standards for Accounting and Review Services issued by the American Institute of Certified Public Accountants.
>
> A compilation is limited to presenting in the form of financial statements, information that is the representation of the individuals whose financial statements are presented. We have not audited or reviewed the accompanying financial statements and, accordingly, do not express an opinion or any other form of assurance on them.

Our engagement cannot be relied upon to disclose errors, irregularities, or illegal acts, including fraud or defalcations, that may exist. However, we will inform you of any such matters that come to our attention unless they are inconsequential.

Our fees for these services are as follows: (detail fees).

If the foregoing is in accordance with your understanding, please sign the copy of this letter in the space provided and return it to us.

Sincerely yours,

____
(Signature of accountant)

Acknowledged:

____
Client Date

REVIEW QUESTIONS—ENGAGEMENT LETTERS

1. An engagement letter is recommended when an accountant accepts an engagement to:

   a. compile financial statements.
   b. prepare client tax returns.
   c. prepare projections.
   d. all of the above.

2. What is the primary reason an engagement is prepared?

   a. To protect the accounting professional from exposure to potential liability.
   b. To establish the fee for the engagement.
   c. To determine the amount of client assistance.
   d. To establish the guidelines for the work to performed in the engagement.

3. Engagement letters are beneficial because they:

   a. reduce an accountant's legal liability.
   b. document the type and extent of work to be performed.
   c. clarify the client's responsibilities.
   d. all of the above.

4. Which of the following should be included in an engagement letter?

   a. A description of the services to be rendered and report to be issued.
   b. The amount of time to be spent on the engagement.
   c. The names of the accountants who will do the work.
   d. A description of the compilation procedures.

5. Primary responsibility for the preparation of financial statements rests with:

   a. the external accountant.
   b. management.
   c. the audit committee.
   d. the board of directors.

6. Financial statements may be prepared with:

   a. full disclosure.
   b. selected disclosure.
   c. no disclosure.
   d. all of the above.

7. The objective of a compilation report is to express which form of assurance?

   a. no assurance on the financial statements
   b. reasonable assurance on the financial statements
   c. implied assurance on representations of management
   d. limited assurance on the financial statements

8. To avoid misunderstandings between a practitioner and client, engagement arrangements are written in:

   a. a legal letter.
   b. an engagement letter.
   c. a client representation letter.
   d. a letter on reportable conditions.

9. Accountants' liability to third parties under common law:

   a. has not changed substantially over the years.
   b. is identical to accountants' liability under the Securities Act of 1933.
   c. is identical to accountants' liability under the Securities Exchange Act of 1934.
   d. is not uniform across all jurisdictions.

10. The accounting professional is required to communicate detected irregularities to management:

   a. that are material in amount.
   b. that involve management personnel.
   c. that are not corrected by accounting personnel.
   d. in all circumstances.

REVIEW QUESTION SOLUTIONS—ENGAGEMENT LETTERS

1. D
2. D
3. D
4. A
5. B
6. D
7. A
8. B
9. A
10. A

ENGAGEMENT LETTERS

Explanation of Review Question Solutions

1. The correct answer is D, all of the above. An engagement letter is recommended when an engagement is accepted to compile financial statements (A), prepare client tax returns (B), and prepare projections (C).

2. The correct answer is D. The primary reason for an engagement letter is to establish the guidelines for the work to be performed (p. 28, paragraph 2). A secondary reason for an engagement letter is to minimize legal liability for services neither contracted nor performed (A). While other purposes can be attributed to the engagement letter, the best answer is to establish guidelines for the work to be performed and to prevent misunderstandings.

3. The correct answer is D. All three of the alternatives are good results of an effective engagement letter.

4. The correct answer is A. An engagement letter should include a description of the nature and limitations of the compilation, a description of the report that the accountant expects to render, a statement that the engagement cannot be relied upon to disclose errors, irregularities, or illegal acts, and a statement that the accountant will inform the appropriate level of management of any material errors, irregularities, or illegal acts that come to his or her attention (p. 28, paragraph 2). The other three items are not included in an engagement letter.

5. The correct answer is B. Primary responsibility for the preparation of the financial statements rests with management.

6. The correct answer is D. The financial statements can be released with no footnotes, partial footnotes, or full footnote disclosure.

7. The correct answer is A. A compilation provides no assurance at all.

8. The correct answer is B. An engagement letter is written to avoid misunderstandings and to set engagement arrangements.

9. The correct answer is A. The accountant's legal liability, according to the AICPA, has not changed substantially over the years.

10. The correct answer is A (p. 28, paragraph 2). The accountant is required to communicate detected irregularities to management that are material in amount.

OTHER COMPREHENSIVE BASIS OF ACCOUNTING **(OCBOA)**

After reviewing this chapter, you should be able to:

1. *Understand the concept of OCBOA*
2. *Illustrate OCBOA Compilation Reports*

A comprehensive basis other than GAAP is: (1) a basis that is used to comply with the requirements or financial provisions of a government regulatory agency, but only for filing with that agency; (2) a basis used for filing the client's income tax return for the period covered by the financial statements; (3) the cash receipts and disbursements basis (including modifications to cash basis that have substantial support); and (4) a definite set of criteria having substantial support that is applied to all material financial statement items. Examples of OCBOA include the following:

Cash Basis – revenue is recorded only when the cash is received and expenses are recorded only when the cash is paid.

Modified Cash Basis – a mixture of cash basis and accrual basis. Expenditures having an economic life of more than one year are capitalized as assets and prepaid of expenses are deferred and deducted only in the year to which they apply. Accrued expenses are deducted in the year paid and revenue is reported in the year of receipt.

Tax Basis – a basis of accounting that the reporting entity uses or expects to use to file its income tax return for the period covered by the financial statements.

Regulatory basis – a basis of accounting that the reporting entity uses to comply with the requirements or financial reporting provisions of a government or industry regulatory agency to whose jurisdiction or reporting requirements the entity is subject.

Compilation (Full Disclosure)-using cash/modified cash basis

To the Board of Directors of
XYZ, Corp.

I (we) have compiled the accompanying statement of assets, liabilities and stockholders' equity arising from cash transaction of XYZ, Corp. as of December 31, 2000, as well as the related statement of revenue collected and expenses paid for the year then ended, in accordance with Statements on Standards for Accounting and Review Services issued by the American Institute of Certified Public Accountants. These statements have been prepared on the cash (modified cash) basis of accounting, which is a comprehensive basis of accounting other than generally accepted accounting principles.

A compilation is limited to presenting information in the form of financial statements that is the representation of the management of XYZ, Corp. I (we) have not audited or reviewed the accompanying financial statements and, accordingly, do not express an opinion or any other form of assurance on them.

Firm Name

____
Signature of agent

City and State
Date

Compilation (Omission of Substantially All Disclosures) –Tax Basis

To the Board of Directors of
XYZ, Corp.

I (we) have compiled the accompanying statements of assets, liabilities and stockholders' equity – federal income tax basis of XYZ, Corp. as of December 31, 2000, and the related statement of revenues, expenses, and retained earnings – federal income tax basis and statement of cash flow – federal income tax basis for the year then ended, in accordance with Statements on Standards for Accounting and Review Services issued by the American Institute of Certified Public Accountants. These financial statements have been prepared on the federal income tax basis of accounting, which is a comprehensive basis of accounting other than generally accepted accounting principles.

A compilation is limited to presenting, in the form of financial statements, information that is the representation of the management of XYZ, Corp. I (we) have not audited or reviewed the accompanying financial statements and, accordingly, do not express an opinion or any other form of assurance on them.

Management has elected to omit, substantially, all of the disclosures ordinarily included in financial statements prepared on the income tax basis of accounting. If the omitted disclosures were included in the financial statements, they might influence the user's conclusions about the company's assets, liabilities, stockholders' equity, revenue, and expenses. Accordingly, these financial statements are not designed for those who are not informed about such matters.

Name of Firm

____
Signature of agent

City and State
Date

Compilation – Prescribed Form (for government or regulatory agency)

To the Board of Directors
XYZ, Corp.

I (we) have compiled the (identification of financial statements, including period covered and name of entity) included in the accompanying prescribed form in accordance with Statements on Standards for Accounting and Review Services issued by the American Institute of Certified Public Accountants.

My (our) compilation was limited to presenting in the form prescribed by (name of body) information that is the representation of management. I (we) have not audited or reviewed the financial statements referred to above and accordingly, do not express an opinion or any other form of assurance on them.

These financial statements (including related disclosures) are presented in accordance with the requirements of (name of body), which differ from generally accepted accounting principles. Accordingly, these financial statements are not designed for those who are not informed about such differences.

Name of Firm

____
Signature of agent

City and State
Date

REVIEW QUESTIONS—OTHER COMPREHENSIVE BASIS OF ACCOUNTING (OCBOA)

1. In the preparation of Other Comprehensive Basis of Accounting (OCBOA) financial statements, which of the following is **not** required?

   a. report letter
   b. balance sheet
   c. income statement
   d. statement of cash flow

2. When you compile or review financial statements using an Other Comprehensive Basis of Accounting (OCBOA) you must:

   a. insure that an adequate disclosure is made in the footnotes and the report titles.
   b. adjust the financial statements to GAAP.
   c. alter the financial statements.
   d. quantify the results of the variance from GAAP.

3. When compiling financial statements on an Other Comprehensive Basis of Accounting (OCBOA) and substantially all disclosures are omitted, which of the following courses of action is appropriate?

   a. No action is necessary, since disclosures are not required in OCBOA engagements.
   b. Include a discussion in the notes to the financial statements.
   c. Modify the accountant's report to reflect the omission.
   d. Withdraw from the engagement.

4. Other Comprehensive Basis of Accounting (OCBOA) would include which of the following?

   a. tax basis
   b. cash basis
   c. accounting principles established as industry standards
   d. all of the above

5. Other Comprehensive Basis of Accounting (OCBOA) may be used in the preparation of financial statements for:

   a. publicly held firms.
   b. firms with absentee owners.
   c. small closely held businesses.
   d. businesses with a large amount of unsecured debt.

6. Other Comprehensive Basis of Accounting (OCBOA) may be:

   a. more difficult to understand.
   b. not recognized by certain regulatory boards.
   c. more easily read and comprehended by the statement user.
   d. not allowed by the IRS.

7. An accountant records a transaction only when cash is received or paid in which basis of accounting?

   a. accrual
   b. prepaid
   c. deferral
   d. cash

8. In the cash basis of accounting, the receipt of cash from a customer in advance of performing the service would be credited to a(n):

   a. unearned revenue account.
   b. prepaid account.
   c. revenue account.
   d. deferred account.

REVIEW QUESTION SOLUTIONS—OTHER COMPREHENSIVE BASIS OF ACCOUNTING (OCBOA)

1.	D
2.	A
3.	C
4.	D
5.	C
6.	C
7.	D
8.	C

OTHER COMPREHENSIVE BASIS OF ACCOUNTING (OCBOA)

Explanation of Review Question Solutions

1. The correct answer is D, statement of cash flow. When preparing OCBOA financial statements, which over 90% of firms peer reviewed do to limit their liability, the statement of cash flows is not required.

2. The correct answer is A. When you compile financial statements using OCBOA you must insure that an adequate disclosure is made in the footnotes and report titles.

3. The correct answer is C. When substantially all disclosures are omitted with an OCBOA compilation, the accountant should modify the accountant's report to reflect the omission.

4. The correct answer is D. Examples of OCBOA include Cash Basis, Modified Cash Basis, Tax Basis, Generally Accepted Tax Accounting Principles, Regulatory Basis, and accounting principles established as industry standards (p. 36)

5. The correct answer is C, small closely held businesses. OCBOA financial statements are not appropriate for publicly held firms, firms with absentee owners, or businesses with a large amount of unsecured debt: generally, those businesses where outsiders who have a large stake in the business are not in a position to know the inside details of the business.

6. The correct answer is C.

7. The correct answer is D. The cash basis is where revenue is recorded only when cash is received and expenditures recorded only when cash is paid. The modified cash basis capitalizes expenditures with a useful life in excess of one year and depreciates, amortizes, or depletes them as appropriate. Accrued expenses are recorded in the year paid, and revenue is reported when cash is received.

8. The correct answer is C, revenue account. The cash basis records deferred (unearned) revenue as revenue when it is received. The accrual basis records unearned revenue as a liability when the cash is received and converts the liability to revenue using an adjusting entry when the unearned revenue is earned.

WORKING PAPERS

After reviewing this chapter, you should be able to:

1. *Understand the purpose of working papers*
2. *Organize working paper files*
3. *Determine the content of working papers*
4. *Understand ownership and custody of working papers*

Evidence compiled in engagements is assembled in working papers, the practitioner's principal record of the work performed and the conclusions reached. The professional literature addresses working papers, but the guidance is limited. In practice, an individual working paper page may take virtually any form. Any documentary evidence bearing on management's assertions could potentially be presented as a working paper. The specific quantity, form, and content of working papers varies from one engagement to another. The practitioner's judgment about the quantity, form, and content of working papers for a particular engagement should be guided by factors such as:

1. The nature of management's assertions
2. The nature of the report
3. The nature and condition of the client's records
4. The extent of risk
5. The need for supervision and review

There are two types of working paper files, current and permanent. Current files should contain evidence of the entity's current account balances. Permanent files should contain items of continuing interest such as articles of incorporation and pension plan contracts. The practitioner should prepare and maintain working papers that are designed to meet the circumstances of a particular engagement. The information contained in working papers constitutes the principle record of the work that the practitioner has done and the conclusions that have been reached concerning significant matters. Working papers provide the principle support for the practitioner's report. The quantity, type, and content of working papers should be sufficient to show that the accounting records agree or reconcile with the financial statements or other information reported on.

Working papers are the property of the practitioner. Some states have statutes that designate the practitioner as the owner of the working papers. The practitioner's rights of ownership, however, are subject to ethical limitations relating to the confidential relationship with clients. Certain practitioner's working papers may sometimes serve as a useful reference source for the client, but the working papers should not be regarded as a part of, or a substitute for, the client's accounting records. The practitioner should adopt reasonable procedures for safe custody of the working papers and should retain them for a period sufficient to meet the needs of the practice and to satisfy any legal requirements of records retention.

Recommended working papers include:

1. Engagement letter
2. Evidence of obtaining knowledge of the industry
3. Evidence of obtaining knowledge of the client
4. Working trial balance
5. Adjusting journal entries
6. Copy of accounting policies and procedures
7. Guide to compilation of financial statements
8. Time budget
9. Engagement summary checklist
10. Copies of reports and workpapers of other accountants
11. Memorandum of unusual matters encountered
12. Financial statement disclosure checklist
13. Other working papers developed from the performance of specific procedures

REVIEW QUESTIONS—WORKING PAPERS

1. All of the following would be included in the working papers for a compilation engagement **except**:

    a. the engagement letter.
    b. a working trial balance.
    c. the client's individual tax return.
    d. a time budget.

2. Which of the following examples of financial information is **not** covered in SSARS?

    a. personal financial plans
    b. practitioner's working papers
    c. notes to financial statements
    d. balance sheet and income statements

3. Working papers:

    a. provide qualification for client billing.
    b. support the work done by the accountant.
    c. provide documentation for the information presented in the financial statements.
    d. provide and organize the collection of the supporting documentation.

4. Working papers should be:

    a. retained by the practitioner for ten years.
    b. turned over to the client at the end of the year.
    c. attached to the financial statements given to the bank.
    d. representative of the backup documentation for the accountant's product.

5. Which of the following factors would **least** likely affect the quantity and content of a practitioner's working papers?

    a. The condition of the client's records.
    b. The nature of the engagement.
    c. The nature of the practitioner's report.
    d. The content of the representation letter.

6. All of the following are working papers **except**:

   a. the engagement letter.
   b. the financial statements.
   c. the working trial balance.
   d. the time budget.

7. The specific quantity, form, and content of working papers can vary from one engagement to another. The practitioner's judgment about the working papers for a particular engagement should be guided by:

   a. the nature of the report.
   b. whether or not the client uses a manual or computerized accounting system.
   c. the client's profitability.
   d. whether or not the client requests their usage.

8. Although the quantity and content of working papers vary with each particular engagement, a practitioner's permanent files most likely include:

   a. schedules that support the current year's adjusting entries.
   b. prior year's time budgets.
   c. bank reconciliations for the current year.
   d. articles of incorporation.

9. Which of the following factors would affect a practitioner's judgment about the quantity, type, and content of the working papers?

   a. The nature of the engagement
   b. The likelihood of a review by a partner
   c. The number of personnel assigned to the engagement
   d. The content of the management representation letter

10. A practitioner's working papers serve mainly to:

   a. provide the principal support for the practitioner's report.
   b. satisfy the practitioner's responsibilities concerning the Code of Professional Conduct.
   c. monitor the effectiveness of the firm's quality control procedures.
   d. document the level of independence maintained by the practitioner.

REVIEW QUESTION SOLUTIONS—WORKING PAPERS

1.	C
2.	B
3.	C
4.	D
5.	D
6.	B
7.	A
8.	D
9.	A
10.	A

REPORT LETTERS

After reviewing this chapter, you should recognize and understand:

1. *Compilation report—single year*
2. *Compilation report—comparative statement*
3. *Compilation report—disclosures omitted*
4. *Compilation report—lack of independence*
5. *Compilation report—going concern*
6. *Compilation report—personal financial statements*
7. *Compilation report—personal financial statements disclosures omitted*
8. *Compilation report—personal financial statement cost basis*

Compiled financial statements are accompanied by an accountant's report dated as of the day the compilation was completed. The report describes the scope of the accountant's work, includes a statement about the nature and limitations of a compilation, and states explicitly that an audit was not performed and an opinion is not expressed. Each page of the compiled financial statements should include a reference such as "See Accountant's Compilation Report." If not independent of the client, an accountant may still compile statements, although the last paragraph of the report should read, "we are not independent with respect to XYZ Company." Even though a compilation does not require determining whether financial statements conform with GAAP, an accountant may nevertheless become aware of material departures. If a client does not revise the statements to conform with GAAP, the accountant should consider revising the standard compilation report. Following are a series of Compilation Report examples, they are intended for illustrative purposes only and should not be used in practice without first having them reviewed by legal counsel.

Compilation Report—Single Year

We have compiled the accompanying balance sheet of XYZ, Corp. as of December 31, 2000, and the related statements of income, retained earnings and cash flows for the year then ended, in accordance with Statements on Standards for Accounting and Review Services issued by the American Institute of Certified Public Accountants.

A compilation is limited to presenting, in the form of financial statements, information that is the representation of management. We have not audited or reviewed the accompanying financial statements and, accordingly, do not express an opinion or any other form of assurance on them.

Compilation Report—Comparative Statements

We have compiled the accompanying balance sheet of XYZ, Corp. as of December 31, 1999 and 2000, and the related statements of income, retained earnings and cash flows for the year then ended, in accordance with Statements on Standards for Accounting and Review Services issued by the American Institute of Certified Public Accountants.

A compilation is limited to presenting, in the form of financial statements, information that is the representation of management. We have not audited or reviewed the accompanying financial statements and, accordingly, do not express an opinion or any other form of assurance on them.

Compilation Report—Disclosures Omitted

We have compiled the accompanying balance sheet of XYZ, Corp. as of December 31, 2000, and the related statements of income, retained earnings and cash flows for the year then ended, in accordance with Statements on Standards for Accounting and Review Services issued by the American Institute of Certified Public Accountants.

A compilation is limited to presenting, in the form of financial statements, information that is the representation of management. We have not audited or reviewed the accompanying financial statements and, accordingly, do not express an opinion or any other form of assurance on them.

Management has elected to omit, substantially, all of the disclosures required by generally accepted accounting principles. If the omitted disclosures were included in the financial statements, they might influence the user's conclusions about the company's financial position, results of operations, and cash flows. Accordingly, these financial statements are not designed for those who are not informed about such matters.

Compilation Report—Lack of Independence

We have compiled the accompanying balance sheet of XYZ, Corp. as of December 31, 2000, and the related statements of income, retained earnings and cash flows for the year then ended, in accordance with Statements on Standards for Accounting and Review Services issued by the American Institute of Certified Public Accountants.

A compilation is limited to presenting, in the form of financial statements, information that is the representation of management. We have not audited or reviewed the accompanying financial statements and, accordingly, do not express an opinion or any other form of assurance on them.

We are not independent with respect to XYZ Corp.

Compilation Report—Going Concern

We have compiled the accompanying balance sheet of XYZ, Corp. as of December 31, 2000, and the related statements of income, retained earnings and cash flows for the year then ended, in accordance with Statements on Standards for Accounting and Review Services issued by the American Institute of Certified Public Accountants.

A compilation is limited to presenting, in the form of financial statements, information that is the representation of management. We have not audited or reviewed the accompanying financial statements and, accordingly, do not express an opinion or any other form of assurance on them.

As shown in the financial statements, the company incurred a net loss of $XXX,XXX for 2000 and has incurred substantial net losses for each of the past X years. At December 31, 2000, current liabilities exceed current assets by $XX,XXX, and total liabilities exceed total assets by $XXX,XXX. These factors, and others discussed in Note A, indicate that the company may be unable to continue in existence. The financial statements do not include any adjustments relating to the recoverability and classification, of recorded assets or the amounts and classifications of liabilities that might be necessary in the event the company cannot continue in existence.

Compilation Report—Personal Financial Statement

We have compiled the accompanying statement of financial condition of James and Jane Doe as of December 31, 2000, and the related statements of changes in net worth for the year then ended, in accordance with Statements on Standards for Accounting and Review Services issued by the American Institute of Certified Public Accountants.

A compilation is limited to presenting, in the form of financial statements, information that is the representation of the individuals whose financial statements are presented. We have not audited or reviewed the accompanying financial statements and, accordingly, do not express an opinion or any other form of assurance on them.

Compilation Report—Personal Financial Statement, Disclosure Omitted

We have compiled the accompanying statement of financial condition of James and Jane Doe as of December 31, 2000, and the related statements of changes in net worth for the year then ended, in accordance with Statements on Standards for Accounting and Review Services issued by the American Institute of Certified Public Accountants.

A compilation is limited to presenting, in the form of financial statements, information that is the representation of the individuals whose financial statements are presented. We have not audited or reviewed the accompanying financial statements and, accordingly, do not express an opinion or any other form of assurance on them.

James and Jane Doe have elected to omit, substantially, all of the disclosures required by generally accepted accounting principles. If the omitted disclosures were included in the financial statements, they might influence the user's conclusions about the financial condition of James and Jane Doe and changes in their net worth. Accordingly, these financial statements are not designed for those who are not informed about such matters.

Compilation Report—Cost Basis

We have compiled the accompanying statement of financial condition of James and Jane Doe as of December 31, 2000, and the related statements of changes in net worth for the year then ended, in accordance with Statements on Standards for Accounting and Review Services issued by the American Institute of Certified Public Accountants.

A compilation is limited to presenting, in the form of financial statements, information that is the representation of the individuals whose financial statements are presented. We have not audited or reviewed the accompanying financial statements and, accordingly, do not express an opinion or any other form of assurance on them. However, we did become aware of a departure, from generally accepted accounting principles, that is described in the following paragraph.

As discussed in Note X, to the financial statements, generally accepted accounting principles require that assets be presented at their estimated current values and that liabilities be presented at their estimated current amounts. James and Jane Doe have informed us that their investment in ABC Company is stated in the accompanying financial statements at cost and that the effects of this departure from generally accepted accounting principles on their financial condition and changes in their net worth have not been determined.

REVIEW QUESTIONS—REPORT LETTERS

1. When compiling statements on an Other Comprehensive Basis of Accounting (OCBOA) and substantially all disclosures are omitted, which of the following courses of action is appropriate?

   a. No action is necessary, since disclosures are not required in OCBOA engagements.
   b. Include a discussion in the notes to the financial statements.
   c. Modify the accountant's report to reflect the omission.
   d. Withdraw from the engagement.

2. You are about to issue a report on the compiled financial statements of XYZ Company. However, you feel you are not independent because you are an officer and 20% stockholder in the company. Which of the following is applicable?

   a. You should not be performing a compilation when you are not independent.
   b. You should modify your report by adding the following sentence to the last paragraph:
      "I am not independent with respect to XYZ Company."
   c. You should modify your engagement letter by adding the following sentence to the last paragraph:
      "I am not independent with respect to XYZ Company."
   d. No modification of the report letter is required, since independence is not required in a compilation engagement.

3. The objective of a compilation report is to express which form of assurance?

   a. Limited assurance on the financial statements
   b. Implied assurance on the representation of management
   c. Reasonable assurance on the financial statements
   d. No assurance on the financial statements

4. When the accountant presents compiled financial statements, the presentation:

   a. assumes the accountant achieved a level of limited assurance with respect to the financial information presented.
   b. assumes the accountant did not perform any other services prior to compiling the financial statements.
   c. presents in the form of financial statements, information that is the representation of management.
   d. presume no work – proper effort on the part of the accountant.

5. What kind of opinion can be rendered from a compilation service?

   a. Compilations do not result in opinions on financial statements.
   b. Assurance that the financial statements reflect the financial position of the business entity.
   c. Assurance that the financial statements are mathematically correct.
   d. Assurance that the accountant is independent.

6. When comparative financial statements of a non-public entity are presented without audit or review, the successor accountant's compilation report must:

   a. cover both years.
   b. include a paragraph explaining the report issued by the predecessor accountant regarding the prior year's statements.
   c. include a paragraph explaining the report issued by the predecessor accountant regarding the prior year's statements, or the predecessor's report must be reissued.
   d. include an updated report expressing a compilation assurance regarding both years.

7. The report letter is an essential part of the financial statement presentation because the:

   a. statement reader needs to have certain items in narrative form.
   b. accountant should communicate certain essential items to the statement reader.
   c. report letter relieves the accountant of legal liability.
   d. report letter makes the statement more understandable.

8. Which of the following is included in a compilation report?

   a. A brief description of the client's business
   b. An explanation that the scope of the compilation is inconclusive
   c. A statement that the information in the financial statements is management's representation
   d. A brief opinion concerning the client's records

9. An accountant may report on financial statements of a non-public client that omit substantially all disclosures, including those that normally appear in the body of the financial statements:

   a. providing a disclaimer of opinion is issued regarding the omitted disclosures.
   b. in both compilation and review engagements.
   c. providing a reservation paragraph accompanies the accountant's compilation report explaining the omission of the disclosures and warning the reader of the limited usefulness of the statements.
   d. providing an adverse opinion is issued regarding the omitted disclosures.

10. A former client requests a predecessor accountant to reissue a compilation report on a prior period's financial statements. The financial statements are not restated and the report is not revised. What date(s) should the predecessor accountant use in the restated report?

   a. The date of the prior-period report
   b. The date of the client's request
   c. The date of reissue
   d. The dual-dates

REVIEW QUESTION SOLUTIONS—REPORT LETTERS

1.	C
2.	B
3.	D
4.	C
5.	A
6.	C
7.	B
8.	C
9.	C
10.	A

Table of Contents

BUSINESS LAW

PROPERTY LAW

After studying this topic, you should be able to:

1. *Describe the nature and classification of personal and real property*
2. *Describe different ways in which ownership rights in property can be held*
3. *Understand the various types of rights and interests in real property*
4. *Understand the basic legal requirements to the acquisition and sale of real property*
5. *Describe recording requirements for real property deeds*
6. *Understand government controls over land use*

Property consists of the legally protected rights and interests a person (or entity) has in anything that is capable of being owned. The importance of property rights is reflected in the Fifth Amendment of the United States Constitution, which provides that "no person shall be deprived of life, liberty, or **property**, without due process of law; nor shall private **property** be taken for public use, without just compensation."

Traditionally, property has been classified as being either real property or personal property. Real property includes lands and things such as structures that are permanently attached to the land, as well as things beneath the surface of the land such as oil, gas, and minerals. The terms realty and real estate are synonyms for real property. Personal property, or personalty, includes rights and interests in tangible and intangible things, other than real property, which are capable of being possessed. Items of personal property are sometimes referred to as chattels.

Property is not an object itself. Rather, property is the collection of rights and interests associated with ownership that are protected by law.

Personal property can be either tangible or intangible. Tangible personal property consists of moveable property that has physical substance and can be physically possessed. Intangible personal property lacks physical existence such as contract rights, stocks, bonds, ideas, patents, trademarks, copyrights, goodwill, and computer programs.

Real property includes land, air space, and subsurface rights, plant life and vegetation, and fixtures. Land includes the soil itself, bodies of water on or beneath the surface, natural plant life and vegetation growing on the land, and structures that are permanently attached to the land.

The owner of real property has rights to the air immediately above the land sufficient to have a cause of action based upon trespass for a direct interference with the use and enjoyment of the land. A property owner has exclusive rights to minerals, oil, and other matter found beneath the surface and may transfer these rights to another person.

When real property is sold, the sale includes crops that are growing on the land unless otherwise specified in the contract for sale. When crops or trees are sold separately, the sale is governed by Section 2-107 of the Uniform Commercial Code.

Fixtures are things that are affixed or permanently attached to real property; fixtures are included in the sale of real property unless the contract for sale provides otherwise. The objective intention of the party who placed the item determines whether or not the item is a fixture. Items attached to rented premises by a tenant (who pursues a trade or business) in connection with the tenant's business are treated as personal property of the tenant and usually are intended to be removed by the tenant. If their removal causes harm to the premises, the tenant is required to reimburse the landlord. If fixtures are not trade fixtures, they are usually treated as part of the real property and are not removable by the tenant.

Property ownership rights include the right to possession of the property and the right to transfer or dispose of the property. Fee simple describes the entire collection of ownership interests in property that can be transferred during the lifetime of the owner by sale or gift and by inheritance. Concurrent ownership refers to the fact that property can be owned by two or more persons at the same time. Tenancy in common, joint tenancy with the right of survivorship, tenancy by the entirety, and community property are forms of concurrent ownership.

Tenancy in common exists when two or more people own undivided shares (equal or unequal) in property that are transferable during their lifetimes and by inheritance without rights of survivorship among the co-tenants.

Joint tenancy with the right of survivorship is when two or more persons own equal undivided interests (acquired simultaneously) and have equal rights to use the property and equal rights of survivorship. Today in most states there is a presumption that a co-tenancy is a tenancy in common unless there is a clear expressed intention to establish a joint tenancy. The transferor must have clearly indicated an intention to create a joint tenancy. A joint tenant may sever and transfer his or her interest during the joint tenant's lifetime (known as partition).

A joint tenancy existing between spouses, which cannot be transferred by either spouse without the consent of the other, is tenancy by the entirety. Undivided interests held by spouses in property acquired during the course of a marriage in Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas, Washington, Wisconsin, and Puerto Rico is community property.

The ownership of personal property can be acquired through purchase, possession, production, gift, will or inheritance, or accession. The most common method of acquiring and transferring ownership of personal property is by purchase, which is covered by Article 2 of the Uniform Commercial Code. A person may take possession of unowned property, such as wild animals, fish in their natural state, and personal property that has been voluntarily abandoned.

Property that is created through mental or physical labor belongs to the producer or creator. Patents, trademarks, and copyrights are examples of created property. Patents give inventors monopolies or exclusive right to use their inventions for seventeen years. Trademarks are protected by a federal statute that provides for perpetual protection from infringement to the person who first adopts and uses a distinctive symbol, design, or mark. Federal statutes protecting copyrights prohibit reproduction of literary or other creative works without permission for the life of the creator plus fifty years.

A gift is a voluntary transfer of ownership rights without consideration. A gift can be made during the lifetime of the donor or in a last will and testament. The requirements for an effective gift are delivery, donative intent, and acceptance by the donee.

Accession is the annexation or addition of new value to an existing item of personal property through the use of labor or materials.

A bailment is a legal relationship that is created when one person, the bailor, delivers temporary possession of personal property to another person, the bailee, who has a duty to return the property to the bailor or to deliver the property or dispose of the property as directed by the bailor. In a bailment, possession of the property, but not ownership interests in or title to the property, is given to the bailee.

Estates in land are collections of rights associated with ownership of real property; a "fee" is an estate in land that can be conveyed or transferred by sale, gift, or inheritance. The fee simple absolute gives the owner all the rights, privileges, and power that a person can possess in land. There are no limitations or conditions on the exclusive right to use and enjoy the land for whatever purposes the holder of the fee wishes other than those activities which unreasonably interfere with the rights of other people to the quiet enjoyment of their land and those activities which are prohibited by applicable zoning laws. A fee simple absolute is potentially infinite in duration and can be transferred by deed or by will.

A life estate is an ownership interest in land that exists until the death of a specified person or persons. The duration of a life estate may not be inherited by another person but may be conveyed during the lifetime of the person by whose life the estate is measured. A life tenant has the right to possess, use, and convey his or her specific interest in the property and has an obligation to pay taxes, make repairs, and not cause an impairment in the value of the land. Life estates may be created by voluntary acts of the parties or by operation of law.

An easement is the limited right to make use of real property belonging to another person without taking anything from the property. Such uses may include the right to place utility lines under the ground or to travel across the land on a private road. Easements may be express (oral or written) or implied. There are many types of easements and ways that they can be acquired.

A leasehold estate is created when the owner of real property conveys the qualified right to possess and use the property to the tenant for a determinable period of time. Leasehold estates are distinguishable from estates in fee or life estates that are of indefinite duration and referred to as freehold estates. A tenant's right to exclusive possession is qualified because the landlord has a right to enter the property to ensure that waste is not being committed. A lease is usually for a specified period of time. Notice of termination of the lease at the end of the term is not necessary. If the tenant dies, the rights under the lease are treated as part of the decedent's personal property.

In order to transfer an interest in land by sale or gift, a conveyance is made by delivery of a document called a deed. A deed contains the names of the grantor and the grantee, description of the property and the interest being conveyed, words indicating the grantor's present intention to make a transfer of title to real property, and the grantor's signature. If there are multiple owners of the property, all of them must be named and all must sign. In many states the spouse of a grantor must be named and sign the deed. A deed may be classified according to the interests that the deed conveys and the degree of protection that the deed provides against defects in the title to the property because of clauses included in the deed. A warranty deed contains the most extensive protection against defects in title, including:

1. The grantor has title and the right to convey.
2. The property is not subject to any outstanding rights that would diminish the value of the land.
3. No one has a superior title and no one will disturb possession.

A special warranty deed includes all of the covenants of a warranty deed but warrants only against defects in title arising when the grantor had title. A quitclaim deed transfers only that title which the grantor had and contains no warranties. A grant deed includes implied warranty that the grantor owns the property and has not previously encumbered the property or conveyed the property to another person. A sheriff's deed transfers ownership rights to a buyer at a sale held in order to satisfy a judgment.

After the grantor signs the deed before a notary public, the deed is recorded in a public office in the county in which the real property is located. Recording gives notice to the whole world that the grantee is the owner of the property. The types of recording statutes include:

1. Race statute—The first grantee to record a deed has a superior right to the property.
2. Pure notice statute—A good faith purchaser who purchases the property for value in good faith and without notice has a superior right over other persons, including a person who may have first recorded a deed but who had knowledge of the prior transfer.

3. Notice-race statute—protects a purchaser who records first without knowing that another person had already bought the property.

Owners of real property must comply with laws relating to nuisance, environmental protection, and taxes. Real property can be seized in order to satisfy judgments obtained by creditors to whom the owner is indebted. The government has the power of eminent domain to acquire real property for public use or purpose in accordance with the Fifth Amendment of the United States Constitution requirement that "just compensation" be paid to the owner.

Local regulations, adopted for land use control, are known as zoning laws or regulations. State and local governments can control the use of land by exercising their police power in order to protect the public health, safety, morals, and general welfare without the payment of compensation. A variance may be granted to an owner whose use of land is limited by existing zoning regulation in order to use the land for an alternative purpose. Property owners may be required to apply for and obtain permits prior to the construction of improvements to real property. Restrictions may be included in a permit if they "substantially advance legitimate state interests" and do not deny "an owner economically viable use of his land." (*Agins* v. *Tiburon*)

PROPERTY
REVIEW QUESTIONS

1. Bob and Carol take title to a sport utility vehicle (SUV) in such a way that if one of them dies, the other will be the sole owner. Bob and Carol own the SUV as:

   a. co-owners in fee simple.
   b. co-owners of community property.
   c. joint tenants.
   d. tenants in common.

2. Brice and Mary own their recreational vehicle (RV) in a tenancy by the entirety. This means that:

   a. neither party may transfer separately his or her interest during his or her lifetime.
   b. on the death of either party, the survivor has no rights in the deceased's share of the RV.
   c. they hold the RV as community property.
   d. they hold the RV as tenants in common.

3. Max places stock certificates in an envelope, writes "For My Assistant Nora" on the envelope, and places it in a drawer. Max dies before Nora obtains the envelope. This is acquisition of personal property, on Nora's part, by:

   a. capture.
   b. find.
   c. gift.
   d. Nora does not acquire the personal property.

4. Pauline's parents give her a car as a college graduation present. Her friend Rhoda agrees to keep the car while Pauline interns for the summer in Europe. The car is in Rhoda's garage. This is acquisition of personal property on Pauline's part by:

   a. capture.
   b. find.
   c. gift.
   d. none of the above.

5. Fran gives Greg a computer as a gift. Using the computer, Greg develops a new computer game. Greg obtains intellectual property protection for the game and forms New Games, Inc., to make and market it. Greg's acquisition of the game is by:

   a. accession.
   b. confusion.
   c. production.
   d. none of the above.

6. Alice is an elderly woman of questionable mental competence. Alice's children have arranged for a hired companion, Judy, to live with Alice and tend to her needs. Three weeks later, very appreciative of Judy's ministrations, Alice gave Judy the family diamonds, which were stored in a wall safe in Alice's bedroom and worth a fortune. If the children challenge the gift, the court:

   a. will hold that Judy has title to the property because all of the requirements for an effective gift have been met.
   b. will not interfere on the children's behalf because of the long-standing public policy that people should be free to dispose of their property as they wish even if it results in unfairness.
   c. would have reasonable grounds to conclude that donative intent was lacking, and therefore the gift was not effective.
   d. would declare that Alice had not given up complete control or dominion of the property (because the children could challenge the validity of the gift) and therefore the gift was never effectively delivered.

7. George buys a new car and tells his son, Edgar, that Edgar can have George's old Buick. George gives Edgar the keys to the Buick, but keeps an extra set for his own future use (just in case he wants to use the car and Edgar will not agree). George also keeps the title to the car in his own name. In this situation:

   a. an effective delivery has not been accomplished because George can still exercise dominion and control over the car.
   b. by giving Edgar the car keys, George has constructively and effectively delivered the car to his son.
   c. an effective delivery has been accomplished because Edgar now has possession of the automobile.
   d. none of the above.

8. Bridget's Uncle Rob, on his death bed, tells her that she can have his coin collection when he dies even though his will provides that all of his personal property will go to his son, Phil. Bridget accepts the gift. Rob dies shortly thereafter. In these circumstances, who will receive the coin collection and why?

   a. Bridget, because she accepted Rob's gift before he died.
   b. Phil, because inter vivos gifts are always revoked by a will to the contrary.
   c. Phil, because a valid gift of the coin collection to Bridget was not made during Rob's lifetime.
   d. Bridget, because the causa mortis gift was not revoked prior to Rob's death.

9. Rhonda stopped by the cleaners on her way home from school, set her business law text on the counter, picked up and paid for her cleaning, and went home (forgetting about her textbook). James, who works part-time at the cleaners, notices that Rhonda left her book and considers calling her about it at the telephone number given on the cleaning receipt. Ultimately, however, he decides to keep the book as a "finder" and sell it to a store down the street specializing in used textbooks. Has James acquired any ownership rights in the book as a "finder"?

   a. No, because the property is lost property and James knows who the true owner is; therefore, if he asserts ownership over the book, he will be guilty of the tort conversion.
   b. No, because the property is mislaid property, and as an agent of the cleaners, James is obligated to turn over the book to his employer, who must hold and take reasonable care of the book until Rhonda returns for it.
   c. Yes, because Rhonda abandoned her textbook, and one who finds abandoned property acquires good title to it, and that title is good against all persons, including the true owner.
   d. Yes, because the property is lost property, and it is possible that Rhonda may not remember where she left the book.

10. Karen placed an expensive watch in her coat pocket to deliver to the jeweler for repairs. When she arrived at the jewelry shop, she noticed that the watch was missing and also realized why (the entire seam of the bottom part of her coat pocket had come loose). Suzette found the watch on a downtown sidewalk and, despite all reasonable attempts to locate the owner, failed to do so. In this situation, Suzette:

    a. can claim title to the watch against the whole world, including Karen.
    b. can claim title to the watch against the whole world, except Karen.
    c. can never claim title to the watch, because it is mislaid property, and she must hold on to it for Karen.
    d. must turn the watch over to the police to avoid liability for conversion.

11. Jack loans his laptop computer to Kay. This is a bailment for:

    a. the sole benefit of the bailee.
    b. the sole benefit of the bailor.
    c. the mutual benefit of the bailee and the bailor.
    d. none of the above.

12. Larry leaves his car at Mac's Service Station for an oil change. This is a bailment for:

    a. the sole benefit of the bailee.
    b. the sole benefit of the bailor.
    c. the mutual benefit of the bailee and the bailor.
    d. none of the above.

13. Pat borrows Ron's lawnmower to mow his lawn. Sara allows Tim to store his outdoor grill in her shed. The party who has the right to use the bailed property is:

    a. Pat only.
    b. Sara only.
    c. Pat and Sara.
    d. none of the above.

14. Arthur rents a snow blower from Equipment Rentals Unlimited. While the snow blower is in Arthur's possession, it is damaged by a stranger. Will Arthur be liable to Equipment Rentals Unlimited for the damage?

    a. Yes, because a bailee is always strictly liable for damages to bailed property.
    b. Yes, unless Arthur can prove that the damage occurred through no fault of his own.
    c. No, because the rental contract did not specifically state that Arthur would be liable for damages if a stranger damaged the snowblower.
    d. No, because Arthur did not personally cause the damage.

15. Claude borrowed an extension ladder from his neighbor, Raymond, to use while painting his house. Raymond was not aware that one of the rungs on the ladder was loose. As a result of the loose rung, Claude fell while climbing the ladder and broke his leg. If Claude sues Raymond for damages on the grounds that Raymond should have told him about the loose rung, will Raymond be liable?

    a. Yes, because a bailor has a duty to notify the bailee of any defects in the bailed property, including hidden defects that could have been discovered by reasonable inspection.
    b. No, because this was a bailment for the sole benefit of the bailee, and therefore the bailor had no duty to disclose hidden defects of which of the bailor was not aware.
    c. Yes, because a bailor is strictly liable in all circumstances for damages caused by defects in bailed property.
    d. No, because this was a mutual-benefit bailment, and therefore the bailor had no duty no notify the bailee of hidden defects in the bailed property of which the bailor was not aware.

16. Quality Farms, Inc., owns land in Kansas. Attached to the land are natural products (crops, grasses, and trees) and structures (houses and buildings). The "land" includes:

    a. the natural products only.
    b. the structures only.
    c. the natural products and the structures.
    d. none of the above.

17. Midtown Development, Inc., owns a city block in Los Angeles. Besides the land, Midtown has relatively exclusive rights to:

    a. only the air space above the land.
    b. only the soil and minerals underneath the land.
    c. the air space above the land, and the soil and minerals underneath it.
    d. none of the above.

18. Steve owns farmland on which there are growing crops. Steve sells the land to Tina under a contract that specifically excludes the crops. The sale:

    a. does not include the crops, because of the sales contract.
    b. does not include the crops, regardless of the sales contract.
    c. includes the crops, because of the sales contract.
    d. includes the crops, regardless of the sales contract.

19. Mary owns a house in which there are cabinets and counters in the kitchen and bathroom. Mary sells the house to Pete under a contract that does not specifically exclude the fixtures. The sale:

    a. does not include the fixtures because of the sales contract.
    b. does not include the fixtures regardless of the sales contract.
    c. includes the fixtures because of the sales contract.
    d. includes the fixtures regardless of the sales contract.

20. Owen has possession of a parcel of land. Owen has the right to use the property, including extracting copper from the land through an existing mine, for life. Owen also has the right to lease the land for a period not to exceed his life. The ownership interest is:

    a. a fee simple absolute.
    b. a future interest.
    c. a leasehold estate.
    d. a life estate.

21. Commercial Construction Corporation (CCC) has a right to drive its trucks across Midstate Company's property, which is adjacent to CCC's property. CCC's right is:

   a. an easement.
   b. a license.
   c. a profit.
   d. a covenant of seisin.

22. Ronny's land is burdened by an easement. The easement is properly recorded in the appropriate county office. If Ronny sells his land to Karen:

   a. the land will continue to be burdened by the easement.
   b. the sale to Karen will extinguish the easement.
   c. the land will continue to be burdened by the easement, but only if Karen had actual notice of the easement at the time of the sale.
   d. the easement will become a license to the party benefited by the easement, and Karen has the power to revoke the license at any time.

23. Grant wants to transfer the ownership of his warehouse to Lee by deed. To do so requires:

   a. only the grantee's signature.
   b. only the grantor's signature.
   c. the grantee's and the grantor's signatures.
   d. none of the above.

24. Sun City wants to acquire undeveloped land within the city limits to convert into a public park. Sun City brings a judicial proceeding to obtain title to the land. This is an exercise of:

   a. adverse possession.
   b. constructive eviction.
   c. the covenant of seisin.
   d. the power of eminent domain.

25. To widen a highway the state of Ohio obtains, through a judicial proceeding, title to the individual lots in a residential neighborhood. A subsequent proceeding will determine:

    a. how much the former owners should be paid for their property.
    b. how soon the former owners should vacate their property.
    c. how wide the highway should be.
    d. whether the planned highway would violate any zoning laws.

26. Zucker leases an apartment from Machlin and agrees to make monthly rent payments on the first of every month. No definite lease term is specified in the lease agreement. This is:

    a. a tenancy for years.
    b. a tenancy at will.
    c. a tenancy in common.
    d. a periodic tenancy.

27. Loretta rents a basement apartment from Larry. Larry refuses to fix a serious plumbing problem, and the basement floods every time Loretta uses the water. Larry has breached the:

    a. implied warranty of habitability.
    b. covenant of quiet enjoyment.
    c. warranty against waste.
    d. warranty of possession.

28. Real property means:

    a. the land and all items which can be found on it.
    b. the land and all fixtures attached to it.
    c. the land and nothing else man-made.
    d. only the buildings—not the earth on which the buildings sit.

29. A deed which conveys promises that the grantor is conveying the property free of defects is known as:

    a. a quitclaim deed.
    b. a warranty deed.
    c. a special warranty deed.
    d. all of the above.

30. After a warranty deed has been conveyed to Jim, he places it in his drawer and does not record it. Subsequently, the original landowner secures debt with a mortgage against the property he has already conveyed to Jim and the innocent mortgagee immediately records the mortgage deed. Jim:

a. owns clear title and the mortgagee is without recourse since the grantor no longer owned the property when the mortgage deed was conveyed.
b. owns clear title; however, the mortgagee has a claim against the original landowner.
c. does not have clear title since the original owner conveyed only a limited interest in the property.
d. does not have clear title because his deed was unrecorded and is therefore in most jurisdictions void against the innocent mortgagee.

PROPERTY LAW

REVIEW QUESTION SOLUTIONS

1.	C
2.	A
3.	D
4.	C
5.	C
6.	C
7.	A
8.	C
9.	B
10.	B
11.	A
12.	C
13.	A
14.	B
15.	B
16.	C
17.	C
18.	A
19.	C
20.	D
21.	A
22.	A
23.	B
24.	D
25.	A
26.	D
27.	A
28.	B
29.	B
30.	D

PROPERTY LAW

Explanation of Review Question Solutions

1. The correct answer is C, joint tenants (with right of survivorship). Tenancy in common exists when two or more people own undivided shares (equal or unequal) in property that are transferable during their lifetimes and by inheritance without rights of survivorship among the co-tenants (D). Co-tenants are partners in ownership where two or more people own property together. Co-tenants in community property is when two married individuals own undivided interests in property (B). Community property exists in the ten community property states of Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas, Washington, Wisconsin, and Puerto Rico. Fee simple (A) describes the entire collection of ownership interests in property that can be transferred during the lifetime of the owner by sale or gift and by inheritance.

2. The correct answer is A. Tenancy by the entirety is tenancy in common that exists between two spouses, which cannot be transferred by either spouse without the consent of the other, and on the death of one spouse the other inherits the interest of the deceased. Selection B is wrong, since on death of either party, the survivor inherits the deceased's share of the property. Tenancy by the entirety is a tenancy in common (D) that is between two spouses. Community property (C) exists in the ten community property states (see #1).

3. The correct answer is D. A gift is a voluntary transfer of ownership rights without consideration during the lifetime of the owner or in the last will and testament. A gift must be delivered to the donee, with donative intent on the part of the donor, and accepted by the donee. This "gift" was not delivered during the lifetime of the donor, and therefore was not a gift, so the title does not transfer (C).

4. The correct answer is C, gift. A gift is a voluntary transfer of ownership rights without consideration during the lifetime of the owner or in the last will and testament. A gift must be delivered to the donee, with donative intent on the part of the donor, and accepted by the donee. The question asks about Pauline. Rhoda is a different story, since she does not receive title to the property, but is merely holding it for Pauline.

5. The correct answer is C, production. Property that is created through mental or physical labor belongs to the producer or creator. Accession (A) is the annexation or addition of new value to an existing item of personal property through the use of labor or materials. This is not accession since the computer does not add new value by the production of a new piece of game software separate from the computer. Confusion (B) might be what some people have when they get this question, but it does not constitute a valid answer. "None of the above" is false, since production is the correct answer.

6. The correct answer is C. A gift is a voluntary transfer of ownership rights without consideration during the lifetime of the owner or in the last will and testament. A gift must be delivered to the donee, with donative intent on the part of the donor, and accepted by the donee. Donative intent requires mental competence.

7. The correct answer is A. A gift is a voluntary transfer of ownership rights without consideration during the lifetime of the owner or in the last will and testament. A gift must be delivered to the donee, with donative intent on the part of the donor, and accepted by the donee. Effective delivery requires that the donor give to the donee all tenants and powers of ownership. In this case the donor can still exercise dominion and control over the car.

8. The correct answer is C. A gift is a voluntary transfer of ownership rights without consideration during the lifetime of the owner or in the last will and testament. A gift must be delivered to the donee, with donative intent on the part of the donor, and accepted by the donee. Bridget did not physically receive the gift during Rob's lifetime (inter vivos). Inter vivos gifts are not revoked by a will to the contrary. Gifts given during life, if they are perfected by receipt of the item, donative intent, delivery to the donee, and acceptance by the donee, cannot be revoked by a will.

9. The correct answer is B. Property not in the possession of the owner is considered one of three categories: lost, mislaid, or abandoned. Lost property is that which the owner has misplaced accidentally. Mislaid is where owner places something somewhere but forgets where the item is. Abandoned involves the voluntary intent to relinquish all rights to the property. In this question, the property is not lost or abandoned property but mislaid property and must be cared for in a reasonable manner until the owner of the book returns for it.

10. The correct answer is B. In actuality, there are unclaimed property laws in most states that require that all unclaimed property must be turned over to the state for safekeeping until the owner claims it. However, under common law the person who finds lost property, and makes all reasonable attempts to find the owner, can use the property, in this case the watch, as her own until the owner claims it.

11. The correct answer is A, for the sole benefit of the bailee. The bailor, or owner of the property, does not benefit by loaning it to the bailee; therefore B and C are wrong, as well as D.

12. The correct answer is C, for the mutual benefit of the bailee and the bailor. Both the bailee and the bailor will benefit from the bailee changing the bailor's oil for a fee. The other answers are wrong.

13. The correct answer is A, Pat only. Pat has been given permission to use the lawnmower. Tim, the bailor, has only given Sara, the bailee, permission to store his outdoor grill in her shed. Sara does not have permission to use the outdoor grill.

14. The correct answer is B. Arthur, the bailee, is not responsible for the damages if he can prove they occurred though no fault of his own. Answers that contain the word *always* (A) almost never are the correct answer. Arthur has a duty to take reasonable care of the bailed item regardless of whether the contract states Arthur is liable for damages to the equipment (C) or whether Arthur personally causes the damage (D).

15. The correct answer is B. When the bailment is for the sole benefit of the bailee, the bailor is not responsible to reveal any defects in the bailed item of which the bailor is unaware. Answer choices in which *always* or *never* are involved are almost never correct (C). This would be of mutual benefit (D) only if the bailor and bailee expected to benefit from the bailment. The bailor has nothing to gain other than the goodwill of the bailee. There is no requirement for reasonable inspection for hidden defects (A).

16. The correct answer is C, natural products and structures. Contrary to accounting, where we must separate land from structures (real property attached to land) and natural products (natural resources), property law makes no such distinction (D). The natural resources and structures are included in the definition of "land."

17. The correct answer is C, the air space above the land, and the soil and minerals underneath its structures. Options A and B are incomplete. Option D is simply wrong.

18. The correct answer is A, does not include the crops because they are specifically excluded in the sales contract. Normally, the sale would include the crops, unless the sales contract excludes them (B and D). Option C illustrates why you need to read the full question (RTFQ).

19. The correct answer is C, includes the fixtures because of the sales contract. Options with the word *regardless* are similar to those with *always* and *never* in them. Absolutes are most often incorrect (B and D). In this case they are included unless the sales contract excludes them (A).

20. The correct answer is D, a life estate. A leasehold estate (C) is created when the owner of real property conveys the qualified right to possess and to sue the property to the tenant for a determinable period of time. Fee simple (A) describes the entire collection of ownership interests in property that can be transferred during the lifetime of the owner by sale or gift and by inheritance. A future interest (B) is an interest in property conveyed at some point in the future. Future Interests: present owner can control who will own property and what is done with the property, through covenants, servitudes, wills, leases, sale, or trust. There are several types of fee simple. Fee simple absolute is without restriction; all other types of fee simple have restrictions of one type or another.

21. The correct answer is A, an easement. Easements are irrevocable, generally transferable, permanent rights to enter or control property possessed by another. There are a number of different types of easements. A covenant of seisin (D) is the possession of land under a claim, either express or implied by law, of an estate amounting at least to a freehold. Seisin is from the French meaning to sit upon. Originally, seisin was the completion of the feudal investiture; it now means ownership. A "covenant of seisin" and a "covenant of right to convey" are synonymous. A profit (C) is simply way off base. A license (B) is a revocable, not transferable, temporary permission to enter property. A license can become irrevocable (an easement) by constructive trust, easement by estoppel.

22. The correct answer is A: the land will continue to be burdened by the easement. Easements can only be terminated by agreement in writing, the terms of the original easement, merger, abandonment, third parties, and marketable title act. A sale to a third party will not extinguish the easement unless the person in possession of the easement sells his or her rights as part of the sale of property (B). If the easement is registered correctly, Karen has action against the seller for not telling her; the owner of the easement has no responsibility to inform the buyer (C). Easements do not convert to licenses unless by contract with the owner of the easement (D). Licenses, however, can be converted to easements to protect the owner of the license.

23. The correct answer is B, the grantor's signature. The grantee's signature is not required (A and D).

24. The correct answer is D, the power of eminent domain—the power to take or condemn property for public use with just compensation. Adverse possession (A) is the possession of land by a nonowner in a way that is exclusive, open and notorious, continuous, and adverse, for the statutory period, and the property rights vest in the "trespasser." A covenant of seisin (C) is the possession of land under a claim, either express or implied by law, of an estate amounting at least to a freehold. Constructive eviction (B) is where the actions of a landlord have deprived the lessee of the use of the property by causing the lessee to abandon possession of the property. Partial constructive eviction is where a landlord's actions result in deprivation of the lessee of the use and quiet enjoyment of a portion of the property.

25. The correct answer is A, how much the former owners should be paid for the property. The government determines when to vacate (B), how wide the highway should be (C), and potential violation of zoning laws (D).

26. The correct answer is D, periodic tenancy. A periodic tenancy renews each period (usually each month) with no definite lease term; either party can terminate the relationship at will at the beginning of each month. Tenancy at will (B) is similar to a periodic tenancy where either party can terminate the relationship at will. Many states have statutory provisions against this sort of tenancy. A tenancy for years (A), also referred to as leasehold for a term of years, usually involves an agreement for a year or more, and lasts a specified period of time, ending automatically after the period of time specified. Tenancy in common (C) is where each tenant has a right to possess the entire parcel. The right can be sold or sublet to another individual without consent of the other co-tenant, as long as it does not compromise the rights of the other owner. The interests do not have to be equal. The co-tenants must share expenses such as rent, mortgage, property taxes, and insurance. Some courts require sharing of basic maintenance or repair but not major improvements.

27. The correct answer is A, implied warranty of habitability. Leases are construed like other contracts. Lessors are held responsible for the quality of their product. The basement apartment must be suitable for occupation. Remedies allowed include the right to move out before end of lease term, rent withholding, rent abatement, repair and deduct injunctive relief, administrative remedies, criminal penalties, and compensatory damages. I know of no warranty against possession (D) or against waste (C). There is a covenant of quiet enjoyment (B) that, if violated, could be considered partial constructive eviction.

28. The correct answer is B, the land and all fixtures attached to it. Items not attached but found on the land are not conveyed unless included in the contract (A). The earth on which the buildings sit (D) and the man-made items attached to land (C) are included unless specifically excluded by contract.

29. The correct answer is B, a warranty deed. A warranty deed contains the most extensive protection against defects in title, including: grantor has title and right to convey, property is not subject to any outstanding rights that would diminish the value of land, no one has superior title, and no one will disturb possession. A special warranty deed (C) includes all covenants of a warranty deed but warrants only against defects in title arising when the grantor had title, and is therefore more limited than a warranty deed. A quitclaim (A) deed transfers only that title which the grantor had, and contains no warranties.

30. The correct answer is D. Deeds must be recorded to have precedence and to have precedence over other instruments, including after-the-fact mortgages.

CONTRACTS

After studying this topic, you should be able to:

1. *Identify types of contracts*
2. *Describe how a contract is created*
3. *Understand the legal requirements of an offer*
4. *Understand the legal requirements of an acceptance*
5. *Understand the legal requirements of consideration*
6. *Understand the legal requirements of capacity*
7. *Describe the Statute of Frauds*
8. *Understand the rights and liabilities of the parties when there is an assignment or novation*
9. *Understand quasi-contracts and equitable remedies*

Contracts create expectations as to how parties to agreements will conduct themselves in the future; usually, parties comply with their contractual obligations. If a party to a valid contract does not carry out a promise, a court can enforce the contract and provide some form of relief or remedy to the nonbreaching party.

A contract is a legal relationship between two or more competent parties who agree that each of the parties will act in some specified lawful manner. The apparent intention of a party to enter into a contract is determined by the objective, outward manifestation of his or her assent as it would be interpreted by a reasonable person, rather than by the party's secret, subjective intentions. Objective factors include the conduct of the party, the words spoken or written by the party, and the circumstances surrounding the transaction. In general, people may freely enter into contracts unless the terms are contrary to law or public policy.

In order to form a valid, enforceable contract, certain elements or requisites must be present. The mutual assent and agreement of the parties must be evidenced by an offer and an acceptance. Legally sufficient and bargained-for consideration must be exchanged for contractual promises. There must be two or more parties who are recognized as being legally competent to enter into contracts. The purpose and subject matter of the contract must not be contrary to law or public policy. The assent of the parties must be real, genuine, and voluntarily given. The agreement must be in the form that is required by law if one is prescribed by statute.

In order for there to be a valid and enforceable contract there must be an agreement. The parties must indicate their present, objective willingness and intention to assent to the same terms regarding their respective rights and duties. The important terms of a contract are: the identification of the parties, the identification of the subject matter, the consideration, and the time for performance by the parties. These material terms must be expressed or be capable of being reasonably inferred from the conduct of the parties. Agreement is evidenced by the process of offer and acceptance—an offer must have been made by the offeror and an acceptance given by the offeree.

A contract may be classified on the basis of the nature of the promises made by the parties (unilateral or bilateral), the manner in which the assent of the parties is given (express or implied), the necessity of compliance with a statute requiring a special formality (formal or informal), the stage of their performance (executed or executory), and the legal validity and enforceability of the contract (valid and enforceable, void, voidable, or unenforceable).

In a bilateral contract, promises are exchanged by the parties so that the promise of one party is exchanged for the promise of the other. In unilateral contracts one party makes a promise in exchange for the other party's actually performing some act or refraining from performing some act.

In an express contract the terms of the agreement are stated in either oral or written terms. In implied-in-fact or implied contracts, the terms of the agreement are inferred from the conduct of the parties.

Quasi-contracts are referred to as contracts implied in law. An obligation to pay the reasonable value for benefit received may be imposed by a court in order to avoid unjust enrichment, even though there is actually no contractual duty to pay. The person receiving the benefit is not liable in quasi contract when the benefit was unnecessarily conferred or conferred because of misconduct or carelessness. The doctrines are not applied if there is an express or implied-in-fact contract.

Formal contracts require a special formality for their creation or formation. Examples include negotiable instruments such as checks, warehouse receipts, and bills of lading. Informal contracts are simple contacts for which no such formality is required.

Executed contracts are contracts that have been completely performed by all parties. Executory contracts are contracts that have not been fully performed by one or more parties.

When all elements that are necessary to form a contract are present, a valid contract is said to exist. A void contract agreement has no legal effect and is not really a contract. A contract executed by a mentally competent party or one arising where the purpose of the agreement is illegal are examples of void contracts. When one or more of the parties to a contract has the option of avoiding his or her contractual obligations, the contract is said to be voidable. Contracts executed by minors or parties under duress are examples of voidable contracts. An unenforceable contract is one that cannot be proven in the manner required by law. The statute of limitations can bar enforcement of a contract or an oral promise when a written promise is required by the statute of frauds.

Over time, the courts have developed guidelines for determining the meaning of terms in a contract so as to give effect to the contract that the parties made. The objective of the rules of interpretation is to determine the intent of the parties from the language used in their agreement. When the words used in writing are plain, clear, unequivocal, and unambiguous, their meaning will be determined from the face of the written document alone. The interpretation which results in a reasonable, effective, and legal contract is preferred over one which results in an unreasonable, ineffective, or illegal agreement. A writing will be interpreted as a whole; all writings that are part of the same transaction will be interpreted together, and words will not be taken out of the context in which the words are used. A word will be given its ordinary, commonly accepted meaning, and a technical term will be given its technical meaning unless the parties clearly intended something else. Specific terms will be given greater consideration than general language. Handwritten words prevail over typewritten words and typewritten words prevail over preprinted words. When multiple meanings of language are possible, the language will be interpreted most strongly against the party who chose the words. The court will admit evidence of usage in trade, prior dealings, and, of course, performance.

In order for an offer to exist, it must be communicated by the offeror to the offeree, setting forth with reasonable clarity, definiteness, and certainty the material terms to which he or she is presently, objectively agreeing and intending to be bound. The offeror must have the intention of making the terms known to the offeree and those terms must be received by the offeree. The offeree must have knowledge of the terms of the offer. A public offer, such as an offer for a reward, is treated as communicated to those people who have knowledge of such an offer. It is necessary to distinguish offers from expressions of opinion, statements of intention to make an offer in the future, preliminary negotiations, requests to negotiate, and invitations soliciting bids or offers, advertisements, catalogues, circulars, and price lists.

In order for a contractual promise to be legally enforceable, the promise must be supported by sufficient legal consideration so that there is a bargained-for exchange. In general, the party making the promise, the promisor, must receive a legal benefit (something which he or she does not already have a right to receive), or the promisee, the party to whom the promise is made, must incur a legal detriment (give up something which he or she has a right to keep) or both, so that something of legal value is given in exchange for the promise. The issue of lack of consideration arises when a promisee sues a promisor who has failed to carry out a promise and the promise raises the defense that the promise was unenforceable because he or she received nothing in exchange for the promise.

People are presumed to be sufficiently and fully competent to enter into contracts unless they are considered to be at a disadvantage when dealing with others because of their young age, mental impairment, intoxication, or other disability that is recognized by law. Contracts made by a person who has been adjudicated by a court to be mentally incompetent are void. Contracts that have been entered into by parties who are minors, intoxicated, or mentally incompetent (but not yet so adjudicated) are voidable by the party lacking full competency.

The Statute of Frauds provides that certain kinds of contracts cannot be enforced unless they are: 1) evidenced by a writing or writings, and 2) signed by the party to be charged. Contracts that fall within the Statute of Frauds include contracts that cannot be performed within one year from the date of the agreement, contracts for the transfer of an interest in real property including buildings, easements, mortgages, and leases longer than 1 year, a promise to answer for the debt of another, a promise by an executor or administrator to answer for obligations of the decedent's estate, agreements in consideration of marriage, except for mutual promises to marry, contracts for the sale of goods if the price is $500 or more, contracts for the sale of any face amount of securities, and contracts for the sale of intangible personal property, such as royalty rights, for $5,000 or more.

A contract right can ordinarily be assigned by the person to whom it is owed to another person. Generally the assignee takes whatever rights the assignor had against the obligor, but no more. A valid assignment is effective between the parties without notice to the obligor. The assignor no longer owns the right; the assignee does. If the assignor receives the assigned performance, the assignee can recover from him or her. If the assignor causes the obligor not to perform, the assignee can recover from the assignor. Some contract duties may be delegated by the party having the duty to another so that performance by the delegatee satisfies the delegator's duty. Delegation does not strip the delegator of duty. The delegator remains liable to the obligee until someone performs. Novation is a substitution of a new contract between the same or different parties which discharges the old contract and extinguishes the outstanding obligations.

A quasi-contract is a concept or principle of law having its foundation in equity and good conscience. As implied by its name, a quasi-contract is not properly a contract. Rather, it is a legal obligation created by the law in cases in which there is no contract; however, the law ought to imply a contract as a matter of equity and justice.

Sometimes the strict application of contract principles may cause a contract to fail in the technical sense (i.e., the contract is unenforceable under the Statute of Frauds or fails for lack of recited consideration). Where one of the parties has relied upon the existence of the agreement and the other party has permitted this reliance to the other's detriment, the party permitting the reliance will be estopped (stopped) from denying the enforceability of the agreement if to do so would cause an injustice.

CONTRACTS

REVIEW QUESTIONS

1. A bilateral contract is created when:

   a. one party gives a promise in exchange for the other party's promise.
   b. one party gives a promise in exchange for the other party's performance of a particular act.
   c. both a and b.
   d. none of the above.

2. Alec mistakenly pays property taxes that should have been assessed against Bart, the adjacent landowner. Alec will be able to recover the amount from Bart:

   a. only if Bart knew of the error.
   b. only if Bart tried to conceal the error.
   c. even if Bart had no knowledge of the error.
   d. none of the above.

3. Fred and Ethyl sign a contract in which Fred agrees to deliver heating oil in exchange for Ethyl's promise to pay for the oil. Fred delivers the oil. The contract is:

   a. fully executed.
   b. executory on the part of Fred.
   c. executory on the part of Ethyl.
   d. none of the above.

4. When ambiguities appear in a contract, they will be construed against:

   a. the party with the greater bargaining power.
   b. the promisor.
   c. the promisee.
   d. the party who drafted the contract.

5. The primary purpose of the common law rules of contract interpretation is to:

   a. give effect to the contract clause of Article I, Section 10, of the U.S. Constitution.
   b. give practical effect to the theory of freedom of contract.
   c. determine the parties' intent from the language of their agreement and give effect to that intent.
   d. both a and b.

6. An officer of International Sales Corporation makes overtures to a representative of Global Distribution, Inc., regarding a business deal. Under the objective theory of contracts, the officer's words and conduct are held to mean whatever:

   a. the officer subjectively intended them to mean.
   b. a reasonable person in the officer's position would think they meant.
   c. a reasonable person in the representative's position would think they meant.
   d. the representative subjectively thought they meant.

7. Janet tries to start her new car, with no success. She yells in desperation that she would sell the car to anyone for $100. Bill, a passerby, hands Janet $100. Bill's act:

   a. constitutes a valid acceptance.
   b. constitutes a valid acceptance only if Janet and Bill already know each other.
   c. does not constitute a valid acceptance unless Bill is a car dealer.
   d. does not constitute a valid acceptance because Janet does not seriously intend to sell the car.

8. Ron announces that he plans to sell his stock in Porcine Aviation at a price below the current market value. Andrew hands Ron a check for the amount. Ron:

   a. must accept the check and give Andrew the stock.
   b. may refuse to accept the check unless it is certified by a bank.
   c. may refuse the check because he merely expressed his intention to enter into a future contract to sell the stock.
   d. none of the above

9. Digital Electronics, Inc., makes an offer to the owners of National Computer Corporation to buy the entire company. The party with the power to revoke the offer is:

    a. Digital Electronics, the offeror, only.
    b. National Computer, the offeree, only.
    c. either Digital Electronics or National Computer.
    d. none of the above.

10. In a letter Smith offers to sell Grant his computer, but conditions the sale on Grant accepting the offer by October 1. Smith may revoke the offer:

    a. before Grant accepts the offer.
    b. after Grant accepts the offer.
    c. because it is in writing.
    d. none of the above

11. Keith offers to sell his home to Debbie for $80,000. Debbie replies, “Your price is too high. I will offer to purchase your home for $70,000.” Debbie’s response is:

    a. a counteroffer.
    b. a rejection of the original offer only.
    c. the creation of a new offer only.
    d. none of the above.

12. Bo offers to sell a laser printer to Ike, but it is lost in a fire before Ike accepts. Bo:

    a. must obtain a similar printer for Ike if he notifies Bo that he accepts the offer.
    b. must obtain a similar printer for Ike if Ike offers to pay Bo before delivery.
    c. is not required to obtain a similar printer for Ike because it could take an unreasonable period of time to obtain a replacement.
    d. is not required to obtain a similar printer for Ike because the destruction of the original printer automatically terminated the offer.

13. The law will permit one party to a contract to benefit from the contractual incapacity of another party in:

    a. no circumstances.
    b. some circumstances involving minors.
    c. some circumstances involving persons who are intoxicated or mentally incompetent.
    d. both b and c.

14. Jill is fifteen. In most states, Jill would be considered a minor because she is under the age of:

    a. sixteen.
    b. eighteen.
    c. twenty.
    d. twenty-one.

15. Ted, a minor, signs a contract to purchase a bicycle from Fred, the owner of Fred's Bicycle Shop. Ted's right to disaffirm the contract:

    a. gives Fred (an adult) the right to disaffirm the contract.
    b. is not valid because a bicycle is a "necessity."
    c. does not alter the fact that Fred is bound by the contract.
    d. requires Fred to deal with all minors.

16. Max purchases a motorcycle while still a minor and continues to maintain it and operate it after reaching the age of majority. Most courts would hold that he had:

    a. disaffirmed the contract.
    b. ratified the contract.
    c. rescinded the contract.
    d. none of the above.

17. Paul agrees to sell his clothing store to Michael and, as a part of the sale, to execute a covenant not to compete, promising not to open a similar store within 1,000 miles for the next twenty years. A court reviewing the terms of the covenant would likely find that it is:

    a. unenforceable because all covenants not to compete are unreasonable restraints of trade.
    b. unreasonable as to geographical scope and duration.
    c. unreasonable with regard to duration.
    d. enforceable.

18. Dave signs a contract with Mac to kill a prominent official but refuses to go ahead with the job after having been paid a substantial sum of money by Mac. Mac can:

    a. successfully sue Dave for the return of the money.
    b. successfully sue Dave to perform the contract.
    c. not enforce the contract in court.
    d. enforce the contract only if he can demonstrate that he was going to be physically involved in the actual commission of the crime.

19. John agrees to buy 37 hard drives from Whitney. If the hard drives have less capacity than Whitney and he believe, John may:

    a. only enforce the contract.
    b. only avoid the contract.
    c. either enforce or avoid the contract.
    d. none of the above

20. Alan owns two motorcycles, worth $1,000 and $500, respectively. Alan and Daphne enter into a contract for the sale of "Alan's motorcycle" for $750. Alan believes in good faith that he is selling the $500 motorcycle, while Daphne believes, also in good faith, that she is buying the $1,000 motorcycle. Due to their misunderstanding:

    a. Alan is entitled to receive $750 for the motorcycle worth $500.
    b. Daphne is entitled to buy the $1,000 motorcycle for $750.
    c. Daphne is entitled to select either motorcycle for $750.
    d. there is no contract.

21. Steve and Gloria contract for the sale of an office building. A mutual mistake of fact will make it possible for either party to rescind the contract in all situations:
    a. under any circumstances.
    b. as long as the mistake of fact is material.
    c. as long as the mistake of fact is immaterial.
    d. none of the above

22. Evan, a salesperson for International Investments, Inc., uses fraud to induce Frank to sign a contract to invest in risky securities. Frank can:

a. either disaffirm or enforce the contract.
b. not enforce the contract under any circumstances.
c. recover damages even if he has not been injured.
d. none of the above

23. James is convicted of arson for burning down his apartment building to collect the insurance. James's failure to reveal this fact on his application for insurance on a new building in answer to a question about prior convictions will result in the contract being declared:

a. void.
b. binding due to the failure of the insurance company to investigate James.
c. voidable at the option of the insurance company because the statement is material to the decision of the company whether to issue coverage.
d. binding in any event.

24. Greg uses threats of physical harm to force Kim to enter into a contract. This is:

a. duress.
b. fraud.
c. puffery.
d. undue influence.

25. Pam transfers the rights arising from her contract with Dave to Ben. This is:

a. an assignment.
b. a delegation.
c. a third-party beneficiary contract.
d. none of the above.

26. Patty contracts to deliver a package for Doug for $15. If this is like most contracts, it will be discharged by:

a. agreement.
b. operation of law.
c. performance.
d. recission.

27. Dave contracts to repair a computer for Erin for $100. If Dave does not perform, Erin must pay:

   a. $100.
   b. $ 50.
   c. $ 10.
   d. nothing.

28. Barry and Delia desire to have Martin replace Delia as a party to their contract. The parties can best accomplish that objective by arranging for:

   a. an accord and satisfaction.
   b. a novation.
   c. a nullification.
   d. a simultaneous performance of their contractual obligations.

29. Bill contracts to work exclusively for TechCorp during April for $3,000. On March 31, TechCorp cancels the contract. Bill finds another job during April but earns only $2,000. Bill files a suit against TechCorp. As compensatory damages, Bill can recover:

   a. $3,000.
   b. $2,000.
   c. $1,000.
   d. nothing.

30. Randolph agrees to build a swimming pool for Fox, but Randolph fails to furnish the pool according to the contract specifications. Fox is forced to hire others to do so. Fox may recover from Randolph:

   a. the contract price less the costs of materials and labor.
   b. profits plus all costs incurred up to the time of the breach.
   c. the contract price.
   d. all costs incurred to complete construction.

CONTRACTS

REVIEW QUESTION SOLUTIONS

1.	A
2.	C
3.	C
4.	D
5.	C
6.	C
7.	D
8.	C
9.	A
10.	A
11.	A
12.	D
13.	A
14.	B
15.	C
16.	B
17.	B
18.	C
19.	C
20.	D
21.	B
22.	A
23.	C
24.	A
25.	A
26.	C
27.	D
28.	B
29.	C
30.	D

CONTRACTS

Explanation of Review Question Solutions

1. The correct answer is A: one party gives a promise in exchange for the other party's promise. In a bilateral contract the parties exchange promises so that the promise of one party is exchanged for the promise of the other. In a unilateral contract (B) one party makes a promise in exchange for the other party's actually performing some act or refraining from performing some act.

2. The correct answer is C: even if Bart had no knowledge of the error. A quasi-contract is a contract implied by law where an obligation to pay the reasonable value for benefit received may be imposed by a court in order to avoid unjust enrichment, even though there is actually no contractual duty to pay.

3. The correct answer is C: executory on the part of Ethyl. Contracts may be classified on the basis of the state of their performance. Executed contracts are contracts that have been completely performed by all parties. Executory contracts are contracts that have not been fully performed by one or more parties. A contract is said to be executory when one or both parties have not performed their obligation. The contract is said to be executory on the part of the contractor who has not yet executed their obligation. In this case Fred has executed his obligation and therefore the contract is not executory on the part of Fred (A and B are false).

4. The correct answer is D, the party who drafted the contract. When multiple meanings of language are possible, the language will be interpreted most strongly against the party who chose the words.

5. The correct answer is C: determine the parties' intent from the language of their agreement and give effect to that intent. The objective of the rules of interpretation is to determine the intent of the parties from the language used in their agreement.

6. The correct answer is C: a reasonable person in the representative's position would think they meant. Contract law follows the objective theory of contracts. That is, a party's intent is deemed to be what a reasonable person in the position of the other party would think that the first party's objective manifestation of intent meant. For instance, in deciding whether A intended to make an offer to B, the issue is whether A's conduct reasonably indicated to one in B's position that A was making an offer.

7. The correct answer is D; does not constitute a valid acceptance because Janet does not seriously intend to sell the car. Under the objective theory of contracts (see above #6) Janet's joke does not constitute a valid offer. However, Bill's offer is a valid offer, which can be accepted by Janet, if she desires to. Therefore, there is no contract without Janet's acceptance of Bill's offer.

8. The correct answer is C: may refuse the check because he merely expressed his intention to enter into a future contract to sell the stock. It is necessary to distinguish offers from expressions of opinion, statements of intention to make an offer in the future, preliminary negotiations, requests to negotiate, and invitations soliciting bids or offers, advertisements, catalogues, circulars, and price lists. This is a statement of intention to make an offer in the future that does not constitute an offer.

9. The correct answer is A: Digital Electronics, the offeror, only. Revocation of an offer occurs when the offeror, the promisor making an offer, recalls the power to accept the offer, which is contained in the offer. Revocation takes place when the offeree, the promissee to whom an offer is made, receives notice that the offer no longer exists. National Computer, the offeree, can reject the offer, not revoke it. Rejection of an offer occurs by the offeree's act refusing the offer. Rejection takes effect when a rejection or counteroffer is received by the offeror (Frascona, *Business Law*).

10. The correct answer is A: before Grant accepts the offer. An acceptance is the offeree's exercise of the power given by the offer to assent to the offer by performing the act or forbearance, or by giving a return promise, in reliance on and in compliance with the offer. By accepting the offer the offeree negates the offeror's power to revoke the offer, provided that revocation did not arrive before the acceptance of the offer by the offeree (Frascona, *Business Law*).

11. The correct answer is A, a counteroffer. A counteroffer is an offer that rejects the previous offer and changes the terms of the original offer, thus becoming an offer in itself. Rejection of an offer (B) is the offeree's expression of refusing the offer; and while a counteroffer is a rejection of an offer, it is also an offer in itself, so that it is more than simply a rejection alone. In order to create a new offer (C), the offeree must separately reject the offeror's offer and then sit down and craft a completely new offer (Frascona, *Business Law*).

12. The correct answer is D: is not required to obtain a similar printer for Ike because the destruction of the original printer automatically terminated the offer. The consideration contracted for has to exist in order for the offer to be valid. There is no offer where the item that is the focus of the contract ceases to exist. When the subject matter essential to the performance of the contract is destroyed, the contract is said to be impossible to perform, and the contractee is excused from the obligation of delivering the destroyed item and excused from performance (Frascona, *Business Law*).

13. The correct answer is A, no circumstances. Contracts made by a person who has been adjudicated by a court to be mentally incompetent are void. Minors, persons mentally incompetent without adjudication, and intoxicated individuals have the ability to void the contract in the future, even after consideration is exchanged.

14. The correct answer is B, eighteen. In most states, the age of majority is eighteen.

15. The correct answer is C: does not alter the fact that Fred is bound by the contract. Only Ted, the minor, has the power to disaffirm or avoid the contract; Fred is not a minor and has no such protection under the law (A). Fred is under no obligation to deal with minors in this case or any other (D). There are no exceptions to the ability of a minor to avoid or disaffirm a contract (B). Fred, the adult, is firmly bound by a contract with a minor, even if the minor conceals his age or is an emancipated minor.

16. The correct answer is B, ratified the contract. Disaffirming (A) or avoiding the contract is the power that a minor has up to the date of majority to return the item purchased and to retrieve his or her consideration. Ratification is a person's waiver of his right to avoidance of disaffirmation. Minors must reach the age of majority before they have the power of ratification. In the case of someone under the influence of drugs and/or alcohol or diminished mental capacity, ratification can be made once the influence of the drugs, alcohol, or mental incapacity is removed (Frascona, *Business Law*). Rescinding a contract (C) is the power to cancel or annul, through manifestation of mutual assent, mistake, misrepresentation, fraud, duress, or undue influence.

17. The correct answer is B: unreasonable as to geographical scope and duration. Covenants not to compete will not be enforced if they're found to be unreasonable. A covenant may be held unreasonable because it: lasts for too long, covers too wide a geographic area, or is too broad in the types of business it prohibits. The biggest and most often raised issue with noncompete agreements is how long a time an employee can be restrained from competing in a similar business. While there is no dyed-in-the-wool guidance on what will and will not pass muster, courts and legislatures are beginning to set out some bounds as to what is reasonable. Covenants not to compete are legal but are not favored by the courts.

18. The correct answer is C: not enforce the contract in court. If a contractual purpose looks to the doing of something that is illegal, then that agreement violates public policy and will not be enforced as a contract by the courts. The agreement is void; there is no contract, nor is there an obligation to perform.

19. The correct answer is C, either enforce or avoid the contract. A mistake of fact may justify avoidance of a contract. In the mutual or bilateral mistake situation, both parties to the contract are mistaken, and either party can avoid the contract. An enforceable contract is one that can be proved and enforced by the courts. In the case of a mutual mistake both parties have the option to avoid or enforce; where the mistake is unilateral, only the mistaken party is allowed to avoid the contract.

20. The correct answer is D: there is no contract. This is the best answer in this situation. This is a bilateral or mutual mistake of fact, which allows either party to enforce his or her part of the contract or avoid it. In point of fact, where a mutual mistake of fact exists, both parties have to agree to execute the contract for a contract to exist. The option for both to execute the contract is impossible since the object of the contract is mistaken.

21. The correct answer is B: as long as the mistake of fact is material. If the mistake of fact is immaterial, then there is a meeting of the minds in all material aspects, and the contract is enforceable.

22. The correct answer is A, either disaffirm or enforce the contract. An intentional misrepresentation of fact inducing a contractual mistake is called fraud if the person intending to misrepresent fact will be unfairly enriched by the act. The fraud referred to in the problem is a fraud in the inducement, not a fraud in the procurement, where no contract exists because there was no meeting of the minds on the agreement. In fraud in the procurement, the defrauded person was agreeing to something other than what the agreement really meant; therefore, there was no contract. Fraud in the inducement makes the contract voidable, so that the defrauded party, in this case Frank, can either disaffirm or enforce the contract (Frascona).

23. The correct answer is C: voidable at the option of the insurance company because the statement is material to the decision of the company whether to issue coverage. This is fraud in the inducement of the insurance company in issuing the insurance contract, and as such the contract is voidable by the defrauded insurance company. The contract is binding on James but voidable by the insurance company.

24. The correct answer is A, duress. Duress is wrongful pressure by threat that induces one to enter into a contract without freedom of choice, because of fear that the threatened, wrongful act will be carried out. Fraud (B) is a material misrepresentation of fact, known to be false, made to induce another person to make or to refrain from making a contract, and reasonably relied upon by the other person. Undue influence (D) is unfair persuasion by one who, because of his relationship with another, dominates the other. Puffery (C) is flattering, often-exaggerated praise and publicity, especially when used for promotional purposes. Puffery is not considered to be fraud. The statement of an opinion by a person who does not profess to be an expert normally is not a statement of material fact and cannot be reasonably relied upon.

25. The correct answer is A, an assignment. Ordinarily, a person can assign a contract right to another person; i.e., contract rights are assignable. There are three third-party beneficiaries (C) to a contract: donee, creditor, and incidental. A beneficiary is a person who is to receive a benefit. The donee is the recipient of a gift from the donor, the person who makes the gift. The creditor is one to whom money is owed. A donee beneficiary of a contract is a third person who has been given the right under the contract as a gift. The creditor beneficiary is a third person who is given the right under the contract to obtain performance by one of the contracting parties of an obligation owing to the other contracting party in discharge of the latter's duty to the third person. A third-party incidental beneficiary has no enforceable claim to any right under contract to which the beneficiary is not a party but anticipates a benefit if the contract is performed. A delegation (B) is the transfer of one's duty to another, the transferor still being responsible for the duty. Contract duties are only delegable.

26. The correct answer is C, performance. Discharge is the termination of a contractual duty to perform a promise. The normal means for discharging contract obligations is by full performance of the contract. A rescission is a cancellation or annulment of a contract. Mutual rescission is by mutual agreement between the contractor and contractee. Discharge by operation of law is one of the broad categories of discharge that includes statute of limitations, bankruptcy discharge, judgment, and arbitration award. The most prevalent type of discharge is through performance of the contract, i.e., good faith performance according to the reasonable expectations of the contracting party.

27. The correct answer is D, nothing. Without performance of the agreed services, the contractor is relieved from performing the obligation to pay the contractee.

28. The correct answer is B, a novation. A novation is a new contract made to which one of the parties was not a party in the old contract, and the new contract immediately discharges the old contract. A novation is a new contract substituted for an old contract. In an accord and satisfaction (A), a new contract is made between the same parties in the old contract (accord); if at the time of the formation of the new contract it satisfies or discharges the old contract and thereby causes discharge of the old contract, the new contract is called an accord and satisfaction. Simultaneous performance of contractual obligations (D) would be where both parties cooperate in carrying out the contract.

29. The correct answer is C, $1,000. Compensatory damages are the money judicially awarded to an injured party to compensate for the damage caused by another's wrongful conduct. Nominal damages are the money judicially awarded to an injured party for another's wrongful conduct when no damage has occurred. Consequential (special) damages are the money judicially awarded to an injured party for loss that the breaching party reasonably could foresee would be a consequence of his breach. Incidental damages are the money judicially awarded to a nonbreaching party for expenses reasonably incurred by the nonbreaching party on the other party's breach.

30. The correct answer is D, all costs incurred to complete construction. Compensatory damages to complete the construction are the amounts recoverable from a breach in contract that required one to complete the partial performance of the contractor.

UNIFORM COMMERCIAL CODE (UCC)

After studying this topic, you should be able to:

1. *Describe how contracts governed by Article 2 differ from those governed under the common law of contracts*
2. *Understand the various ways of entering into sales contracts.*
3. *Describe the UCC Statute of Frauds*
4. *Understand transfer of title and risk of loss*
5. *Understand bulk sales transfers*
6. *Understand the nature of a negotiable instrument*
7. *Identify the different kinds of commercial paper and the formal requirements of negotiability*
8. *Define a "holder in due course"*

Laws relating to the sale of goods (sales law) have their origin in the common-law principles of contracts (basic contract law). However, Article 2 of the Uniform Commercial Code (UCC), which governs sales law, has made changes that meet the needs of merchants and consumers who deal with each other contractually in a modern business world. In effect, the UCC has relaxed the rules relating to sales transactions by removing many of the technical requirements found in basic contract law. Under the UCC, it is now easier to form a binding sales contract. In fact, a sales contract may be made in any manner sufficient to show that the parties intended to be bound—even though essential terms such as price, quantity, place and time for delivery, and terms of payment are missing. These missing terms can be added later by the parties or supplied under other provisions of the Code. To offset these relaxed rules, however, the Code does insist that the parties perform in good faith (honestly) and that the dominant party deal fairly with the other party to the sales transaction.

The UCC defines a sale as a contract that transfers ownership of goods from the seller (vendor) to the buyer for a price. Under the UCC, goods are defined as tangible personal property. The term *goods* also includes other items such as growing crops and timber to be cut, minerals (including gas and oil), and structures—if severance is to be made by the seller—money bought and sold as a commodity, the unborn young of animals, items specially manufactured for a buyer, and items that are attached to real property that can be easily removed without doing material harm. The term *goods* does not include intangible personal property such as shares of stock.

Article 2 generally applies to all sellers and buyers, whether they are merchants or nonmerchants. In a few limited provisions of Article 2, some special rules apply only to sales contracts between merchants. A merchant is a professional. He or she either sells goods of the type involved in the sales contract or has specialized knowledge of the goods by virtue of his or her profession. A nonmerchant is defined as a casual seller.

Article 2 of the UCC has made substantial changes to basic contract law in the areas of offer and acceptance and consideration. An action for breach of contract under the Code must be brought within fours years of the breach. Under the UCC statute of frauds, most contracts for the sale of goods costing $500 or more must be in writing to be enforceable. Under the Code, courts can now deal directly with unconscionable contracts—that is contracts that are unfair.

The parties to a sales contract do not always specify in the contract when title and risk of loss are to pass from seller to buyer. In such cases, rules set down under Article 2 of the UCC will apply.

In a sale by a merchant to a consumer at the merchant's place of business, risk of loss passes to the buyer when the buyer takes physical possession of the goods. If the seller is not a merchant, the risk of loss passes when the seller has tendered delivery.

If the seller is to ship the goods (FOB shipping point), risk of loss passes from the seller to the buyer on proper delivery of the goods to an independent carrier. If the seller is to deliver the goods (FOB destination), risk of loss passes after the goods have been delivered to the destination point.

In a sale on approval, risk of loss and ownership remain with the seller until the buyer accepts the goods by approval. In a sale and return, the buyer accepts risk of loss and ownership of the goods at the time of the sale; both the risk and title will revert to the seller if the buyer returns the goods.

A bulk transfer is the sale of all or a major part of the stock of merchandise, materials, supplies, or other inventory at one time and not during the ordinary course of business. The bulk-transfer law protects creditors by giving them the right to void a bulk sale (within six months) if the bulk-sale buyer does not notify them at least ten days before the sale takes place.

A buyer generally obtains no better title to goods than the seller had. A person who has no title cannot pass a title on. Thus, a thief cannot pass legal title on to a good faith purchaser. The UCC allows at least two exceptions to this general rule: 1) a buyer with a voidable title can transfer a valid title to a third party who obtained the goods for value and in good faith and 2) any merchant who is given temporary possession of goods can transfer a valid title to those goods to a buyer in the ordinary course of business.

The seller performs the sales contract by delivering conforming goods; the buyer performs by accepting and paying for these goods, assuming, of course, that there has been a proper delivery by the seller and that the goods do conform to the contract. The UCC governs performance unless the seller and the buyer make other arrangements in the sales contract. If either the goods or the delivery does not conform to the contract, the seller has the right to correct the defect in certain circumstances. If the seller does not correct the defect or is not allowed to, then the buyer may reject the goods, in effect canceling the contract. If after a reasonable inspection the buyer accepts nonconforming goods, however, he or she may no longer reject them.

Remedies available to the buyer for breach of a sales contract by the seller are: 1) suing for breach of warranty, 2) canceling the contract, 3) canceling the contract and suing for damages, and 4) suing to obtain the goods. The buyer may exercise more than one of these remedies, depending on the individual case.

Remedies available to the seller if the buyer breaches the sales contract are 1) canceling the contract, 2) reselling the goods and suing for damages, 3) suing the buyer to recover the purchase price, 4) suing the buyer to recover damages for nonacceptance, 5) withholding delivery of the goods, and 6) reclaiming the goods from the buyer.

Article 2 of the UCC provides for two types of warranties made by sellers: express warranties and implied warranties. Express warranties can arise in several ways. The seller may make a factual statement or a promise about the product, may describe the goods to the buyer, or may show the buyer a sample of the item being sold. To constitute an express warranty, the statement, description, or sample must be part of the basis of the sale. The two types of implied warranties are the implied warranty of merchantability and the implied warranty of fitness for a particular purpose. Another type of warranty that exists under the Code is the implied warranty of title. Express warranties can be excluded from sales contracts by using clear, specific language that meets the requirements of the UCC, or by simply refraining from using language, descriptions, or samples that induce people to purchase the goods. The expressions "as is" and "with all faults" exclude all implied warranties except the implied warranty of title. The implied warranty of title is excluded only if the seller specifically states that no warranty of title is given or if the buyer realizes, or should realize, that the seller does not own the goods. If the buyer examines the goods, sample, or model or has refused to do so after a demand by the seller, there is no implied warranty as to the defects that were or should have been obvious.

Commercial paper is governed by the provisions of Article 3 of the UCC and consists of written documents or instruments that are available in the business world and that can be used as a substitute for money or a means of extending credit. There are two types of commercial paper: promises to pay and orders to pay. Promissory notes and certificates of deposit are promises to pay. Drafts and checks are orders to pay. Notes have two parties. The maker is the person making the promise to pay, and the payee is the person to whom the note is payable. Drafts and checks have three parties. The party issuing the draft or check is the drawer, the party to whom the instrument is payable is the payee, and the party ordered to pay is the drawee. A check is a type of draft in which the drawee is always a depository institution and the drawer is the depositor. Instruments that serve as commercial paper may be either negotiable or nonnegotiable, depending on the language used in the instrument.

In order to be negotiable, commercial paper must meet the following requirements: 1) be in writing, 2) be signed, 3) contain a promise or order to pay, 4) contain an unconditional promise to pay, 5) be payable in a "sum certain," 6) be payable on demand or sight or at a defined time, 7) be payable to order or to bearer, and 8) designate a drawee or place of payment with certainty.

In terms of commercial paper, to negotiate means to transfer title or ownership to another person or party in return for value received. How commercial paper can be negotiated depends upon whether the instrument is an order instrument or bearer instrument. Order instruments are negotiated by endorsement and delivery, and bearer instruments are negotiated by delivery. There are four basic endorsements: blank, special, restrictive, and qualified. A blank endorsement consists only of the signature of the endorser and makes an instrument payable to the bearer. A special endorsement names the person who is to receive the instrument and includes the signature of the endorser: "Pay to the Order of . . .". A restrictive endorsement limits what the party to whom the instrument is transferred may do with the instrument: "For Deposit Only." A qualified endorsement "without recourse" relieves the endorser from future liability if the instrument is not paid by the maker or drawee when presentment is made.

Commercial paper can be discharged by five means: payment, alteration, the statute of limitations, bankruptcy, or cancellation. When the party who is liable for payment of the instrument pays the amount to the holder, the instrument will normally be discharged. If the holder of commercial paper alters it in any significant and/or fraudulent manner, the obligation of any party whose liability has been changed by the alteration will be discharged. If commercial paper is not paid on time, the statute of limitations begins to run from the due date of the instrument. The instrument will be discharged if suit is not brought within the statutory period (usually six years). Discharge through bankruptcy of a debt evidenced by commercial paper will also discharge the instrument. A cancellation is any act that indicates that the obligation is ended and the commercial paper is discharged (markings such as "paid," "void," and "cancelled" are examples of cancellation).

Parties liable for payment on negotiable instruments are classified as either primary parties or secondary parties. Makers of notes and acceptors of drafts are primary parties. Drawers and endorsers are secondary parties. A primary party has unconditional liability for payment of the instrument according to its terms. The liability of the secondary party is conditional. To hold a secondary party liable, the holder of the paper must a) present the instrument for payment to the primary party, b) have the primary party dishonor the instrument, and c) give notice of dishonor to the secondary party. Generally the drawer, as a secondary party, has to pay even if the conditions of presentment, dishonor, and notice are not met.

To qualify as a holder in due course, a holder must take the instrument for value, in good faith, and without knowledge that the paper might be overdue or dishonored or that the party may have a defense against it. A holder who does not qualify as a holder in due course is considered an ordinary holder and is in the legal position as an assignee of a contract. Defenses against holders of negotiable instruments are classified as personal defenses and universal defenses. Personal (limited) defenses are good against ordinary holders, assignees, and the immediate parties to commercial paper; but they are not good against holders in due course. Universal (real) defenses are good against assignees and all holders in due course. Personal defenses include 1) fraud in the inducement, 2) lack of consideration, 3) payment at or before maturity, 4) lack of delivery of a complete instrument, 5) unauthorized completion of an incomplete instrument, and 6) slight duress. Universal defenses consist of 1) fraud in the execution, 2) forgery, 3) minority, 4) material alteration, 5) illegality, and 6) serious duress.

Under a ruling by the Federal Trade Commission, if a consumer who buys on credit gives the seller a negotiable instrument and the seller negotiates the instrument, the person taking the instrument cannot become a holder in due course. The FTC rule, however, does not apply when a consumer purchases goods or services and pays by check. The party to whom a check has been negotiated may qualify as a holder in due course.

UNIFORM COMMERCIAL CODE

REVIEW QUESTIONS

1. Frank, the owner of a bicycle store, sells a pre-owned motorcycle to Wilhelm. Frank is a merchant for purposes of the UCC if he:

   a. enjoys riding motorcycles every weekend.
   b. Subscribed to motorcycling magazines.
   c. Holders himself out by occupation as having knowledge and skill unique to motorcycles.
   d. Has sold bicycles for 20 years.

2. Mark and Jason enter into a contract in which Mark agrees to deliver cement to Jason at a construction site. They neglect to include a price in the agreement. A court will:

   a. refuse to enforce the agreement.
   b. select the lowest quoted price for cement and insert it into the contract.
   c. determine a reasonable price for the cement and insert it into the contract.
   a. leave the parties in the position in which it found them.

3. Acme Company offers in writing to sell Tech Corporation 1,000 computers for a total of $1,000,000 and states that it will keep the offer open for seven days. On the fourth day, Tech sends an acceptance to Acme via next-day mail, but the acceptance is misdelivered, and Acme does not receive it until after the seven-day period expires. In these circumstances:

   a. no contract is formed because Acme did not receive the letter of acceptance in time.
   b. no contract is formed because Tech should have used a quicker means of communication to notify Acme of its acceptance.
   c. no contract is formed because the acceptance was dispatched too late.
   d. a contract is formed because the acceptance was dispatched in time and in a manner reasonably calculated to give Acme notice.

4. Nancy sells fur coats to Patricia, pursuant to an existing contract. Nancy concludes, however, that due to increasing pelt prices, she cannot continue to supply the coats at the agreed price. Nancy asks Patricia to agree to a 10 percent increase in the price. Patricia agrees but later changes her mind. Patricia:

   a. may cancel the contract without any further liability.
   b. may cancel the contract so long as she gives reasonable notice.
   c. will be liable for breaching the contract if she cancels it.
   d. none of the above

5. The parties to a contract for a lease of goods with payments in excess of $1,000 may satisfy the Statute of Frauds by:

   a. executing a written memorandum of their oral agreement.
   b. giving additional consideration to each other.
   c. filing a notice of their oral contract in the public records.
   d. all of the above.

6. Alpha Computers, Inc., and Omega Electronics contract for a sale of thirty hard drives from Alpha to Omega. The hard drives are stored in City Warehouse. Under the contract, Alpha is required to give Omega a warehouse receipt for the goods, which Omega will then pick up. Title to the goods passes to Omega:

   a. when Omega orders the hard drives from Alpha.
   b. when Alpha gives Omega a warehouse receipt for the goods.
   c. when Omega picks up the goods.
   d. after Omega inspects the goods for defects.

7. Southern Distribution, Inc., signs a receipt for goods that will also serve as a contract for the goods' transportation. This is:

   a. a bill of lading.
   b. a destination contract.
   c. a shipment contract.
   d. a warehouse receipt.

8. Fran leaves a pair of recently purchased shoes at a shoe store so that they might be dyed for a wedding. The shoe store accidentally sells Fran's shoes to Jan, who has no knowledge that the shoes belong to someone else. Fran can recover from:

   a. Jan for the return of the shoes, but she cannot recover from the shoe store because it made an honest mistake.
   b. the shoe store for the purchase price of the shoes, but cannot recover from Jan because she had no knowledge that the shoes were owned by Fran.
   c. both the shoe store and Jan.
   d. none of the above.

9. Chris in New York purchases chocolate from Sweet Candies in Los Angeles. The parties agree that Sweet will bear the risk of loss while the goods are in transit. The chocolate is destroyed near Chicago while aboard a carrier. The loss is suffered by:

   a. Chris.
   b. Sweet.
   c. the carrier.
   d. both a and b.

10. Speed Boater Company agrees to let Robin take a particular boat out for a "test run" to see if he is interested in purchasing it. Robin tries the boat for a few hours and returns it to the dealer's dock, where they complete the sale. This transaction is:

   a. a sale on approval.
   b. a sale or return.
   c. a consignment.
   d. none of the above.

11. In April, Phil buys from Henry a corn crop that Henry has not planted but hopes to harvest in the fall. After the corn is planted, Phil obtains insurance coverage on the crop. The corn is destroyed in a storm before it is harvested. Phil can:

a. not collect on the insurance because he did not have an insurable interest in the corn.
b. not collect on the insurance because Henry was not a co-beneficiary under the insurance policy.
c. collect on the insurance because he had an insurable interest in the corn.
d. collect on the insurance because Henry did not have an insurable interest in the corn.

12. Surgical Products Company contracts to deliver emergency medical supplies to Edison, using only Associated Airways. If Associated declares bankruptcy, then:

a. the entire contract will be void.
b. Surgical may still deliver its goods to Edison in any reasonable manner.
c. only Edison may elect to perform the contract.
d. none of the above.

13. Olympic Steel contracts for a sale of steel to A&B Machines, Inc. After Olympic ships the steel, A&B breaches the contract. Incidental damages arising from the breach include the costs to Olympic of:

a. designing the goods.
b. manufacturing the goods.
c. marketing the goods.
d. transporting the goods.

14. Oxford Software and Compute-a-Rama contract for Oxford's delivery of software to Compute-a-Rama. Oxford learns of Compute-a-Rama's insolvency while goods it has shipped are still in transit. Oxford may:

a. not interfere with the shipment.
b. not interfere with the shipment if it involves goods valued in excess of $500.
c. demand that the carrier stop only if the quantity shipped is at least a carlod or more.
d. demand that the carrier stop delivery regardless of the quantity shipped.

15. Erin pays half of the price for a shipment of computers that remain with the seller, Digital Computers, Inc. Within 10 days of the payment, Digital becomes insolvent. Erin can recover the goods if:

   a. damages would be inadequate.
   b. Digital has no other obligations.
   c. Erin cannot obtain recover.
   d. the computers are identified in the contract.

16. Bentley orders a carload of "Grade A winter wheat" from Graham, but Graham ships "Grade B winter wheat" to Bentley. Bentley accepts the nonconforming wheat, but wishes to recover damages. Bentley must:

   a. notify Graham of the breach within a reasonable time after the defect was discovered.
   b. notify Graham of the breach within one week of using or reselling the wheat.
   c. keep the nonconforming wheat until any dispute is resolved.
   d. none of the above

17. Schiff Sports contracts for the sale of sports equipment to the Athletic Source. Schiff ships nonconforming goods, which the Source accepts. In the Source's suit against Schiff for damages, the measure of damages is the difference between:

   a. the contract price and the Source's sales price.
   b. the value of the goods as accepted and their value if they had been as promised.
   c. the Source's sales price and the value of the goods promised.
   d. the value of the goods as promised and the contract price.

18. Molly goes to a gas station and has the oil in her car changed. The service technician learns that Molly plans to take a long trip and advises the use of a particular type of oil, to which Molly agrees. The oil breaks down while Molly is on her trip, causing damage to her car's engine. Molly may recover from the gas station for breaching:

   a. an express warranty.
   b. an implied warranty of merchantability.
   c. an implied warranty of fitness for a particular purpose.
   d. a warranty of title.

19. Stan wishes to sell his sport utility vehicle (SUV). To avoid liability for any implied warranties, the sales agreement should note that the SUV is being sold:

    a. “as is.”
    b. by a nonmerchant.
    c. for cash.
    d. in mint condition.

20. A-1 Tools, Inc., agrees to sell five lawn mowers to Green Landscaping Service. Their contract states that the mowers are being sold “as is.” This statement effectively disclaims:

    a. the implied warranty of fitness for a particular purpose only.
    b. the implied warranty of merchantability only.
    c. the implied warranty of fitness for a particular purpose and the implied warranty of merchantability.
    d. nothing.

21. Allrite Products, Inc., manufactures microwave ovens. Jill discovers that her Allrite oven is defective. Jill sues the manufacturer for product liability based on negligence. To win, Jill must show that:

    a. Allrite sold the oven to Jill.
    b. the “defect” was a commonly known danger.
    c. Jill knew and appreciated the risk caused by the defect.
    d. Jill suffered an injury caused by the defect.

22. To pay his state’s auto tag and title fees, Dave writes a check to the appropriate public agency. Dave is the:

    a. drawer.
    b. drawee.
    c. indorser.
    d. payee.

23. Carol wishes to negotiate a bearer instrument in her possession to Jim for an order instrument that Jim holds. Endorsements are required to negotiate:

    a. bearer instruments only.
    b. order instruments only.
    c. both bearer instruments and order instruments.
    d. none of the above.

24. Bob receives a check from A-1 Industrial Corporation. Bob endorses the check to Quick Cash, Inc., by writing “pay to the order of Quick Cash” and signing his name. This endorsement is:

   a. a blank endorsement.
   b. a qualified endorsement.
   c. a restrictive endorsement.
   d. a special endorsement.

25. Tom, in good faith and for value, gets from Fritz a negotiable bearer instrument. Tom does not know that Fritz stole the instrument. Tom is:

   a. not a holder in due course because the instrument is a bearer instrument.
   b. not a holder in due course because Fritz did not acquire the instrument in good faith.
   c. not a holder in due course because Fritz did not acquire the instrument for value.
   d. a holder in due course because the good faith requirement applies only to the holder, not the transferor.

26. Frank is secondarily liable on a promissory note, of which Erin is the maker. Ace Credit Company is the current holder of the note. Frank will be obligated to pay the note when:

   a. Aces breaches one or more of the transfer warranties.
   b. Ace negotiates the note to EZ Collection Agency, a third party.
   c. Ace presents the note for payment.
   d. Erin defaults on the note.

27. Walt gives a $2,000 promissory note to Paul for Paul’s agreement to deliver a truckload of lumber to Walt’s Shop. The delivered lumber is useless, due to termite infestation. Walt may defend his decision not to pay the promissory noted based on:

   a. breach of warranty.
   b. lack of consideration.
   c. fraud in the inducement.
   d. undue influence.

28. Bo’s bank refuses to honor a check that would create an overdraft in his account. Bo:

   a. can sue his bank because it has a duty to pay all overdrafts.
   b. can sue his bank only if the bank agreed to honor his overdrafts.
   c. cannot sue his bank if the check was more than six months old.
   d. cannot sue the bank because Bo and his bank are not in privity of contract.

29. Delta Capital Corporation wants to perfect a security interest in a negotiable instrument owned by Quality Investments, Inc. This can be accomplished:

a. only by filing a financing statement.
b. only by taking possession of the instrument.
c. by filing a financing statement or taking possession of the instrument.
d. none of the above

30. Fred conceals assets from his bankruptcy proceeding with the intent to defraud his creditors. When this is discovered, the court may:

a. only deny a discharge.
b. only distribute Fred's assets to his creditors.
c. only order that Fred remain liable for the unpaid portions of the creditors' claims.
d. deny a discharge, distribute Fred's assets to his creditors, and order that Fred remain liable for the unpaid portions of the creditors' claims.

UNIFORM COMMERCIAL CODE

REVIEW QUESTION SOLUTIONS

1. C
2. C
3. D
4. C
5. A
6. B
7. A
8. B
9. B
10. A
11. C
12. B
13. D
14. D
15. D
16. A
17. B
18. C
19. A
20. C
21. D
22. A
23. B
24. C
25. D
26. D
27. A
28. B
29. B
30. D

UNIFORM COMMERCIAL CODE

Explanation of Review Question Solutions

1. The correct answer is C: holds himself out by occupation as having knowledge and skill unique to motorcycles. I like this question. It is pretty obvious that enjoyment (A), motorcycle magazine subscriptions (B), and the sales of bicycles (D), which are not motorcycles, do not constitute expertise in the area of motorcycles. Frank is not in the business of selling motorcycles.

2. The correct answer is C: determine a reasonable price for the goods. Contracts can be imperfect relating to minor terms such as price, quantity, place and time for delivery, and payment terms. These items can be perfected later by mutual agreement or by court decision and should be accepted as long as the terms are reasonable. The courts will determine a reasonable price for the goods.

3. The correct answer is D. Acme Company does not have to actually receive the acceptance for the acceptance of the contract to be valid (C). B is not correct, because Tech Corporation need only reply within the time limit constraints, using a common carrier (the mail), with a reasonable expectation that the acceptance will be received on time (next-day mail). The fact that the mail is not received until after the period of seven days has expired is not relevant (A). Mailbox rule: Acceptance is operative as soon as it is out of the offeree's possession. Offeror must not stipulate the means for reply in the offer that excludes the means used. The means of delivery must be reasonable (not by carrier pigeon). And the mailed reply must be addressed correctly and have proper postage.

4. The correct answer is C. The acceptance of the change in price is a novation, or a new agreement between the parties, which replaces the old agreement. The new agreement is binding. The price increase seems appropriate and is not in any way an undue benefit to either party.

5. The correct answer is A. The statute of frauds governs contracts, which involve a dollar amount that exceeds $500. Written memoranda must accompany these contracts to satisfy the statute of frauds (R2D sec. 110). Additional consideration (B), public filing (C), etc., are not required.

6. The correct answer is B. In the case of a public warehouse, there is no need for the purchaser to actually take receipt of the items. Normally inspection of the goods prior to acceptance of goods is required, prior to acceptance of delivery. Should the purchaser of the goods neglect to inspect them prior to accepting receipt, the inspection becomes moot (D). Taking the warehouse receipt constitutes acceptance of the product (B); no pick-up of the goods is required (C). Once the purchaser takes the warehouse receipt, City Warehouse will hold the goods in the name of the purchaser.

7. The correct answer is A, a bill of lading. A bill of lading is a document issued to the shipper by a carrier of goods. A warehouse receipt (D) is a document issued to the bailor by a warehouseman (the warehouse is the bailee of the bailed goods). Both the bill of lading and the warehouse receipt are documents of title. A document of title is a document evidencing that the person possessing it is entitled to receive, hold, and dispose of the document and the goods it covers (UCC 4-104(f)). A document of title goes beyond a shipment contract (C) or a destination contract (B). A destination contract is a sales contract that requires that goods be shipped FOB destination (freight on board) or FAS destination (free alongside—followed by a ship and a port). In this case the seller has the risk of loss in transportation.

8. The correct answer is B. Normally, when the bailee sells goods to a third party, the bailor, who is the owner of the goods, can recover the goods from the third party purchaser, since the bailee did not have title to the goods. There is one exception under UCC 7-205: when a buyer in the ordinary course of business purchases fungible goods (every unit of goods is the equivalent of any other like unit, either actually or by contract, i.e., the goods are substitutable with other goods similar or identical to them) from a warehouseman who is in the business of buying and selling such goods, the buyer takes title free and clear of all claims under the warehouse receipt (A). The dealer has the appearance of being the owner, and the purchaser has no knowledge of the bailment. The bailor must recover the purchase price of the shoes from the bailee. (Also see Frascona, *Business Law*, 1981, entrusting goods to a merchant who deals in goods of that kind; UCC 2-403(2).)

9. The correct answer is B: Sweet, the party who agreed to take the risk of loss while the goods are in transit. This assumes that the carrier has taken reasonable care to ensure that the goods would not be destroyed (C).

10. The correct answer is A, sale on approval. In a sale on approval, neither title nor risk of loss passes until the buyer approves. In a sale or return (B), title and risk of loss pass to the buyer, subject to the buyer's right to return the goods instead of paying the purchase price. A consignment (C) is the shipment of goods from one person to another. Sales on consignment mean something different to accountants: that is, when goods are consigned to another (consignee) who sells them as the agent of the owner (consignor).

11. The correct answer is C. This seems to be common sense if you read the question correctly. Phil had an insurable interest in the corn and can collect on his policy. An insurable interest is an interest the insured has in the risk covered by the insurance contract. In sales, an insurable interest is a person's interest in goods, which can be insured against loss. The owner of an insurance contract cannot collect unless they have an insurable interest in the property insured.

12. The correct answer is B. When neither party is at fault and the agreed manner of delivery becomes commercially impracticable, if there is a reasonable substitute, it must be tendered and accepted (UCC 2-614(1)). Delivery is still required, so A is wrong. Commercially impracticable examples given by the code include situations in which the agreed berthing, loading, or unloading facilities fail or an agreed type of carrier becomes unavailable.

13. The correct answer is D, transporting the goods. The design, manufacture, and marketing expenses are not recoverable, since Olympic can still sell the product to another buyer. Incidental damages are those paid to the nonbreaching party arising from a reasonable attempt on the nonbreaching party arising from the breach and can be to avoid loss or mitigate damages. Examples of incidental damages include costs for inspection, receipt, transportation, care, or custody of the rejected goods. Only the transportation costs were costs arising from the breach. Consequential damages are those arising directly from the breach, which the breaching party reasonably could foresee would be a result of the breach. Consequential damages can be recovered only if the other party knew or had reason to know of the breach.The correct answer is D. Oxford may demand that the shipper stop delivery. The seller and the buyer have a right to adequate assurance of performance. Bankruptcy of the buyer is indication that the buyer may not perform his or her part of the contract to accept receipt and pay for the goods delivered. In the case of reasonable grounds for insecurity, the seller may suspend performance of the contract (stop delivery), demand in writing adequate assurance of performance, and await a reply for a reasonable time, not to exceed thirty days (UCC 2-609). The seller's right to receive cash payment upon discovery of buyer's insolvency allows the seller to demand cash for product already delivered or to stop delivery of product in transit, unless payment is made in cash (UCC 2-702). Where the buyer becomes insolvent before its performance is due, the seller may withhold the goods (UCC 2-703(a)). Not interfering with the shipment (A), whether the cost is over $500 (parole evidence rule) or whether the shipment is a carload or more, does not enter into this rule.

14. The correct answer is D: the computers are identified in the contract. The buyer has a right to recover the goods when the seller becomes insolvent, or where the buyer desires to receive the goods and a substantial prepayment is made (half the price) and then finds out the seller is insolvent. UCC section 2-502 allows the buyer to recover the goods if the following conditions are met: the goods must be identified to the contract, the buyer must have paid all or part of the purchase price, the buyer must be willing to pay the balance due, if any, and the seller must become insolvent within ten days after receipt of the first installment.

15. The correct answer is A. Under UCC section 2-608, the buyer may revoke his acceptance of a lot or commercial unit whose nonconformity substantially impairs its value to him or her. Revocation of acceptance must occur within a reasonable time after the buyer discovers or should have discovered the grounds for it and before any substantial change in the condition of the goods. The revocation is not effective until the buyer notifies the seller of the revocation. A buyer who so revokes has the same rights and duties with regard to the goods involved as if he had rejected them. One week is too restrictive. And using or reselling the wheat is not a rejection but acceptance of the product. The wheat should be returned to the seller or the seller should pick up the wheat within a reasonable period of time.

16. The correct answer is B. If the store accepts the goods and does not return them or asks that they be picked up, then the store can recover only the difference between the price of goods as ordered and the price of goods delivered. The buyer has the right to accept the goods, notify the seller of the breach, and subtract damages from the purchase price or sue for damages (UCC 2-607). The loss in value to the company of goods as delivered vs. goods as ordered is a recoverable damage.

17. The correct answer is C, an implied warranty of fitness for a particular purpose. An express warranty (A) is a warranty expressed by a party: any affirmation of fact of promise made to the buyer which relates to the goods and becomes part of the basis of the bargain. An express warranty must be found in the sales agreement, advertising, plans, or instructions furnished with the goods (as in the packaging) or may be made orally, as a statement of fact and not a statement of opinion (UCC 2-213(1)). Implied warranties are those imposed on a sales transaction by statute or court decision. An implied warranty of merchantability (B) is for all merchants; simply stated, the goods are fit for the ordinary purposes for which such goods are used (UCC 2-314(2)(c)). An implied warranty for fitness for a particular purpose is where the seller at the time of contracting has reason to know any particular purpose for which the goods are required and that the buyer is relying on the seller’s skill or judgment to select or furnish suitable goods. There is, unless excluded or modified, an implied warranty that the goods shall be fit for such a purpose (UCC 2-215).

18. The correct answer is A, “as is.” Unless the circumstances indicate otherwise, all implied warranties are excluded by expressions such as “as is,” “with all faults,” or other language which in common understanding calls the buyer’s attention to the exclusion of the warranties and makes plain that there is no implied warranty UCC 2-316(3)(a).

19. The correct answer is C, both implied warranty of merchantability and fitness for a particular purpose. Unless the circumstances indicate otherwise, all implied warranties are excluded by expressions such as “as is,” “with all faults,” or other language which in common understanding calls the buyer’s attention to the exclusion of the warranties and makes plain that there is no implied warranty UCC 2-316(3)(a). You must read the full question (RTFQ), since the options A and B, while correct, are incomplete.

20. The correct answer is D: Jill suffered an injury caused by the defect. Allright’s sale of the oven is not controlling; that is, the basis of implied warranties and not the manufacturer’s warranties. Allright’s manufacture of the product is enough to make them liable. Risk (C) and defects (B) do not give rise to product liability; only damages do. Where a defect in manufacturing or design due to negligence gives rise to injury, the manufacturer is liable for damages.

21. The correct answer is A, drawer. The drawer is the person who initially draws or creates and signs a draft. The drawee (B) is the person on whom a draft is drawn and ordered to pay. The “indorser” (C) (I believe this should be “endorser”) is the person who signs on a (financial) instrument (i.e., a check) or a paper attached to it other than as a maker, drawer, or acceptor. An endorsee is the person named by an endorser on an instrument to whom it is to be paid. The payee (D) is the person to whose order the (financial) instrument is originally written. The payor bank is the bank by which an item is payable as drawn or accepted UCC 4-105(c).

22. The correct answer is B, order instruments only. Bearer instruments (A) are like cash and are owned by the bearer, the person in possession of an instrument, document of title, or certificated security payable or deliverable to bearer or indorsed in blank (signature without additional words). An instrument is a writing, which evidences a right to payment of money, including negotiable instruments and also certified securities.

23. The correct answer is C, a restrictive indorsement, which is an endorsement (again, I believe the word is “endorsement”) that determines the type of interest in the instrument transferred. This question is a lot simpler than the following definitions would make it seem. An accounting textbook with a good section on controls describes accurately what a restrictive endorsement is, and the example here in the question is a good one. An endorsement is an endorser’s signature on an instrument, or on a paper attached to it. A blank endorsement (A) is an endorsement that does not specify any particular endorsee. An endorsee is the person named by an endorser on an instrument to whom it is to be paid. A qualified endorsement (B) is an endorsement that disclaims or qualifies the liability of the endorser on the instrument. A special endorsement (D) is an endorsement that specifies a particular endorsee.

24. The correct answer is D. A bearer instrument is like cash and transfers to the recipient upon the good faith of the recipient (A). The transferor does not have to have good faith: only the transferee (B and C). A bearer is a holder who is in possession of an instrument, which is bearer paper on its face, i.e., made out to Bearer or Cash or to the equivalent of these, such as a blank endorsement UCC 1-201(5). A bearer is not a holder in due course unless other conditions are met. A holder in due course (definition) is the holder of a negotiable instrument who takes it for value, in good faith, and without notice that the instrument is overdue or has been dishonored for any defense against, or claim to, the instrument by any person UCC 3-302.

25. The correct answer is D. Erin, the primary obligee on the note, must default on the note before the co-signer, or the secondary obligee, is responsible to pay the note. Negotiating the note to another note holder (B) does not require Frank to pay. When Ace presents the note for payment (C), that does not require Frank to pay. Transfer warranties (A) are irrelevant.

26. The correct answer is A, breach of warranty. Consideration is the legal price bargained for a promise and inducing a party to enter into a contract. Without consideration, there is no contract. In this case, the $2000 promissory note is consideration (B). Fraud is a misrepresentation of fact, known to be false, intentionally made to induce another person to make or to refrain from making a contract, and reasonably relied on by the other person. In order for fraud to be a crime, the person making the misrepresentation must materially benefit from the act. There does not seem to be any fraud involved (C). Undue influence (D) is unfair persuasion by one who, because of his relationship with another, dominates the other. The question mentions no relationship or dominance of one party over the other in the contract. A warranty is an express or implied assurance that certain facts exist; an affirmation of fact or an express promise made by the seller or the manufacturer of goods, or a promise implied in a sales transaction by law that the goods sold are of a certain quality or will perform in a certain manner.

27. The correct answer is B. Bo can sue the bank only if it agreed to cover his overdrafts. Banks do *not* have a duty to pay all overdrafts.

28. The correct answer is B. Perfecting an interest in a negotiable interest is accomplished by taking possession of the instrument. Filing of financial statements (A and C) is irrelevant.

29. The correct answer is D. The intent to defraud the creditors gives the bankruptcy court the right to do all three.

AGENCY

After studying this topic, you should be able to:

1. *Describe the agency relationship*
2. *Understand the duties of an agent to the principle*
3. *Understand the duties of the principle to the agent*
4. *Differentiate between actual, implied, and apparent authority*
5. *Understand the liabilities of the parties to each other and to third parties in an agency relationship*
6. *Understand the doctrine of respondent superior*

Whether a business enterprise is a sole proprietorship, partnership, or large corporation, the efficient operation of the business depends upon employing other people, some of whom are considered to be agents. If an agency relationship exists, the agent and the person employing him or her (the principle) owe certain duties to each other, and acts committed by an authorized agent will be treated as being acts of the principle. As a result, a principle will be liable in contract to third parties with whom the agent has dealt and in tort to those who have been injured by an agent while the agent was acting within the scope of his or her authority.

An agency is a representative relationship which arises when one person, the agent, represents or acts for and in place of another person, the principle. An agency is a consensual relationship. In most cases, consent of the parties to the creation or termination of an agency relationship is given. In some instances, however, the parties may be treated as having given consent simply because of their conduct.

If an agency relationship exists, the principle and agent owe each other certain duties which are specified by their agreement, and implied duties which are a result of the agency relationship. Some of these duties result from the fact that agency is a fiduciary relationship.

Agents and principles are required to act in good faith and with honesty and loyalty toward each other.

It is important to be able to distinguish agency relationships from other relationships in which services are rendered. An agency-principle relationship (employment) is a fiduciary relationship based upon trust and confidence because an agent acts on behalf of, and instead of, a principle in engaging in business transactions. An agent may bind his or her principal in contract with a third party and have some independent discretion.

An employer-employee relationship exists when the employer controls or has the right to control the employee in the performance of tasks; the employee has little or no independent discretion and is supervised under the direction of the employer. The employer supplies the equipment and tools necessary to carry out the employee's tasks and work is performed at the employer's place of business. The employee is engaged in an occupation or business that is not distinct from his or her employer. And the employer has the right to discharge the employee, pays employment taxes, and pays the employee on a periodic basis for time rather than results.

Employer-independent contractor (agent) exists when an independent contractor is hired to complete a specified task and is normally paid at the completion of performance in accordance with a contract. The person employing an independent contractor does not exercise control over the details of the performance. An independent contractor cannot bind the person employing him or her in a contract with a third party. And, usually, an independent contractor is engaged in an occupation that is different from that of the person employing him or her, and the independent contractor furnishes his or her own materials, equipment, and employees.

An agency is a consensual agreement, but not necessarily a contractual one. Consideration does not need to be given by the principal to the agent. Generally, no special formality, such as a written contract, is necessary to create an agency. A principal must have legal capacity because contracts entered into by his or her agent are treated as contracts with the principal. If a principal lacks capacity, contracts are voidable by the principal but not by the third party. A person does not need to have legal capacity to act as an agent. The agent who lacks capacity, but not the principal, may avoid the contract of agency. An agency may be formed for any legal purpose. If the purpose of the agency is illegal or against public policy, the agency agreement is void and unenforceable. A person who engages in certain professions for which a license is required may not employ an unlicensed agent to perform professional acts.

When an agency is created by agreement, the agent and principal affirmatively indicate that they consent to the formation of the agency. The agreement may be an express oral or written agreement or may be implied from the conduct of the parties. A principal's consent to an agency may be given after an intended agent has acted on behalf of the principal. A principal may be estopped to deny the existence of an agency if he or she caused a third party to believe that another person was his or her agent because there was an appearance that an agency relationship existed.

The duties of agents and principals are fiduciary ones that are based upon trust. Many of the duties that are owed by one of the parties correspond to duties owed by the other party.

Some of the duties of an agent are specified in the agency agreement; others are implied from the agency relationship. A subagent appointed or employed by an agent owes the same duties to the principal as any other agent owes. An agent is required to follow instructions, use reasonable diligence and skill in carrying out obligations, and use special skills which he or she possesses, if applicable. An agent who fails to perform properly may be liable for breach of contract and for the tort of negligence. An agent who is not paid for his or her services who fails to perform properly is not liable for breach of contract but may be liable for negligence. An agent has a duty to notify the principal of material information that relates to the subject matter of the agency. An agent may not compete with his or her principal or act for another principal unless full disclosure is made to the principal and the principal consents. During and after termination of an agency, the agent may not disclose any information acquired in the course of his or her employment. Any secret profits or benefits received by an agent while acting adversely toward his or her principal's interests belong to the principal. The principal has the right to recover such profits or benefits from the agent. An agent must follow all lawful and clearly stated instructions of the principal. In emergencies an agent who is unable to contact his or her principal may deviate from instructions if the situation warrants. An agent must account to his or her principal for any money or property that rightfully belongs to the principal and has come into the agent's possession. An agent should never commingle such property or money with his or her own property or funds or the property or funds of other parties.

Some of the duties of a principal are specified in the agency agreement; other duties are implied from the agency relationship. A principal has an obligation to perform in accordance with his or her contract with the agent. A principal is required to pay any agreed compensation to his or her agent. If no compensation is specified, a principal is required to pay expenses, losses, and reasonable compensation for services rendered by the agent unless the agency is a gratuitous one or there are circumstances, such as a family relationship, indicating that compensation had not been intended. There is, however, no duty to pay compensation to an agent who has failed to perform his or her duties properly. A principal has a duty to reimburse the agent for disbursements of money made at the principal's request and disbursements made for necessary expenses in the course of the agent's performance of his or her duties. A principal has a duty to indemnify an agent for liabilities incurred while the agent was acting within the scope of his or her authority and for losses incurred because of the principal's failure to perform his or her duties. A principal is required to assist an agent in performing his or her duties and to do nothing to prevent the agent's performance. The principal has a duty to provide a safe working environment.

The remedies available to an agent include those generally available in breach of contract and tort cases. An agent may sue for damages; an agent may bring a breach of contract or commission of a tort, or a counterclaim if the principal sues him or her. If there are appropriate circumstances, an agent may bring an action for an accounting by the principal and may withhold further performance. An agent can recover for unpaid past performance and future damages but cannot force the principal to continue to employ him or her as an agent.

A principal can recover from an agent for breach of contract, breach of fiduciary duties, or commission of a tort and, when appropriate, may terminate the agency. A court may impose a constructive trust on property received by an agent who has used his or her agency position in conflict with those of his or her principal so that the property or proceeds from its sale are held for the benefit of the principal. Transactions engaged in by an agent in violation of the agency agreement or the agent's duties are voidable at the election of the principal. If a principal is required to pay damages to an injured party for an agent's tortious conduct or incurs a loss as a result of an agent's violation of the principal's instructions, the principal may recover the amount of the damages from the agent.

A principal is liable to a third party for an act or transaction engaged in or conducted by his or her agent. As a result, a principal may be liable in contract or tort to a third party. The third party must establish that there was an agency relationship and that the agent was acting within the scope of his or her actual or apparent authority or that the principal later ratified the act of the agent.

Actual authority may be expressly or impliedly conferred by the principal upon the agent in order to accomplish the purpose of the agency. Express authority may be given orally or in writing. Unless required by the statute of frauds or other state statute, a writing is not necessary. In most states, when an agent is empowered to enter into contracts that are required to be evidenced by a signed writing because of the statute of frauds, the agent's authority to do so must be granted in a writing signed by the principal. An exception exists when corporate executives are acting for corporations in the ordinary course of business; written authorization is not required. If the appointment of an agent is in writing, the writing is called a "power of attorney," which should be notarized. An agent has special authority if he or she is empowered to perform only specific acts; an agent has general authority when he or she is empowered to engage in all types of business transactions on behalf of a principal. Implied actual authority may be inferred because of the conduct of the principal conferred on the agent because of custom or may be reasonably necessary in order to carry out the purpose and express authority of the agent.

Apparent authority exists when a principal holds out to a third person that his or her agent has authority and the third person reasonably relies upon the principal's statement or conduct, deals with the agent, and incurs a loss or is otherwise injured. The principal is prevented from asserting that the agent lacked authority. Apparent authority may arise if a principal gives an agent possession of his or her property or evidence of ownership of property. Apparent authority cannot be based upon declarations or conduct of the agent alone.

An ostensible (apparent) agency exists when communications or conduct of a person (principal) causes a third person to believe that the purported agent is his or her agent and has authority to act on his or her behalf; the appointing person is estopped (prevented) from denying the existence of the agency. The ostensible agent has apparent authority to do those things that a similar agent customarily has the implied actual authority to do; the principal is estopped (prevented) from denying that the agent had authority.

In an unforeseen emergency situation when an agent is unable to communicate with the principal, it is inferred that the agent has the power to take necessary appropriate action in order to protect or preserve the property or other interests of the principal.

Ratification is the affirmation by a principal of a previously unauthorized transaction. The principal must have knowledge of all material facts surrounding the transaction. If the principal lacks complete knowledge, he or she may repudiate the ratification unless the third party has changed his or her position in reasonable reliance on the ratification. It does not matter that the lack of knowledge results from the agent's wrongful conduct or a mistake. The effect of ratification is to bind the principal as if the act or conduct had been originally authorized. The entire transaction must be ratified.

The agent must have held himself or herself out as acting for the person (principal) who subsequently ratifies. The principal must have the capacity at the time the act was performed and at the time the act was ratified. Death, incapacity, or withdrawal of the third party before ratification prevents the principal from effectively ratifying. Express ratification exists when a principal clearly approves and actually expresses intent to be bound to the terms of a contract which the agent entered into without authorization. Implied ratification exists when a principal indicates an intention to be bound to the terms of a contract which the agent entered into without authorization by accepting the benefits or by failing to repudiate the contract promptly.

A disclosed principal is one whose identity is known by the third party with whom the agent enters into a contract on behalf of the named principal. In general, when a contract is made in the principal's name and is authorized by the principal, the parties to the contract are the principal and the third party. If there is a breach of the contract by the principal, the principal is liable to the third party. If there is a breach of the contract by the third party, the third party is liable to the principal. The agent is not a party to the contract and, therefore, does not incur contract liability unless the agent expressly obligates himself or herself or guarantees performance by the principal. When a contract is made in the name of a disclosed principal by an agent who lacks authority and the contract is not ratified by the principal, the principal is not liable to the third party and the third party is not liable to the principal. The agent is not liable as a party to the contract but may be liable to the third party because of a breach of warranty.

A partially disclosed principal is one whose existence but not identity is known by the third party. In most states both the principal and agent are treated as parties to the contract and the third party can enforce the contract against either the principal or the agent.

An undisclosed principal is a principal whose existence and identity are completely unknown by the third party. The agent is a party to the contract and is liable as such to the third party. If the agent was acting within the scope of his or her authority, the agent is entitled to indemnification from the undisclosed principal. The third party also is liable to the agent in the event of a breach of contract by the third party. If the agent was acting within the scope of his or her authority, the third party can enforce the contract against the principal following the disclosure of the principal's existence and identity, unless: 1) the undisclosed principal was expressly excluded as a party to the contract; 2) the contract is a negotiable instrument; 3) the performance of the agent is personal to the contract; and 4) the agent or principal knew that the third party would not have entered into a contract with the principal had the third party known the principal's identity, and the third party rescinds the contract. The third party has a right to elect to hold either the principal or the agent liable. The undisclosed principal can enforce the contract against the third party if the contract was entered into on the principal's behalf by an authorized agent, unless liability is based upon a negotiable instrument and the principal did not acquire rights to it, the third party was being defrauded by the principal, or the contract was for the performance of personal services by the agent.

An agent who lacks authority or exceeds the scope of his or her authority is not liable to the third party for breach of contract but may be liable for breach of an implied warranty of authority. The agent is liable for the breach of warranty even if the breach was unintentional or made because of a good faith mistake. The agent is not liable for breach of the warranty of authority if the third party knew that the agent made a mistake about the extent of his or her authority or the agent indicated uncertainty as to the extent of his or her authority.

An agent is personally liable for his or her own torts even if the torts were authorized. A principal may be liable to an injured person for a tort committed by an agent because of the principal's own tortious conduct, the principal's authorization of a tortious act, or the agent's tortious misrepresentation, or because of the application of the doctrine of respondeat superior. A principal may be liable for negligence if he or she gives improper instructions, authorizes the use of improper material (tools or equipment), establishes improper rules, or fails to prevent an agent's tortious conduct while the agent is on the principal's property or using the principal's equipment, materials, or tools. If a principal authorizes the agent to commit a tortious act, the principal is liable because the act is considered to be the act of the principal. A principal is liable for a misrepresentation made by an agent who has actual or apparent authority to make representations and the particular misrepresentation was made while the agent was acting within the scope of such authority. A principal who places an agent in a position is liable for the agent's misrepresentations when the agent's position conveys to third parties the impression that the agent has authority to make statements and perform acts consistent with the ordinary rules that are within the scope of the position and the agent appears to be acting within the scope of authority that the position of agency confers.

A person in a superior position, such as an employer or principal, is liable for torts committed by a subordinate, such as an employee or an agent, if the subordinate was acting within the scope of his or her employment or agency in furtherance of the superior's business. Factors used in determining whether or not a particular act occurred within the course of employment or the scope of authority are: 1) whether the employer authorized the act; 2) the time, place, and purpose of the act; 3) whether the act was one commonly performed by employees; 4) the extent to which the employer's interest was advanced by the act; 5) whether the employer furnished the means or instrumentality by which an injury was inflicted; 6) whether the employer had reason to know that the employee would do the act in question and whether the employee had done the act before; and 7) whether the act involved the commission of a crime.

Liability is imposed upon employers who have duties to manage their affairs so as not to injure other people and who are in better positions than injured parties to control their agents and employees to prevent the injury and to bear the financial loss. The principal/employer cannot contractually disclaim liability for a subordinate's torts. The principal/employer is liable if the act causing the injury occurred when the agent/employee was acting within the scope of employment, even if the act was not authorized and was contrary to the principal's/employer's instructions. Traveling to and from the place of employment usually is considered to be outside the scope of employment; travel time of a traveling salesperson is considered to be within the scope of employment. A substantial departure or deviation from the employer's business and the employee's required duties is outside the scope of employment.

Because of the doctrine of respondeat superior, an employer is liable for intentional torts committed by an employee during the course of his or her employment. If an employee commits a tort at the direction of the employer, both the employer and employee are liable, even though the employee may have been unaware of the wrongfulness of the act. An employer who has the right to control the activities of his or her employees is liable for their intentional torts and has a duty to restrain employees from engaging in reckless acts.

An employer is not liable for harm to third parties caused by the intentional or negligent acts of an independent contractor in the performance of the contract because the employer does not have the right to control the manner of performance by the independent contractor. Strict liability, however, is imposed upon both the employer and the independent contractor if the independent contractor is engaging in exceptionally hazardous activities, such as blasting, transportation of highly volatile chemicals, or the use of poisonous gases; in some states, strict liability is imposed on the employer by statute.

An agent or employee is liable for his or her own crimes even if he or she is acting within the scope of authority or employment. A principal or employer is not liable for the criminal actions of an agent or employee even if the agent or employee is acting within the scope of authority or employment, unless the principal or employer participated in the crime or expressly directed or authorized the crime's commission or a specific statute imposes liability on the principal or employer.

An agent can hire a subagent or an employee when the agent is so authorized by the principle to perform simple, definite duties when this is the business custom or in unforeseen emergencies. If an agent is authorized to employ subagents for a disclosed principal, the principal is responsible for compensating the subagent and is liable for the acts of the subagent. If an agent is not authorized to employ subagents for a principal, the principal is not responsible for compensating the subagent and is not liable for the acts of the subagent. If an agent is authorized to employ subagents for an undisclosed principal, the agent is responsible for compensating the subagent; but the undisclosed principal is liable for the tortious acts of the subagent.

An agency expires at the end of a specified time if one is stated or terminates after the expiration of a reasonable period of time if no term has been specified. An agency is terminated when the objective for which it was created has been accomplished. An agency ends upon the occurrence of a particular event if its formation was that specific purpose. The parties to an agency may mutually consent to the termination of an agency. A principal may revoke the authority of an agent, or an agent may renounce his or her appointment as an agent. Either party may have the power, but not necessarily the right, to terminate an agency. If an agency is an agency at will (not for a stated term or for a particular purpose), either party has the power and right to terminate the agency. If an agency is not an agency at will, a party may have the power but not the right to terminate the agency and therefore is liable to the other party for the wrongful termination, which is a breach of contract.

If either the principal or the agent dies or is judged to be incompetent, an agency is terminated. Knowledge of the death or incompetence is not required. An agency is terminated if the subject matter of the agency is lost or destroyed or if a change in law makes further conduct of the agency illegal. An agency is terminated if there is an unforeseen occurrence that has an unusual effect on the subject matter of the agency such that the agent reasonably can infer that the principal does not want the agency to continue. Usually, the bankruptcy of the principal will terminate the agency; however, the bankruptcy of the agent does not necessarily terminate the agency.

If termination is by the act of a party, the agency continues between the principal and the agent until the principal who is revoking or the agent who is renouncing his or her authority gives notice. Actual notice must be given to third persons that are known to have dealt with the agent. Constructive notice must be given to those who knew of the agency. The party terminating the agency or another person may give the notice. Notice generally is not required if the agency is terminated by operation of the law.

AGENCY

REVIEW QUESTIONS

1. Nora is an executive for Omega Corporation. When acting for Omega in an ordinary business situation, Nora is:

   a. an agent only.
   b. a principal only.
   c. an agent and a principal.
   d. none of the above.

2. Erin is the agent of Franco, an actor. Erin makes a deal for Franco to act in a new movie for Great Productions, Inc. The contract is binding on Franco if it is signed on his behalf by:

   a. Erin.
   b. Great Productions.
   c. the Screen Actors Guild.
   d. none of the above.

3. American Products, Inc., employs Bill as a salesperson, with the authority to sell American's products at prices that Bill negotiates in the field. With respect to those prices, Bill is:

   a. only American's employee.
   b. American's employee and agent.
   c. an independent contractor.
   d. none of the above.

4. Carol is an agent for Dirk, a recording artist. Carol makes a deal for Dirk to record exclusively for six years for Excel Music, Inc. For the contract to be binding on Dirk, it must be signed by:

   a. only Carol.
   b. Carol and Dirk.
   c. only Excel Music.
   d. none of the above.

5. Mike is an architect who works for General Construction Company. The most important factor in determining whether Mike is General's employee or an independent contractor is:

   a. the degree of control that General exercises over Mike.
   b. the distinction between General's business and Mike's occupation.
   c. the length of the working relationship between General and Mike.
   d. the method in which Mike is paid.

6. Mick contracts with Brian to act as Mick's agent to direct smuggling operations into the United States. Brian does not successfully complete the smuggling operations. Mick can recover from Brian for:

   a. nothing.
   b. breach of contract.
   c. malpractice.
   d. incompetence.

7. Helen retains Jack to act as her authorized business agent. Helen does not know that Jack is a minor. Jack enters into a contract on Helen's behalf. The contract is:

   a. binding on Helen.
   b. binding on Jack.
   c. void.
   d. voidable.

8. Fred is legally incompetent. Fred can be:

   a. an agent only.
   b. a principal only.
   c. an agent or a principal.
   d. none of the above.

9. Phil is an executive acting as an agent for National Development Corporation (NDC). In an ordinary business situation, Phil:

   a. must obtain written authority from NDC to enter into contracts on NDC's behalf.
   b. must obtain written ratification from NDC of any contracts entered into on NDC's behalf.
   c. is estopped from denying that he is acting on NDC's behalf.
   d. none of the above

10. Fred is appointed as a sales agent for Treasure Island, Inc. The agency agreement is silent as to the level of sales that Fred is expected to achieve. Fred is required to:

    a. sell nothing.
    b. achieve the level of sales that was attained by the company before he agreed to work as its agent.
    c. use reasonable diligence and skill in selling.
    d. none of the above

11. Donna holds herself out as possessing special engineering skills. As an agent, she must exercise the degree of skill or care expected of:

    a. a person having those skills.
    b. a reasonable person.
    c. a reasonable person under similar circumstances.
    d. none of the above.

12. Alex, an agent for Paul, signs an agreement on Paul's behalf, but neglects to tell Paul that the agreement requires the payment of certain taxes. The government prosecutes Paul for failing to pay the taxes. Paul is:

    a. not liable because he was not informed of the tax liability by Alex.
    b. not liable because he was not given adequate notice.
    c. liable because Alex's knowledge is imputed to Paul.
    d. liable because paying taxes is mandated by the constitution.

13. Ellen, a salesperson at Top Tile Company, tells a customer, "Buy your tile here, and I'll install it myself for half of what Top would charge you." The customer makes the purchase, on the basis of Ellen's representation. Ellen installs the tile, charges the customer $500, and keeps the money. Ellen has breached the duty of:

    a. loyalty.
    b. notification.
    c. obedience.
    d. none of the above

14. Associated Investments employs Owen to buy property for a future commercial development. Owen secretly buys some of the property and sells it to Associated Investments at an inflated price. Owen has breached the duty of:

    a. accounting.
    b. loyalty.
    c. notification.
    d. none of the above.

15. International Software, Inc., employs Jill as an agent. During the agency, Jill acquires knowledge and skills. She also learns International’s trade secrets, including customer lists. After the termination of the relationship, Jill uses her acquired skills and knowledge, but not International's trade secrets, in a new job. Jill has breached the duty of:

    a. loyalty.
    b. obedience.
    c. performance.
    d. none of the above.

16. National Computer Corporation (NCC) employs Cynthia as an agent. NCC gives her an exclusive territory in which to sell NCC products. NCC cannot compete with her in that territory under the duty of:

    a. compensation.
    b. cooperation.
    c. indemnification.
    d. reimbursement.

17. Paul employs Personnel Agency as an agent. They sign a written agreement that describes the rights and duties of both parties. This is an example of:

    a. apparent authority.
    b. express authority.
    c. implied authority.
    d. none of the above.

18. Lynn may hire employees to work in the computer store she manages, despite the fact that her employment agreement with the owner says nothing about her being able to hire employees. This is an example of:

    a. apparent authority.
    b. equal authority.
    c. express authority.
    d. implied authority.

19. Quick Office Supplies Company requires its customers to pay by check. Ron, a Quick driver, tells customers on his route that they can pay him with cash. When Quick learns of Ron’s collections, it takes no action to stop it. Ron steals some of the cash. Quick may be liable under the doctrine of:

    a. apparent authority.
    b. equal authority.
    c. express authority.
    d. implied authority.

20. U.S.Sales, Inc., employs Barb as a sales agent. U.S. Sales gives Barb a furnished office and an expense account. Techton Company orders goods from Barb, who fills the order with goods from Fast Products Corporation. The goods are defective. Techtron may recover damages from U.S. Sales on the grounds of:

    a. apparent authority.
    b. express authority.
    c. implied authority.
    d. none of the above.

21. Without authorization, Arnold contracts on behalf of Peter to have Brice paint the interior and exterior of Peter's home. Peter wishes to have Brice paint only the interior. Peter's attempt to rescind that part of the contract relating to the exterior and ratify that part of the contract relating to the interior will be:

    a. successful.
    b. unsuccessful.
    c. illegal.
    d. none of the above

22. Greta hires David to act as her agent in the purchase of a home. Greta does not want the seller to know that she is the buyer so she asks David to represent that he is making the purchase for himself. Greta is:

    a. a disclosed principal.
    b. a partially disclosed principal.
    c. an undisclosed principal.
    d. an independent contractor.

23. Quality Mines, Inc., employs Ron as an agent. Ron enters into a contract with Gems International, LTD., within the scope of Ron's authority but without disclosing that he is an agent acting for Quality Mines. Quality Mines does not perform. Gems can recover from:

    a. Quality Mines only.
    b. Ron only.
    c. Quality Mines or Ron.
    d. none of the above.

24. Tri-State Trucking Company employs Warren as a delivery agent. While making a delivery within the scope of employment, Warren causes an accident in which Yvonne is injured. Yvonne can recover from:

    a. Tri-State Trucking only.
    b. Warren only.
    c. Tri-State Trucking or Warren.
    d. none of the above.

25. Electronics Warehouse Company employs Statewide Financial, Inc., as a collection agent. While repossessing goods from Todd, one of Electronics's delinquent customers, Statewide causes an accident in which Todd is injured. Todd can recover from:

    a. Electronics Warehouse only.
    b. Statewide Financial only.
    c. Electronics Warehouse and Statewide Financial.
    d. none of

26. Brenda is a salesperson for Scot's Home Supply. She advises a customer that certain lumber will last for twenty years without treatment to prevent water damage. In reliance on this advice the customer purchases the wood. Brenda's statement is in error, and the lumber deteriorates within three years. Scot's Home Supply is:

    a. not liable; only Brenda is liable.
    b. not liable; nor is Brenda, because the customer should have known that the wood could not last for twenty years.
    c. liable because the misrepresentation occurred within the scope of Brenda's employment.
    d. liable with Brenda under the rule of shared liability.

27. General Construction, Inc. (GCI) hires A-1 Contractors, Inc., to work at a construction site as an independent contractor. Whether GCI will be held liable for torts committed at the site by A-1 depends on:

    a. whether A-1 submitted a bid for the job.
    b. whether exceptionally hazardous activities are involved.
    c. who is paying A-1.
    d. none of the above.

28. Allied Transport Corporation employs Burt as an agent. Without Allied's knowledge, but while otherwise acting within the scope of employment, Burt commits a burglary. The state can successfully prosecute:

    a. Allied only.
    b. Burt only.
    c. Allied or Burt.
    d. None of the above.

29. Eagle Manufacturing Company employs Linda as an agent. To terminate Linda's authority, Eagle must notify:

a. Linda only.
b. only third parties who know of the agency relationship.
c. Linda and third parties who know of the agency relationship.
d. none of the above.

30. Mike hires Cindy, a real estate broker, to sell his house. The house burns down before being sold. The existing agency agreement is likely:

a. still in force if Cindy says nothing about the fire to prospective customers.
b. still in force if Mike gives Cindy additional consideration.
c. terminated by operation of law.
d. terminated by mutual consent of the parties.

AGENCY

REVIEW QUESTION SOLUTIONS

1.	A
2.	A
3.	B
4.	A
5.	A
6.	A
7.	A
8.	A
9.	D
10.	C
11.	A
12.	C
13.	A
14.	B
15.	D
16.	B
17.	B
18.	D
19.	A
20.	A
21.	D
22.	C
23.	A
24.	C
25.	C
26.	C
27.	B
28.	B
29.	C
30.	C

AGENCY

Explanation of Review Question Solutions

1. The correct answer is A, an agent only. An agent is someone authorized to act on behalf of another and is subject to the other's control. Business associations rely on their employees and other representatives to contract and to act on the association's behalf in delivering goods and services. A principal is someone who has authorized an agent to act on his behalf and is subject to his control. Nora is an employee or agent, not a principal or owner.

2. The correct answer is A, Erin. The agent can sign for the principal where the agency relates to the specific act. The agent is protected from liability where the principal is disclosed, the agent has authority to act, and the agent signs the contract or instrument correctly, i.e., principal name by agent name. If you simply write your own name as agent with no mention of the principal, the parol evidence rule (PER) may exclude oral testimony as to which principal, if any, the agent is binding. Great Productions (B) is the third party who is contracting with the principal and cannot bind the principal. The Screen Actors Guild (C) can act for the principal only if he authorizes them to do so, on which the problem has remained silent. Where the problem does not specifically state, we must assume no relationship.

3. The correct answer is B, American's employee and agent. The problem tells us that Bill is an employee with the authority to set prices and sell products at those prices in the field, which is an agency of the company.

4. The correct answer is A, only Carol. This question is similar to question #2. The added wrinkle in this question is whether the principal, Dirk, has to sign the contract as well (B). The answer is no. Excel Music (C) is the third party and not an agent for Dirk, the principal, and cannot bind him to the contract. If Carol, the agent, did not have authority to bind Dirk, the principal, then Dirk would have the right to ratify the contract after the fact. Ratification is the affirmation by a person of a prior act which did not bind him but which was done on his account and given effect as if originally authorized by him (Second Restatement of Agency sec. 82 (1958)). Ratification becomes important when an agent exceeds his or her authority to act. In both cases, without ratification by the principal, the principal is not bound to the agreement. This question clearly states that Carol, the agent, had agency; therefore, ratification by Dirk, the principal, is not required to form a binding contract with the third party, Excel Music.

5. The correct answer is A, the degree of control that General exercises over Mike. This is not a difficult question for anyone who understands tax law in addition to business law. The difference between the business contractor and the occupation of the contractee (B), the length of time they worked together (C), and the payment method (D) are not relevant.

6. The correct answer is A, nothing. A contract to perform illegal (contrary to law) acts is not a contract. If a contractual purpose is to do something illegal (a crime is an act committed or omitted in violation of a public law governing it), then that agreement violates public policy (the concept of law under which the freedom to act is limited for the good of the community) and will not be enforced (to compel performance) as a contract by the courts. It is a void agreement, meaning there is no contract because there is no legal duty to perform a promise.

7. The correct answer is A, binding on Helen. Any person may act as agent (definition), even if he or she lacks contractual capacity. The contract is between the principal and a third party; the agent is not a party to the contract. Thus, although a minor agent can avoid the contract with the principal who appointed the minor as an agent, the minor has the power to bind the principal with a third party. The minor's power of avoidance is personal to the minor and is not available to the principal. Thus, the contract is not binding on the minor, Jack (B). While the contract between a minor and another is voidable by the minor, the contract between Helen and the third party is not voidable (D) or void (C).

8. The correct answer is A, an agent only. There is no requirement that an agent be legally competent. Generally, if a person has the legal capacity to act, the person can act through an agent. If the principal has limited capacity, the appointment of an agent is void or voidable in accordance with contract law. A minor authorizes an adult as agent to enter in a contract with a third party. Both the appointment of the agent and the contract entered into are voidable by the minor. The minor can ratify the contract after the minor reaches majority.

9. The correct answer is D, none of the above. An agent need not have written authority for agency (A). An agent need not have written ratification of the principal to bind the principal (B). At his/her own peril, an agent can deny agency (C), since the ability to terminate agency by renunciation is always an option for the agent.

10. The correct answer is C, use reasonable diligence and skill in selling. Selling nothing (A) appears to conform to our rule that options that involve never or always are almost always wrong. However, common sense indicates that this is ridiculous. Since no level of sales is mentioned, reference to prior sales levels is moot (B). The agent owes the principal normal requirements of a fiduciary relationship, such as loyalty, obedience, performance, reasonable care, accounting, and information (keep principal informed).

11. The correct answer is A, a person having those skills. Under section 379 of the Restatement (Second) of Agency: "Unless otherwise agreed, a paid agent is subject to a duty to the principal to act with standard care and skill in the locality for the kind of work which he (she) is employed to perform and to exercise any special skills that he (she) has."

12. The correct answer is C. The principal is assumed to have the same knowledge as the agent. The fact that someone would not be liable for taxes because he or she was not informed by an agent (A) or did not give adequate notice (B) is ludicrous in the extreme. The mandate of the constitution (D) is a bit far out and not specific enough to be useful in this situation.

13. The correct answer is A, loyalty. The agreement between the principal and the agent creates a fiduciary relationship (a person who has a duty to act primarily for the benefit of another). An agent cannot enter into a contract directly with a third party that would create a conflict of interest with the principal; such violates the duty of loyalty. The contractual relationship between the principal and the agent may be an ongoing process creating a variety of instructions the agent is obligated to follow, which is called obedience and performance (C). Violation of the obligation to follow reasonable instructions consistent with the agent's professional requirements, resulting in harm to the principal, even when acting in good faith, creates a liability for the agent to make whole the principal. Notification appears to be the duty of information (B), which requires the agent to keep the principal informed of all matters pertinent to the agency.

14. The correct answer is B, loyalty. This question is similar to #13. See #13 for more information. In this matter a conflict of interest is caused by the contract between agent and third party, which is a breach of the duty of loyalty. This question goes beyond #14 by selection A, the duty of accounting. The duty of accounting is to give a proper accounting of the agency. The duty of accounting prohibits you from secretly keeping profits that rightly belong to the principal.

15. The correct answer is D, none of the above. Learning on the job and taking that knowledge to the next job is in no way a breach of any of the duties of agency of loyalty, obedience, and performance, reasonable care, accounting, or information (notification). Had Jill, the ex-agent, used the trade secrets of her former employer (principal), she would have violated her duty of loyalty.

16. The correct answer is B, cooperation. The principal has four duties to the agent: compensation, comply with agency contract (cooperation), reimbursement, and indemnity. The agent is entitled to the agreed compensation (A) or the fair value of the agent's services. The agents are entitled to compliance with the agency contract, which, if it involves exclusive agency within a territory, prohibits employing another agent or by themselves to compete with the first or premature termination of the agency contract. Indemnity (C) is an obligation to pay for another's loss. The principal is obligated to pay for any reasonable loss on the part of the agent that arose as a result of the agency relationship. If the agency contract requires the agent to use his/her own money to perform the agency contract, the principal has a duty to reimburse (D) the agent for those expenditures.

17. The correct answer is B, express authority. Apparent authority (A) is the power of a person (agent) to act as though he/she were an agent, created by another's (the principal) manifestation to a third person that the agent is the principal's agent. Express authority (B) is where the principal orally or in writing specifies what the agent is to do. Implied authority (C) is that authority which the agent reasonably can understand he has from his principal's manifestation to him, but it is not expressed therein. The contract between agent and principal is an example of express authority.

18. The correct answer is D. This question is similar to question #17; please see #17 for the definitions that apply here. Since the authority was not stated but was inferred from the principal's agreement with the agent, this is implied agency. There is actual, apparent, coupled with an interest, delegated, express, implied, irrevocable, limited, and terminated authority. I am unaware of any equal authority (B).

19. The correct answer is A, apparent authority. This question is similar to question #17; please see #17 for definitions. By not stopping Ron from taking payments in cash, the principal, through inaction, was giving Ron apparent authority to collect cash. Ron is acting for the company and has accepted the cash on behalf of the customer, who is no longer liable once the cash is accepted. The theft of the cash is from the principal.

20. The correct answer is A, apparent authority. This question is similar to question #17; please see #17 for definitions. Even though the agent, Barb, has no express or implied authority to sell Fast Products Corporation goods to a third party, Techton Company; since US Sales (the principal) has set Barb up as an agent, US Sales becomes liable for the actions of Barb (apparent authority).

21. The correct answer is D, none of the above. Where an agent has no authority, or he or she exceeds that authority, the principal must ratify the original contract. The person (principal) ratifying the contract must have legal capacity both when the original agreement was made and when the ratification is made, and the principal must ratify the entire contract. Ratification cannot be piecemeal. Therefore, the attempted ratification of a piecemeal portion of the contract will not be successful.

22. The correct answer is C, an undisclosed principal. If the third party is not aware and reasonably should not be aware that the agent is acting for anyone, the principal is called an undisclosed principal. A partially disclosed principal (B) is a person whose identity is not disclosed to a third person who knows, or reasonably should know, that an agent is, or may be acting as, an agent for that principal, whoever it may be. A disclosed principal (A) is a person known, or who reasonably should be known, by a third party to be a principal of an agent. An independent contractor (D) is a person who contracts independently for himself to render a result and who is not acting on behalf of another (as agent), nor is subject to another's control.

23. The correct answer is A, Quality Mines only. If this is a partially disclosed principal (the third party knows there is a principal but not the identity), the third party can recover only from the principal. If this is an undisclosed principal (the third party is unaware that there is a principal at all), the third party can recover from both the principal and the agent. In spite of the fact that the third party can recover from principal and agent, unless the principal is insolvent, the agent has a right of indemnity against any losses incurred as a result of acting as an agent.

24. The correct answer is C, Tri-State Trucking or Warren. The agent is held liable to third parties for the agent's torts, irrespective of whether or not his principal is also liable and whether or not the agent was acting within the scope of the agent's authority. So we know that Yvonne can recover from Warren, the agent. Can Yvonne recover from the principal, Tri-State Trucking? Servants (agents), nonservants (agents), and masters (principals) become important since the liability of the principal increases with the level of control exerted over the agent. Employees are servant agents and independent contractors are nonservant agents. The principal is liable for the tortious physical harm or loss to third persons by his servant agents but not for nonservant agents. The principal is liable for nonphysical torts of both the servant and nonservant agents. An additional requirement is that the agent must be acting within the agent's authority to make the principal liable. Since Tri-State Trucking employed Warren as a delivery agent (servant agent) and Warren was acting within his agent authority, Tri-State is also liable.

25. The correct answer is C, Electronics Warehouse and Statewide Financial. This problem is similar to #24. Normally, an agency company (Statewide Financial) would be considered an independent contractor of a principal company (Electronics Warehouse) in an agency relationship and net be considered in control of the actions of the agent company, and therefore the agent company would be considered a nonservant company. The principal would not be liable for physical injury resulting from the action of the nonservant agent. The answer should be that only Statewide Financial is responsible for the tort.

26. The correct answer C. This question is much the same as #24. Brenda is a servant agent acting within the scope of her employment. Brenda made an error; we do not know whether it was intentional (a tort of fraud) or a simple mistake. Since Brenda is a servant agent acting for the principal, the principal is liable.

27. The correct answer is B. A principal who contracts with a nonservant agent may be held liable for torts committed at the construction site if exceptionally hazardous activities are involved. The bidding on the job (A) and who pays whom (C) are irrelevant.

28. The correct answer is B, Burt only. Commission of illegal acts by the agent does not make the principal liable. Burt is the only one liable.

29. The correct answer is C, Linda and third parties who know of the agency relationship. In order to effectively terminate an agency relationship ,the termination by the principal must be communicated to the agent and to any third parties who know of or have reason to know of the agency relationship. Communicating to the agent will eliminate all implied or express agency. Communication of the termination of agency to third parties is the only way to eliminate apparent authority (and its agency).

30. The correct answer is C, terminated by operation of law. Termination by operation of law occurs upon death, insanity, or bankruptcy of the principal; war; destruction of the agency subject matter (the house burned down); impossibility by supervening change of law; or other circumstances.

PARTNERSHIPS

After studying this topic, you should be able to:

1. *Know how partnerships are formed*
2. *Understand the nature of a partnership*
3. *Identify what partnership property is*
4. *Understand the basis on which partners are compensated*
5. *Identify the duties of partners to each other and to third parties*
6. *Understand partnership and partner liabilities*
7. *Understand how partnerships terminate*
8. *Define a limited partnership*

When two or more people pool their efforts, labor, and skills and make contributions of capital to a business enterprise of which they are co-owners and share common control over the business operations with the intention of also sharing profits and losses, they probably have formed a partnership.

Partners normally have rights and duties to participate in the management of the affairs and business of the partnership and to share in the profits. As each partner is an agent for his or her co-partners, a partner owes fiduciary duties to his or her partners as well as a duty to account to the others' partners. In addition, each partner may incur liability as a principal for contracts entered into and torts committed by co-partners acting within the scope of their authority or subsequently ratified. Knowledge received by one partner will be imputed to the other members of the partnership, and representations made by a partner will be treated as having been made by all the partners.

Partnership law is based upon the law of agency. As a result, each partner is treated as an agent of his, her, or its co-partner, and each partner may be liable as a principal to third parties for partnership obligations. A partnership, however, is distinguishable from an agency relationship because, unlike an agent, a partner has an ownership interest in the partnership business and may be obligated to bear responsibility for ordinary partnership business expenses and losses. Normally, partners include explicit provisions relating to their respective rights and duties in the partnership agreement. These provisions will be enforced as long as they are legal. If the partners do not have a partnership agreement, the provisions of the Uniform Partnership Act will be controlling in those states that have adopted the act.

A partnership is defined as an association of two or more persons to carry on as co-owners of a business for profit. A partnership can be expressly created by the partners. The elements or characteristics of a partnership include sharing of profits or losses of the business, joint ownership interests in the ongoing business, and an equal right to participate in the management of the operation of the business.

In common law, a partnership was never treated as an entity separate and apart from its members; today, for limited purposes, the partnership may be treated as an independent entity. The capacity of a partnership to sue and be sued in the name of the partnership varies from state to state; in many states, plaintiffs must sue both the partnership and the individual partners. When a federal question is involved in a case being heard by a federal court, the suit can be brought by or against the partnership in the name of the partnership. Judgments entered against a partnership in its firm name may be collected from partnership property. If partnership property is insufficient to satisfy the judgment and individual partners were also sued, the assets of the partners can be reached in order to satisfy the judgment. Partnership creditors have priority with respect to partnership assets and creditors of the individual partners have priority with respect to the personal assets of each partner. If partnership assets are insufficient to pay a partnership creditor, the credit cannot reach the assets of an individual partner until the claims of the creditors of that partner have been satisfied. Under Chapter 7 of the Federal Bankruptcy Code, when a partnership is granted an order of relief but the partnership assets are insufficient to satisfy the claims of the firm’s creditors, each general partner becomes personally liable to the trustee in bankruptcy for the amount of the deficiency. A partnership can hold title to real and personal property in the firm name and can convey or transfer property in the firm name. At common law title to real property could not be held in the partnership’s name but was owned by the co-partners as tenants in partnership; all partners, therefore, had to join in a conveyance of real property. A partnership is treated, for some purposes, as an aggregate of the individual partners. Under the federal income tax laws, even though a partnership is required to file an information return, a partnership is treated as an aggregate so that each partner is taxed according to his or her share of partnership profits or losses.

The formation of a partnership is based upon the assent and agreement of all of the partners. Ordinarily, no special formality is necessary to form a partnership; a partnership may be expressly or impliedly created. Usually, partnership agreements (articles of partnership) are written. Because of the Statute of Frauds, a partnership agreement must be in signed writing in order to be enforceable, if, by its terms, a partnership is to continue for more than one year or authorizes partners to deal in the transfer of property. The agreement may contain any terms the partners wish as long as the terms are legal and not against public policy. Usually a partnership agreement will contain the name, nature of the business and its duration, contributions to be made by individual partners, the manner of dividing profits and losses, salaries and drawing accounts, restrictions on the authority of any partners, and conditions for withdrawal from the partnership and provisions for the continuation of the business if the partnership is dissolved. A partnership may be implied because of the conduct of the parties who indicated their intentions to operate a business as co-owners and to share the profits or losses.

If a partnership is formed for a term of more than one year but the agreement is oral, the partnership will be treated as a partnership at will, which may be terminated by any party without liability. This is unlike a partnership for a term which requires the assent of all the partners for dissolution to occur.

A partnership agreement is voidable by a partner who is a minor but, if rights of creditors are involved, the minor cannot withdraw his or her original investment in the partnership. If a partner is judged to be mentally incompetent after the partnership is formed, the partnership is not automatically dissolved.

Traditionally, a corporation cannot be a partner. Restrictions on the ability of corporations to be partners has become less common, and courts in some states having such limitations have treated what would otherwise be partnerships with corporate partners as joint ventures. The Model Business Corporation Act, the Revised Model Corporation Act, and the Uniform Partnership Act provide that a corporation may be a partner.

The assent of all partners is necessary to form a partnership. A person who, in fact, is not a partner will be estopped from denying that he or she is a partner and, therefore, will be held liable as a partner to third parties who reasonably relied and dealt with or advanced credit to the partnership if he or she held himself out as being a member of a partnership or consented to a misrepresentation of an alleged partnership relationship by another person. The purported partner does not become a partner even though he or she may be liable as one to third parties. Only if all of the partners consent to the representation can a partnership act or obligation result.

Unless otherwise specifically provided for in the partnership agreement, the Uniform Partnership Act governs the partners' rights and duties. Each partner has a right and duty to participate in the management of the partnership. Each partner has one vote regardless of the size of his or her interest in the firm. Majority vote controls in connection with ordinary business decisions; however, partners may delegate daily management responsibilities to a committee. Unanimous consent is required in matters that significantly affect the nature of the partnership, such as altering the essential nature of the business or the capital structure of the partnership, admitting new partners, making an assignment in trust or for the benefit of creditors, disposing of the partnership's goodwill, making a confession of judgment against the partnership or submitting a partnership claim to arbitration, amending the partnership agreement, or undertaking any act that would make further conduct of the partnership business impossible.

Each partner shares profits and losses in accordance with the proportion designated in the partnership agreement. If the agreement does not provide for such an apportionment, profits are shared equally and losses are shared in the same ratio as profits.

Unless otherwise agreed, each partner is expected to devote full time and exclusive service to the partnership and receive no remuneration for partnership service, except that surviving partners are entitled to reasonable compensation for services rendered in resolving the affairs of a dissolved partnership.

` Each partner has the right to examine the books and records of the partnership that should be maintained at the place of business of the firm and also has the right to information concerning the partnership's business from his or her co-partners. The purpose of an accounting is to determine the value of each partner's proportionate share in the partnership. An accounting may be rendered voluntarily. A partner may bring an equitable action for an accounting in connection with dissolution proceedings. An accounting is applicable if the partnership agreement so provides, a partner has been wrongfully excluded from the business, a partner is wrongfully withholding profits, or when other circumstances render it just and reasonable.

Each partner has a right to his or her share of the profits and surplus that is considered to be personal property. A partner's interest in the partnership is subject to assignment, attachment, and other orders granted by a court to judgment creditors that entitle the creditors to attach the profits or assets of a partner upon dissolution of the partnership. An assignment does not dissolve the partnership or permit an assignee to interfere with management.

Partnership property consists of real and personal property contributed by the individual partners at the time of the partnership's formation and later contributions for the permanent use of the partnership and property subsequently acquired with partnership funds for the benefit and use of the partnership. Partners are tenants in partnership and therefore co-owners of partnership property, with the right to possession for partnership purposes. Upon the death of a partner, his or her rights in specific partnership property are vested in the remaining partners. A partner may not assign rights to specific partnership property nor subject such property to marital rights, attachment, or execution by his or her individual creditors.

Each partner is an agent for his or her co-partners and therefore is accountable as a fiduciary. A partner must act in good faith with loyalty and honesty for the benefit of the partnership and make full disclosure to his or her co-partners of matters relating to the partnership. A partner will be liable for any personal gain or profits derived from using the partnership property or the exercise of their power as a partner. In dealing with third parties or on behalf of the partnership, each partner acts as a principal for himself or herself and as an agent for the partnership and his or her co-partners. A third party seeking to recover damages for a partnership obligation should sue all of the partners together. If one partner is sued, he or she can require that the other partners be sued with him or her. If all of the partners are not sued jointly, the third party that obtains a judgment cannot look to the partners who were not sued or to partnership assets for satisfaction of any judgment. In most states, actions based upon a contract must be brought against all of the partners jointly. In some states, statutes provide that a partnership may be sued in its partnership name and that a judgment against the partnership is enforceable against partnership assets and the assets of one or more of the partners. A partner who pays the entire amount of a partnership debt is entitled to indemnification from the partnership, or if the partnership is unable to pay the money, from the co-partners. Partners are jointly and severally liable for torts and breaches of trust. In most states, joint and several liability is imposed upon partners for partnership contracts and debts. An injured third party may sue all the partners together or any one or more of the partners separately. A third party who obtains a judgment can enforce the judgment against the assets of only partners who were defendants in the lawsuit. A partner who personally committed a tort is required to indemnify the partnership for damages that the partnership paid in order to satisfy a judgment. A newly admitted partner to an existing partnership is liable for the existing partnership obligations, but only to the extent of his or her capital contribution.

A partner's authority to bind the partnership (and his or her co-partners) contractually may be based upon the express actual authority provided for in the partnership agreement or upon implied actual authority. The transaction must be necessary for the conduct or the ordinary business of the partnership. Usually, partners have broad implied authority that will vary with the nature of the particular business of each partnership, unless their authority is limited by agreement. A partner of a trading partnership has the authority to buy and sell goods of the type in which the firm regularly deals, to give warranties, to borrow money, and to issue and endorse negotiable instruments. A partner has the power to pay and collect debts, hire and discharge employees, give a security interest in personal property, and lease or purchase property that is needed in the usual operation of the firm's business. Unanimous consent of the partners is required in order to convey or mortgage real property other than in the ordinary course of the partnership's business, make an assignment of property rights, dispose of the firm's goodwill, confess judgment or submit a controversy to arbitration, or do any act which would make it impossible to continue the business of the partnership. A partner's authority to bind the partnership (and his or her co-partners) contractually may be based upon the partner's apparent authority. A third person who deals with a partner may assume that the partner has the authority to bind the firm in a transaction relating to the usual business of the firm, and unless that third person knows that the partner lacks authority, the partnership and co-partners will be liable to him or her for any damages suffered as a result of the transaction. Partners may ratify the unauthorized acts of a partner. Admissions and representations concerning partnership affairs made by an authorized partner bind the partnership when such admissions and representations are made by the partner while he, she, or it is conducting the ordinary business of the partnership. Knowledge of, or notice to, a partner of facts concerning matters relevant to the partnership's affairs will be imputed to the partnership and other partners. The partnership and co-partners are liable for breaches of trust and torts committed by a partner or employee while acting within the scope of his or her authority in the ordinary course of the business of the partnership. A few states have enacted statutes providing for the formation of Limited Liability Partnerships (LLPs) in which innocent partners are not liable for other partners' wrongful acts, negligence, or misconduct.

Partnership termination occurs following the completion of the process of dissolution and winding up and the partnership's legal existence ends. Dissolution occurs when a partner ceases to be associated with the partnership business and results in a change in the relationship of the partners.

If the partnership agreement provided for a partnership term and the term have lapsed, or the purpose for which the partnership was formed has been accomplished, the partnership is dissolved or the partners may mutually agree to dissolution. If the partnership is a partnership at will, a partner's good faith withdrawal or expulsion dissolves the partnership without liability. If the partnership was established for a specific term, withdrawal of a partner (without cause) will subject the withdrawing partner to liability; expulsion (without cause) will subject the remaining partners to liability. The admission of a new partner results in the dissolution of the former partnership (without liability) and the creation of a new partnership which is liable for the obligations of the old partnership. The voluntary or involuntary transfer of a partner's interest for the benefit of personal creditors does not automatically dissolve the partnership. The transferee only acquires the right to receive the transferring partner's share of the profits. The transferee does not have the right to interfere with management or inspect the books of the partnership. A partner's interest in the partnership is subject to assignment, attachment, or other charging orders (the attachment of profits or assets of a partner upon dissolution of a partnership). Dissolution can occur by the operation of law when a partner dies, when the partnership or a partner (in most cases) is adjudged bankrupt, or when an illegality makes it unlawful to continue the business or excludes one of the partners.

A partnership can be dissolved by judicial decree upon the application of a partner for one of the following reasons: mental incompetency of a partner, incapacity of a partner, business impracticality (the business can be operated only at a loss), improper conduct of a partner, or other circumstances for which the court finds it equitable to dissolve the partnership (dissension among partners).

A withdrawing partner must give either actual or constructive notice to each of the other partners. Personal notice must be given to those who extended credit to the partnership, and public (constructive) notice must be given to those who dealt with the firm on a cash basis if dissolution occurs because of the acts of the partners or by operation of the law (other than because of illegality or bankruptcy).

Dissolution terminates all the authority of the partners except the authority to complete unfinished business and that which is necessary for winding up, including collecting, preserving and selling partnership assets, discharging liabilities, collecting debts owed to the partnership, allocating current income, and accounting to each partner for the value of his or her interests in the partnership. When dissolution is caused by a partner's act in violation of the partnership agreement, the other innocent partners may sue for damages resulting from the dissolution and have the right to buy out the offending partner and continue business without winding up and liquidating their assets. When dissolution is caused by the death of a partner, all partnership property vests in the surviving partners, who act as fiduciaries in winding up the partnership business and are entitled to compensation for their services and reimbursement for expenses incurred in the process.

Distribution of assets is made out of the partnership assets and any additional "contributions" by the partners needed to pay the liabilities of the partnership. The order of distribution is as follows: payment to third-party (outside) creditors, payment to partners who have made advances or incurred liabilities on behalf of the partnership, return of the capital contributions of the partners, and payment of any surplus to the partners in accordance with the ratio fixed by agreement or, if no ratio was fixed, then equally. When the partnership is insolvent, the third-party creditors of the partnership have priority over the creditors of the individual partners with respect to partnership assets, and if the partnership assets are insufficient, they may then look to the personal assets of the partners. If a partner is insolvent, the order of payment is his or her individual creditors, partnership creditors, and the other partners who may be entitled to reimbursement.

Partners may provide in the original partnership agreement that, under certain future conditions, one or more partners may purchase the interest of another partner at a specified price or will be given the opportunity to buy the interest at a price determined by one or more of the partners. Partners may also agree that, upon the death of one partner, the surviving partners can purchase the deceased partner's interest from his or her representative; frequently, the purchase price is funded by life insurance obtained by the partnership or partners.

The rules governing limited partnerships can be found in the Revised Uniform Limited Partnership Act that has been adopted in more than forty states or in the Uniform Limited Partnership Act that has been adopted in other states. The statute requires compliance with a public and formal procedure to form a partnership. A limited partnership must have two or more partners, of whom one is a general partner; general partners have management responsibilities and unlimited liability. A certificate (setting forth the firm name, nature and duration of the business, location of the principal place of business, the names and addresses of its members, the capital contributions of the limited partners, the share of profits or other compensation that the limited partners are entitled to receive, the methods of changes in membership and subsequent continuation of the business) is signed by the partners and filed with a designated state official, such as the secretary of state.

General partners are personally liable to the partnership creditors; in those states that permit a corporation to be a partner, the shareholders of the corporation enjoy limited liability because of the corporate laws. A limited partner has the same rights as do partners in a general partnership with respect to suing, examining the books, accounting, the return of his or her capital contribution, and the assignment of rights to his or her interest. A limited partner has the right to sue or bring action on behalf of the firm if the general partners with authority to do so have refused to bring the action. Protection is also given to limited partners under securities laws. A limited partner is liable to partnership creditors only to the extent of his or her capital contribution or promised contribution. If a certificate filed by the partnership contains a false statement, a person who incurred a loss because he or she relied on the statement can recover for the loss from a general partner (who knew or should have known that the statement was false) or any person who executed the certificate and knew that the statement was false. A limited partner who discovers a defect in the formation of the limited partnership can avoid liability by causing an appropriate certificate or amendment to be filed or by renouncing an interest in the profits of the firm.

A limited partner will be liable as a general partner if the surname of the limited partner is included in the partnership name, the limited partner participates in management (a limited partner will not be treated as participating in control of the business if he or she acts as an agent of the firm, attends meetings of the partners or votes on certain matters, such as a transfer of all the assets of the firm or the admission or removal of a partner), or the limited partner learns that the firm is defectively formed and fails to withdraw from the partnership.

A limited partnership is dissolved upon the time specified in the certificate of limited partnership, the unanimous written consent of all partners, or the withdrawal, retirement, death, or mental incompetency of a general partner if the business cannot be continued by one or more of the remaining general partners. Upon application to a specified court by a partner, a limited partnership may be dissolved by court decree when it is not reasonably practicable to carry on the business. A limited partner's withdrawal, death, assignment of his or her interest, or bankruptcy (unless it causes the bankruptcy of the firm) does not result in the dissolution of the limited partnership. The winding up and liquidation procedure (following dissolution) is the same as that for a general partnership except for the priorities in the distribution of the assets. The priorities are as follows: 1) creditors, including partners who have made advances or incurred liabilities on behalf of the partnership, 2) unpaid distributions of partnership assets to general and limited partners (unless otherwise provided in the partnership agreement), 3) return of the capital contributions to general and limited partners (unless otherwise provided in the partnership agreement), and 4) general and limited partners’ share of profit (unless otherwise provided in the partnership agreement).

PARTNERSHIPS

REVIEW QUESTIONS

1. Partnerships are governed by:

    a. the securities laws of the state in which they form.
    b. the agreements which create them, and the Uniform Partnership Act where there is no agreement.
    c. the Uniform Partnership Act, which overrides any individual agreements.
    d. written agreements only.

2. Great Games, a firm that specializes in the research and development of computer games, is operated as a partnership. Much of the law that governs the operation of partnerships is based on principles of:

    a. agency law.
    b. constitutional law.
    c. contract law.
    d. none of the above.

3. Bayside Restaurant is operated as a partnership. For tax purposes, Bayside:

    a. is required to file an information return but is not a tax-paying entity.
    b. is a tax-paying entity.
    c. pays ½ of the taxes if there are two partners.
    d. pays ¼ of the taxes if there are three partners.

4. Bill and Carol are the only partners in an accounting firm. Regarding bankruptcy, the partnership can be treated as:

    a. an aggregate.
    b. an entity.
    c. a partner.
    d. none of the above.

5. Edward and Mark agree over the phone to go into business as partners. The fact that they have not yet reduced their agreement to a writing will:

    a. have no effect on the formation of their partnership.
    b. prevent them from holding themselves out as partners.
    c. violate the Statute of Frauds.
    d. none of the above.

6. Pete and Andy sign a five-year partnership agreement. At the end of the fifth year, they decide to continue working together. This partnership will be terminable:

   a. at the will of either partner.
   b. only after the passage of an additional five-year term.
   c. only if either partner withdraws from it.
   d. none of the above.

7. Larry, Sharry, and Mike are partners in Pan Pan, a pizza restaurant. Mike contributed 75 percent of the capital. The partners agree to split the profits equally. When Pan Pan proves unprofitable, the partners decide to dissolve the partnership. Pan Pan's liabilities are greater than its assets. Who pays for the losses?

   a. Mike, because he contributed most of the capital
   b. Sharry and Larry, because they contributed the least of the capital
   c. all of the partners, in proportion to their capital contributions
   d. all the partners, in proportion to their shares of the profits

8. Doug and Erin are partners in Ace Athletic Supplies, which sells sports equipment. In general, a partner who devotes his time and energy to partnership business will:

   a. be entitled to compensation if he or she is an equity partner.
   b. be entitled to compensation if the partnership agreement is silent.
   c. not be entitled to compensation if the partnership agreement is silent.
   d. none of the above

9. Roberta is a junior partner in an accounting firm. As a partner, she has a right of inspection that permits her to review:

   a. the attire worn by the staff.
   b. partnership books and records.
   c. the tax returns filed by other partners.
   d. any client files.

10. Partners have a duty:

   a. of loyalty.
   b. to exercise reasonable care.
   c. to disclose relevant information and account for expenditures.
   d. all of the above

11. Alvin and Cleo form a partnership to operate the Four Seasons Hotel. When Alvin suspects Cleo of failing to account for all of the receipts, Alvin sues Cleo for an accounting and dissolution. The court will likely order:

    a. an accounting only.
    b. a dissolution only.
    c. an accounting and a dissolution.
    d. none of the above.

12. Erica is a partner in a medical firm and applies for a loan with a bank on behalf of the partnership, without the authorization of the other partners. If the bank knows that Erica is not authorized to take out loans on behalf of the partnership, then:

    a. the partnership alone will be liable for repayment.
    b. Erica alone will be liable for repayment.
    c. the partnership and Erica will be jointly liable for repayment.
    d. the partnership and Erica will be jointly and severally liable for repayment.

13. Ben is admitted to an existing partnership. Several debts and obligations incurred prior to the date of his admission become due. Ben is:

    a. personally liable for those debts and obligations.
    b. liable for those debts and obligations only up to the amount of his capital contribution.
    c. not required to contribute any money to the satisfaction of these debts and obligations.
    d. none of the above.

14. Hugh and Cray are partners in Silver Development, a partnership formed to build and sell Twin Towers, an office and retail shopping complex. Without Hugh's knowledge, Cray engages in fraud on behalf of Silver that results in Silver's default on several bank loans. Regarding the unpaid loans, Hugh is:

    a. not responsible under any circumstances.
    b. not responsible unless he attempts to declare bankruptcy.
    c. responsible.
    d. none of the above.

15. Roberta and Joyce are photographers. Roberta wants to climb Mount Everest. Joyce wants to explore the Amazon River. They agree to form RJ Photography, a partnership, specifically to obtain the funds to finance their respective expeditions. RJ will be dissolved as soon as:

    a. the partners have obtained sufficient funds to pay for their expeditions.
    b. Roberta has climbed Mount Everest.
    c. Joyce has finished her expedition of the Amazon River.
    d. either Roberta or Joyce has decided to cancel her expeditionary plans.

16. Roy and Rex form a partnership and state in their agreement that the surviving partner shall continue the business of the partnership with the decedent partner's estate. The sole asset of the partnership is a specialized hot-dog pushcart. Rex dies three years later. The partnership:

    a. continues to operate as provided by the agreement.
    b. becomes a sole proprietorship.
    c. is dissolved.
    d. none of the above

17. Oscar, Stan, and Vinny are partners in a bicycle store. Oscar tells Stan, but not Vinny, that he intends to withdraw from the partnership. A contract subsequently signed by Vinny with a third party on behalf of the partnership is binding on:

    a. Vinny only.
    b. Oscar only.
    c. Stan only.
    d. the partnership.

18. Amy, Morgan, and Michelle are partners in A&M Enterprises, which buys and sells vintage wines. Amy and Morgan want A&M to become a partner in Thomas Valley Vineyards, which is also a partnership. Reluctantly, Michelle agrees. A&M:

    a. cannot become a partner in Thomas Valley because one partnership cannot become a partner in another partnership.
    b. cannot become a partner in Thomas Valley because Michelle only reluctantly agreed.
    c. cannot become a partner in Thomas Valley because the businesses of the two partnerships are related.
    d. can become a partner in Thomas Valley because all of the partners agreed.

19. Chance and Call are partners in C&C Ranch, which raises and sells cattle. To pay some personal bills, Chance sells some of the cattle. Regarding the money received for the cattle, Chance:

a. need not account to the partnership, because Chance is a partner.
b. need not account to the partnership, because the money was used to pay personal bills.
c. need not account to the partnership, because C&C is not in the accounting business.
d. must account to the partnership.

20. Upon dissolution, the partnership:

a. ceases to exist.
b. must immediately liquidate all assets.
c. may continue or do business while working to wind up partnership affairs.
d. terminates.

21. Alvin and Cleo form a partnership to sponsor sports events. When Alvin suspects Cleo of failing to account for all of the receipts, Alvin sues Cleo for an accounting and dissolution. The court may order:

a. an accounting only.
b. a dissolution only.
c. an accounting and a dissolution.
d. neither an accounting nor a dissolution without Cleo's consent.

22. Bruce and Lee operate their plumbing firm as a partnership. If they decide to terminate the partnership, each partner's interest will be determined as of the date that:

a. the partners decide to terminate the firm.
b. the affairs of the partnership are wound up.
c. the dissolution of the firm begins.
d. none of the above

23. Henry and Catherine are partners in Black Gold, an oil mining partnership. Joe is a Black Gold supplier whom Black Gold has failed to pay despite repeated requests. In most states, Joe:

a. can sue the partnership in the firm name.
b. can sue the individual partners only.
c. cannot sue either the partnership or the partners.
d. none of the above

24. Doug and Erin operate their accounting firm as a partnership. Under federal law, the firm will not be treated as a separate legal entity if the partnership:

a. is sued in federal court on a federal question.
b. is involved in bankruptcy proceedings.
c. files a federal income tax return.
d. none of the above

25. Aaron and Ron are the only partners in Munsen Electric. Their primary business is the wiring of single-family residences. When business declines, Aaron tells Ron that he wants to dissolve the partnership and Ron agrees. Munsen Electric:

a. terminates when the business of the partnership starts to decline.
b. terminates when Aaron decides that he wants to dissolve the partnership.
c. terminates when Ron agrees to dissolve the partnership.
d. continues until the business of the partnership is finished.

26. Jill and Kay form Web Pages, a partnership, specifically to make money during their last year of college by creating web sites for businesses. Web Pages will dissolve when the partners:

a. create their first Web site.
b. finish their last year of college.
c. make money.
d. none of the above

27. Lyle and Mary are partners in USA Computers, a firm that exports electronic equipment. When Lyle dies, all partnership assets vest in:

a. Lyle's heirs.
b. Mary.
c. USA Computers.
d. USA Computer's customers.

28. Dan, Eve, and Frank are partners in a firm that operates the Tasty Restaurant. Dan violates the partnership agreement, causing the dissolution of the firm. Eve and Frank may be entitled to:

a. damages for harm resulting from the dissolution.
b. Dan's partnership assets, regardless of any harm to the firm.
c. Dan's personal assets, regardless of any harm to the firm.
d. both b and c.

29. Jay, Dave, and Ted are partners in a commercial fishing outfit. When Jay dies, Dave and Ted begin winding up the partnership business. For their efforts, Dave and Ted are entitled to:

    a. payment for their services only.
    b. reimbursement for any costs incurred only.
    c. a relatively higher portion of the assets only.
    d. payment for their services and reimbursement for any costs incurred.

30. A limited partnership is:

    a. the same as a general partnership except it has more favorable tax advantages.
    b. run by the limited partners.
    c. designed to protect the limited partners from liability.
    d. none of the above.

PARTNERSHIPS

REVIEW QUESTION SOLUTIONS

1.	B
2.	B
3.	A
4.	B
5.	A
6.	A
7.	D
8.	C
9.	B
10.	D
11.	C
12.	B
13.	B
14.	C
15.	A
16.	C
17.	D
18.	D
19.	D
20.	C
21.	C
22.	B
23.	A
24.	D
25.	D
26.	B
27.	B
28.	A
29.	D
30.	C

PARTNERSHIPS

Explanation of Review Question Solutions

1. The correct answer is B, the agreements that create them, and the Uniform Partnership Act where there is no agreement. The Uniform Partnership Act governs only where there is no partnership agreement, which is the opposite of option C. Written agreements (D) govern where there are written agreements; where the written agreement is silent, the Uniform Partnership Act governs. Securities laws (A) relate to stocks and bonds and other commercial paper, not to partnerships.

2. The correct answer is B, constitutional law. In various textbooks, constitutional law gives authority to Congress to make laws, one of which is the Uniform Partnership Act, which was passed in 1914 and based upon the English Partnership Act of 1890.

3. The correct answer is A, is required to file an information return but is not a tax-paying entity. Anyone with tax background will know that a partnership does not pay income tax, but often pays payroll tax, corporate portion, and collects and pays over trust fund taxes for sales and payroll withholdings (B). This question relates to income tax. Options C and D, which mention fractional payments of tax, are ludicrous to the extreme.

4. The correct answer is B, an entity. Depending on the circumstance, a partnership is treated either as an entity or as an aggregate. Federal income tax law treats the partnership as an aggregate, requiring the partnership to file an information tax return and the partners to pay the tax on their individual tax returns. Where property law is concerned, a partnership can own and convey title to partnership property, both real and personal, in the firm name. In property law, the partnership is the principal and the partners are the agents. In bankruptcy law, the partnership is treated as an entity and its assets can be liquidated to satisfy the claims of the creditors, unless the assets fall short, which is when the partners can be held liable to make up the deficit out of their personal assets. The best answer is that the partnership is an entity for bankruptcy law purposes.

5. The correct answer is A, have no effect on the formation of their partnership. A written partnership agreement is not required to bind partners in a partnership. In fact, persons not intending to be partners have been found to be partners in a court of law (partnership by estoppel, when one person holds out or represents that they are partners) where they appeared to be acting as partners by using the same secretary, the same receptionist, the same letterhead, etc.

6. The correct answer is A, at the will of either partner. A partnership dissolution results from acts of the partners from an agreement, withdrawal, or expulsion, or as an act of law on death, by decree of court, insanity, incapacity, misconduct, operation only at a loss, or through equitable necessity (the catch-all provision in sec. 32(f) of the Uniform Partnership Act). The five-year term applied only to the initial agreement, which is now expired (B). The withdrawal of a partner is not the only way that the partnership can terminate (C).

7. The correct answer is D, all the partners in proportion to their shares of the profits. The Uniform Partnership Act sec. 40 (b) defines the distribution of assets in dissolution. Assets are distributed in a partnership dissolution first to the creditors, second to the partners for their advances to the partnership, third to partners for their capital contributions, and fourth to partners in their respective share of the profits. Where the partnership is insolvent, the partners share according to their respective shares of the profits in their payments to the outstanding creditors. The contributions of capital (C) may determine only the amount of the assets within the company that are available to the partners to fulfill their portion of the liability; therefore, Mike (A), Sharry, and Larry (B) share equally in their responsibility for paying the outstanding debts in this case, since they share equally in the profits and losses.

8. The correct answer is C, not entitled to compensation if the partnership agreement is silent. Compensation for time and energy devoted to the partnership is determined by the salary clause within the partnership agreement. If the partnership agreement is silent, there is no compensation for time and energy, and the shares of the profits determine profits and loss, as determined either by agreement or, if the agreement is silent, by the Uniform Partnership Act.

9. The correct answer is B, partnership books and records. The partnership books and records should be kept at the principal place of business of the partnership. Each partner has the right to inspect and copy the books at any time. The partnership agreement may prevent a partner from inspecting the books and using the information for other than partnership purposes. Staff attire (A), partner's personal income tax returns (C), and any client files (D) may or may not be accessible without the consent of the other partners.

10. The correct answer is D, all of the above. Duties of partners include a duty to inform other partners of or disclose partnership matters (C), to act with reasonable care and skill in transacting partnership business (B), to act (consistent with fiduciary responsibility) with complete loyalty (A) to the firm and not make and hold a secret profit, and to account for all partnership business and expenditures (C).

11. The correct answer is C, accounting and dissolution. A partner may, under limited circumstances outlined in the Uniform Partnership Act sec. 22, require a formal accounting during the ordinary operation of the partnership. The dissolution of a partnership, under the Uniform Partnership Act sec. 29, is the change in the relation of the partners caused by any partner ceasing to be associated in the carrying on of business, as distinguished from the winding up of the business. The legal effect of any dissolution is to terminate all authority of any partner to act for the partnership (UPA sec. 33), except to wind up the partnership business. Dissolution is caused by express will of any partner when no definite term or particular undertaking is specified (UPA sec. 31(1)(a)). An individual partner may petition the court (UPA sec. 32) to obtain its dissolution under certain circumstances, one of which is misconduct, which includes the lack of notification and accounting, which are grounds for dissolution.

12. The correct answer is B: Erica alone will be liable for repayment. The key to this question is that the bank is aware that Erica's authority does not extend to making loans for the partnership. A partner making a loan for the partnership is not one of the areas of limitation on authority, which include assigning partnership property for the benefit of creditors, disposing of business goodwill, performing any act which would make it impossible to carry on the ordinary business of the partnership, confessing a judgment, or submitting a partnership claim to arbitration. When the third party, the bank, is aware that a partner is outside his or her authority in his or her actions, the actions do not bind the partnership but only bind the partner. While the partner has implied authority to perform these acts under normal circumstances, the fact that the bank is aware this partner is exceeding his/her authority is enough not to bind the partnership (A, C, and D are false).

13. The correct answer is B, liable for those debts and obligations only up to the amount of his capital contribution. The new incoming partner is liable for partnership obligations before and after becoming a partner (C). The incoming partner's personal assets cannot be reached to satisfy partnership creditors whose claims existed before he or she became a partner. The new partner is not personally liable for debts and obligations prior to becoming a partner unless the new partner agrees to pay old partnership creditors (A).

14. The correct answer is C, responsible. All partners are jointly and severally (individually) liable to third parties for torts (a civil noncontractual wrong for which a court will give remedy) committed in the ordinary course of partnership business (UPA sec. 13 and 15).

15. The correct answer is A; the partners have obtained sufficient funds to pay for their expeditions. The partnership was formed by agreement for the purpose of obtaining funds to finance their expeditions; once the purpose of the partnership has been completed the agreement will terminate.

16. The correct answer is C, is dissolved. The death of a partner requires the dissolution of the partnership. There can be no continuation of the partnership with the decedent's estate, since the partnership terminates by law on the death of one partner (A). The partnership dissolves; if the other (living) partner continues the business after the death of the other (dead) partner, the business is a new formation of a sole proprietorship separate and distinct from the old partnership (B). The persons within the definition of partnership (as an association of two or more persons) include individuals, partnerships, corporations, and other associations with the capacity to contract (UPA sec. 2).

17. The correct answer is D, the partnership. While Vinny is a partner he has the authority to carry on the business of the partnership and to bind the partnership, regardless of his intent to withdraw or his notification to the other partners.

18. The correct answer is D: can become a partner in Thomas Valley because all of the partners agreed. The persons within the definition of partnership (as an association of two or more persons) include individuals, other partnerships (A), corporations, and other associations with the capacity to contract (UPA sec. 2). Reluctant agreement (B) is not relevant. The fact that they are in the same business (C) is a plus, since one of the factors of a partnership is that it is formed to carry on business for a profit.

19. The correct answer is D, must account to the partnership. The sale of partnership assets to pay personal debts is a withdrawal by the partner and must be accounted for by reducing the partner's capital account for the amount of the sale, removing the cattle from the books that were sold, and properly recording any gain (profit) or loss on sale of the cattle. Option C is ludicrous when you consider that partners have a duty to account to the partnership for their role in partnership business.

20. The correct answer is C, may continue or do business while working to wind up partnership affairs. The legal effect of any dissolution is to terminate all authority of any partner to act for the partnership (UPA sec. 33) except to wind up the partnership business. There is a process to dissolution of a business. One of the duties is to promptly liquidate all assets. The words "must" and "immediately" in option B make this answer a poor one. While it is normal for partnerships in liquidation to convert noncash assets to cash in order to pay off the creditors, in many cases partners may choose to pay liabilities and to pull out of the partnership their share of noncash assets. The partnership does not terminate (D) until all creditors are paid and the partners are paid the remaining share of any capital accounts.

21. The correct answer is C, an accounting and dissolution. This question is identical to question #11, down to the names of the two partners, who cannot seem to get this partnership thing straight.

22. The correct answer is B; the affairs of the partnership are wound up. When the dissolution begins (C) and when they decide to terminate (A), the partnership share of any gain or loss on sale of noncash assets and capital after paying off the creditors may not be apparent. These things will become apparent after all the business of the Bruce Lee Plumbing partnership is wound up.

23. The correct answer is A, can sue the partnership in the firm name. The word *only* makes answer B wrong. The creditor certainly can sue the partnership, so C is wrong.

24. The correct answer is D, none of the above. Partnerships are treated as entities for federal court suits (A), bankruptcy (B), and on federal income tax returns (C). The federal income tax is paid as if the partnership is an aggregate. Once these proceedings have exhausted all legal remedies against the partnership, or concurrent with the suits against the partnership, the government can proceed against the partners individually.

25. The correct answer is D, continues until the business of the partnership is finished. Generally, a partnership that is dissolving will not discontinue business but complete the business in progress until it is finished. At this time the affairs of the partnership have to wind up by the conversion of noncash assets to cash, distribution of gain and loss according to the respective profit and loss percentages, payment of creditors, and distribution to partners of the remaining capital accounts.

26. The correct answer is B, finish their last year of college. Since the partnership agreement specifically states that Web Pages is a partnership formed only for the partners' last year in college, it will terminate according to the terms of the partnership agreement. Creating their first web site and making money are not as relevant as the time stipulated in the partnership agreement.

27. The correct answer is B, Mary. Upon the death of one of the partners within a partnership, the remaining living partners inherit the partnership assets of the partnership. Lyle's heirs are entitled to receive the cash value of Lyle's capital account. USA Computers customers have no stake in the partnership (D). USA Computers (C) no longer exists.

28. The correct answer is A, damages for harm resulting from the dissolution. Dan's capital account (partnership assets; B) is Dan's, and he will get a distribution of the amounts, which, after a final accounting, are shown to be his. Dan's personal assets (C), may or may not be used to offset the damages for harm resulting from the dissolution.

29. The correct answer is D, payment for their services and reimbursement for any costs incurred. Options A and B are incomplete. Option C is vague.

30. The correct answer is C, designed to protect the limited partners from liability. The tax advantages of a limited partnership (A) are not any greater for the general partner than in a general partnership; the limited partners are limited in their tax losses by their basis and the passive loss rules. The limited partners (B) cannot have any role in management or they lose their status and protection against loss in excess of their capital investment as limited partners.

CORPORATIONS

After studying this topic, you should be able to:

1. *Define the corporate entity*
2. *Understand how a corporation is formed*
3. *Be familiar with how corporations are regulated*
4. *Understand how corporations terminate*
5. *Identify circumstances under which shareholders may be liable for corporate debt*
6. *Identify the duties of directors and officers*
7. *Understand corporate liability and the concept of director and officer indemnity*
8. *Define the ways in which corporations can be financed (funded)*
9. *Understand the rights of shareholders*

A corporation is a legal entity created by the state in accordance with the terms of a general corporation law. Important characteristics of a corporation include perpetual existence, centralized management, ease of transferability of ownership interests, and limited liability for owners (shareholders). The formation, operation, and rights and duties of corporations and those associated with corporations are regulated by state statutes that, with varying degrees, closely resemble the Model Business Corporation Act (MBCA) and the Revised Model Business Corporation Act (RMBCA).

Once a corporation comes into existence, the corporation issues securities in order to finance its operations. All corporations issue shares of stock (equity securities) representing ownership interests, and many corporations issue debt securities such as bonds and debentures, which are evidences of obligations to pay money. Usually, corporations are empowered to do almost anything unless the action is criminal, tortious, or contrary to public policy. As a result, it is rare today that a corporation is found to have exceeded its powers.

Business corporations are artificial, legal entities whose creation and operation are governed by state statutes. A corporation is regarded as a "person" separate and apart from the shareholders (the owners of interests in the corporation) for most purposes under federal and state laws unless application of a law is restricted to natural persons. A corporation is treated as a person under the due process clause of the Fifth and Fourteenth Amendments and the equal protection clause of the Fourteenth Amendment. A corporation may sue and be sued; a corporation is protected against unreasonable searches and seizures and double jeopardy. A corporation is not protected against self-incrimination. A corporation is regarded as a citizen of the state in which it is incorporated for purposes of jurisdiction. A corporation is not necessarily considered to be a citizen entitled to all the privileges and immunities of citizens in the several states, as provided for in Article IV, Section 2 of the United States Constitution. (For example, one state may impose burdens on a corporation that is incorporated in another state if the corporation wishes to engage in intrastate, as distinguished from interstate, business within its boundaries and the burdens are comparable to those imposed upon domestic corporations.) Corporations are excluded from some professions which require personal qualifications.

The corporation is an artificial person which has authority to conduct business and incur liability in its own name. The corporation is separate and apart from the shareholders who own the corporation, the board of directors (which is elected by the shareholders and is responsible for the corporation's overall management), and the corporation's officers (who are employed by the board of directors and who run the corporation's daily business operations). Corporate income is subject to double taxation. Income taxes are paid by the corporation on profits and by the individual shareholders when profits are distributed in the form of dividends (unless the dividends are liquidating). Earnings that are retained and invested by the corporation may yield higher future corporate profits; this should cause the market value of the stock to rise; when the shareholders later sell their shares of stock, the shareholders should receive the benefit of the corporation's having retained earnings. A corporation is liable for torts committed by its agents and employees when the agents and employees are acting in the scope or course of their employment. A corporation may be prosecuted for a crime, for which the penalty imposed is a fine.

Corporate powers are necessary to accomplish the purpose for which the corporation is formed. General, statutory powers apply to all corporations organized under a state business corporation law and usually include the power to have perpetual existence, to enter into contracts, to sue and be sued, to lend and borrow money, and to buy, hold, lease, receive, dispose of, and sell real and personal property. The express powers of a corporation may be specifically enumerated in the corporate charter. The order of priority of express powers in case of a conflict is United States Constitution and federal statutes, state constitutions, state statutes, certificate of incorporation (articles of incorporation), bylaws, and resolutions of the board of directors.

Corporations also have implied powers to do those things that are incidental or necessary in order to execute their purposes and express powers. Today, with some limitations, a corporation has the implied power to borrow money, to lend money or to extend credit to those with whom the corporation has a legal or contractual relationship, and to make charitable contributions. Corporate officers have the implied power to bind the corporation in matters directly connected with the corporation's ordinary business affairs.

An *ultra vires* act occurs when a corporation exercises power which the corporation does not possess. If, while acting as an agent of the corporation, a corporate board of directors or officer does something that the corporation is not authorized to do because the act is not in furtherance of the corporation's purpose, an *ultra vires* act has been committed. Illegal acts are ultra vires and may not be ratified by the shareholders. Some *ultra vires* acts may be ratified by the shareholders. An act that could have been authorized by the shareholders when it was originally done is an example. Unanimous ratification is necessary if there has been a gift or wasting of corporate assets. An *ultra vires* contract that is completely executory (not performed by either party) or partially or completely executed is void. An agent (corporate officer) acting without authority does not bind his or her principal (the corporation). The defense of *ultra vires* can be raised in order to prevent enforcement of an executory contract; not all courts, however, allow the defense if the contract has been executed. The defense of *ultra vires* may not be raised in an action to enforce a contract (even if the contract is executory) by the corporation or the party with whom the corporation entered into the contract. The issue of *ultra vires* may be asserted only in an action brought by shareholders in order to enjoin the carrying out of the act, by the corporation (or shareholders in a derivative action) in order to recover from officers or directors who entered into an *ultra vires* contract or carried out the unauthorized act, or by the state attorney general in order to enjoin the *ultra vires* act or to dissolve the corporation.

Corporations are classified on the basis of location. They may be domestic, foreign, or alien corporations. A domestic corporation is a corporation doing business in the state of its incorporation and with whose statutes it must comply with regard to formation and internal operations. A foreign corporation is a corporation that is conducting business in a state other than the state of incorporation. If a foreign corporation does intrastate business in a state, it must comply with the laws of that state. Normally, a foreign corporation must apply for and obtain a certificate to do business from a state official, such as the secretary of state, and will thereafter enjoy the same rights as domestic corporations. The foreign corporation must maintain a registered office and agent within the state upon whom legal process may be served. If such service cannot be effected, the secretary of state will be an agent for this purpose. A foreign corporation is doing business within a state such that a state court can obtain jurisdiction over the corporation if the corporation has some minimum contact with the state. The minimum contacts requirement is met if the corporation conducts systematic commerce or maintains a plant, factory, or principal office in the state. Minimum contact does not include holding meetings, maintaining or defending legal action, maintaining bank accounts or transfer agents, or soliciting orders that are accepted outside the state. An alien corporation is a corporation that is incorporated in a country other than the United States but is doing business in this country.

Corporations may be classified as either public or private corporations on the basis of their source of funds or revenues, functions, and ownership arrangements. Public corporations are corporations that are formed by legislative bodies for governmental purposes, such as cities, towns, and other municipalities. Examples of federal government organizations include the U.S. Postal Service, the Tennessee Valley Authority, AMTRAK, and the Federal Deposit Insurance Corporation. Private corporations are corporations created for private benefit and which issue shares of stock; these would include business corporations and public benefit corporations, such as utility companies. Nonprofit corporations are organized for charitable, religious, educational, or social purposes and governed by special state statutes.

Close corporations are close (closely held, family, or privately held) corporations whose shares of stock are held by one individual or by a small group. In some states, statutes (providing greater flexibility than general business corporation laws) apply to corporations which have limited numbers of shareholders and whose shares of stock can be transferred only subject to certain restrictions and are not publicly offered for sale. Some states have adopted provisions of the Statutory Close Corporation Supplement to the MBCA or RMBCA. Shareholders are not individually liable for corporate debts and torts. Management of a close corporation might resemble that of a sole proprietorship or partnership. In states having close corporation statutes, management formalities are relaxed. A board of directors may not be required or shareholders may have unlimited power to restrict the decisions of the board but, if so, shareholders will owe fiduciary duties to the corporation. Close corporations may require that action can be taken by the board only upon approval of one more than a majority of the directors. Statutes in a few states prohibit the transfer of close corporation shares unless certain persons are given the first opportunity to purchase the shares. The articles of incorporation and the share certificates or a separate shareholder agreement may specify restrictions on transferability. Reasonable restrictions on the transfer of shares in the event of the death of a shareholder or a desire by a shareholder to sell his or her shares are specifically enforceable by the courts.

A corporation that meets certain qualifications provided for in Subchapter S of the Internal Revenue Code may elect to be treated in a manner similar to a partnership for federal income tax purposes, thus avoiding double taxation of income; corporate income is not taxed but is allocated among the shareholders for income tax purposes. Fringe benefit payments to employee-shareholders owning more than two percent of the shares are nondeductible. Subchapter S corporations must meet the following requirements: the corporation must be incorporated in a state (rather than an alien corporation); the corporation cannot be a member of an affiliated group of corporations; shareholders of the corporation must be individuals, estates, or certain trusts and not corporations, partnerships or nonqualifying trusts; the corporation must have thirty-five or fewer shareholders; and the corporation can issue only one class of stock; shareholders, however, may have different rights, and no shareholder of the corporation can be a nonresident alien. When a Subchapter S corporation has losses, the shareholders can use the losses to offset other income. When the shareholders are in a lower tax bracket than that applied to a non-Subchapter S Corporation, the Subchapter S Corporation's entire income is taxed at the shareholder's rate (whether or not the income is distributed). A Subchapter S Corporation's income is taxed only once.

A service corporation (S.C.), professional corporation (P.C.), or professional association (P.A.) is a private corporation or association, the members of which engage in a profession and organize to gain advantages relating to taxes, pensions, and/or insurance plans. Statutes governing professional corporations are similar to general business corporation laws, under which members of some professions cannot organize because of professional ethics codes. The shareholders of a professional corporation have limited liability subject to certain exceptions. A typical statute provides that each shareholder of a professional corporation is personally liable for his or her own negligent acts and malpractice as well as for wrongful acts committed by other persons whom he or she supervises. Under general corporation laws, one member of a corporation is not liable for the malpractice of another member. A court may regard the corporation as a partnership in order to impose liability on all members for the malpractice of one member committed while he or she was acting within the scope of the firm's business. A shareholder in a professional corporation is protected from the liability imposed because of torts (unrelated to malpractice) committed by other members.

Before a corporation comes into existence, promoters analyze economic feasibility, prepare a prospectus or financial forecast, find investors, assemble necessary personnel, property, and capital, and take the preliminary steps to organize the corporation. In general, promoters are personally liable on preincorporation contracts. A promoter is a party to a contract and, therefore, is bound as a party. The corporation is not yet in existence and, therefore, is not liable as a party to a contract. A promoter remains liable to other contracting parties, unless released by the other contracting party, the contracting parties clearly indicated that the promoter would not be personally liable, or the corporation is substituted as a party to the contract in a novation. The corporation becomes liable after incorporation if the corporation enters into a novation; the corporation adopts or becomes an assignee of the rights of the promoter, who remains secondarily liable. A corporation cannot ratify a preincorporation contract because it was not in existence at the time the contract was made. A subscription is an agreement to purchase unissued shares of stock in a corporation that has not yet been formed. Subscription may be treated as a continuing offer by the subscriber which may be accepted by the corporation following incorporation, a contract among subscribers and, therefore, irrevocable, or an irrevocable offer for the period specified in the statute, which typically is six months unless all subscribers consent to revocation.

Corporations are chartered with a state. The corporate laws vary among the states; some states have laws that are more advantageous regarding taxation, incorporation, or operation. Historically, Delaware has had the least restrictive laws, and therefore, many corporations are incorporated in that state. Most states permit domestic corporations to locate their headquarters and business operations in other states. Close corporations and professional corporations usually incorporate in the state in which their principal shareholders reside and are employed.

The articles of incorporation should include corporate name, nature and purpose of the entity, duration of the entity, capital structure, internal organization, registered agent, and incorporators. The corporate name must use the words “corporation,” “company,” or “limited” or an abbreviation such as “Corp.,” “Co.,” “Inc.,” or “LTD.”

The name cannot be misleading or subject to confusion with the name of another organization. Prior to incorporation, a name can be reserved. In most states, the corporate purpose may be to engage in any legal business. Some states prohibit companies engaging in professions or activities—such as banking, insurance, or public utilities—from incorporating under the general corporation laws because other statutes govern them. Unless otherwise provided in the articles of incorporation, a corporation has perpetual existence. The capital structure describes the number, classes, and par value of shares of stock which the corporation will be authorized to issue and other relevant information concerning equity, capital, and credit. The internal management structure should be described in the articles of incorporation but may be included in the bylaws. Bylaws contain internal rules for governing and regulating the conduct of corporate affairs and cannot conflict with state statutes or the articles of incorporation. A corporation may provide that bylaws may be amended or repealed by the board of directors. Bylaws prescribe voting rights, quorums for meetings, and the manner and time of scheduling shareholders' and directors' meetings. The location of the registered office and the name of the registered agent who is authorized to receive service of process and other notices must be disclosed in the articles of incorporation. The names, addresses, and signatures of incorporators must be included in the articles of incorporation. Usually, incorporators need not have any interest in the corporation or be subscribers to shares of the stock. The articles of incorporation are filed with the appropriate state official (typically, the secretary of state), necessary fees are paid, and notice of the filing is given by the state official; usually, the official issues a certificate of incorporation or the corporate charter. At the first organizational meeting, the incorporators elect the board of directors, adopt bylaws, and authorize the board to issue stock, and the board of directors adopts the minutes of the meeting of the incorporators, adopts preincorporation contracts, the corporate seal, and the form for stock certificates and accepts subscriptions.

A *de jure* corporation is a corporation organized in accordance with required mandatory conditions precedent to incorporation so that the corporate status and existence cannot be attacked. A *de facto* corporation operates as a corporation but has failed to comply with some statutory mandate, so that the state may challenge the corporation's existence.

A corporation by estoppel has neither *de jure* nor *de facto* status. Associates (alleged shareholders and/or directors) who participated in holding the association out as a corporation are precluded from denying that it was a corporation against third parties who, in reliance upon the holding out, changed their positions and were, therefore, injured. Parties who dealt with the association and entered into contracts with the association in the belief that only the corporation would be liable may be estopped from denying that the association was a corporation. In general, if a corporation by estoppel cannot be established, the associates who took an active part in management will be liable as partners.

In unusual situations, a court may ignore the legal fiction of the corporation as an entity (pierce the corporate veil) when it is used to perpetrate fraud, circumvent law, accomplish an illegal purpose, or otherwise evade the law. Courts will disregard the corporate entity and hold directors, officers, or shareholders personally liable for the transactions conducted in the corporate name. Courts will disregard the corporate entity if a corporation is not maintained as an entity separate from its shareholders, in order to prevent abuse of corporate privilege for personal benefit.

Corporations are financed (funded) through securities which are sold to investors. Bonds or debt securities are evidences of obligations to pay money. The issuance of bonds is a method of splitting up debt so that it can be more easily marketed and is used for long-term corporate financing. Business firms and governments issue bonds to investors from whom the firms or governments are borrowing funds. A bond usually has a designated maturity date and provides for periodic payment of interest prior to maturity. Technically a bond is a debt security that is secured by collateral, and a debenture is a debt that is not secure by any specific property of the issuer. Debt securities may be sold for less than their face value at a discount or for more than the face value at a premium.

The bond indenture is the written agreement for the sale of debt securities. In general, bondholders do not have rights to participate in corporate affairs.

The types of corporate bonds include debenture bonds, mortgage bonds, convertible bonds, callable bonds, and junk bonds. Debenture bonds represent unsecured obligations backed by the general credit of the issuing corporation; if the corporation defaults, holders of debentures can look only to corporate assets in which other creditors and bondholders have no security interests. Mortgage bonds are secured by property, which can be reached by the bondholders upon default by the corporation. Convertible bonds are bonds that can be exchanged at a specific rate for shares of common stock if the bondholders so desire. Callable bonds provide that the issuing corporation has the right to repay the principal prior to maturity in accordance with specified conditions. “Junk bonds” are bonds that credit rating agencies rate as below investment grade because these bonds are risky investments. Junk bonds normally pay much higher yields than investment grade bonds. Junk bonds have been used to finance corporate takeovers, mergers, and acquisitions.

Stocks are evidence of the right to participate in earnings and corporate distributions. The issuance of stocks is the principal method of initial corporate financing. Stocks represent ownership in a firm. The shareholder does not have a right to repayment of his or her investment in stock. The shareholder receives dividends only after a declaration by the board of directors (dividends are not guaranteed). Shareholders are the last investor to be paid upon the dissolution of the corporation. Shareholders vote for the members of the board of directors and on certain major issues. Every corporation issues common stock and may be authorized to issue preferred stock. The owners of common stock are entitled to a pro rata share of properly declared dividends paid out of corporate profits, without preferences and after payment of corporate taxes, interest to lenders and bondholders, and any specific dividends required to be paid to preferred shareholders, if any preferred stock has been issued. Common stock shareholders have the right to vote. Common stock shareholders have rights to the ultimate distribution of the assets of the corporation upon distribution. The holders of preferred stock have a preference that usually is in rights to receive dividends or distributions upon the liquidation of the corporation. Preferred stock may have voting rights; often, preferred stock is issued as nonvoting stock. A corporation may issue different classes and/or series of preferred stock. If the preferred issue is cumulative and the corporation fails to pay a dividend, the dividend is carried over and paid in a subsequent year before the holders of common stock receive dividends. If the shares are participating preferred, the shareholders share in distribution of additional dividends after payment of dividends to holders of preferred and common stock if there are additional distributions of corporate profits. Convertible preferred shares may be exchanged for common stock or other preferred stock at a specified rate. If the preferred issue is redeemable (callable), the corporation has the right to purchase, reacquire, and cancel the shares at a specified price. Preferred shareholders have priority over common stockholders with respect to dividends and claims on corporate assets in case of liquidation. Usually, preferred stockholders receive periodic fixed dividend payments. Based upon the returns on a preferred shareholder's investment and the associated risk, the preferred stockholder's position is between that of a common stock shareholder and a bondholder.

In a corporation, the overall managerial responsibility rests with the board of directors who are elected by the shareholders. Officers elected or appointed and supervised by the board of directors conduct the actual operation of a corporation. Ultimately, the risks and benefits of incorporation inure to the shareholders who provide the funds which initially finance the corporate operations. In general, the shareholders exercise no control over the policies adopted by the corporation after participating in the election of the board of directors. Directors and officers are fiduciaries and have obligations to act in good faith with honesty and loyalty in the best interests of their corporation. The recent trend has been to expand the nature and extent of their responsibilities to the corporation.

Directors manage the corporation and establish general policies and the scope of the business within the purposes and powers stated in the corporation's articles of incorporation and bylaws. The directors must act collectively, convened as a board.

Although directors act collectively for and on behalf of the corporation, an individual director cannot act as an agent to bind the corporation. Directors are fiduciaries because their relationship with the corporation is one that is based upon trust and confidence. Directors are similar to trustees because directors occupy positions of trust and control over the corporation but, unlike trustees, the directors do not own or hold title to property for the use and benefit of others. The number of directors is specified in the charter or bylaws. In some states, the minimum is one, and if there are fewer than fifty shareholders, there need not be a board of directors. The initial board of directors is named in the charter or elected by the incorporators, and subsequent directors are elected by the shareholders. The term of a director is usually one year but may be longer. Directors may be divided into classes with staggered terms. Provisions in the charter and/or statute determine the method of filling vacancies. Shareholders have the power to remove directors, with or without cause, in accordance with the charter or bylaws. Directors may have the power to remove another director for cause. There are few statutory requirements to qualify as a director. Compensation for directors ordinarily is specified in the corporate articles or bylaws. There must be an express provision or an agreement for directors' compensation.

The board of directors acts as a body at meetings. Provisions are made in the statutes for signed written unanimous consent in lieu of a meeting. Regular meetings are provided for in bylaws or articles. Notice is not necessary. Special meetings may be called, but usually notice is required. Quorum requirements vary from state to state. Usually, a quorum is a majority and is specified in the bylaws. Ordinarily, a majority vote is necessary for board action. Directors may participate in meetings through conference telephone communications.

In order to function properly as a director, a director has the right and responsibility to participate in meetings of the board of directors. Directors have the necessary right to inspect the books and records of the corporation. A director has the right to be indemnified for judgments, fines, or costs incurred in corporate-related criminal or civil actions, other than actions brought by or on behalf of the corporation, as long as the directors' acts were done in good faith and based upon a reasonable belief that the acts were in the best interests of the corporation. Corporations may purchase liability insurance for directors and officers.

The board of directors exercises corporate powers which makes policy decisions related to the management of corporate affairs. The board of directors makes policy decisions concerning the scope of the corporation's business; oversees major contract negotiations and initiates major changes in corporate structure and finance; appoints, supervises, and removes officers and other managerial employees and fixes their compensation; and makes financial decisions, including declarations of dividends. Functions relating to ordinary, interim managerial decisions may be delegated to an executive committee. Normally, functions relating to the daily operations are delegated to officers who act as agents in carrying out the transactions on behalf of the corporation and owe duties to the corporation. Usually, officers include a president, one or more vice presidents, a secretary, and a treasurer and are selected and may be removed by the board of directors. In most states, one person can hold more than one office and may be a member of the board of directors.

Directors and officers must exercise the same degree of care that reasonably prudent people in similar positions use in conducting business affairs and must carry out their responsibilities in an informed, businesslike manner. Directors may be liable for negligence or mismanagement if the directors fail to reasonably supervise officers and employees to whom the directors have delegated work. Directors may make decisions based upon information furnished by competent officers, employees, professionals, or an executive committee of the board, even if the information turns out to be inaccurate, incomplete, faulty, or even false. Directors are expected to be informed and to attend meetings. If a director is present at a meeting, a director is presumed to assent to action taken unless the director files a written dissent or has his or her dissent entered in the minutes. A director having a personal interest in a matter being considered by the board should not vote thereon.

Directors should not use corporate funds or confidential information to secure personal advantages and must fully disclose corporate opportunities and possible conflicts of interest in transactions involving the directors and the corporation. Directors may serve on the boards of more than one corporation but must disclose any potential conflicts of interest that might arise in a corporate transaction. Corporate officers and managers deal with third parties as agents of and on behalf of the corporation. If there is a breach of duties owed to the corporation, the directors are liable to the corporation. The corporation may sue in its own name, or a shareholder or a representative, such as a trustee, may bring a derivative suit in bankruptcy on behalf of the corporation. Directors normally are not liable for poor business judgment or honest mistakes if the directors act in good faith in what the directors consider to be the best interests of the corporation and with the care that an ordinary prudent person would exercise under similar circumstances. The directors are not ensurers of business success.

Shareholders have limited power. The shareholders' approval is necessary to make fundamental changes affecting the corporation such as amending the charter, merging with another corporation, or dissolving. The shareholders have the power to elect and remove members of the board of directors for cause. The shareholders do not participate in the management of the corporation. An annual meeting of the shareholders is held on the date and at a place fixed in the bylaws. Written notice must be given within the specified statutory period of time, but notice may be waived. Usually, the corporate president or chairperson of the board of directors presides over the meeting and the secretary of the board records the minutes. Shareholders may vote in person or by proxy. A proxy is a written, revocable authorization to an agent to cast the vote of the shareholder and typically is solicited by management. A proxy generally is effective for eleven months under state law. Person who solicit proxies from shareholders for voting at meetings must make full and accurate disclosure of the facts relating to matters that are to be voted on at the shareholders meeting. A quorum (the minimum number of shares that must be represented at a meeting) is fixed in the charter and usually is a majority of issued outstanding shares.

Shareholders have the right to receive stock certificates that evidence ownership of a specific number of shares in the corporation. A shareholder whose ownership interest is recorded has rights to receive notice of meetings and to participate in meetings, receive dividends when declared, participate in the distribution of assets upon dissolution, receive operational and financial reports, and receive a new stock certificate in accordance with UCC Sec. 8-405 if the shareholder's certificate is lost or stolen. Preemptive rights are the rights of current shareholders to purchase or subscribe to newly issued stock in proportion to the amount of stock currently owned before the new stock issue is offered to the public, in order to preserve the prior relative power of each shareholder.

Dividends are distributions of cash or other property (including shares of stock) to shareholders in proportion to the shareholders' respective number of shares or interests in the corporation. Dividends are payable to record holders on a specified record date. Shareholders do not have rights to dividends until the board of directors declares the dividends. Statutes impose restrictions on the issuance of dividends which will result in the corporation's insolvency or in impairment of the corporation's capital. Shareholders must return illegal dividends only if the shareholders know that the dividends are illegal when the dividends are received. Directors may be liable to the corporation for improper issuance of dividends, especially if the directors acted in bad faith. Directors must act diligently, prudently, and in good faith and may be civilly and criminally liable for improperly or illegally declaring dividends. Ordinarily, directors are not required to declare dividends unless a refusal to do so is an abuse of discretion.

A shareholder (who has owned stock for more than six months or holds more than five percent of the outstanding shares) has a right upon written notice to obtain information and may examine and copy relevant books, records, and minutes for proper purposes in person or by an agent. The shareholder must act in good faith.

A stock certificate is usually transferred by negotiation. Restrictions on transferability are enforceable if noted on the certificate. Such limitations are usually provided for in the case of a small closely held corporation in order to maintain ownership within the group. Article 8 of the UCC provides for the transfer of uncertificated securities. When shares are transferred, an entry is made in the corporate stock book.

Some classes of shareholders may have priority when the assets of the corporation are distributed upon liquidation of the corporation. Shareholders have certain rights upon dissolution or an extraordinary change in the corporation.

A shareholder's derivative suit may be brought against another person (such as a corporate officer or director) in order to enforce a claim which the shareholder believes the corporation has against the other person and, therefore, to redress a wrong incurred by the corporation.

Usually, shareholders are not personally liable to the creditors of the corporation. Liability may, however, be imposed upon shareholders in certain situations. In cases involving fraud, undercapitalization, or careless observation of corporate formalities, a court may "pierce the corporate veil" and hold shareholders liable. A shareholder is liable for illegally or improperly paid dividends if he or she had knowledge that the payment was improper. A shareholder is liable for unpaid stock subscriptions. A shareholder may be liable if shares are issued in exchange for less than full consideration. When shares are issued for less than their stated values, the shares may be referred to as watered stock. The directors may be liable for the improper issue and the shareholder may be liable for the difference between the consideration the shareholder gave for the stock and the par value or stated value of no-par shares. A shareholder who gave no consideration, overvalued consideration, or consideration that did not satisfy the statutory requirements for the shares may be liable, because of the watered stock, to the corporation and to the creditors of the corporation in some states. In some cases, a majority shareholder is treated as owing fiduciary duties to the corporation and minority shareholders.

Termination of a corporation may take place through voluntary nonjudicial dissolution, by the incorporators, by a unanimous action of all shareholders, or by act of the corporation after adoption of a resolution by the board of directors and the resolution's approval by the shareholders. Involuntary dissolution can be either administrative or judicial. Administrative dissolution is instituted by the secretary of state of incorporation if a corporation fails to pay franchise taxes, deliver annual reports, or give notification of a change in the registered agent or if the period of duration of the corporation expires. Judicial dissolution proceedings can be instituted by the attorney general if the articles of incorporation were obtained through fraud or the corporation has exceeded or abused its authority. Shareholder can bring judicial proceedings when a deadlock occurs in the board of directors which shareholders cannot break and, as a result, irreparable damage is threatened or being suffered by the corporation and the business of the corporation cannot be conducted to the advantage of the shareholders; the actions of the directors or those in control of the corporation are illegal, fraudulent, or oppressive; the shareholders are deadlocked and have failed to elect directors for two years; or corporate assets are being misapplied or wasted. Creditors can bring judicial dissolution when the corporation is insolvent. The corporation can institute judicial dissolution in order to have a voluntary dissolution continue under court supervision.

The procedure for liquidation and winding up is set forth in RMBCA Chapter 14. Usually, the members of the board of directors, who act as trustees, conduct the liquidation and winding up procedure. The corporation is required to cease conducting new business, notify creditors, pay debts and liabilities such as taxes, fulfill existing contracts, collect and sell assets, distribute remaining assets among shareholders according to their respective interests and preferences, and make any filings required by state law. A receiver will be appointed by the court to wind up the affairs of the corporation and liquidate the corporation's assets if there is an involuntary dissolution, members of the board of directors do not wish to conduct the winding up, or shareholders or creditors show cause why the board should not be permitted to assume the function of trustee.

The Securities and Exchange Commission (the SEC), a federal agency which administers the Securities Act of 1933, the Securities Exchange Act of 1934, and other federal statutes, extensively regulates the issuance and sale of corporate securities. In addition, the states also regulate the offer and sale of securities. A major objective of securities regulation is to protect the investing public by requiring full and correct disclosure of relevant information. The federal securities laws, therefore, impose certain registration requirements and set forth various antifraud provisions designed, in part, to prevent manipulative and deceptive trading practices and the misuse of material nonpublic information by the officers, directors, and other insiders. The statutes impose both criminal and civil liability for securities law violations. Following the enactment of the Securities Act of 1933, Congress passed the Securities Exchange Act of 1934, which provided for the creation of the SEC, an independent regulatory commission. The SEC administers the 1933 and 1934 Acts as amended.

The responsibilities of the SEC include the administration of requirements of disclosure of material facts concerning offerings of securities on national security exchanges and certain securities in the over–the-counter market; regulation of the trading in securities on the thirteen national and regional securities exchanges and in the over-the-counter market; investigation of securities frauds; regulation of the activities of securities brokers, dealers, and investment advisors; supervision of the activities of mutual funds; and recommending administrative sanctions, injunctive remedies, and criminal prosecution of violators of the securities laws by the Fraud Section of the Criminal Division of the Department of Justice.

The Securities Act of 1933 requires full disclosure of material information which is relevant to investment decisions and prohibits fraud and misstatements when securities are offered for sale to the public through the mail and/or interstate commerce.

The Securities Exchange Act of 1934 deals with the resale of securities. The Act regulates exchanges, corporations having assets of more than $5,000,000 and more than 500 shareholders, and proxy solicitations for shareholder voting. An issuer of securities that are publicly traded must register and file periodic reports with the SEC if the securities are traded on an exchange or the issuer engages in interstate commerce or its securities are traded through the mails or an instrumentality of interstate commerce and the issuer has assets exceeding $5,000,000 and more than 500 shareholders.

CORPORATIONS

REVIEW QUESTIONS

1. American Goods, Inc., is a corporation. Responsibility for the overall management of American Goods is entrusted to:

   a. the Board of Directors.
   b. the corporate officers and managers.
   c. the owners of the corporation.
   d. the shareholders.

2. Acme, Inc., is incorporated in the state of California and is doing business in the state of Nevada. In Nevada, Acme is properly referred to as:

   a. an alien corporation.
   b. a foreign corporation.
   c. a close corporation.
   d. a national corporation.

3. The abbreviation "P.A." in the name "Eastside Medical Clinic, P.A." means that this organization is:

   a. a private association.
   b. a professional association.
   c. a public administration.
   d. a public association.

4. Fred and Diane want to market a new type of computer game. They wish to form a corporation that avoids income taxes at the corporate level. This type of corporation is known as:

   a. a C corporation.
   b. a close corporation.
   c. a private corporation.
   d. an S corporation.

5. Interstate Sales, Inc., has obtained a corporate charter. Least likely to appear in the charter is:

   a. the corporate purpose of Interstate Sales.
   b. the exact date of the annual meeting of the shareholders of Interstate Sales.
   c. the name of the registered agent for Interstate Sales.
   d. the value of the shares of Interstate Sales stock.

6. Nora is a shareholder of Property Investments, Inc. (PI). A court might disregard PI's corporate entity and hold Nora personally liable for PI's debts if:

   a. Nora refuses to accept personal responsibility for PI's debts.
   b. Nora's personal interests are commingled with PI's interests to the extent that PI has no separate identity.
   c. PI calls more than the required number of shareholders' meetings.
   d. PI is overcapitalized.

7. Gamma Corporation and Omega Corporation, like other business corporations, most likely issue securities to:

   a. increase their market share.
   b. increase their visibility.
   c. obtain financing.
   d. reduce their production costs.

8. Max purchases 1,000 shares of common stock in Stone Tour Company. As a shareholder of record, Max will own a proportionate interest with regard to corporate:

   a. control.
   b. earnings.
   c. net assets.
   d. all of the above.

9. Adam and Betty are holders of preferred stock in Megacorp, Inc. Adam and Betty have priority over holders of Megacorp common stock as to payment:

   a. of dividends only.
   b. on dissolution of Megacorp only.
   c. of dividends and on dissolution of Megacorp.
   d. none of the above

10. In the state of incorporation, the corporation is said to be a:

   a. foreign corporation.
   b. domestic corporation.
   c. nexus corporation.
   d. catalog company.

11. The day-to-day operations of a corporation are under the control of:

    a. the shareholders.
    b. the Board of Directors.
    c. the officers.
    d. all of the above.

12. Ron and Nancy form Eagle Equipment Corporation. Eagle has a Board of Directors, a chief executive officer, a chief operating officer, and fifty-two shareholders. Eagle is governed by its:

    a. Board of Directors.
    b. incorporators.
    c. officers.
    d. shareholders.

13. Mike and Dorothy incorporate their business as American Products, Inc. The first Board of Directors may be appointed by American's:

    a. Board of Directors.
    b. incorporators.
    c. officers.
    d. shareholders.

14. Andy and Flora are directors of Jackson Paper Company. Dick and Jane are Jackson officers. Rachel and Henry, as well as the directors and officers, are Jackson shareholders. Jackson stock dividends are declared by:

    a. the directors.
    b. the shareholders.
    c. a majority of the shareholders.
    d. the officers.

15. U.S. Electronics Company manufactures television sets. U.S. Electronics is like most corporations in that its officers are hired by the firm's:

    a. Board of Directors.
    b. incorporators.
    c. shareholders.
    d. none of the above

16. George is a director of Washington Corporation. Which of the following describes George's position with regard to Washington?

    a. agent
    b. principal
    c. fiduciary
    d. trustee

17. William is a director of Harrison Lumber, Inc. Under the standard of due care owed of directors of a corporation, William must:

    a. attend the meetings and use perfect judgment.
    b. attend meetings and inspect corporate records.
    c. carry out his responsibilities in an informed, businesslike manner.
    d. not mismanage the corporation.

18. Great Stores, Inc., must hold a shareholders' meeting:

    a. once a month.
    b. once a year.
    c. once every two years.
    d. only when it is called by the Board of Directors.

19. Frosty Drinks Corporation distributes soft drinks in the Midwest. Frosty's Board of Directors can delegate some of its functions to the firm's:

    a. incorporators.
    b. officers.
    c. shareholders.
    d. none of the above

20. Millard and Locke are shareholders of Fillmore Transportation, Inc. Which of the following Fillmore actions would require their approval?

    a. hiring of a chief executive officer
    b. declaring a corporate dividend
    c. amending the Articles of Incorporation
    d. all of the above

21. Zach and Taylor are shareholders of Buena Vista Company. As shareholders, they do ***not*** have:

    a. a right of compensation.
    b. dividend rights.
    c. preemptive rights.
    d. stock warrant rights.

22. Betty owns 100 shares of MegaCorp, Inc., common stock. Megacorp has decided to issue 10,000 additional shares of its common stock. According to her stock certificate, Betty is entitled to purchase another 100 shares at the time of the new issue. This is an example of Betty's:

    a. right of proxy.
    b. preemptive rights.
    c. indemnification rights.
    d. participation rights.

23. Mary is a shareholder of Consumer Products Corporation. The right to inspect corporate books and records is:

    a. held by Mary, without restrictions.
    b. held by Mary, subject to some restrictions.
    c. held by Mary, only if she is also a director.
    d. not held by Mary.

24. Alan is a shareholder of Interstate Transportation Company (ITC). When the directors fail to undertake any action to redress a wrong suffered by ITC, Alan files a suit on ITC's behalf. This suit is a shareholders':

    a. business-judgment rule suit.
    b. derivative suit.
    c. duty-of-liability suit.
    d. duty-of-loyalty suit.

25. Nora is a dissenting shareholder of Omega Company whose management is considering a tender offer by Power Products, Inc. Nora and Omega cannot agree on the fair value of the stock. The value will be determined by:

    a. a court.
    b. Omega's directors.
    c. Omega's other shareholders.
    d. none of the above.

26. Retail Enterprises, Inc., is in the process of ending its existence. The legal death of the artificial "person" of the corporation is known as:

    a. dissolution.
    b. dissension.
    c. liquidation.
    d. termination.

27. American Sales Corporation can be compelled to dissolve by:

   a. itself (through its shareholders and directors) only.
   b. the state only.
   c. itself (through its shareholders and directors) or the state.
   d. none of the above.

28. Doug trades in securities on a regional securities exchange. These trades are subject to regulation by:

   a. the National Securities Markets Improvement Commission.
   b. the Securities and Exchange Commission.
   c. the U.S. Department of Justice.
   d. none of the above.

29. Consumer Products Corporation wants to make an offering of securities to the general public. This offering is not exempt from registration under the Securities Act of 1933. Before the firm sells its securities, it must provide investors with:

   a. a prospectus.
   b. a registration statement.
   c. a tombstone ad.
   d. all of the above.

30. As part of a stock offering for AmCorp, Inc., Bill, AmCorp's accountant, intentionally misrepresents material facts in the prospectus. Erin, unaware of the misrepresentation, buys the stock and suffers a loss. Bill may be subject to:

   a. a fine and imprisonment only.
   b. damages only.
   c. a fine, imprisonment, and damages.
   d. none of the above.

CORPORATIONS

REVIEW QUESTION SOLUTIONS

1.	A
2.	B
3.	B
4.	D
5.	B
6.	B
7.	C
8.	D
9.	C
10.	B
11.	C
12.	A
13.	B
14.	A
15.	A
16.	C
17.	C
18.	B
19.	B
20.	C
21.	A
22.	B
23.	B
24.	B
25.	A
26.	A
27.	C
28.	B
29.	A
30.	C

CORPORATIONS

Explanation of Review Question Solutions

1. **The correct answer is A**, the Board of Directors. The Revised Model Business Corporation Act (RMBCA) governs many of the legal aspects of corporations like the Uniform Partnership Act (UPA) governs the actions of partnerships. The Board of Directors elected by shareholders manages the business and establishes corporate policy. In that capacity they do not carry on the day-to-day business. State corporate statutes require corporations to have officers (B), elected and removed by a board of directors. These officers carry out the day-to-day business in accordance with policies established by the board of directors. The owners of the corporation (C) are the shareholders (D), and their role in management is limited to electing the board of directors at a properly held regular or special stockholder's meeting (RMBCA secs. 7.01 and 7.02).

2. **The correct answer is B**, a foreign corporation. A domestic corporation is a corporation formed and created under the laws of the state that granted its corporate charter. A foreign corporation (B) is formed and created in under the laws of a state other than the one in which the corporation is currently conducting business. That is, the corporation is said to be foreign to the state it is in if it was formed and created under the laws of another state. A close corporation (C) is a corporation where one individual or his or her family generally owns the stock. The control of a close corporation is in the hands of the owners, and the stock is not traded publicly. National corporations are corporations that conduct business throughout the nation in most every state.

3. **The correct answer is B**, professional association. This is the definition; none of the other options are relevant. A private corporation (association), as opposed to a public corporation, is one that is formed by private individuals to conduct business. A public corporation is one organized by the state or federal government to administer government affairs and to benefit the general public. A public administration is the staff of an elected official, which exists to administer a municipal public corporation or municipality.

4. **The correct answer is D**, an S corporation. A close corporation (B) is a corporation where one individual or his or her family generally owns the stock. Private corporations (C) are created by private parties and may serve a profit or a nonprofit purpose but not a governmental function. An S Corporation is a corporation that has elected to be taxed under the Subchapter S Revision Act of 1982, where the income, deductions, losses, and credits of the corporation pass through to the shareholders who pay the income tax on their personal returns, similar to the way such items pass through to partners. A C Corporation (A) is a corporation organized in such a way to pay the income taxes on the income, deductions, losses, and credits at the corporate level without passing these items onto the shareholders as in an S Corporation or Partnership.

5. **The correct answer is B**; the exact date of the annual meeting of the shareholders of Interstate Sales. The state-approved articles of incorporation are called the Corporate Charter or Certificate of Incorporation. The corporation comes into existence when the state issues the corporate charter (RMBCA sec. 2.06). The corporate charter should have the name of the corporation, the purpose (B), capital stock authorization (D), place of business, directors and officers, incorporators, registered agent (C), and bylaws. The time of the annual stockholder's meeting is fixed in the articles of incorporation and bylaws. The date that appears there is not an exact date, but a month or week during the year. The exact date is announced with at least ten days' notice to allow the stockholders time to consider what to do at the meeting and arrange to be present.

6. **The correct answer is B:** Nora's personal interests are commingled with Property Investments' interests to the extent that PI has no separate identity. Nora has no personal liability for corporate debts as long as the corporation is valid (A). No maximum number of shareholder meetings (C) or over capitalization (D) will cause the corporation's debts to become those of the shareholders.

7. **The correct answer is C**, obtain financing. Corporations sell stock to raise money. Market share is the amount of the available market that the sales of the corporation's products or services make up, e.g., a 50% market share means that for the available sales in this area for this product the company has a 50% share of those sales. Market share does not relate to sales of stock. Not sure how visibility (B) relates to shares of stock. One reduces production costs (D) by using more efficiency or supplies with lower prices or higher quality; production costs are not reduced by sales of stock.

8. **The correct answer is D**, all of the above. A stockholder has votes equal to his or her number of shares and control of the corporation through those votes. A stockholder is paid dividends out of retained earnings, which is the accumulation of annual earnings less any prior dividends. If a future dividend is declared out of earnings, the stockholder has a right to a proportionate share of those dividends. If the corporation is liquidated, the stockholder has a residual right to his proportionate share of the distributable net assets.

9. **The correct answer is C**: of dividends and on dissolution of Megacorp. Preferred stockholders are preferred as to dividends and as to distributable net assets after the payment of creditors. Dividends (A) and dissolution (B) by themselves are incomplete.

10. **The correct answer is B**, a domestic corporation. In many questions there are two obviously incorrect options that can be eliminated easily; in this case, nexus corporation (C) and catalog company (D) are obviously incorrect. A foreign corporation is a corporation that was incorporated in a state other than the state in which the corporation is doing business. Foreign and domestic must be viewed in reference to a state; they are said to be foreign to that state or domestic to that state.

11. **The correct answer is C**, the officers. This question is similar to #1. The Revised Model Business Corporation Act (RMBCA) governs many of the legal aspects of corporations like the Uniform Partnership Act (UPA) governs the actions of partnerships. The Board of Directors (B) elected by shareholders manages the business and establishes corporate policy. In that capacity they do not carry on the day-to-day business. State corporate statutes require corporations to have officers (C), elected and removed by a board of directors. These officers carry out the day-to-day business in accordance with policies established by the board of directors. The owners of the corporation are the shareholders (A), and their role in management is limited to electing the board of directors at a properly held regular or special stockholder's meeting (RMBCA secs. 7.01 and 7.02).

12. **The correct answer is A**, the board of directors. This question is similar to #1 and #11; please see those questions for explanation. The incorporators are those people who originally filed and signed the articles of incorporation.

13. **The correct answer is B**, the incorporators. This question is similar to #1, #11, and #12; please see those questions for explanation. The initial board of directors is named within the articles of incorporation that are drawn up and submitted to the state for approval by the incorporators.

14. **The correct answer is A**, the directors. This question is similar to #1, #11, #12, and #13; please see those questions for explanation. The board of directors declares dividends.

15. **The correct answer is A**, the board of directors. This question is similar to #1, #11, #12, #13, and #14; please see those questions for explanation. The corporate officers are appointed or hired by the board of directors.

16. **The correct answer is C**, fiduciary. The board of directors need not be an owner of the company and is therefore not a principal. Unlike an agent (A), who is not party to contracts or transactions, the directors of a corporation act as fiduciaries that manage the company on behalf of the stockholders. The business judgment rule indemnifies the directors when making honest, rational, informed business decisions. The director, as fiduciary (a person with a duty to act primarily for the benefit of another), has duties similar to the agent for full accounting, full disclosure, and loyalty. While an agent is a possible answer, the best answer is a fiduciary. A trustee (D) is a person who holds title to property in trust for the benefit of someone.

17. **The correct answer is C**, carry out his responsibility in an informed, businesslike manner. The word "perfect" makes option A false. A negative duty is not really a duty (D), making this option false. The requirements of a director are not specific as to the duties (B), making this option false. The business judgment rule requires that the director make honest and rational informed business decisions. The Revised Model Business Corporation Act, sec. 8.30, requires that the directors perform in the best interest of the corporation and with the care that an ordinary prudent person would reasonably be expected to exercise under similar circumstances.

18. **The correct answer is B**, once a year. Most state statutes require regular annual meetings. Other than the annual meetings, shareholders can call a special meeting but must give attendees notice. These special meetings are optional.

19. **The correct answer is B**, officers. This question is similar to #1, #11, #12, #13, #14, and #15; please see those questions for explanation. Directors normally delegate the administration of corporate policy to officers, authorizing them to carry out the day-to-day business.

20. **The correct answer is C**, amending the articles of incorporation. The board of directors has full discretion concerning the declaration of dividends (B). The officers (A) of the corporation are hired by the board of directors without any need of vote of the stockholders. Changes in the articles of incorporation (C) require directors' and stockholders' approval, and the amended articles must be filed at the office of the Secretary of State of the state of incorporation (RMBCA, sec. 10.01, 10.02, and 10.03).

21. **The correct answer is A**, right of compensation. Look at these questions as true/false questions and go right down the list. The use of the word *not* makes this a question where you are looking for the false answer. Stockholders have the right to vote, right to receive a dividend if one is declared (B; this is not a right of compensation), the right to inspect the corporate books, pre-emptive rights (C), the right to transfer stock, the right to sue the corporation or third parties for improper action, and the right to share in the profits on dissolution. The preemptive right extends to new stock being issued and warrants for the purchase of that new stock.

22. **The correct answer is B**, preemptive rights. A preemptive right is the right of the voting stockholders of record to purchase the new stock in proportion to their old stock interest before the new stock may be offered to the public. Proxy (A) is the instrument where the voting shareholder authorizes another to vote for him or her at an authorized stockholders meeting. When corporate officers or directors who are acting in good faith are sued by stockholders, and the company indemnifies the officers by paying for their defense, it is usually through an insurance policy.

23. **The correct answer is B**, held by Mary, subject to some restrictions. This is the best answer. Stockholders have the right to vote, the right to receive a dividend if one is declared, the right to inspect the corporate books, pre-emptive rights, the right to transfer stock, the right to sue the corporation or third parties for improper action, and the right to share in the profits on dissolution. The common law granted to the stockholder is the right to inspect corporate books and records at reasonable times and for a proper purpose. The Revised Model Business Corporation Act, sec 16.02, grants the right only to shareholders of record to examine and copy, at the shareholder's expense, certain books and records.

24. **The correct answer is B**, derivative suit. As a shareholder, you may individually, or with other minority shareholders, bring an action on behalf of the corporation against the directors and officers or outside persons on the basis of breach of their managerial fiduciary duties, resulting in a depletion of corporate assets. Such a suit is a derivative suit. The person bringing the suit must show that they have asked the corporation to sue these persons or take proper action in the proper way before the derivative suit is valid. The business judgment rule requires that the director make honest and rational informed business decisions. If the director acts in this manner, he/she is indemnified or held blameless for making a mistake. The other two options are not descriptions of suits but of duties and can be easily eliminated.

25. **The correct answer is A**, a court. A tender offer is a public invitation to a corporation's shareholders to purchase their stock and does not include stock purchases on the open market. Certainly, the company directors or other shareholders cannot force another stockholder to sell the stock to a third party at a price which they determine is reasonable. If an agreement cannot be met, the courts will be asked to decide a reasonable price.

26. **The correct answer is A**, dissolution. Liquidation (C) is the process of converting (sales for cash) noncash assets into cash. Dissension (B) is the act of not agreeing with another's view, a disagreement or difference of opinion. Termination (D) is a more general term meaning the end of something in time, i.e., the conclusion, a result, an outcome, or the result of terminating or being terminated. Dissolution is the legal term for the termination of a corporation, either voluntary by action of its shareholders and directors or by state suspension for nonpayment of tax.

27. **The correct answer is C**, itself (through its shareholders and directors) or the state. Dissolution is the legal term for the termination of a corporation, either voluntary by action of its shareholders and directors or by state suspension for nonpayment of tax.

28. **The correct answer is B**, the Securities and Exchange Commission. Under the Securities Act of 1933 and Securities Exchange Act of 1934, the Securities and Exchange Commission regulates the sale of stock to the public.

29. **The correct answer is A**, a prospectus. The stock offering must be registered with the Securities and Exchange Commission under the Securities Act of 1933. The registration statement must disclose necessary financial and other information, which is also in a prospectus furnished to each prospective investor, allowing the latter to make an intelligent investment decision based upon the merits of the security.

30. **The correct answer is C**, a fine, imprisonment, and damages. If you served as an accountant who assisted in the certification or preparation of the registration statement, you could be held personally liable if the Registration Statement contained an untrue statement of a material fact or omitted necessary material information. Any willful violation of the Act will subject the wrongdoer to criminal liability of up to five years in prison and/or a fine of up to $10,000.

TRUSTS

After studying this topic, you should be able to:

1. *Define the terminology used in trusts*
2. *Understand how express trusts are created*
3. *Understand how implied trusts are created*
4. *Know the nature and extent of the beneficiary's interest in trusts*
5. *Understand how trusts are modified and terminated*
6. *Know the duties of the trustee*

A person may transfer ownership rights with respect to personal and real property by sale or gift during his or her lifetime. Owners of property may establish trusts by transferring the legal title to property that they own to trustees who are obligated to use the property for the benefit of other people, the beneficiaries of the trusts.

A trust is created when one person (the settlor or grantor) transfers legal title to property to another person (the trustee) who is to administer the property (the corpus or res) for the benefit of another person or persons (beneficiaries). The settlor must have an interest in the specific, identified property that becomes the corpus of the trust and an intention to create the trust. The beneficiary must be an identified, existing natural person or entity. The trustee must be designated. The property must actually be delivered to the trustee with the intention of passing title.

An express trust is intentionally created by the settlor. An inter vivos trust comes into existence during the lifetime of the settlor and may be orally created, unless it is subject to a provision of the statute of frauds.

A testamentary trust comes into existence upon the death of the settlor, and formalities required in order to execute a will must be complied with.

A revocable trust may be revoked by the settlor. An irrevocable trust is one which cannot be revoked by the settlor once it is created.

Implied trusts may be created by the operation of the law. A constructive trust may be imposed as an equitable remedy without regard to the intentions of the parties in order to prevent the unjust enrichment of one of the parties. An implied trust results when a grantor makes a disposition of property under circumstances from which it can be inferred that the grantor's intention was to create a trust and not to transfer a beneficial interest in the property.

A charitable trust is one that is created for charitable (eleemosynary, or philanthropic), educational, religious, scientific, or general social purposes.

A spendthrift trust is one that provides for maintenance of the beneficiary and secures the corpus against the beneficiary's improvidence by bestowing periodic payments and prohibiting creditors from reaching the beneficiary's interest in future distributions.

A Totten trust is a tentative, revocable trust that is created when a person deposits money in his or her name as trustee for a beneficiary.

A trustee must act with honesty, good faith, loyalty, and prudence in administering the trust. A trustee must maintain accurate accounts, keep trust assets separate from the trustee's own personal assets, furnish complete and accurate information to the beneficiary, pay an income beneficiary net income at reasonable intervals, and distribute the risk of loss from investments by diversification and disposal of assets that do not represent prudent investments.

The powers of the trustee may be prescribed by the settlor. State statutes typically restrict investments to conservative debt securities and apply if the settlor has not otherwise defined the trustee's investment power. To the extent that the trust instrument does not provide instructions, ordinary receipts and expenses are to be allocated to the income beneficiaries, and extraordinary receipts and expenses are allocated to the principal beneficiaries.

The trust instrument usually specifies a termination date or provides that the trust will end upon accomplishment of a specific purpose. Unless otherwise provided in the trust instrument, a trust is not terminated by the death of the trustee or beneficiary. A trust terminates if the purpose for which the trust was created becomes illegal or impossible to execute.

TRUSTS

REVIEW QUESTIONS

1. Rose makes out a will in which Steve is appointed to administer the will. After Rose dies, Steve cannot administer the will, and a court appoints Terry to handle the probate of Rose's estate. In this situation, the executor is:

   a. Rose.
   b. Steve.
   c. Terry.
   d. the court.

2. Adam dies without a will. A court appoints Barbara to handle the probate of Adam's estate. In this situation, the administrator is:

   a. Adam.
   b. Barbara.
   c. the court.
   d. none of the above.

3. Nick's assets are insufficient to pay all of the bequests provided for in his will as well as the taxes, debts, and expenses of administering his estate. In this situation:

   a. an abatement occurs, by which the legatees receive reduced benefits.
   b. each beneficiary, in the order in which he or she is named in the will, is paid in full until the assets are depleted, and the others receive nothing.
   c. the assets are sold and the proceeds distributed per capita to the beneficiaries.
   d. the assets of the estate are distributed under intestacy laws.

4. Patty makes a gift of real estate in her will to Quinn. This gift is:

   a. a bequest.
   b. a devise.
   c. a legacy.
   d. an abatement.

5. In his will, John makes a gift of $10,000 to Sam. The gift to Sam is:

   a. a general bequest.
   b. a general devise.
   c. a specific bequest.
   d. a specific devise.

6. In her will, Jill makes a gift of stock to Kent. At the time of Jill's death, she owes Local Mortgage Company $10,000. The residuum of her estate consists of assets that:

   a. exist before taxes, expenses, and the debt to Local Mortgage are paid.
   b. pay estate taxes, expenses, and debts.
   c. remain after the debt to Local Mortgage is paid and the gift to Kent is made.
   d. remain after taxes, expenses, and the debt to Local Mortgage are paid, but before the gift is made to Kent.

7. In his will, Carl makes a gift of his collection of sports memorabilia to Don, a fellow collector. A lapsed legacy will occur if:

   a. Carl revokes the will.
   b. Don dies before Carl or before the gift is made.
   c. the collection consists of items procured by illegal means.
   d. the will is invalidated for lack of testamentary capacity.

8. Elaine's will is admitted to probate, which is the process by which:

   a. the decedent's estate is administered only.
   b. the will's validity is established only.
   c. the decedent's estate is administered and the will's validity is established.
   d. none of the above.

9. Jerry, a twenty-year-old, wants to execute a will before he takes a mountain-climbing trip in the Sierra Nevadas. In most states, the legal age for executing a will is:

   a. sixteen years of age.
   b. eighteen years of age.
   c. twenty-one years of age.
   d. twenty-five years of age.

10. On her deathbed, Jenny tells the assembled relatives that on her death, Lyle is to have all of her jewelry, antiques, and other personal possessions. Jenny has made:

    a. a formal will.
    b. an inter vivos gift.
    c. an intestate will.
    d. a nuncupative will.

11. When Bob executes his will, he tells the witnesses that the document they are about to sign is his "last will and testament." After Bob's death, the will is admitted for probate. Cary, his lawyer, reads the will to Bob's heirs. The publication of the will is:

    a. Bob's declaration to the witnesses.
    b. Bob's execution of the will.
    c. Cary's reading of the will to Bob's heirs.
    d. the admission of the will for probate.

12. The settlor of a trust is:

    a. the person for whose benefit the trust property is held.
    b. the person who holds the property of the trust.
    c. the person who creates the trust.
    d. the person who revokes the trust.

13. The beneficiary of a trust is:

    a. the person for whose benefit the trust property is held.
    b. the person who holds the property of the trust.
    c. the person who creates the trust.
    d. the person who revokes the trust.

14. Tom executes a will in which he leaves everything to his spouse, Victoria, and in which he appoints Warren to administer his estate. This will must be signed by:

    a. Tom only.
    b. Tom and Victoria only.
    c. Tom, Victoria, and Warren.
    d. none of the above.

15. Nora serves as a witness to Owen's will. Before attesting to the will, Nora must:

    a. only be told of the contents of the will by Owen.
    b. only read the will.
    c. be told of the contents of the will by Owen and read the will.
    d. none of the above.

16. Sophia executes a will in 1990, naming her nephew Porter as the sole beneficiary. In 1999 she executes another will, changing the beneficiary to her niece Allison, but she does not state in the 1999 will that she is revoking the earlier will. On Sophia's death:

    a. Porter will be the sole heir, as the 1990 will was first in time and was never effectively revoked.
    b. Allison will be the sole heir because a second will automatically revokes an earlier will, even if a declaration of revocation is missing from the second will.
    c. Allison will be the sole heir, because even when a declaration of revocation is missing from a second (later) will, if the second will is inconsistent with an earlier will, the second will controls.
    d. neither Porter nor Allison will inherit because when a second will is inconsistent with an earlier will and the earlier will is not specifically revoked in the second will, the testator's property escheats to the state.

17. Karen executes a separate written instrument to amend her prior will. This separate document is:

    a. a codicil.
    b. a constructive will.
    c. an inter vivos will.
    d. a nuncupative will.

18. Bruce executes a will, after which his daughter, Clair, is born. Bruce dies. If it appears that he would have provided in his will for Clair, his daughter inherits:

    a. the entire estate.
    b. the portion of the estate she would receive under intestacy laws.
    c. the portion of the estate the other beneficiaries agree to give her.
    d. none of the estate.

19. Jay dies intestate. Under intestacy laws, the debts of Jay's estate are paid by:

    a. Jay's heirs after the assets of the estate have been distributed.
    b. the administrator, who is later reimbursed by Jay's heirs.
    c. the estate before any assets are distributed to Jay's heirs.
    d. the estate from the residuum of the estate.

20. The trustee of a trust is:

    a. the person for whose benefit the trust property is held.
    b. the person who holds the property of the trust.
    c. the person who creates the trust.
    d. the person who revokes the trust.

21. Donna dies intestate. Intestacy laws which determine how Donna's estate will be distributed are also known as:

    a. estate administration laws.
    b. probate laws.
    c. nuncupative statutes.
    d. statutes of descent and distribution.

22. Eve dies intestate, survived by her grandson, Floyd, and her sister, Grace. Floyd and Grace are Eve's:

    a. collateral heirs.
    b. inter vivos heirs.
    c. lineal descendants.
    d. none of the above.

23. While married to Shanti, Martin executed a will leaving 40 acres of his farm to Shanti and the remaining 200 acres to his two sons, Palmer and Andrew, in equal shares. A provision in his will specifically disinherited a third son, Albert. Martin and Shanti divorced some years later, but Martin never changed or revoked his will. On Martin's death, Albert claims that the will was revoked when Martin and Shanti divorced and, therefore, the estate should pass under intestacy laws, in which case, as a legal heir, he would inherit a share of the property. Assuming that the state has adopted the Uniform Probate Code (UPC), did the divorce revoke the prior will?

    a. Yes; the divorce revoked the will in its entirety, and the estate will pass to the legal heirs under intestacy laws.
    b. No; divorce or annulment will not revoke a prior will, even in part.
    c. Yes, but only partially; Shanti will receive the property willed to her by Martin, but the rest of the estate will pass under intestacy laws.
    d. Yes, but only partially; the disposition of property made under the will to Shanti will be revoked, but the other provisions of the will may be valid.

24. Paul dies intestate. His survivors include his spouse Rhoda and his two children, Sue and Tony. Under intestacy laws, Rhoda will probably receive _____________ of Paul's estate.

    a. one-fifth
    b. one-third
    c. one-half
    d. all

25. Dick dies intestate with no surviving spouse or child. Dick's survivors include his granddaughter, Emma, his nephew, Fred, and his cousin, Greg. Under intestacy laws, his estate passes to:

    a. Emma.
    b. Fred.
    c. Greg.
    d. the state.

26. Sloane has two children, Bob and Matt, both of whom predecease Sloane. Bob, the older child, is survived by a daughter, and Matt is survived by two sons. On Sloane's death, if the estate is distributed per stirpes:

    a. each grandchild will receive one-third of the estate.
    b. Bob's daughter will receive one-half of the estate, and the other half will be divided equally between Matt's two sons.
    c. the grandchildren will not inherit anything, because Sloane's children did not survive him.
    d. Bob's daughter will inherit the entire estate because Bob was the older of Sloane's two sons.

27. Charles creates a trust by his will to come into existence on his death. This is a(n):

    a. charitable trust.
    b. inter vivos trust.
    c. resulting trust.
    d. testamentary trust.

28. Cahill and Cordelone are partners in a land development company. Cahill learns that Cordelone has breached his fiduciary duties by taking advantage of partnership opportunities for personal gain. The partnership has particularly suffered by Cordelone's personal purchase of a large tract of land at a very low price, an opportunity Cordelone learned of through the partnership but did not reveal to Cahill. Cordelone is ordered by the court to hold the property in trust for the partnership. The trust imposed by the court in this instance is:

   a. a charitable trust.
   b. a constructive trust.
   c. a spendthrift trust.
   d. a Totten trust.

29. Feldman wants to put some money in trust for his son, but he does not want to lose full control over the funds in case he may need them in the future. The trust best suited to Feldman's needs is:

   a. a charitable trust.
   b. a constructive trust.
   c. a spendthrift trust.
   d. a Totten trust.

30. For an express trust to be valid, it must have:

   a. a trustor who has legal capacity.
   b. a trust corpous that has specifically been identified.
   c. met the requirements of the jurisdictional state's laws.
   d. all of the above.

TRUSTS

REVIEW QUESTION SOLUTIONS

1.	C
2.	B
3.	A
4.	A
5.	C
6.	D
7.	B
8.	C
9.	B
10.	D
11.	A
12.	C
13.	A
14.	A
15.	D
16.	C
17.	A
18.	B
19.	C
20.	B
21.	D
22.	C
23.	D
24.	B
25.	A
26.	B
27.	D
28.	B
29.	D
30.	D

TRUSTS
Explanation of Review Question Solutions

1. The correct answer is C, Terry. An executor (executrix) is a court-appointed man (woman) designated in a decedent's will as the decedent's personal representative. An administrator (administratrix) with the will attached is a court-appointed man (woman), who was not designated in a decedent's will, as the decedent's personal representative. A personal representative is a court-appointed person to represent a decedent and administer his (her) estate. The court appoints an administrator (administratrix) when an individual dies intestate. Death without a will causes the decedent to die intestate.

2. The correct answer is B, Barbara. This answer is similar to #1; see this answer for more explanation.

3. The correct answer is A; abatement occurs, by which the legatees received reduced benefits. Abatement as it applies to an estate is an equal reduction of benefits to beneficiaries (heirs) when an estate is not large enough to pay each beneficiary in full.

4. The correct answer is B, a devise. A legacy (C) is a testamentary gift of personal property or money to a beneficiary (legatee) or a will. Technically a legacy does not include real property (which is a devise); a legacy usually refers to any gift from the estate of one who has died. Legacy is synonymous with bequest. A bequest is a gift of personal property under the terms of a will. Devise is a testamentary gift of real property. Abatement as it applies to an estate is an equal reduction of benefits to beneficiaries (heirs) when an estate is not large enough to pay each beneficiary in full.

5. The correct answer is C, a specific bequest. A specific bequest is the gift in a will of a certain article to a certain person or persons, i.e. "I give my diamond engagement ring to my niece, Sophie." A specific devise is the gift in a will of a certain piece of real estate to a certain person or persons, i.e. "I leave the Lazy Z Ranch to my brother, David." A specific legacy is a gift in a will of a certain article or property to a certain person or persons. A general legacy is a gift out of the general assets of the estate where no specific property is indicated, i.e. "I bequeath to my friend, John Smith, the sum of $10,000." A general bequest is synonymous with a general legacy. A general devise seems to be an impossible situation where a piece of real estate is given without naming the real estate.

6. The correct answer is D; remain after taxes, expenses, and the debt to Local Mortgage are paid, but before the gift is made to Kent. Residue is the part of a testator's estate remaining after the satisfaction of all debts, charges, taxes, and legacies other than residuary legacies. There seems to be a problem with this answer since Jill's gift to Kent is not a residuary legacy. A residuary legacy is a legacy that consists of all the testator's estate, which has not been distributed through other legacies or charges upon the estate.

7. The correct answer is B, Don dies before Carl or before the gift is made.

8. The correct answer is C; the decedent's estate is administered and the will's validity is established. The definition of probate includes two parts: the process of proving in a court of competent jurisdiction (as a probate court) that an instrument is the valid last will and testament of a deceased person, and the process of administering an estate. Some definitions that exist do not include the administration, which can lead to some confusion.

9. The correct answer is B, eighteen years of age. The testator must be of a minimum statutory age and he must have testamentary capacity to make a will. In most states and Uniform Probate Code sec. 2-501 stipulates (UPC 2-501), the legal age is eighteen years, and the testator must be of "sound mind" at the time the will is executed.

10. The correct answer is D, a nuncupative will. A nuncupative will is a will allowed in some states that is dictated orally before witnesses and set down in writing within a statutory time period (as 30 days) and that is allowed only for one in imminent peril of death from a terminal illness or from military or maritime service. An intestate will (C) seems to be a contradiction in terms since intestate means to die without a will. A formal will (A) is a regular will, a formally executed written instrument by which a person makes disposition of his or her estate to take effect after death. An inter vivos gift (B) is a gift made during the lifetime of the donor and delivered with the intent of surrendering immediately and irrevocably dominion and control over the property.

11. The correct answer is A, Bob's declaration to the witnesses. Attestation is the signing of the will by witnesses. Some states require two witnesses, while other states require three witnesses to attest (sign) the will. The witnesses need to be able to testify as to the time of the will, the testamentary capacity and the testamentary intent of the testator. The testator is not required to make a publication (declaration) that the instrument is his will, nor is he required to disclose the contents to the witnesses. Publication of the will is the testator's declaration to the witnesses that the will is that of the testator.

12. The correct answer is C; the person who creates the trust. The settlor is the person who has created an express trust. An express trust is a fiduciary relationship between persons in connection with property whereby one person called the "settlor" by his manifestation of intention causes property to be held by a person called the "trustee" for the benefit of a person called a "beneficiary," or "cestui que trust," the trustee being under a duty so to deal with the property. The beneficiary (A) is the person for whose benefit the trust property is held. The trustee (B) is the person who holds the property of the trust. The settlor may modify or revoke the trust only if the settlor reserved powers to do so in the trust terms. All the beneficiaries may consent to termination of the trust and compel its termination, unless termination would violate a material purpose of the trust, as in the case of a spendthrift trust. A court can order the termination of a trust if the continuation of the trust would cause performance of the trust to defeat or

substantially impair compliance with the trust's purpose. The trustee can terminate the trust if the settlor conveys powers to do so to the trustee in the trust instrument, or if the settlor retains powers he may convey them when he modifies the trust.

13. The correct answer is A; the person for whose benefit the trust property is held. This question is similar to #12; please see this question for further explanation. The beneficiary (A) is the person for whose benefit the trust property is held.

14. The correct answer is A, Tom only. The testator must sign the will, although in most states another person at the testator's request and direction and in his presence may make his signature for him. A testator is a man or woman who executes a will. Most state statutes and UPC 2-502 stipulate that the testator's signature may appear anywhere in the will; subscribing is not required. Subscribing is where the signature appears at the end of the document. Any writing, initials, mark, print, or impression, which the testator intends to be his signature, is such.

15. The correct answer is D, none of the above is correct. The testator is not required to make a publication (declaration) that the instrument is his will nor is he required to disclose the contents to the witnesses.

16. The correct answer is C; Allison will be the sole heir because even when a declaration of revocation is missing from the second (later) will, if the second will is inconsistent with an earlier will, the second will controls. In most states, the testator's subsequent written manifestation of revocation must have the same formality as that required for the execution of the will. The new will without express words of revocation may impliedly revoke a prior will when its terms are contrary to those of the prior will.

17. The correct answer is A, a codicil. This question has similar answers to those in #10. A codicil is a writing executed with the same formality as a will, expressly referring to a prior will, by its terms either partially revoking or adding to the prior will by making changes or additions to the will and thereby becoming a supplemental part of the will to the extent of such changes or additions, or entirely revoking the entire will. An inter vivos will (B) is simply a will made during life. All wills must be made during life to be valid. Inter vivos means between living persons, and can be used to modify donations, transfers, gifts, or trusts.

18. The correct answer is B; the portion of the estate she would receive under intestacy laws. By statute in most states and UPC 2-302, the birth of the married testator's child subsequent to his making a will does not revoke his will. By marriage a testator generally contemplates having a child from the marriage, and, therefore, if his will does not provide for a later-born child it is implied that he did not intend to disinherit and exclude the child from sharing in his estate. Accordingly, the later born child is not such a change in circumstances as to imply an intent by the testator to revoke his previous will when it did not provide for the child subsequently born of the marriage. Public policy against

disinheriting a later-born child because of the testator's failure to provide for the child in his will has caused UPC 2-302 and most states by statute to provide that a later-born child will receive its intestate share as if there were no will. If the testator mentions the child in the will, it is assumed that the will was intended to disinherit the child and she gets nothing.

19. The correct answer is C, the estate before any assets are distributed to Jay's heirs. Debts in an estate are always paid first before the inheritance is distributed. There is a period of time where the creditors are allowed to make claims and the legitimate claims are to be paid first by personal assets and then by real assets if the personal assets cannot satisfy the legitimate debts. After the paying of all debts and the period for advertising for debtors has closed, the executor files a final accounting and the court issues a decree of final settlement, which orders the distribution of the property in the estate to the heirs.

20. The correct answer is B, the person who holds the property of the trust. This question is similar to #12, and #13; please see this question for further explanation. The trustee (B) is the person who holds the property of the trust.

21. The correct answer is D; statutes of descent and distribution. Death without a will causes the decedent to die intestate. Some statutes of "descent and distribution" specifically provide for the distribution of intestate property to persons according to their marital or blood relationship to the intestate. Persons who, by statute, are entitled to property not disposed of by a decedent's will are called heirs. This is the same meaning under UPC 1-201(17). The other word combinations here are misnomers.

22. The correct answer is C, lineal descendents. Lineal descendents include natural born children, grandchildren, great grandchildren, and their lineal descendents who are related by blood.

23. The correct answer is D, Yes, but only partially; the disposition of property made under the will to Shanti will be revoked, but the other provisions of the will may be valid. By statute in most states, the testator's divorce or annulment of his marriage occurring subsequent to his making his will does not revoke either his will or any provision therein for his surviving spouse. However, if divorce or annulment provided for a property settlement, such provision would impliedly revoke only that portion of the will, which made a gift to the surviving spouse. Uniform Probate Code acts as if the divorce contained a property settlement, revoking the will to the ex-spouse but leaving the rest of the will intact.

24. The correct answer is B, one-third. State statutes generally provide that a surviving spouse will receive a fractional share of the intestate property. The amount of the fractional share depends upon whether there are children and how many there are. Generally, the statutes provide that children and spouse take a *per capita* (by heads; all persons who stand in the same degree of relationship to the intestate share equally in the estate by such representation for division among themselves).

25. The correct answer is A, Emma. Intestacy laws stipulate that you search for all lineal descendents first, then look for persons in an ascending line of inheritance; after going down, and then up, without finding heirs, you can go down again to cousins and nephews. Children of the intestate, irrespective of sex or age, (and the living wife of the intestate) are primary beneficiaries, and need not share the inheritance with other relatives.

26. The correct answer is B; Bob's daughter will receive one-half the estate, and the other half will be divided equally between Matt's two sons. *Per stirpes*, "by stocks or by roots," means that the survivors of their parent represent their parent and take the parent's share in an intestate's estate by such representation for division among themselves. Each grandchild would receive one-third of the inheritance if it was being distributed *per capita* (see # 24 above).

27. The correct answer is D, testamentary trust. A testamentary trust is a trust created by the will of a decedent. A charitable trust (A) is a trust created for the purpose of performing charity or providing social benefits. An *inter vivos* trust (B) is a trust that becomes effective during the lifetime of the settlor. A resulting trust (C) is an implied trust based upon the presumed intentions of the parties as inferred from all the circumstances that the party holding legal title to the trust property held it for the benefit of the other. There are dozens of different types of trusts.

28. The correct answer is B, a constructive trust. A constructive trust is an implied trust imposed by a court to prevent the unjust enrichment of one who has wrongfully obtained (as through fraud or bad faith) title to the property or a property interest of another. A charitable trust (A) is a trust created for the purpose of performing charity or providing social benefits. A spendthrift trust (C) is a trust that is created for the benefit of a spendthrift who is paid income there from and that cannot be reached by creditors to satisfy the spendthrift's debts. A Totten trust (D) is a trust created by a deposit in the bank by one person as trustee for another that is revocable until the death of the depositor.

29. The correct answer is D, a Totten trust (see above). See question #28 for the definitions of the other options.

30. The correct answer is D, all of the above are needed. An express trust is a fiduciary relationship between persons in connection with property whereby one person, called the "settlor," by his manifestation of intention causes property to be held by a person, called the "trustee," for the benefit of a person called a "beneficiary" or *cestui que* trust, the trustee being under a duty so to deal with the property. The settlor must have legal capacity to create the trust. The settlor must manifest an intention to make a trust. The settlor's manifestation of intent to create a trust must indicate the definite purpose of the trust. A trust establishes a beneficial interest in property, and a trust cannot be created until property is identified and title is transferred to the trust for the specific property. Notice must be given and accepted by the trustee and the beneficiary. The trust must satisfy local law (the trust cannot be for an illegal purpose).

LIMITED LIABILITY COMPANIES AND PARTNERSHIPS

After reviewing this chapter, you should be able to:

1. *Understand why limited liability companies and partnerships are attractive to business people*
2. *Describe what a limited liability company is and how it operates*
3. *Explain how limited liability partnerships limit the tort liability of partners*
4. *Explain what a family limited liability partnership is and when it is an appropriate business organizational choice*

The two most common forms of business organization selected by two or more persons entering into business together are the partnership and the corporation. Each business organization type has distinct advantages and disadvantages. The advantage for partnerships is that partnership income is taxed only once (all income is passed through the partnership to the partners themselves, who are taxed as individuals); the disadvantage is the personal liability of the partners. For corporations, the advantage is the limited liability of shareholders; the disadvantage is the double taxation of corporate income. For the small businessperson, the ideal business form would combine the tax advantages of the partnership form of business with the limited liability of the corporation.

A relatively new form of business organization, the limited liability company (LLC), is a hybrid form of business enterprise that meets these needs by offering the limited liability of the corporation and the tax advantages of a partnership. LLCs are becoming the organizational form of choice among small business people, a trend that has been encouraged by state statutes permitting their use.

Like the corporation, an LLC must be formed and operated in compliance with state law. Approximately one-fourth of the states specifically require LLCs to have at least two owners called **members.** In the remaining states, although some LLC statutes are silent on the issue, one-member LLCs are usually permitted. To form an LLC, **articles of organization** must be filed with a central state agency, normally the secretary of state's office. The articles are required to set forth such information as the name of the business, its principal address, the name and address of a registered agent, the names of the owners, and information on how the LLC will be managed. The business's name must include the words "Limited Liability Company" or the initials "LLC." In addition to filing the articles of organization, a few states require that a notice of the intention to form an LLC be published in a local newspaper.

One key advantage of the LLC is that the liability of members is limited to the amount of their investments. A second significant advantage is that an LLC with two or more members can choose whether to be taxed as a partnership or a corporation. LLCs that want to distribute profits to the members may prefer to be taxed as a partnership, to avoid the double taxation of the corporate entity. Unless the LLC indicates that it wishes to be taxed as a corporation, the Internal Revenue Service automatically taxes it as a partnership. This means that the LLC as an entity pays no taxes on business income; rather, as in a partnership, profits are "passed through" the LLC and paid personally by the members. If LLC members want to reinvest profits in the business, however, rather than distribute the profits to members, they may prefer to be taxed as a corporation if corporate tax rates are lower than personal tax rates. Part of the attractiveness of the LLC for business people is this flexibility with respect to taxation options. For federal income tax purposes, one-member LLCs are automatically taxed as sole proprietorships unless they indicate that they wish to be taxed as corporations. With respect to state taxes, most states follow the IRS rules.

The disadvantages of the LLC are relatively few. The main disadvantage of the LLC is that state statutes are not yet uniform. In an attempt to promote some uniformity among the states in respect to LLC statutes, the National Conference of Commissioners on Uniform State Laws drafted a Uniform Limited Liability Company Act for submission to the states to consider for adoption. Until all of the states have adopted the uniform law, however, an LLC in some states will have to check the rules in the other states in which the firm does business to ensure that it retains its limited liability.

The LLC is a flexible business entity in another way. In an LLC the members can decide how to operate the various aspects of the business by forming an **operating agreement**. Operating agreements contain provisions relating to management, how profits will be divided, the transfer of membership interests, whether the LLC will be dissolved on the death or departure of a member, and other important operating issues. Operating agreements do not need to be in writing, and, in fact, do not even need to be formed for an LLC to exist. LLC members should, however, protect their interests by forming a written operating agreement. If there is no agreement covering the disputed topic, the state LLC statute will govern the outcome. Most LLC statutes provide that if the members have not specified how profits and losses will be divided among the members, they will be divided equally. With respect to issues not covered by an operating agreement or by an LLC statute, the principles of partnership law are applied.

There are two options with respect to the management of an LLC. The members may decide in their operating agreement to be either a "member-managed" LLC or a "manager-managed" LLC. In a member-managed LLC, all of the members participate in management. In a manager-managed LLC, the members designate a group of people to manage the business. The management group may consist of only members, both members and nonmembers, or only nonmembers. Most LLC statutes provide that unless the members agree otherwise, all members of the LLC will participate in management. The members of an LLC can also set forth in their operating agreement provisions governing decision-making procedures. For example, the agreement can indicate what procedures are to be followed for choosing or removing managers, an issue on which most LLC statutes are silent. The members are also free to include in the agreement provisions designating when and for what purposes formal members' meetings will be held. In contrast to state laws governing corporations, LLC statutes in most states have no provisions regarding members' meetings. Members may also specify in their agreement how voting rights are apportioned. If they do not, LLC statutes in most states provide that voting rights are apportioned according to the capital contributions made by each member. Some states provide that, in the absence of an agreement to the contrary, each member has one vote.

The **limited liability partnership (LLP)** is similar to the LLC. The difference between an LLP and an LLC is that the LLP is designed more for professionals who normally do business as partners in a partnership. The major advantage of the LLP is that it allows a partnership to continue as a pass-through entity for tax purposes but limits the personal liability of the partners. Like LLCs, LLPs must be formed and operated in compliance with state statutes. The appropriate form must be filed with a central state agency, usually the secretary of state's office, and the business's name must include either "Limited Liability Partnership" or "LLP." In most states, it is relatively easy to convert a traditional partnership into an LLP because the firm's basic organizational structure remains the same. All of the statutory and common law rules governing partnerships still apply (except those specifically modified by the LLP statute). Normally, LLP statutes are simply amendments to a state's already existing partnership law. The LLP is especially attractive to two business types: professional services and family businesses. Professional service firms include law firms and accounting firms. Family limited liability partnerships are basically organizations in which all of the partners are related.

Many professionals, such as attorneys and accountants, work together using the business form of the partnership. A major disadvantage of the partnership is the unlimited personal liability of the partners. Partners are also subject to joint and several (individual) liability for partnership obligations. The LLP allows professionals to avoid personal liability for the malpractice of other partners. Although LLP statutes vary from state to state, generally each state statute limits in some way the liability of partners. The limits of exemption from liability have not been fully tested, and several questions concerning liability remain. One question concerns limits on liability outside the state in which the LLP was formed. LLP statutes are uniform. Most states apply the law of the state in which the LLP was formed, even when the firm does business in another state. Some states do not expressly recognize foreign LLPs and others do not require foreign LLPs to register before doing business. In these states, there have been no cases to date. Another question involves whether liability should be imposed to some extent on a negligent partner's supervising partner. A partner who commits a wrongful act is liable for the results of the act. Also liable is the partner who supervises the party who commits a wrongful act. This is generally true for all types of partners and partnerships, including LLPs. When the partners are members of an LLP and more than one member is negligent, there is a question as to how liability is to be shared. Some states provide for proportionate liability. The American Institute of Certified Public Accountants supports the enactment of proportionate liability statutes.

A family limited liability partnership (FLLP) is a limited liability partnership in which the majority of the partners are related to each other. A person acting in a fiduciary capacity for persons so related can also be a partner. All of the partners must be natural persons or persons acting in a fiduciary capacity for the benefit of natural persons. The most significant use of the FLLP form of business organization is in agriculture. Family-owned farms sometimes find this form to their benefit. The FLLP has the same advantages as other LLPs.

LIMITED LIABILITY COMPANIES AND PARTNERSHIPS

REVIEW QUESTIONS

1. The authority for the formation of LLCs comes from:

   a. state statutes.
   b. federal statutes.
   c. federal administrative regulations.
   d. state court decisions.

2. Which of the following is true about limited liability companies?

   a. At least one member must have unlimited liability.
   b. They can be formed without any specific steps taken by the owners.
   c. In most states they can choose whether to be taxed as a partnership or a corporation.
   d. They cannot have centralized management by only a few members.

3. If a member of an LLC executes a personal guarantee for the debt of an LLC, which of the following is true?

   a. The personal guarantee would be unenforceable because it would circumvent the limited liability of the member.
   b. The personal guarantee would result in personal liability of the member for any obligation of the LLC.
   c. Because of the member's apparent authority, the personal guarantee would create liability for all members if the LLC is a member-managed LLC.
   d. The member will have personal liability according to the terms of the guarantee but would not be personally liable for any other obligations of the LLC.

4. A limited liability company with more than one member is taxed as a partnership:

   a. in all circumstances.
   b. only if at least four of six listed attributes are present in the limited liability company.
   c. if the limited liability company has not elected to be taxed as a corporation.
   d. only if all six listed attributes are present.

5. In general, for what purpose(s) can an LLC be formed?

   a. only to practice a profession such as accountancy or medicine
   b. only for the stated purposes in the Uniform Limited Liability Company Act
   c. only for the purposes that the Internal Revenue Service has recognized as valid LLC purposes
   d. for any lawful purpose

6. Which of the following is true about selection of a name under which to operate an LLC?

   a. The name must indicate that the company is an LLC.
   b. The LLC can use trademarked names so long as the trademark is not being used by another LLC.
   c. A name cannot be reserved until the LLC has come into existence.
   d. A and C are both correct.

7. Which of the following is ***not*** true about limited liability companies under the Uniform Limited Liability Company Act?

   a. Limited liability companies can be formed with only one member.
   b. Limited liability companies can be taxed only as partnerships.
   c. A limited liability company must use the words “limited liability company” in its name or use “LLC.”
   d. In order to form a limited liability company, articles of organization must be filed with the state.

8. Which of the following is a reason to form a limited liability company rather than an S corporation?

   a. There is no limit to the number of owners of a limited liability company, whereas the number of shareholders of an S corporation is limited.
   b. All owners of a limited liability company have limited liability, but not all owners of an S corporation have limited liability.
   c. A limited liability company can be formed without formalities such as filing papers with the state, whereas an S corporation requires papers to be filed with the state.
   d. A limited liability company acts as a flow-through entity for income tax purposes, but an S corporation does not.

9. An LLC must file what document with the secretary of state?

   a. articles of organization
   b. operating agreement
   c. profit and loss allocations of the members
   d. the names of the members

10. Which of the following is ***not*** required to be set forth in an LLC's articles of organization?

   a. the name and address of the LLC's agent for service of process
   b. the name and address of each organizer
   c. the process by which members of the LLC are designated
   d. whether the LLC is a term LLC

11. Beth and Carl want to form a limited liability company (LLC) to manage their seven Movie Time Video rental stores. LLC statutes have been adopted in:

   a. all states.
   b. a majority of states.
   c. only foreign countries.
   d. only Wyoming.

12. Computer Networks, LLC, is a limited liability company. Unless indicated otherwise on Computer Network's federal tax form, the firm will be taxed as:

   a. a corporation.
   b. a partnership.
   c. a sole proprietorship.
   d. none of the above.

13. Which of the following is true about operating agreements for LLCs?

    a. All LLCs must have them, but they need not be filed.
    b. They must be in writing in order to be enforceable.
    c. All LLCs must have them, and they must be filed with the articles of organization.
    d. They are not required but are recommended.

14. Based on management method, LLCs can be classified as either:

    a. member-managed or manager-managed.
    b. member-managed or professionally-managed.
    c. generally-managed or micro-managed.
    d. manager-managed or at-will-managed.

15. Bill is considering forms of business organization for his Web site consulting firm. Most states require that a limited liability company have:

    a. no members.
    b. one member.
    c. two members.
    d. three members, including at least one general partner.

16. Cathy is considering forms of business organization for her advertising art firm. Like most states, Cathy's state requires that to form a limited liability company, she must file with a central state agency articles of:

    a. certification.
    b. incorporation.
    c. organization.
    d. none of the above.

17. Interstate Trucking, LLC, is a limited liability company. Jack, an Interstate driver, is in an accident in New Jersey with Owen, a citizen of New York. Owen files a suit against Interstate in a federal district court. For purposes of federal court jurisdiction, the citizenship of Interstate is the same as the citizenship of:

    a. Interstate Trucking's members.
    b. Jack.
    c. the state of Interstate Trucking's formation.
    d. none of the above.

18. Jill is considering forms of business organization for her general merchandise wholesale business. One advantage of the limited liability company form, with respect to tax options, is its:

    a. flexibility.
    b. lack of options.
    c. rigidity.
    d. none of the above.

19. International Investments, LLC, is a limited liability company. Rather than distribute its profits to its members, International wants to reinvest the profits in its business. For this reason, International may prefer to be taxed as:

    a. a corporation.
    b. a partnership.
    c. a sole proprietorship.
    d. none of the above.

20. General Construction, LLC, is a limited liability company. A dispute arises among the members that their operating agreement does not cover. The dispute is governed by:

    a. the applicable state LLC statute.
    b. the federal Uniform LLC Law.
    c. the International LLC Governing Resolution.
    d. none of the above.

21. Computer Games, LLC, is a limited liability company. A dispute arises among the members that their operating agreement does not cover. No statute applies. The dispute is governed by the principles of:

    a. corporate law.
    b. partnership law.
    c. sole proprietorship law.
    d. none of the above.

22. CPA Accounting, LLC, is a limited liability company. If the law in CPA's state is like the law in most states, unless the members have agreed otherwise, participants in the firm's management will be considered to include:

    a. all members.
    b. no member.
    c. one member.
    d. two members, including at least one general partner.

23. University Services, LLC, is a limited liability company. If the law in University's state is like the law in most states, unless the members have agreed otherwise, voting rights are apportioned according to each member's:

a. capital contribution.
b. degree of participation in management.
c. tax liability.
d. none of the above.

24. Adam is a member of Software Games, LLC, a limited liability company. Adam can participate in the firm's management:

a. only after agreeing to assume full liability for the firm's obligations.
b. subject to liability for the firm's obligations to the extent of a general partner.
c. subject to liability for the firm's obligations to the extent of his participation.
d. without full liability for the firm's obligations.

25. Gail & Hail, Accountants, LLP, is a limited liability partnership. If the law in Gail & Hail's state is like the law in most states, the law that applies to the firm is:

a. corporate law.
b. partnership law.
c. sole proprietorship law.
d. none of the above.

26. Marie is considering forms of business organization for her law firm. One advantage of the limited liability partnership form is that it allows partners to avoid personal liability for:

a. their acts of malpractice.
b. the malpractice of other partners.
c. the obligations of the firm beyond the partner's capital contributions.
d. the obligations of the firm within the limit of partners' capital contributions.

27. Excel Accounting Service, LLP, is a limited liability partnership that does business in the state in which it was formed and in a neighboring state. The two states provide different liability protection. If the law in the neighboring state is like the law in most states, the law that determines the liability of Excel is the law of:

a. any third "neutral" state.
b. Texas, the first state to enact an LLP statute.
c. the state in which Excel was formed.
d. none of the above.

28. Donna and Earl are partners in The Law Firm, LLP, a limited liability partnership. Donna supervises Earl. Earl negligently fails to appear in court on behalf of Frank, a client. Frank sues Donna and Earl. If the principle of proportionate liability is applied, Donna will likely be held liable for:

a. her portion of responsibility for Earl's negligence.
b. the amount of the loss that Earl is unable to pay.
c. the entire loss.
d. none of the above.

29. Orchard Farms is a family limited liability partnership (FLLP). In an FLLP all of the partners must be:

a. natural persons only.
b. persons acting as fiduciaries for natural persons only.
c. natural persons or persons acting as fiduciaries for natural persons.
d. none of the above.

30. Master Architects, LLP, is a limited liability partnership. In terms of their liability for the obligations of the firm, Master's general partners have, in relation to the limited partners:

a. less liability.
b. more liability.
c. the same liability.
d. none of the above.

LIMITED LIABILITY COMPANIES AND PARTNERSHIPS

REVIEW QUESTION SOLUTIONS

1.	A
2.	C
3.	D
4.	C
5.	D
6.	A
7.	B
8.	A
9.	A
10.	C
11.	A
12.	B
13.	D
14.	A
15.	B
16.	C
17.	A
18.	A
19.	A
20.	A
21.	B
22.	A
23.	A
24.	D
25.	B
26.	B
27.	C
28.	A
29.	C
30.	C

LIMITED LIABILITY COMPANIES AND PARTNERSHIPS

Explanation of Review Question Solutions

1. The correct answer is A, state statutes. Almost every state has statutes authorizing Limited Liability Companies.

2. The correct answer is C; in most states they can choose whether to be taxed as a partnership or a corporation. With the “check the box” Internal Revenue Service procedure on the forms, anyone can choose to be taxed as a partnership, S-Corporation, or C Corporation. Single Member Limited Liability Companies can also select sole proprietorship taxation. The one general partner, one member with unlimited liability, only applies to limited partnerships, not to limited liability companies (A). LLCs require that the articles of organization be filed with the correct state agency (B). Centralized or decentralized management is the option of the members of the LLC; there is no requirement for centralized management as there is with the limited partnership (D).

3. The correct answer is D; the member will have personal liability according to the terms of the guarantee but would not be personally liable for any other obligations of the LLC. Apparent authority applies to a regular partnership, not an LLC (C). The personal guarantee would be enforceable according to the terms of the guarantee agreement (A). The personal guarantee would apply only to the terms of the guarantee and would not obligate the member to any other liabilities (C).

4. The correct answer is C: if the limited liability company has not elected to be taxed as a corporation. Any time you see the words *all* or *none*, suspect the answer might be false (A; see #2 for explanation). No attribute test is applied to determine the taxation of an LLC; that is old law, which no longer applies (B and D).

5. The correct answer is D, for any lawful purpose. There are no valid LLC purposes, limitation to only professional, or stated purposes in the Uniform Limited Liability Company Act.

6. The correct answer is A, the name must indicate that the company is an LLC. Names can generally be reserved by anyone with the fee to reserve the name with the correct state agency (C).

7. The correct answer is B; limited liability companies can only be taxed as partnerships is false. Remember these are really four true/false questions. Circle, underline, or highlight the word *not*. This question has three true answers and one false one. The problem purpose is to select the false option. Limited liability companies can be formed with one member (A) and are called single-member LLCs. You must have LLC in your name (C, see #6 above). You must file articles of organization (D) with the state.

8. The correct answer is A; there is no limit to the number of owners of a limited liability company, whereas the number of shareholders of an S corporation is limited. All the owners of an S Corporation have limited liability (B). You need to file articles of incorporation for a corporation and articles of organization for an LLC (C). An S Corporation is also a flow-through entity (D).

9. The correct answer is A, articles of organization. The members of the LLC can decide how to operate various aspects of the business by forming an operating agreement (B). Profit and loss allocations would be contained in the operating agreement (C). The names of the owners are only part of the articles of organization filed with the state (D).

10. The correct answer is C, the process by which members of the LLC are designated. This is really a true/false question. There are three true answers and one false. Circle, underline, or highlight the word *not.* The purpose of the question is to select the false option. The articles of organization filed with the appropriate state agency should contain the name of the business, its principal address, the name and address of the registered agent (A), the names of the owners (B), and information on how the LLC will be managed (D.

11. The correct answer is A, all states. Limited Liability Company statutes have been adopted in all states. Unfortunately, the laws about LLCs are not uniform, since the Uniform Limited Liability Company Act has not been adopted by all states. The District of Columbia, which is a district and not a state, has not yet adopted legislation for Limited Liability Companies.

12. The correct answer is B, sole proprietorship. Similar to an LLC, where they are taxed as a partnership unless they elect to be taxed as a Corporation, the single-member limited liability company is taxed as a sole proprietor unless the entity elects to be taxed as a corporation.

13. The correct answer is D; they are not required but are recommended. Similar to a partnership agreement, an operating agreement is optional and need not be in writing to be enforced (A, B, and C).

14. The correct answer is A, member-managed or manager-managed. The management group in a manager-managed LLC may consist of members only, both members and nonmembers, or only nonmembers (B, professional-managed). While it is true that the members can manage the company in any way they choose, which would include generally-managed or micro-managed, selection C is incomplete and not on point.

15. The correct answer is B, one member. More precisely, most states require that LLCs have at least one member. At least one general partner (D) is the requirement of limited partnerships, not limited liability companies or partnerships.

16. The correct answer is C, organization. Articles of incorporation are for a corporation registration (B). Articles of organization are for a limited liability company registration. Articles of certification (A) are not even close to being correct.

17. The correct answer is A, Interstate Trucking's members. This seems rather logical.

18. The correct answer is A, flexibility. The flexibility to select whether you are taxed as a partnership (sole proprietorship for single-member limited liability companies) or a corporation is a great advantage over other forms of business.

19. The correct answer is A, corporation. Corporations offer the advantage of reinvesting profits in the business without paying taxes on those profits at the individual level. Reinvestment can be deducted as operating expense or capital expense as appropriate. Partnerships and sole proprietorships pay tax on the entire amount of the income of the business on their personal income tax returns, requiring the company to distribute some of the funds to at least pay the taxes due on the flow-through income.

20. The correct answer is A, the applicable state LLC statute. The Uniform LLC law would have to be adopted by the state to control, and not all states have adopted the ULLC Act in part or in its entirety. State law controls; other guidelines control only when adopted as state law.

21. The correct answer is B, partnership law. Limited liability companies are generally considered to be a special form of partnership, so that partnership law controls where state limited liability statutes and the operating agreement are silent.

22. The correct answer is A, all members. Most LLC statutes provide that unless the members agree otherwise, all members of the LLC will participate in management activities.

23. The correct answer is A, capital contribution. If the members in the LLC do not stipulate in their operating agreement how votes are to be apportioned, LLC statutes in most states provide that voting rights are apportioned according to the capital contributions made by each member.

24. The correct answer is D, without full liability for the firm's obligations. Participating in management changes only the liability of a limited partner in a limited partnership, causing the limited partner to have the full liability of a general partner. In a limited liability partnership, participation in management does not change your liability, which remains limited to your investment in the LLC.

25. The correct answer is B, partnership law. All of the common law and statutory laws governing partnership law still apply, except for those specifically modified by the LLP statute.

26. The correct answer is B, the malpractice of the other partners. In a limited liability partnership, each partner has unlimited liability for their own professional acts, but no liability for the acts of others with whom they were not involved. The LLP allows professionals to avoid personal liability for the malpractice of other partners.

27. The correct answer is C, the state in which Excel was formed. Most states apply the law of the state in which the LLP was formed, even when the firm does business in another state.

28. The correct answer is A, her portion of responsibility for Earl's negligence. When two or more people in a firm are charged with negligence, for example, when one member (partner) supervises another member (partner), the supervisor is liable only for his proportionate share of liability, if you are in a state where proportionate liability is applied.

29. The correct answer is C, natural persons or persons acting as fiduciaries for natural persons. All of the partners in a family limited liability partnership must be natural persons or persons acting in a fiduciary capacity for the benefit of natural persons.

30. The correct answer is C, the same liability. The terms general and limited partner are really improper terms to be used in a limited liability partnership. All partners in a limited liability partnership stand on equal ground with respect to liability.

Table of Contents

MANAGERIAL ACCOUNTING

COST-VOLUME-PROFIT RELATIONSHIPS

After reviewing this chapter, you should be able to:

1. *Explain how changes in activity affect contribution margin and net income*
2. *Compute the contribution margin ratio and use it to compute changes in contribution margin and net income*
3. *Show the effects on contribution margin of changes in variable costs, fixed costs, selling price, and volume*
4. *Compute the break-even point by both the equation method and the contribution margin method.*
5. *Use the cost-volume-profit formulas to determine the activity level needed to achieve a desired target profit.*
6. *Compute the margin of safety and explain its significance*
7. *Compute the degree of operating leverage at a particular level of sales and explain how the degree of operating leverage can be used to predict changes in net income*
8. *Compute the break-even point for a multiple product company and explain the effects of shifts in the sales mix on contribution margin and the break-even point.*

Cost-volume-profit analysis is one of the most powerful tools that managers have at their command. It helps them understand the interrelationship between cost, volume, and profit in an organization by focusing on interactions between the price of products, the volume or level of activity, per-unit variable costs, total fixed costs, and the mix of products sold. Because cost-volume-profit analysis helps managers understand the interrelationship between cost, volume, and profit, it is a valid tool in many business decisions. These decisions include, for example, what products to manufacture or sell, what pricing policy to follow, what marketing strategy to employ, and what type of productive facilities to acquire.

Contribution margin is the amount remaining from sales revenue after variable expenses have been deducted. The contribution margin is usually expressed as a per-unit amount. It is the amount available from sales to cover fixed expenses and then to provide profits for a period. Contribution margin is used first to cover fixed expenses and then whatever remains goes toward profit. If the contribution margin is not sufficient to cover fixed expenses, then a loss occurs for the period. In other words, if there were no sales, the company's loss would be equal to its fixed expenses. Each unit of sales reduces the loss by the amount of the contribution margin. Once the fixed expenses have been covered by the contribution margin, each additional unit sold increases the company's profit by the amount of the unit contribution margin. In addition to being expressed on a per-unit basis, sales revenues, variable expenses, and contribution margin can also be expressed as a percentage of sales. The contribution margin ratio as a percentage of total sales is referred to as the contribution margin ratio. This ratio is computed as follows:

$$\textbf{Contribution margin ratio} = \frac{\textbf{Contribution margin}}{\textbf{Sales}}$$

The contribution margin ratio is extremely useful since it shows how the contribution margin will be affected by a change in total sales. The impact on net income of any dollar change in total sales can be computed easily by simply applying the contribution margin ratio to the dollar change in sales. Some managers prefer to work with the contribution margin ratio rather than the unit contribution margin figure. The contribution margin ratio is particularly valuable in those situations where the manager must make trade-offs between more dollar sales of one product versus more dollar sales of another.

Cost-volume-profit analysis seeks the most profitable combination of variable costs, fixed costs, selling price, and sales volume. The contribution margin is a major consideration in deciding on the most profitable combination of these factors. Profits can sometimes be improved by reducing the contribution margin if fixed costs can be reduced by a greater amount. The easiest and most common way to improve profits is to increase the total contribution margin figure. Sometimes this can be done by reducing the selling price and thereby increasing sales volume; sometimes it can be done by increasing the fixed costs (such as advertising) and thereby increasing sales volume, and sometimes it can be done by trading off variable and fixed costs with appropriate changes in sales volume. The size of the unit contribution margin figure and the size of the contribution margin ratio will have a significant influence on what steps a company is willing to take to improve profits. The greater the unit contribution margin for a product, the greater the amount that a company will be willing to spend in order to increase unit sales of the product. The effect on the contribution margin is the key element in many business decisions.

Cost-volume-profit analysis is sometimes referred to as simply break-even analysis. Break-even analysis, however, is only one element of cost-volume-profit analysis. Break-even analysis is designed to answer questions such as how far sales can drop before the company begins to lose money. The break-even point can be defined as the level of sales at which the company's profit is zero. The break-even point can be computed by the equation method or the contribution margin method; the two methods yield the same results. The equation method centers on the contribution approach to the income statement. The format of the income statement can be expressed in equation format, as follows:

Profits = Sales – (Variable expenses + Fixed expenses)

By simply rearranging this equation, the cost-volume-profit analysis is derived:

Sales = Variable expenses + Fixed expenses + Profits

At the break-even point, profits are zero. The break-even point can be computed by finding that point where sales are equal to the total of the variable expenses plus the fixed expenses. The above formula yields break-even sales volume in units. It should be noted that sales should always be stated in whole units; therefore, partial units should always be rounded up. The break-even point in sales dollars can be computed by multiplying the break-even level in unit sales by the selling price per unit.

The contribution margin method is a shortcut version of the equation method. The approach centers on the idea that each unit sold provides a certain amount of contribution margin that goes toward covering fixed costs. To find how many units must be sold to break even, divide the total fixed costs by the unit contribution margin:

$$\textbf{Break-even point in units sold} = \frac{\textbf{Fixed expenses}}{\textbf{Unit contribution margin}}$$

A variation of this method uses the contribution margin ratio instead of the unit contribution margin. The result is the break-even point in total sales dollars rather than in total units sold.

$$\textbf{Break-even point in sales dollars} = \frac{\textbf{Fixed expenses}}{\textbf{Contribution margin ratio}}$$

This approach, based on the contribution margin ratio, is useful in those situations where a company has multiple products and wishes to compute a single break-even point for the company as a whole.

Cost-volume-profit formulas can be used to determine the sales volume needed to achieve a target profit. The formula is similar to the one illustrated earlier except that if after-tax profit levels are desired, profits must be illustrated as pretax amounts. This can be accomplished by simply dividing the desired profit amount by 1 – the average tax rate. Thus, the formula would look like this:

Sales = Variable expenses + Fixed expenses + (desired profit/1 – tax rate)

The contribution approach formula would be as follows:

$$\textbf{Unit sales to attain target profit} = \frac{\textbf{Fixed expenses + (desired profit/1 – tax rate)}}{\textbf{Unit contribution margin}}$$

The margin of safety is the excess of budgeted (or actual) sales over the break-even volume of sales. It states the amount by which sales can drop before losses begin to be incurred. The formula for its calculation is as follows:

Margin of safety = Total budgeted (or actual) sales – Break-even sales

The margin of safety can also be expressed in percentage form. This percentage is obtained by dividing the margin of safety in dollars by total sales:

$$\text{Margin of safety percentage} = \frac{\text{Margin of safety in dollars}}{\text{Total budgeted (actual) sales}}$$

The margin of safety can also be expressed in terms of the number of units sold by dividing the margin of safety in dollars by the selling price per unit.

Operating leverage is a measure of how sensitive net income is to percentage changes in sales. Operating leverage acts as a multiplier. If operating leverage is high, a small percentage increase in sales can produce a much larger percentage increase or decrease in net income. The degree of operating leverage is a measure of the volatility of the decision-making process. The closer a business is to break-even, the higher the degree of operating leverage and, thus, the more volatile business decisions become. The degree of operating leverage at a given level of sales is computed by the following formula:

$$\text{Degree of operating leverage} = \frac{\text{Contribution margin}}{\text{Net income}}$$

The degree of operating leverage is a measure at a given level of sales of how a percentage change in sales volume will affect profits. If the degree of operating leverage is 4 and there is a 10% change in sales, net income will change (increase or decrease) by 40%. If two companies have the same total revenue and the same total expense but different cost structures, the company with the higher proportion of fixed costs in its cost structure will have a higher degree of operating leverage. The degree of operating leverage is higher at sales levels near the break-even point and decreases as sales and profits rise. A manager can use the degree of operating leverage to quickly estimate what impact various percentage changes in sales will have on profits without the necessity of preparing detailed income statements. The effects of operating leverage can be dramatic. If a company is near its break-even point, then even a small percentage change in sales can yield large percentage increases or decreases in profits.

The move toward flexible manufacturing systems and other uses of automation have resulted in a shift toward greater fixed costs and lower variable costs in organizations. This shift in cost structure has had an impact on the contribution margin ratio, the break-even point, and the degree of operating leverage. Some of this impact has been favorable and some has not. Many benefits can accrue from automation, but certain risks are introduced when a company moves toward greater amounts of fixed costs. These risks suggest that management must be careful as it automates to ensure that investment decisions are made in accordance with a carefully devised long-run strategy.

Companies generally compensate salespeople by paying them either a commission based on sales or a salary plus a commission. Commissions based on sales dollars can lead to lower profits in a company. Selling products with a high sales price and a low contribution margin can result in high commissions to sales people and lower levels of profit to the company. To eliminate this disparity some companies base salespersons' commissions on contribution margin rather than on sales. The reasoning is that since contribution margin represents the amount of sales revenue available to cover fixed expenses and profits, a firm's well being will be maximized when contribution margin is maximized. By tying a salesperson's commissions to contribution margin, the salesperson is automatically encouraged to concentrate on the element that is the most advantageous to the firm. There is no need to worry about what mix of products the salesperson sells, because they should automatically sell the mix of products that will maximize the contribution margin. In effect, by maximizing their own well being, they automatically maximize the well being of the firm.

The term sales mix means the relative proportions in which a company's products are sold. Managers try to achieve the combination, or mix, that will yield the greatest amount of profit. Most companies have several products and often these products are not equally profitable. Where this is true, profits will depend to some extent on the company's sales mix. Profits will be greater if high-margin rather than low-margin items make up a relatively large portion of total sales. Changes in the sales mix can cause interesting and sometimes confusing variations in a company's profits. A shift in the sales mix from high-margin items to low-margin items can cause total profits to decrease even though total sales may increase. Conversely, a shift in the sales mix from low-margin items to high-margin items can cause total profits to increase even though total sales decrease. It is one thing to achieve a particular sales volume and quite another to sell the profitable mix of products.

If a company sells more than one product, break-even analysis is somewhat more complex than earlier discussed. The reason is that different products will have different selling prices, different costs, and different contribution margins. The break-even point will depend on the mix in which the various products are sold. The break-even point for a multi-product company is computed by dividing the fixed costs by the company's overall contribution margin ratio. The resulting sales figure represents the break-even point for the company only as long as the sales mix does not change. If the sales mix changes, then the break-even point will also change. In preparing a break-even analysis, some assumption must be made concerning the sales mix. Usually the assumption is that it will not change. However, if management knows that shifts in various factors, such as consumer tastes or market share, can cause shifts in the sales mix, then these factors must be explicitly considered in any cost-volume-profit computations. Otherwise, management may make decisions on the basis of outmoded or faulty data.

A number of assumptions typically underlie cost-volume-profit analysis:

- ✓ Selling price is constant throughout the entire relevant range. The price of a product or service will not change as volume changes.

- ✓ Costs are linear throughout the entire relevant range, and they can be accurately divided into variable and fixed elements. The variable element is constant per unit, and the fixed element is constant in total over the entire relevant range.

- ✓ In multiproduct companies, the sales mix is constant.

- ✓ In manufacturing companies, inventories do not change. The number of units produced equals the number of units sold.

While some of these assumptions may be technically violated, the violations are usually not serious enough to call into question the basic validity of cost-volume-profit analysis. For example, in most multiproduct companies, the sales mix is constant enough so that the results of cost-volume-profit analysis are reasonably valid. The greatest danger lies in relying on simple cost-volume-profit analysis when management is contemplating a large change in volume that lies outside of the relevant range.

COST-VOLUME-PROFIT RELATIONSHIPS

REVIEW QUESTIONS

1. Last year, Twins Company reported $750,000 in sales (25,000 units) and a net income of $25,000. At the break-even point, the company's total contribution margin equals $500,000. Based on this information, the company's:

   a. contribution margin is 40%.
   b. break-even point is 24,000 units.
   c. variable expense per unit is $9.
   d. variable expenses are 60% of sales.

2. At a break-even point of 800 units sold, white Company's variable expenses are $8,000 and its fixed expenses are $4,000. What will the company's net income be at a volume of 801 units?

   a. $15
   b. $10
   c. $ 5
   d. $20

3. The following information pertains to Rica Company:

Sales (50,000 units)	$1,000,000
Manufacturing costs:	
Variable	340,000
Fixed	70,000
Selling and administrative expenses	
Variable	10,000
Fixed	60,000

   How much is Rica's break-even point in number of units sold?

   a. 9,848
   b. 10,000
   c. 18,571
   d. 26,000

4. The margin of safety percentage is computed as:

   a. break-even sales/total sales
   b. total sales – break-even sales
   c. (total sales – break-even sales)/break-even sales
   d. (total sales – break-even sales)/total sales

5. Scott Company's variable expenses are 72% of sales. The company's break-even point in sales is $2,450,000. If sales are $60,000 below the break-even point, the company would report a:

   a. $43,200 loss.
   b. $60,000 loss
   c. $16,800 loss.
   d. Income cannot be determined from the data given.

6. The degree of operating leverage can be calculated as:

   a. contribution margin divided by sales.
   b. gross margin divided by net income.
   c. net income divided by sales.
   d. contribution margin divided by net income.

7. The difference between total sales in dollars and total variable expenses is called:

   a. net operating income.
   b. net profit.
   c. the gross margin.
   d. the contribution margin.

8. Paxton Corporation has provided the following data concerning its operations last month:

Sales	$400,000
Variable expenses	250,000
Fixed expenses	100,000

   Paxton Corporation is a retailing organization.

   The operating leverage is:

   a. 3.0
   b. 8.0
   c. 0.33
   d. 5.0

9. The following data pertain to last month's operations:

Selling price	$30 per unit
Variable production cost	$15 per unit
Fixed production cost	$80,000
Variable selling and admin. expense	$3 per unit
Fixed selling and admin. expenses	$40,000

The break-even point in dollars is:

a. $300,000.
b. $240,000.
c. $200,000.
d. $160,000.

10. Hooper Corporation produces and sells two models of vacuum cleaners, Standard and Deluxe. The company records show the following monthly data relating to these two products:

	Standard	Deluxe
Selling price per unit	$150	$165
Variable production costs	120	126
Variable selling expense per unit	16	13
Expected monthly sales in units	600	1,200
Total monthly fixed costs	$15,000	

If the expected monthly sales in units were divided equally between the two models (900 Standard and 900 Deluxe), the break-even level of sales:

a. would be the same as with the expected sales mix.
b. would be higher than with the expected sales mix.
c. would be lower than with the expected sales mix.
d. cannot be determined with the available data.

11. If sales increase from $80,000 per year to $120,000 per year, and if the operating leverage is 5, then net income should increase by:

a. 167%.
b. 250%.
c. 100%.
d. 334%.

12. The following data pertain to last month's operations:

Selling price	$20 per unit
Variable production cost	$12 per unit
Fixed production costs	$3,000
Variable selling and admin. expense	$3 per unit
Fixed selling and admin. expenses	$1,500

The break-even point in dollars is:

a. $18,000.
b. $ 6,000.
c. $11,250.
d. $ 7,500.

13. A company has provided the following data:

Sales	3,000 units
Sales price	$70 per unit
Variable costs	$50 per unit
Fixed costs	$25,000

If the dollar contribution margin per unit is increased by 10%, total fixed cost is decreased by 20%, and all other factors remain the same, net income will:

a. increase by $61,000.
b. increase by $20,000.
c. increase by $3,500.
d. increase by $11,000.

14. The following data pertain to Wistron Company's two products:

	Product X	Product Y
Sales in dollars	$100,000	$80,000
Contribution margin ratio	48%	30%

If fixed expenses for the company as a whole are $60,000 and the product mix is constant, the overall break-even point for the company would be

a. $150,000.
b. $153,846.
c. $100,000.
d. $132,000.

15. Marston Enterprises sells three chemicals: petrol, septine, and tridol. Petrol's unit contribution margin is higher than septine's, which is higher than tridol's. Which one of the following events is most likely to decrease the company's overall break-even point?

    a. the installation of new computer-controlled equipment and subsequent lay-off of assembly-line workers
    b. a decrease in tridol's selling price
    c. an increase in the overall market demand for septine
    d. a change in the relative market demand for the products, with the increase favoring petrol relative to septine and tridol

16. The following monthly data are available for the Eager Company and its only product:

Unit sales price	$75
Unit variable expenses	$30
Total fixed expenses	$180,000
Actual sales for the month of March	7,000 units

    The margin of safety for the company for March was:

    a. $315,000.
    b. $225,000.
    c. $135,000.
    d. $495,000.

17. Gerber Company is planning to sell 200,000 units for $2.00 a unit and will break even at this level of sales. The contribution margin ratio is 25%. What are the company's fixed expenses?

    a. $100,000
    b. $160,000
    c. $200,000
    d. $300,000

18. Austin Manufacturing had the following operating data for the year just ended.

Selling price per unit	$60 per unit
Variable expenses per unit	$22 per unit
Fixed expenses	$504,000

Management plans to improve the quality of its only product by: 1) replacing a component that costs $3.50 with a higher-grade component that costs $5.50; and 2) renting a packing machine for $18,000 a year. If the desired target profit is $288,000, the company must sell:

a. 19,300 units.
b. 21,316 units.
c. 22,500 units.
d. 20,842 units.

19. The following is last month's contribution format income statement:

Sales (12,000 units)	$1,200,000
Less variable expenses	700,000
Contribution margin	$ 500,000
Less fixed expenses	300,000
Net income	$ 200,000

What is the company's margin of safety percentage to the nearest whole percent?

a. 42%
b. 40%
c. 17%
d. 20%

20. The total contribution margin decreases if sales volume remains the same and:

a. fixed expenses increase.
b. fixed expenses decrease.
c. variable expense per unit increases.
d. variable expense per unit decreases.

21. The break-even point in unit sales increases when variable expenses:

a. increase and the selling price remains unchanged.
b. decrease and the selling price remains unchanged.
c. decrease and the selling price increases.
d. remain unchanged and the selling price increases.

22. A company has provided the following data:

Sales	3,000 units
Sales price	$70 per unit
Variable cost	$50 per unit
Fixed costs	$25,000

If the sales volume decreases by 25%, the variable cost per unit increases by 15%, and all other factors remain the same, net income will:

a. decrease by $31,875.
b. decreases by $15,000.
c. increase by $20,625.
d. decrease by $3,125.

23. The margin of safety is equal to:

a. Sales – Net income.
b. Sales – (Variable expenses/Contribution margin).
c. Sales – (Fixed expenses/Contribution margin ratio).
d. Sales – (Variable expenses + Fixed expenses).

24. Fletcher Company has three products with the following characteristics:

	Product A	Product B	Product C
Monthly sales in dollars	$60,000	$80,000	$100,000
Contribution margin ratio	20%	40%	16%

If total units sold remains unchanged, but the sales mix shifts more heavily toward Product C, one would expect the overall contribution margin ratio to:

a. increase.
b. decrease.
c. remain unchanged.
d. none of the above.

25. Green Company's variable expenses are 75% of sales. At a sales level of $400,000, the company's degree of operating leverage is 8. At this level, fixed expenses equal:

a. $ 87,500.
b. $100,000.
c. $ 50,000.
d. $ 75,000.

26. Loren Company's single product has a selling price of $15 per unit. Last year the company reported total variable expenses of $180,000, fixed expenses of $90,000, and a net income of $30,000. A study by the sales manager discloses that a 15% increase in the selling price would reduce unit sales by 10%. If her proposal is adopted, net income would:

a. increase by $45,000.
b. increase by $37,500.
c. increase by $7,500.
d. increase by $28,500.

27. The following monthly data are available for the Phelps Company:

	Product A	Product B	Product C	Total
Sales	$150,000	$130,000	$90,000	$370,000
Variable exp.	91,000	104,000	27,000	222,000
CM margin	$ 59,000	$ 26,000	$63,000	$148,000
Fixed costs				55,000
Net income				$ 93,000

The break-even sales for the month for the company are:

a. $ 91,667.
b. $203,000.
c. $148,000.
d. $137,500.

28. Once the break-even point is reached:

a. the total contribution margin changes from negative to positive.
b. net income will increase by the unit contribution margin for each additional unit sold.
c. variable expenses will remain constant in total.
d. the contribution margin ratio begins to decrease.

29. The amount by which a company's sales can decline before losses are incurred is called the:

a. contribution margin ratio.
b. degree of operating leverage.
c. margin of safety.
d. contribution margin ratio.

30. Break-even analysis assumes that:

a. total costs are unchanged.
b. unit variable expenses are unchanged.
c. variable expenses are nonlinear.
d. unit fixed expenses are unchanged.

COST-VOLUME-PROFIT RELATIONSHIPS

REVIEW QUESTION SOLUTIONS

1.	C
2.	C
3.	B
4.	D
5.	C
6.	D
7.	D
8.	A
9.	A
10.	B
11.	B
12.	A
13.	D
14.	A
15.	D
16.	B
17.	A
18.	C
19.	B
20.	C
21.	A
22.	A
23.	C
24.	B
25.	A
26.	D
27.	D
28.	B
29.	C
30.	B

COST-VOLUME-PROFIT RELATIONSHIPS
Explanation of Review Question Solutions

1. The correct answer is C: variable expense per unit is $9. Similar to a multi-step income statement for merchandising business, cost-volume-profit analysis separates variable and fixed costs on a multi-step income statement. The equation is Sales minus variable costs gives contribution margin; contribution margin less fixed costs equals net income. Set up the equation vertically, from top to bottom, and put into the equation things you know for dollars and units. Put the total dollars in one column next to the formula, and dollars per unit in the next column. When you know your break-even contribution margin is $500,000, you know your fixed costs (fixed cost equals contribution margin at break even). When you know sales ($750,000), fixed cost ($500,000), and net income ($25,000), it is very easy to figure contribution margin ($525,000 = $500,000 [fixed costs] + $25,000 [net income]) and variable cost ($225,000 = $750,000 [sales] – $525,000 [contribution margin]). Once you know the entire equation it is easy to determine unit costs ($30 – $9 = $21; $21 – $20 = $1), contribution margin ratio (70% = $21/$30), variable cost ratio (30% = $9/$30), and variable cost per unit ($9). Unit break-even is another story. We can see that the ratios given at A and D are false and the variable cost per unit of $9 is correct.

2. The correct answer is C, $5. Set up the problem similar to #1. If we know break-even variable expenses ($8,000), fixed expenses ($4,000), and net income ($0), it is easy to figure the contribution margin at break even ($4,000 = $4,000 – $0) and the sales at break even ($12,000 = $4,000 + $8,000). These numbers can be converted to unit costs by dividing by the volume at break even of 800 units, giving numbers for sales per unit ($15 = $12,000/800 units), variable cost per unit ($10 = $8,000/800 units), contribution margin per unit ($5 = $4,000/800 units), fixed cost per unit ($5), and net income per unit ($0 = $0/800). Total fixed costs will not change if the number of units remains within relevant range, so $4,000 is fixed cost at 801 units. Sales at 801 units are $15 per unit times 801 units, or $12,015. Variable costs at 801 units are $10 per unit times 801 units, or $8,010. Contribution margin at 801 units is $12,015 minus $8,010, or $4,005. Net income is contribution margin $4,005 minus fixed cost $4,000, or $5.

3. The correct answer is B, 10,000. This problem is set up in the same manner as #1 and #2. Since you know your fixed costs are the sum of the manufacturing fixed cost ($70,000) and your selling and administrative fixed cost ($60,000), you know they equal $130,000. You also know that your fixed cost at break-even is equal to your contribution margin, either by memory or the equation. We also know, at 50,000 units of sales, the values for total sales ($1,000,000), variable costs ($350,000 = $340,000+$10,000), contribution margin ($650,000 = $1,000,000-$350,000), fixed costs ($130,000) and net income ($520,000). It is quite easy to determine the contribution margin per unit at 50,000 units ($650,000/50,000 units = $13 per unit). So the number of units sold at break-even is also easy to compute: the dollars of contribution at break-even divided by the contribution margin per unit (10,000 units = $130,000/$13 per unit). The key is to set up the chart, and the formulas become obvious.

4. The correct answer is D, the quantity of total sales minus break-even sales divided by total sales. Total sales minus break-even sales (B) is equal to the margin of safety in dollars. The other numbers are not valid formulas.

5. The correct answer is C, $16,800 loss. This question is set up similar to #1, #2, and #3. First you can determine the ratios (percentages) using the multi-step cost-volume-profit income statement. If variable expense percent at break-even is 72% of sales, sales are 100% and contribution margin is 28% (100% – 72%). Fixed cost percent is 28% (fixed cost equals contribution margin at break-even), and net income percent at break-even is 0%. We know that at break-even the dollar sales are $2,450,000; therefore, multiply the appropriate percent to flesh out the entire total dollars at break-even. The correct amount of the loss is 28% (contribution margin ratio) of the $60,000 reduction in sales, or $16,800.

6. The correct answer is D, contribution margin divided by net income. Contribution margin divided by sales (A) gives us the contribution margin ratio. Net income divided by sales (C) gives us the net income ratio. Gross margin divided by net income (B) is not a meaningful ratio.

7. The correct answer is D, the contribution margin. The net profit is contribution margin less fixed costs or gross margin minus expenses other than cost of goods sold.

8. The correct answer is A, 3.0. The set up of this problem is similar to #1, #2, #3, and #5. Use columns and the cost-volume-profit multi-step income statement. You quickly find out that the contribution margin is $150,000 ($400,000 – $250,000) and the net income is $50,000 ($150,000 – $100,000). Operating leverage is defined as contribution margin divided by net income, or 3.0 ($150,000/$50,000).

9. The correct answer is A, $300,000. The set up of this problem is similar to #1, #2, #3, #5, and #8. Sales price per unit ($30, or 100%) minus variable costs per unit of $18 ($15 variable production cost + $3 variable selling and administrative expenses, or 60% [$18/$30]) equals a contribution margin per unit of $12 (contribution margin ratio is 40% [$12/$30]). The break-even point in dollars is where the $120,000 fixed expenses ($80,000 total fixed production cost + $40,000 fixed selling and administrative expense) equals the contribution margin ($120,000 at break-even = 40%). Therefore the sales at break-even are $300,000.

10. The correct answer is B, higher than with the expected sales mix. The $150 (100%) standard model-selling price per unit minus the $136 (90.67%) variable cost per unit ($120 variable production cost per unit plus $16 variable selling expense per unit) equals $14 (9.33%) contribution margin per unit, when compared with the $165 (100%) deluxe model selling price per unit minus the $139 (84.24%) variable production cost per unit ($126 variable production cost per unit plus $13 variable selling expense per unit) equals $17 (15.76%) contribution margin per unit, indicating that the profit margin is higher on the deluxe model than the standard model. This means that more sales of the standard and less on the deluxe will decrease the overall dollar amount of the contribution margin, raising the price needed to break-even. Exact numbers can be computed, but are not needed for the answer.

11. The correct answer is B, 250%. Operating leverage is the contribution margin divided by net income. The contribution margin, sales, and variable costs all increase proportionately, so that a 50% increase in sales means a 50% increase in contribution margin. The operating leverage tells us that the changes in contribution margin are five times higher in the net income. Five times 50% is 250%.

12. The correct answer is A, $18,000. This question is almost identical to #9. Sales price per unit of $20 (100%) minus variable costs per unit of $15 ($12 variable production cost + $3 variable selling and administrative expenses (75%, or $15/$20)) equals $5 (25%, or $5/$20) contribution margin per unit. The break-even point in dollars is where the $4,500 fixed expenses ($3,000 total fixed production cost + $1,500 fixed selling and administrative expense) equals the contribution margin ($4,500 at break-even = 25%). Therefore, the sales at break-even are $300,000.

13. The correct answer is D, increase by $11,000. This problem can be set up using the multi-step cost-volume-profit income statement format. The dollar contribution margin per unit is equal to the $70 sales price minus $50 variable costs, or $20. Increasing the contribution margin per unit by 10% gives us a new contribution margin of $22 ($20 old contribution margin plus $2 [10% times $20 old contribution margin]). The contribution margin for the 3,000 unit sales is $66,000 ($22/unit new contribution margin times 3,000 units). Reducing fixed costs by 20% will give us a new fixed cost of $20,000 ($25,000 minus $5,000 [$25,000 times 20%]). This provides a total increase in net income of $6,000 ($2 per unit increase in contribution margin × 3,000 units) plus $5,000 (20% reduction in fixed cost times $25,000 fixed cost), or $11,000 increase in net income.

14. The correct answer is A, $150,000. One way to solve this is to combine the two sales volumes and compute a new contribution margin ratio when you keep the sales mix constant. Total sales are $180,000 at the given level. Total contribution margin equals the sum of $48,000 ($100, 000 times 48%) plus $24,000 ($80,000 times 30%), or $72,000 at the given level. The cost margin ratio equals $72,000 divided by $180,000, or 40%, across the range where the product mix remains constant. Where the contribution margin equals the fixed cost of $60,000 is the sales volume for break-even. Simply divide $60,000 by 40% to get a sales volume at break-even of $150,000.

15. The correct answer is D: a change in the relative market demand of the products, with the increase favoring petrol relative to septine and tridol. The product with the highest contribution margin will yield the lowest break-even point. The product with the lowest contribution margin will yield the highest break-even point. The laying off of workers and the installation of new equipment (A) might cost more money and raise the break-even point, or it might lower costs and lower the break-even point. Since we have no figures on these costs, we have no idea what it will do. Decreasing the selling price of tridol (B) would likely decrease the contribution margin on tridol, which might increase the break-even point; it all depends upon whether the costs for tridol would drop as well. An increase in the demand of septine (C) would most likely increase its total and therefore relative sales volume, which would result in more sales to the middle or average contribution margin item, which might increase or decrease the break-even point, depending on which side of average the contribution margin of septine falls. Changing the sales mix in favor of a higher contribution margin item will lower the break-even point. Therefore D is the correct choice.

16. The correct answer is B, $225,000. Sales of $75 (100%) minus unit variable expenses of $30 (40%, or $30/$75) equals unit contribution margin of $45 (60%, or $45/$75). When the fixed expenses ($180,000) equals the contribution margin (or visa-versa), this is the break-even point. The dollar contribution margin of $180,000 divided by the contribution margin per unit of $45 gives us the number of units at break-even, or 4,000 units. The margin of safety in units (3,000 units) is equal to the number of units, at the current sales level of 7,000, which exceed the break-even number of units of 4,000 units. The margin of safety in dollars ($225,000 = 3,000 units at $75 per unit) is the amount the current sales volume ($525,000 = 7,000 units at $75 per unit) exceeds the break-even dollar sales volume ($300,000 = 4,000 units at $75 per unit).

17. The correct answer is A, $100,000. The total sales dollars at break-even are the 200,000 unit break-even sales volume times the $2 sales price, or $400,000. The break-even sales volume in dollars or units is where the contribution sales volume in dollars equals the fixed expenses in dollars. At break-even the contribution margin ratio is 25%. The break-even point in dollars is equal to the break-even sales volume in dollars times the 25% contribution margin ratio, or $100,000.

18. The correct answer is C, 22,500 units. The changes are going to increase the $22 per unit variable expenses by $2 per unit ($5.50 minus $3.50) to a new variable expense of $24 per unit, and increase fixed expenses from $504,000 (old fixed expenses) by $18,000 rent per year, for a new fixed expense total of $522,000. The desired target profit of $288,000 is the amount the contribution margin must exceed fixed expenses. So, at the desired profit, the contribution margin would be the profit plus the fixed expenses, or a total of $810,000. If we take the total contribution margin at the level of desired profit of $810,000 and divide this by the contribution margin per unit in dollars of $36 ($60 sales price per unit minus $24 variable cost per unit), this gives us the number of units the company needs to sell to make the desired profit, or 22,500 units.

19. The correct answer is B, 40%. First we need to compute the break-even level of sales. At break-even the contribution margin equals fixed expenses of $300,000. The contribution margin ratio equals $500,000 contribution margin divided by the $1,200,000 sales, or 41.67%. The dollar sales at break-even equals the contribution margin in dollars at break-even of $300,000 divided by the contribution margin ratio of 41.67%, or $719,942. Dividing the $719,942 break-even dollar sales by the $1,200,000 current dollar value of sales should give us the break-even percentage of 59.995%. The margin of safety percentage when compared to the current dollar volume of current sales is 40.005% above the break-even dollar volume. It should be noted that you could check on the amount the current dollar volume exceeded the break-even, with the break-even as the baseline, and you will get another number entirely (67%). In order to get the correct answer you must use the correct baseline number.

20. The correct answer is C, variable expense per unit increase. The best way to do this one is to set up some numbers and look at the change in the results.

21. The correct answer is A, increase and the selling price remains unchanged. As a corollary on this one, if the contribution margin decreases as a result of a decrease in selling price, with variable expenses remaining the same, or the variable expenses increase while the selling price remains constant, the break-even point in units will increase (and, depending on the dollars involved, perhaps even the dollars as well).

22. The correct answer is A, decrease by $31,875. If our sales volume decreases we should get a decrease in net income. If our variable cost per unit increases while the selling price remains the same, you should get a decrease in income. Both together should also decrease the income (thus eliminating one option). We need to compute how much decrease. The new sales volume, resulting from a decrease of 25%, would be 3,000 units times 75% (100% minus 25%), or 2,250 units. The new variable cost per unit equals the $50 old variable cost per unit plus the 15% rise in variable cost of $7.50 (15% times $50), giving us a new variable cost per unit of $57.50. We must now compute the profit under the old conditions ($70 times 3000 units gives us $210,000 old sales dollars minus $50 per 3000 units or $150,000 dollars of variable cost, giving a contribution margin of $60,000). This can alternatively be computed by multiplying 3,000 unit sales volume times the contribution margin per unit of $20 ($70 minus $50). Subtract the $25,000 fixed cost from the old contribution margin in dollars of $60,000 for our old net income of $35,000. The contribution margin in dollars equals $28,125 (new sales volume of 2,250 units times the $70 sales price equals $157,500 dollars minus new variable cost of 2,250 units times $57.50 new variable costs, or $129,375). This can also be computed by multiplying 2,250 times the new unit contribution margin of $12.50 ($70 – $57.50).

23. The correct answer is C, sales – (fixed expenses/contribution margin ratio) (page 5, paragraph 3). Break-even in dollars = fixed expenses/contribution margin ratio (page 4, paragraph 3).

24. The correct answer is B, decrease. If you shift the sales mix to a product with lower contribution margin, you can expect the overall contribution margin ratio to decrease.

25. The correct answer is A, $87,500. Degree of operating leverage is the contribution margin divided by net income. The contribution margin is 25% or the contribution margin ratio times the sales of $400,000, or $100,000. The amount of net income is equal to the contribution margin ($100,000) divided by the operating leverage (8), or $12,500. Fixed expenses are equal to contribution margin of $100,000 minus the net income of $12,500, or $87,500.

26. The correct answer is D, increase by $28,500. Contribution margin equals net income of $30,000 plus fixed expenses of $90,000, or $120,000. The sales equal the $120,000 contribution margin plus $180,000 variable expenses, or $300,000. The unit sales equal the $300,000 sales divided by the $15 unit cost ($/unit), or 20,000 units. The new selling price equals the $15 old selling price, plus the $2.25 increase in selling price (15% times $15), or $17.25. The new selling volume is old selling volume of 20,000 units minus the 10% drop in sales volume (2,000 units), or 18,000 units. $310,500 sales minus the $162,000 new variable cost ($180,000 × 90%) gives us a $148,500 contribution margin, which is $28,500 higher than the old contribution margin of $120,000.

27. The correct answer is D, $137,500. The 40% contribution margin ratio equals the $148,000 contribution margin, divided by the $370,000 sales. Break-even sales of $137,500 is equal to $55,000 fixed costs divided by the 40% contribution margin ratio.

28. The correct answer is B; once the break-even point is reached, net income will increase by the unit contribution margin for each additional unit sold. Contribution margin is equal to the fixed expense at break-even; the option where the contribution margin is zero would be true only if the fixed expenses were zero (A). Variable expenses remain constant only when the sales numbers do not change (C). The contribution margin ratio decreases only if you keep everything else the same and lower the unit price or increase the variable unit cost (D).

29. The correct answer is C, margin of safety. The contribution margin ratio is the contribution margin divided by the sales (A and D). The degree of operating leverage is the contribution margin divided by net income (B).

30. The correct answer is B, unit variable expenses are unchanged. If total costs are unchanged then variable costs equal zero. Variable expenses must vary in direct proportion to the sales volume, meaning that the relationship between volume and cost is linear and passes through zero, or the cost-volume-profit analysis will yield inaccurate results. Unit fixed expenses are inversely variable to the volume changes. Only total fixed costs remain constant (D).

DEPARTMENT ANALYSIS

After reviewing this chapter, you should be able to:

1. *Differentiate between cost centers, profit centers, and investment centers, and explain how performance is measured in each*
2. *Prepare a segmented income statement using the contribution format, and explain the difference between traceable fixed costs and common fixed costs*
3. *Identify three business practices that hinder proper cost assignment*
4. *Compute the return on investment (ROI)*
5. *Show how changes in sales, expenses, and assets affect an organization's return on investment (ROI)*
6. *Compute residual income and understand the strengths and weaknesses of this method of measuring performance*

A decentralized organization is one in which decision-making is not confined to a few top executives but rather is spread throughout the organization, with managers at various levels making key operating decisions relating to their sphere of responsibility. Decentralization is a matter of degree, since all organizations are decentralized to some extent out of necessity. At one extreme, a strongly decentralized organization is one in which there are few, if any, constraints on the freedom of even the lowest-level managers and employees to make decisions. At the other extreme, in a strongly centralized organization, lower-level managers have little freedom to make a decision. Although most organizations fall somewhere between these two extremes, there is a pronounced trend toward more and more decentralization.

Decentralization has many benefits, including:

- ✓ Top management is relieved of much day-to-day problem-solving and is left free to concentrate on strategy, on higher-level decision-making, and on coordinating activities.
- ✓ Decentralization provides lower-level managers with vital experience in making decisions. Without such experience, they would be ill-prepared to make decisions when they are promoted into higher-level positions.

- ✓ Added responsibility and decision-making authority often result in increased job satisfaction. It makes the job more interesting and provides greater incentives for people to put out their best efforts.

- ✓ Lower-level managers generally have more detailed and up-to-date information about conditions in their own area of responsibility than top managers. Therefore, the decisions of lower-level managers are often based on better information.

- ✓ It is difficult to evaluate a manager's performance if the manager is not given much latitude in what he or she can do.

Decentralization has four major disadvantages:

- ✓ Lower-level managers may make decisions without fully understanding the "big picture." While top-level managers typically have less detailed information about operations than the lower-level managers, they usually have more information about the company as a whole and may have a better understanding of the company's strategy. This situation can be avoided to some extent with the use of modern management information systems that can, in principle, give every manager at every level the same information that goes to the CEO and other top-level managers.

- ✓ In a truly decentralized organization there may be a lack of coordination among autonomous managers. This problem can be reduced by clearly defining the company's strategy and communicating it effectively throughout the organization.

- ✓ Lower-level managers may have objectives that are different from the objectives of the entire organization. For example, some managers may be more interested in increasing the sizes of their departments than in increasing the profits of the company. To some degree, this problem can be overcome by designing performance evaluation systems that motivate managers to make decisions that are in the best interests of the company.

- ✓ In a strongly decentralized organization, it may be more difficult to effectively spread innovative ideas. Someone in one part of the organization may have a terrific idea that would benefit other parts of the organization, but without strong central direction the idea may not be shared with and adopted by other parts of the organization.

Effective decentralization requires segmental reporting. In addition to the company-wide income statement, reports are needed for individual segments of the organization. A segment is a part or activity of an organization about which managers would like cost, revenue, or profit data. Examples of segments include divisions of a company, sales territories, individual stores, service centers, manufacturing plants, marketing departments, individual customers, and product lines.

Decentralized companies typically categorize their business segments into cost centers, profit centers, and investment centers, depending on the responsibilities of the managers of the segments. A cost center is a business segment whose manager has control over costs but not over revenue or investment funds. Service departments such as accounting, finance, general administration, legal, operations, and personnel are usually considered to be cost centers. In addition, manufacturing facilities are often considered to be cost centers. The managers of cost centers are expected to minimize costs while providing the level of services or the amount of product demanded by the other parts of the organization. For example, the manager of a production facility would be evaluated, at least in part, by comparing actual costs to how much the costs should have been for the actual number of units produced during the period.

In contrast to a cost center, a profit center is any business segment whose manager has control over both costs and revenue. Like a cost center, however, a profit center generally does not have control over investment funds. For example, the manager in charge of the Six Flags amusement parks would be responsible for both the revenues and costs, and hence the profits of the amusement park, but may not have control over major investments in the park. Profit center managers are often evaluated by comparing actual profit to targeted or budgeted profit.

An investment center is any segment of an organization whose manager has control over cost, revenue, and investments in operating assets. Investment center managers are usually evaluated on the basis of return on investment or residual income measures.

A responsibility center is broadly defined as any part of an organization whose manager has control over cost, revenue, or investment funds. Cost centers, profit centers, and investment centers are all known as responsibility centers. A contribution format income statement is required for evaluating the performance of business segments, an income statement that emphasizes segments rather than the performance of the company as a whole. When the contribution format is used: 1) the cost of goods sold consists only of the variable manufacturing costs; 2) the variable and fixed costs are listed in separate sections; and 3) a contribution margin is computed. When a contribution format statement is segmented, fixed costs are broken down further into what are called traceable and common costs. This breakdown allows a segment margin to be computed for each segment of the company. The segment margin is a valuable tool for assessing the long-run profitability of a segment and is also a much better tool for evaluating performance than the usual absorption costing reports.

To prepare an income statement for a particular segment, variable expenses are deducted from the sales to yield the contribution margin for the segment. It is important to keep in mind that the contribution margin tells us what happens to profits as volume changes, holding a segment's capacity and fixed costs constant. The contribution margin is especially useful in decisions involving temporary uses of capacity such as special orders. Decisions concerning the most effective uses of existing capacity often involve only variable costs and revenues which, of course, are the very elements involved in contribution margin.

The segmented income statement has two kinds of fixed costs, traceable and common. Only the traceable fixed costs are charged to the segments in the segmented income statement. If a cost is not traceable to a segment, it is not assigned to the segment. A traceable fixed cost of a segment is a fixed cost that is incurred because of the existence of the segment; if the segment had never existed, the fixed cost would not have been incurred, and/or if the segment were eliminated, the fixed cost would disappear. Examples of traceable fixed costs include the following:

- ✓ The salary of the Fritos product manager at PepsiCo is a traceable fixed cost of the Fritos business segment of PepsiCo.
- ✓ The maintenance cost for the building in which Boeing 747s are assembled is a traceable fixed cost of the 747-business segment of Boeing.
- ✓ The liability insurance at Disney World is a traceable fixed cost of the Disney World business segment of the Disney Corporation.

A common fixed cost is a fixed cost that supports the operations of more than one segment but is not traceable in whole or in part to any one segment. Even if a segment were entirely eliminated, there would be no change in a true common fixed cost. Examples of common fixed costs include the following:

- ✓ The salary of the CEO of General Motors is a common fixed cost of the various divisions of General Motors.
- ✓ The cost of the automatic bar-coding machine at SoftSolutions is a common fixed cost of the Consumer Products Division and of the Business Products Division.
- ✓ The cost of the receptionist's salary at an office shared by a number of doctors is a common fixed cost of the doctors. The cost is traceable to the office but not to any one of the doctors individually.

The distinction between traceable and common fixed costs is crucial in segment reporting since traceable fixed costs are charged to segments whereas common fixed costs are not. In an actual situation, it is sometimes hard to determine whether a cost should be classified as traceable or common. The general guideline is to treat as traceable costs only those costs that would disappear over time if the segment itself disappeared. For example, if the Consumer Products Division were sold or discontinued, it would no longer be necessary to pay the division manager's salary. Therefore, the division manager's salary should be classified as a traceable fixed cost of the division. On the other hand, the president of the company undoubtedly would continue to be paid even if the Consumer Products Division were dropped. In fact, he or she might even be paid more if dropping the division was a good idea. Therefore, the president's salary is common to both divisions. The same idea can be expressed in another way: treat as traceable costs only those costs that are added as a result of the creation of a segment.

Some costs are easy to identify as traceable costs. For example, the costs of advertising Crest toothpaste on television are clearly traceable to Crest. A more difficult situation arises when two or more segments share a building, machine, or other resource. For example, assume that a multiproduct company leases warehouse space that is used for storing the full range of its products. Managers familiar with activity-based costing might argue that the lease cost is traceable and should be assigned to the products according to how much space the products use in the warehouse. In like manner, these managers would argue that order processing costs, sales support costs, and other selling, general, and administrative expenses should also be charged to segments according to the segments' use of these resources. This method of assigning costs combines the strength of activity-based costing with the power of the contribution approach and greatly enhances the manager's ability to measure the profitability and performance of segments. However, managers must still ask themselves if the costs would, in fact, disappear over time if the segment itself were eliminated. In assigning costs to segments, the key point is to resist the temptation to allocate costs that are clearly common in nature and that would continue regardless of whether the segment exists or not. Any allocation of common costs to segments will reduce the value of the segment margin as a guide to long-run segment profitability and segment performance.

Fixed costs that are traceable to one segment may be a common cost of another segment. For example, an airline might want a segmented income statement that shows the segment margin for a particular flight from Los Angeles to Paris further broken down into first-class, business-class, and economy-class segment margins. The airline must pay a substantial landing fee at Charles DeGaulle airport in Paris. This fixed landing fee is a traceable cost of the flight, but it is a common cost of the first-class, business-class, and economy-class segments. Even if the first-class cabin is empty, the entire landing fee must be paid. So the landing fee is not a traceable cost of the first-class cabin. But on the other hand, paying the fee is necessary in order to have any first-class, business-class, or economy-class passengers. So the landing fee is a common cost of the three classes.

The segment margin is obtained by deducting the traceable fixed costs of a segment from the segment's contribution margin. It represents the margin available after a segment has covered all of its own costs. The segment margin is the best gauge of the long-run profitability of a segment since it includes only those costs that are caused by the segment. If a segment cannot cover its own costs, then that segment probably should not be retained unless it has important side effects on other segments. From a decision-making point of view, the segment margin is most useful in major decisions that affect capacity, such as dropping a segment. By contrast, the contribution margin is most useful in decisions relating to short-run changes in volume such as pricing special orders that involve utilization of existing capacity. An organization can be segmented in many ways. A company's sales can be segmented by geographic region or by products. Segment breakdowns give a company's managers the ability to look at the company from many different directions. With the increasing ability of company-wide databases and sophisticated management information system software, detailed segmented reports of revenues, costs, and margins are becoming much easier to do.

For segment reporting to accomplish its intended purposes, costs must be properly assigned to segments. If the purpose is to determine the profits being generated by a particular division, then all of the costs attributable to that division should be assigned to it. Unfortunately, three business practices greatly hinder proper cost assignment: 1) omission of some costs in the assignment process, 2) the use of inappropriate methods for allocating costs among segments of a company, and 3) assignment to segments of costs that are really common costs.

The costs assigned to a segment should include all costs attributable to that segment from the company's entire value chain. The value chain consists of the major business functions that add value to a company's products and services. All of these functions from research and development through product design, manufacturing, marketing, distribution, and customer service are required to bring a product or service to the customer and generate revenues. Only manufacturing costs are included in product costs for financial reporting purposes. Consequently, when trying to determine product profitability for internal decision-making purposes, some companies deduct only manufacturing costs from product revenues. As a result, such companies omit from their profitability analysis part or all of the “upstream” costs in the value chain which consist of research and development and product design, and the “downstream” costs which consist of marketing, distribution, and customer service. Yet these nonmanufacturing costs are just as essential in determining product profitability as are the manufacturing costs. These upstream and downstream costs, which are usually titled Selling, General, and Administrative on the income statement, can represent half or more of the total costs of an organization. If either the upstream or downstream costs are omitted in profitability analysis, then the product is undercosted and management may unwittingly develop and maintain products that in the long run result in losses rather than profits for the company.

Cross-subsidization, or cost distortion, occurs when costs are improperly assigned among a company’s segments. Cross-subsidization can occur in two ways: first, when companies fail to trace costs directly to segments in those situations where it is feasible to do so, and second, when companies use inappropriate bases to allocate costs. Costs that can be traced directly to a specific segment of a company should not be allocated to other segments. Rather, such costs should be charged directly to the responsible segment. For example, the rent for a branch office of an insurance company should be charged directly against the branch to which it relates rather than included in a company-wide overhead pool and then spread throughout the company. Some companies allocate costs to segments using arbitrary bases such as sales dollars or cost of goods sold. For example, under the sales dollar approach, costs are allocated to the various segments according to the percentage of company sales generated by each segment. Thus, if a segment generates 20 percent of total company sales, it would be allocated 20 percent of the company’s selling, general, and administrative expenses as its “fair share.” This same basic procedure is followed if cost of goods sold or some other measure is used as the allocation base. For this approach to be valid, the allocation base must actually drive the overhead cost or at least the allocation base should be highly correlated with the cost driver of the overhead cost. For example, when sales dollars is used as the allocation base for selling, general, and administrative expenses, it is implicitly assumed that selling, general, and administrative expenses allocated to segments will be misleading.

The third business practice that leads to distorted segment costs is the practice of assigning nontraceable costs to segments. For example, some companies allocate the costs of the corporate headquarters building to products on segment reports. However, in a multiproduct company, no single product is likely to be responsible for any significant amount of the cost. Even if a product were eliminated entirely, there would usually be no significant effect on any of the costs of the corporate headquarters building. In short, there is no cause-and-effect relationship between the cost of the corporate headquarters building and the existence of any one product. As a consequence, any allocation of the cost of the corporate headquarters building to the products must be arbitrary. Common costs like the costs of the corporate headquarters building are necessary, of course, to have a functioning organization. The common practice of arbitrarily allocating these costs to segments is often justified on the grounds that “someone” has to “cover the common costs.” While it is undeniably true that the common costs must be covered, arbitrarily allocating common costs to segments does not ensure that this will happen. In fact, adding a share of common costs to the real costs of a segment may make an otherwise profitable segment appear to be unprofitable. If a manager erroneously eliminates the segment, the revenues will be lost, the real costs of the segment will be saved, but the common costs will still be there. The net effect will be to reduce the profits of the company as a whole and make it even more difficult to “cover the common costs.” In sum, the way many companies handle segment reporting results in cost distortion. This distortion results from three practices: the failure to trace costs directly to a specific segment when it is feasible to do so, the use of inappropriate bases for allocating costs, and the allocation of common costs to segments.

When a company is truly decentralized, segment managers are given a great deal of autonomy. So great is this autonomy that the various profit and investment centers are often viewed as being virtually independent businesses, with their managers having about the same control over decisions as if they were in fact running their own independent firms. With this autonomy, fierce competition often develops among managers, with each striving to make his or her segment the “best” in the company. Competition between investment centers is particularly keen for investment funds. One of the ways to evaluate segment managers is to measure the rate of return that investment managers are able to generate on their assets. This rate of return is called the return on investment (ROI). The return on investment (ROI) is defined as net operating income divided by average operating assets:

$$\textbf{ROI} = \frac{\textbf{Net operating income}}{\textbf{Average operating assets}}$$

There are some issues about how to measure net operating income and average operating assets, but this formula seems clear. The higher the return on investment (ROI) of a business segment, the greater the profit generated per dollar invested in the segment’s operating assets.

Net operating income, rather than net income, is used in the ROI formula. Net operating income is income before interest and taxes and is sometimes referred to as EBIT (earnings before interest and taxes). The reason for using net operating income in the formula is that the income figure used should be consistent with the base to which it applied. The base consists of operating assets. Thus, to be consistent we use net operating income as the numerator. Operating assets include cash, accounts receivable, inventory, plant and equipment, and all other assets held for productive use in the organization. Examples of assets that would not be included in the operating assets category would include land held for future use, an investment in another company, or a factory building rented to someone else. The operating assets base used in the formula is typically computed as the average of the operating assets between the beginning and the end of the year. A major issue in ROI computations is the dollar amount of plant and equipment that should be included in the operating assets base. The following arguments can be raised for using net book value to measure operating assets and for using gross cost to measure operating assets in ROI computation.

Arguments for using net book value to measure operating assets in ROI computations:

- ✓ The net book value method is consistent with how plant and equipment are reported on the balance sheet.
- ✓ The net book value method is consistent with the computation of operating income, which includes depreciation as an operating expense.

Arguments for using gross cost to measure operating assets in ROI computations:

- ✓ The gross cost method eliminates both the age of equipment and the method of depreciation as factors in ROI computations. Under the net book value method, ROI will tend to increase over time as net book value declines due to depreciation.
- ✓ The gross cost method does not discourage replacement of old, worn-out equipment. Under the net book value method, replacing fully depreciated equipment with new equipment can have a dramatic, adverse effect on ROI.

Managers generally view consistency as the most important of these considerations. As a result, a majority of companies use the net book value approach in ROI computations.

As previously illustrated, the formula for ROI is:

$$\textbf{ROI} = \frac{\textbf{Net operating income}}{\textbf{Average operating assets}}$$

This formula can be modified as follows:

Net operating income **Sales**

ROI = Sales × Average operating assets

The first term of the equation is the margin, which is defined as follows:

$$\textbf{Margin} = \frac{\textbf{Net operating income}}{\textbf{Sales}}$$

The margin is a measure of management's ability to control operating expenses in relation to sales. The lower the operating expenses per dollar of sales, the higher the margin earned. The second term of the equation is turnover and is defined as follows:

$$\textbf{Turnover} = \frac{\textbf{Sales}}{\textbf{Average operating assets}}$$

Turnover is a measure of the sales that are generated for each dollar invested in operating assets. The following is an alternative form of the ROI formula:

ROI = Margin × Turnover

Either of the ROI formulas can be used; however, the margin and turnover formula provides additional information. Du Pont pioneered the ROI concept and recognized the importance of looking at both margin and turnover in assessing the performance of a manager. The ROI formula is widely used as the key measure of the performance of an investment center. The ROI formula blends together many aspects of the manager's responsibilities into a single figure that can be compared to the returns of competing investment centers, the returns of other firms in the industry, and the past returns of the investment center itself. An investment center manager can increase ROI in basically three ways: 1) increase sales, 2) reduce expenses, and 3) reduce assets.

A change in sales can affect the margin if expenses increase or decrease at a different rate than sales. A company may be able to keep a tight control on its costs as its sales go up, with the result that net operating income increases more rapidly than sales and increases the margin. A company may have fixed expenses that remain constant as sales go up, resulting in an increase in the net operating income and in the margin. A change in sales can affect the turnover rate if sales either increase or decrease without a proportionate increase or decrease in the operating assets.

The easiest route to increased profitability and to a stronger ROI figure is to simply cut the fat out of an organization through a concerted effort to control expenses. When margins begin to be squeezed, this is generally the first line of attack by a manager. Discretionary fixed costs usually come under scrutiny first, and various programs are either curtailed or eliminated in an effort to cut costs.

Managers have always been sensitive to the need to control sales, operating expenses, and operating margins. They have not always been equally sensitive to the need to control investment in operating assets. Firms that have adopted the ROI approach to measuring managerial performance indicate that one of the first reactions of investment center managers is to trim their investment in operating assets. The reason is that these managers soon realize that an excessive investment in operating assets reduces turnover and hurts the ROI. As managers reduce their investment in operating assets, funds are released that can be used elsewhere in the organization. One approach to reducing investments in operating assets is to eliminate unneeded inventory. Just-in-time (JIT) purchasing and manufacturing have been extremely helpful in reducing inventories, with the result that ROI figures have improved dramatically in some companies. Another approach is to devise various methods of speeding up the collection process of receivables.

Although ROI is widely used in evaluating performance, it is not a perfect tool. The method is subject to the following criticisms:

- ✓ Just telling managers to increase ROI may not be enough. Managers may not know how to increase ROI; they may increase ROI in a way that is inconsistent with the company's strategy, or they may take actions that increase ROI in the short run but harm the company in the long run.

- ✓ A manager who takes over a business segment typically inherits many committed costs over which the manager has no control. These committed costs may be relevant in assessing the performance of the business segment as an investment but make it difficult to fairly assess the performance of the manager relative to other managers.

- ✓ A manager who is evaluated on the basis of ROI may reject profitable investment opportunities.

Another approach to measuring an investment center's performance focuses on a concept known as residual income. Residual income is the net operating income that an investment center earns above the minimum required return on its operating assets. Economic value added (EVA) is a similar concept that differs in some details from residual income. Under the economic-value-added concept, funds used for research and development are treated as investments rather than expenses. When residual income or economic value added is used to measure performance, the purpose is to maximize the total amount of residual income or economic value added not to maximize overall ROI. The residual income approach encourages managers to make investments that are profitable for the entire company but that would be rejected by managers who are evaluated by the ROI formula. Basically, a manager who is evaluated on the basis of ROI will reject any project whose rate of return is below the division's current ROI, even if the rate of return on the project is above the minimum required rate of return for the entire company. In contrast, any project whose rate of return is above the minimum required rate of return for the company will result in an increase in residual income. Since it is in the best interests of the company as a whole to accept any project whose rate of return is above the minimum required rate of return, managers who are evaluated on the basis of residual income will tend to make better decisions concerning investment projects than managers who are evaluated on the basis of ROI.

The residual income approach has one major disadvantage. It can't be used to compare the performance of divisions of different sizes. One would expect larger divisions to have more residual income than smaller divisions, not necessarily because they are better managed, but simply because of the larger numbers involved.

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REVIEW QUESTIONS

1. All other things being equal, a company's return on investment is affected by a change in:

	Turnover	Margin
a.	Yes	Yes
b.	No	Yes
c.	No	No
d.	Yes	No

2. Denner Company has two divisions, A and B, that reported the following results for October:

	Division A	Division B
Sales	$90,000	$150,000
Variable expenses as a percentage of sales	70%	60%
Segment margin	$ 2,000	$ 23,000

If common fixed expenses were $31,000, total fixed expenses must have been:

a. $31,000.
b. $62,000.
c. $93,000.
d. $52,000.

3.

3 Division B had an ROI last year of 15%. The division's minimum required rate of return is 10%. If the division's average operating assets last year were $450,000, then the division's residual income for last year was:

a. $67,500.
b. $22,500.
c. $37,500.
d. $45,000.

4. Assuming that sales and net income remain the same, a company's return on investment will:

a. increase if operating assets increase.
b. decrease if operating assets decrease.
c. decrease if turnover decreases.
d. decrease if turnover increases.

5. The Holmes Division recorded operating data as follows for the past year:

Sales	$200,000
Net operating income	25,000
Average operating assets	100,000
Stockholders' equity	80,000
Residual income	13,000

For the past year, the return on investment was:

a. 15.75%.
b. 20.50%.
c. 25.00%.
d. 31.25%.

6. During April, Division D of Carney Company had a segment margin ratio of 15%, a variable expense ratio of 60% of sales, and traceable fixed expenses of $15,000. Division D's sales were closest to:

a. $100,000.
b. $ 60,000.
c. $ 33,333.
d. $ 22,500.

7. Howe Company increased its ROI from 20% to 25%. Net operating income and sales remained at their previous levels of $40,000 and $1,000,000, respectively. The increase in ROI was attributed to a reduction in operating assets brought about by the sale of obsolete inventory at cost (the proceeds from the sale were used to reduce bank loans). By how much was inventory reduced?

a. $ 8,000
b. $40,000
c. $10,000
d. $15,000

8. Hatch Company has two divisions, O and E. During the year that just ended, Division O had a segment margin of $9,000 and variable costs equal to 70% of sales. Traceable fixed costs for Division E were $19,000. Hatch Company as a whole had a contribution margin of 40%, a segment margin of $25,000, and sales of $200,000. Given this data, the sales for Division E for last year were:

a. $ 50,000.
b. $150,000.
c. $ 87,500.
d. $116,667.

9. Which of the following are benefits of decentralization?

I. Giving a manager of a division greater decision-making control over his or her division provides vital training for a manager who is on the rise in the company.
II. Managers at corporate headquarters have greater control in seeing that the goals of the company are realized.
III. Added decision-making authority and responsibility often lead to increased job satisfaction and often persuade a manager to put forth his or her best efforts.

a. Statements I and II are correct.
b. Statements II and III are correct.
c. Statements I and III are correct.
d. Only statement I is correct.

10. Cable Company had the following results for the year just ended:

Net operating income	$2,500
Turnover	4
Return on investment	20%

Cable Company's average operating assets during the year were:

a. $ 50,000.
b. $200,000.
c. $ 12,500.
d. $ 10,000.

11. The Northern Division of the Smith Company had average operating assets totaling $150,000 last year. If the minimum required rate of return is 12%, and if last year's net operating income at Northern was $20,000, then the residual income for Northern last year was:

a. $20,000.
b. $18,000.
c. $ 5,000.
d. $ 2,000.

12. The performance of the manager of Division A is measured by residual income. Which of the following would increase the manager's performance measure?

    a. Increase in average operating assets.
    b. Decrease in average operating assets.
    c. Increase in minimum required return.
    d. Decrease in net operating income.

13. More Company has two divisions, L and M. During July, the contribution margin in Division L was $60,000. The contribution margin ratio in Division M was 40% and its sales were $250,000. Division M's segment margin was $60,000. The common fixed expenses were $50,000 and the company's net income was $20,000. The segment margin for Division L was:

    a. $ -0-.
    b. $10,000.
    c. $50,000.
    d. $60,000.

14. All other things being equal, if a division's traceable fixed expenses increase, then:

    a. the division's contribution margin ratio will decrease.
    b. the division's segment margin ratio will remain the same.
    c. the division's segment margin will decrease.
    d. the overall company profit will remain the same.

15. Which of the following is not an operating asset?

    a. cash
    b. inventory
    c. plant equipment
    d. common stock

16. The following information is available on Company A:

Sales	$900,000
Net operating income	36,000
Stockholders' equity	100,000
Average operating assets	180,000
Minimum required rate of return	15%

Company A's residual income is:

    a. $ 9,000.
    b. $21,000.
    c. $45,000.

d. $24,000.

17. The following information is available on Company A:

Sales	$900,000
Net operating income	36,000
Stockholders' equity	100,000
Average operating assets	180,000
Minimum required rate of return	15%

Company A's return on investment (ROI) is:

a. 4%
b. 15%
c. 20%
d. 36%

18. In department analysis, net operating income is defined as:

a. sales minus variable expenses.
b. sales minus variable expenses and traceable fixed expenses.
c. contribution margin minus traceable and common fixed expenses.
d. net income plus interest and taxes.

19. Consider the following three statements:

I. A profit center has control over both cost and revenue.
II. An investment center has control over invested funds but not over costs and revenue.
III. A cost center has no control over sales.

Which statement(s) is/are correct?

a. Only statement I is correct.
b. Only statement II is correct.
c. Statements I and III are correct.
d. Statements I and II are correct.

20. All other things being equal, a company's return on investment (ROI) would generally increase when:

a. average operating assets increase.
b. sales decrease.
c. operating expenses decrease.
d. operating expenses increase.

21. Reardon Retail Company consists of two stores, A and B. Store A had sales of $80,000 during March, a contribution margin ratio of 30%, and a segment margin of $11,000. The company as a whole had sales of $200,000, a contribution margin ratio of 36%, and segment margins for the two stores totaling $31,000. If net income for the company was $15,000 for the month, the traceable fixed expenses in Store B must have been:

a. $16,000.
b. $20,000.
c. $31,000.
d. $28,000

22. Delmar Corporation is considering the use of residual income as a measure of the performance of its divisions. What major disadvantage of this method should the company consider before deciding to institute it?

a. This method does not make allowance for differences in the size of compared divisions.
b. Opportunities may be undertaken which will decrease the overall return on investment.
c. The minimum required rate of return might eliminate desirable opportunities from consideration.
d. Residual income does not measure how effectively the division manager controls costs.

23. A good example of a common cost which normally could ***not*** be assigned to products on a segmented income statement except on an arbitrary basis would be:

a. product advertising outlays.
b. the salary of a corporation president.
c. direct materials.
d. the product manager's salary.

24. The following data are available for the South Division of Redride Products, Inc., and the single product it makes:

Unit selling price	$20
Variable cost per unit	$12
Annual fixed costs	$280,000
Average operating assets	$1,500,000

How many units must South sell each year to have an ROI of 16%?
a. 240,000.
b. 1,300,000.
c. 52,000.

d. 65,000.

25. A company had the following results last year: sales, $700,000; return on investment, 28%; and margin, 8%. The average operating assets last year were:

a. $ 200,000.
b. $2,450,000.
c. $ 540,000.
d. $2,500,000.

26. Last year a company had stockholders' equity of $160,000, net operating income of $16,000, and sales of $100,000. The turnover was 0.5. The return on investment (ROI) was:

a. 10%
b. 9%
c. 8%
d. 7%

27. Reed Company's sales last year totaled $150,000 and its return on investment (ROI) was 12%. If the company's turnover was three, then its net income for the year must have been:

a. $ 6,000.
b. $ 2,000.
c. $18,000.
d. It is impossible to determine from the data given.

28. Suppose a manager is to be measured by residual income. Which of the following will ***not*** result in an increase in the residual income figure for this manager, assuming other factors remain constant?

a. an increase in sales
b. an increase in the minimum required rate of return
c. a decrease in expenses
d. a decrease in operating assets

29. A company's return on investment (ROI) is the:

a. margin divided by turnover.
b. margin multiplied by turnover.
c. turnover divided by average operating assets.
d. turnover multiplied by average operating assets.

30. Leis Retail Company has two stores, M and N. Store N had sales of $180,000 during March, a segment margin of 30%, and traceable fixed expenses of $26,000. The company as a whole had a contribution margin ratio of 25% and $120,000 in total contribution margin. Based on this information, total variable expenses in store M for the month must have been:

a. $140,000.
b. $260,000.
c. $300,000.
d. $360,000.

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DEPARTMENT ANALYSIS
REVIEW QUESTION SOLUTIONS

1.	A
2.	C
3.	B
4.	C
5.	C
6.	B
7.	B
8.	A
9.	C
10.	C
11.	D
12.	B
13.	B
14.	C
15.	D
16.	A
17.	C
18.	D
19.	C
20.	C
21.	D
22.	A
23.	B
24.	D
25.	A
26.	C
27.	A
28.	B
29.	B
30.	B

DEPARTMENT ANALYSIS

Explanation of Review Question Solutions

1. The correct answer is A. Return on Investment (ROI) is influenced by Turnover and Margin. ROI = Margin times Turnover. Get ready; this is an algebra chapter.

2. The correct answer is C, $93,000. The amount of identifiable fixed expenses can be determined by cost-volume-profit income statement analysis. Sales of $90,000 less variable expenses of $63,000 ($90,000 times 70% variable expense percentage) equals contribution margin of $27,000 minus segment margin (margin net income) of $2,000 gives $25,000 traceable fixed expenses for division A. Sales of $150,000 less variable expenses of $90,000 ($150,000 times 60% variable expense percentage) equals contribution margin of $60,000 minus segment margin of $23,000 gives $37,000 traceable fixed expenses for division B. Traceable fixed expenses for division A of $25,000 plus traceable expense for division B of $37,000 plus untraceable fixed expenses of $31,000 gives total fixed expenses of $93,000.

3. The correct answer is B, $22,500. What are we looking for? Division B residual income for the last year. Return on investment (ROI) equals net operating income (NOI) divided by average operating assets (AOA). ROI = 15% = NOI/AOA = NOI /450,000. Therefore, NOI = 15% × 450,000 = ROA × AOA = 67,500. Residual income equals net operating income minus minimum required rate of return (MRRR). RI = NOI – MRRR = 67,500 – (10% × 450,000) = 67,500 – 45,000 = 22,500.

4. The correct answer is C, decrease if turnover decreases. These types of questions are best resolved if you analyze the formula. Return on investment equals net operating income divided by average operating assets (ROI = NOI / AOA). If AOA goes down, ROI goes up and vice versa (A and B are false). Return on investment equals margin multiplied by turnover, where margin equals net operating income divided by sales and turnover equals sales divided by average operating assets. When turnover increases, return on investment increases and vice versa (D is false and C is true).

5. The correct answer is C, 25.00%. Return on investment equals net operating income divided by average operating assets (ROI = NOI / AOA = 25,000 / 100,000 = 25%).

6. The correct answer is B, $60,000. Set up the cost-volume-profit income statement and put in what you know. Sales are 100%; variable expenses are 60%; therefore contribution margin is 40% (100% – 60%). Net income is 15%; therefore, fixed

expenses are 25% (40% – 15% = 25%). If traceable fixed expenses are $15,000, then sales equal $60,000 ($15,000 / 25%).

7. The correct answer is B, $40,000. Return on investment equals net operating income divided by average operating assets (ROI = NOI / AOA). Therefore, average operating assets equals net operating income divided by return on investment (AOA = NOI / ROI), or 40,000 / 20% = 200,000 for year one, and (AOA = NOI / ROI) 40,000 / 25% = 160,000 for year two. Year one AOA minus year two AOA equals the reduction in inventory (200,000 – 160,000 = $40,000), assuming everything else remains equal.

8. The correct answer is A, $50,000. The problem will require a minimum of four columns, one for division O, one for division E, one for entire company segment margin, and one for the net income entire company. Use the title for the rows as the cost-volume-profit income statement: sales minus variable costs equal contribution margin minus fixed costs (traceable for segments and total for company) equals segment margin (for segments) and net operating income (total company). Fill in the blanks with what we know. The entire company has sales of $200,000 and the contribution margin ratio is 40%; therefore, contribution margin is $80,000 ($200,000 times 40%) and the variable costs are $120,000 ($2000,000 times 60%). If the total of the company segment margins is $25,000, then the total traceable fixed costs are $55,000 ($80,000 contribution margin less total segment margin $25,000). Segment O traceable fixed costs are computed by subtracting division E fixed costs of $19,000 from total company fixed costs of $55,000 equals $36,000. Now we can calculate division O sales. Division O contribution margin equals segment O margin of $9,000 plus segment O fixed expenses of $36,000 equals $45,000. Segment O sales equals contribution margin of $45,000 divided by segment O contribution margin percent of 30% equals sales of $150,000. Sales of segment E equals total company sales of $200,000 minus segment O sales of $150,000 equals segment E sales of $50,000.

9. The correct answer is C: Statements I and III are correct. See page 22, paragraph 1. Statements III and I are seen on this list at the top of page 22. Statement II is wrong because top-level managers have less control in seeing that the goals of the company are realized.

10. The correct answer is C, $12,500. Return on investment equals net operating income divided by average operating assets (ROI = NOI / AOA). Therefore, average operating assets equals net operating income divided by return on investment (AOA = NOI / ROI), or $2,500 / 20% = $12,500. The turnover is not needed, unless we were computing margin.

11. The correct answer is D, $2,000. The minimum required return on assets is equal to the minimum required rate of return times the average operating assets (MRR = MRRR × AOA), or 12% × 150,000 = $18,000. The residual income equals the actual rate of return minus the minimum required return (RI = ARR – MRR), or $20,000 – $18,000 = $2,000.

12. The correct answer is B, decrease in average operating assets. A decrease in AOA would result in a decrease in minimum required return, since the minimum required return on assets is equal to the minimum required rate of return times the average operating assets (MRR = MRRR × AOA). The reduction in the minimum required return on assets would increase residual income, since the residual income equals the actual rate of return minus the minimum required return (RI = ARR – MRR).

13. The correct answer is B, $10,000. Segment margin is the segment contribution margin minus the segment traceable expenses. Segment sales minus segment variable expenses give the segment contribution margin. Set the problem up as a table. You need three columns: one for segment L, one for segment M, and one for the total company. Division M has $250,000 in sales and a contribution margin ratio of 40%; therefore the contribution margin is $100,000 ($250,000 × 40%). Since M's segment margin is $60,000, its traceable fixed expenses are $40,000 ($100,000 minus $60,000). The company contribution margin equals the total of all segment contribution margins; therefore, company contribution margin equals $160,000, which is the total of segment L contribution margin of $60,000 and segment M contribution margin of $100,000. The company net income is equal to the company contribution margin less the total fixed expenses. The total fixed expenses is quantity of the common fixed expenses plus the sum of the traceable fixed expenses of the segments; therefore, the total fixed expenses equals $160,000 contribution margin less $20,000 net income, or $140,000. The $140,000 total fixed expenses equals the sum of the $50,000 common fixed expenses, the segment M traceable fixed expenses of $40,000, and the unknown traceable L fixed expenses that must be $50,000 ($140,000 minus $50,000 minus $40,000 equals $50,000). The segment L margin equals the segment L contribution margin of $60,000 minus the segment L traceable fixed expenses of $50,000, leaving $10,000 (segment L margin).

14. The correct answer is C: the division's segment margin will decrease. The division's contribution margin will not change if the traceable fixed expenses change (A is false). If you change division fixed expenses, segment margin ratio and company profit will change inversely to the change (B and D are false). C is true because the segment margin equals the contribution margin less the traceable fixed expenses, and the company net income equals the company contribution margin less the total fixed expenses, which include common fixed expenses and the segment margin traceable expenses.

15. The correct answer is D, common stock. Three are true and one is false. Circle, highlight, or underline the word *not*. All assets, including cash, inventory, and plant equipment, are operating assets, if they are used in operations (A, B, and C are true). Equity is not an asset and is definitely wrong.

16. The correct answer is A, $9,000. Residual Income equals the actual net operating income minus the minimum required return (RI = NOI – MRR), or $36,000 – $27,000 (see below) = $9,000. The minimum required return equals the minimum required return rate times the average operating assets (MRR = MRRR × AOA), or 15% × 180,000 = $27,000.

17. The correct answer is C, 20%. Return on investment equals net operating income divided by average operating assets (ROI = NOI / AOA), or 36,000 / 180,000 = 20%.

18. The correct answer is D, net income plus interest and taxes. Net income plus interest in taxes is the EBIT, earnings before interest and taxes (nonoperating expense) are subtracted out. The net operating income is also equal to contribution margin minus traceable fixed expenses (B and C are false). Sales minus variable expenses equals contribution margin (A and B are false).

19. The correct answer is C, statements I and III are correct. See page 24 for more information and definitions. A cost center is a business segment whose manager has control over costs but not over revenue or investment funds (III is true). A profit center is any business segment whose manager has control over both costs and revenue (I is true). An investment center is any segment of an organization whose manager has control over cost, revenue, and investments in operating assets (II is false). A responsibility center is defined as any part of an organization whose manager has control over cost, revenue, or investment funds, which includes cost, profit, and investment centers.

20. The correct answer is C, operating expense decrease. Return on investment equals net operating income divided by average operating assets (ROI = NOI / AOA). If average operating assets increase, return on investment will decrease (A is false). If sales decrease, net operating income will decrease and return on investment will decrease (B is false). If operating expenses decrease, net operating income will increase and return on investment will increase (C is true and D is false).

21. The correct answer is D, $28,000 traceable fixed expenses for store B. Skip down through the information and find that the question wants us to find the traceable fixed expenses in store B. The problem will require a minimum of four columns, one for store A, one for store B, one for entire company segment margin, and one

for the entire company net income. Use the title for the rows as the cost-volume-profit income statement: sales minus variable costs equal contribution margin minus fixed costs (traceable for segments and total for company) equals segment margin (for segments) and net operating income (total company). Fill in the blanks with what we know. We know segment A sales are $80,000, segment A contribution margin ratio is 30% (meaning the contribution margin is $24,000 [$80,000 times 30%]). We also know segment A margin is $11,000, which means the traceable fixed segment A expenses are $13,000 ($24,000 minus $11,000). We know the company sales are $200,000 and that the company contribution margin percent is 36%; therefore, the company contribution margin is $72,000 ($200,000 times 36%). The company variable expenses are $128,000 ($200,000 sales minus $72,000 contribution margin). The company common and traceable expenses are $57,000 ($72,000 contribution margin minus $15,000 NOI). Company B can be constructed from what we know now. We know total segment margin is $31,000; therefore, segment B margin is $20,000 ($31,000 minus $11,000 segment A margin). Segment B contribution margin is computed by subtracting segment A contribution margin of $24,000 from total company segment margin of $72,000 giving $48,000. Traceable segment B fixed expenses equals segment B contribution margin ($48,000) less segment B margin ($20,000), giving us the answer of $28,000.

22. The correct answer is A; this method does not make allowance for differences in the size of compared divisions. The other three options are false.

23. The correct answer is B, the salary of the corporation president. Product advertising outlay is a cost that can be assigned to each product when advertising is by product rather than by company (A is false). Direct materials can be directly traced to the product (C is false). The product manager's salary is directly traceable to his product (D is false).

24. The correct answer is D, $65,000. Return on investment equals net operating income divided by average operating assets (ROI = NOI / AOA). Therefore, net operating income equals return on investment multiplied by average operating assets (NOI = ROI × AOA), or 16% × $1,500,000 = $240,000. Net operating income of $240,000 plus traceable fixed costs of $280,000 equals south division contribution margin of $520,000. Unit selling price of $20 minus variable cost per unit $12 gives a contribution margin per unit $8. Dividing the dollar contribution margin of $520,000 by the contribution margin per unit of $8 gives you the units sold at that contribution margin equals 65,000 units.

25. The correct answer is A, $200,000. Margin equals net operating income divided by sales; therefore, net operating income equals margin times sales (NOI = M × S), or 8% × $700,000 = $56,000. Return on Investment equals net operating income divided by average operating assets; therefore, average operating assets

equals net operating income divided by return on investment (AOA = NOI / ROI), or 56,000 / 28% = $200,000.

26. The correct answer is C, 8%. Turnover equals sales divided by average operating assets; therefore, average operating assets equals sales divided by turnover (AOA = Sales / Turnover), or $100,000 / 0.5 = $200,000. Return on Investment equals net operating income divided by average operating assets (ROI = NOI / AOA), or $16,000 / $200,000 = 8%.

27. The correct answer is A, $6,000. Turnover equals sales divided by average operating assets; therefore, average operating assets equals sales divided by turnover (AOA = Sales / Turnover), or $150,000 / 3.0 = $50,000. Return on Investment equals net operating income divided by average operating assets; therefore, net operating income equals return on investment multiplied by average operating assets (NOI = ROI × AOA), or 12% × $50,000 = $6,000.

28. The correct answer is B, an increase in the minimum required rate of return. There are three true answers and one false answer. Circle or highlight the word *not*. An increase in sales will increase net income and a net income increase will increase residual income (A is true). An increase in the minimum required rate of return results in a decrease in residual income (B is false). A decrease in expenses will result in an increase in net income, which in turn will result in an increase in residual income (C is true). A decrease in operating assets will decrease the minimum required return, which will result in an increase in residual income (D is true).

29. The correct answer is B, margin multiplied by turnover. Return on Investment equals margin multiplied by turnover (B is true). Margin divided by turnover is nothing (A is false). Turnover multiplied by average operating assets equals sales (C and D are false).

30. The correct answer is B, $260,000. Skip down through the information and find that the question wants us to find the traceable variable expenses in store M. The problem will require a minimum of four columns, one for store M, one for store N, one for the entire company's segment margin, and one for the entire company's net income. Use the title for the rows as the cost-volume-profit income statement: sales minus variable costs equal contribution margin minus fixed costs (traceable for segments and total for company) equals segment margin (for segments) and net operating income (total company). Fill in the blanks with what we know. Store N had sales of $180,000 and a segment margin of 30%; therefore, segment margin in dollars is $180,000 × 30%, or $54,000. Traceable fixed expenses for store N are $26,000; therefore, store N contribution margin is $54,000 plus $26,00, or $80,000. Therefore variable expenses for store N equal

$180,000 minus $80,000, or $100,000. The company as a whole had a contribution margin ratio of 25% and a total contribution margin of $120,000; therefore, sales equal $120,000 divided by 25%, or $480,000, and variable expenses equal $480,000 minus $120,000, or $360,000. Total company variable expenses are $360,000 and segment N variable expenses are $100,000; therefore, store M variable expenses are $360,000 minus $100,000, or $260,000.

TIME VALUE OF MONEY

After reviewing this chapter, you should be able to:

1. *Identify accounting situations where the time value of money is relevant*
2. *Distinguish between simple and compound interest*
3. *Identify and use the appropriate compound interest table or formula*
4. *Identify variables fundamental to solving interest problems*
5. *Solve future and present value problems*
6. *Solve future value of annuity problems*
7. *Solve present value of annuity problems*

In accounting and finance, the term time value of money is used to indicate a relationship between time and money. A dollar received today is worth more than a dollar promised at some time in the future. When you have to decide among various investment or borrowing alternatives, it is essential to be able to compare today's dollar and tomorrow's dollar on the same basis. Financial reporting uses different measurements in different situations. Present value is one of those measurements, and its usage has been increasing. Some of the applications of present value–based measurements to accounting topics are listed below:

- ✓ Notes—Valuing noncurrent receivables and payables that carry no stated interest rate or a lower than market interest rate.

- ✓ Leases-—Valuing assets and obligations to be capitalized under long-term leases and measuring the amount of the lease payments and annual leasehold amortization.

- ✓ Amortization of premiums and discounts—-Measuring amortization of premium or discount on both bond investments and bonds payable.

- ✓ Pensions and other post-retirement benefits expense and post-retirement benefits obligation.

- ✓ Long-term assets-—Evaluating alternative long-term investments by discount future cash flows. Determining the value of assets acquired under deferred payment contracts. Measuring impairments of assets.

- ✓ Sinking funds-—Determining the contribution necessary to accumulate a fund for debt retirement.

- ✓ Business combinations—Determining the value of receivables, payables, liabilities, accruals, and commitments acquired or assumed in a purchase.

- ✓ Disclosures—Measuring the value of future cash flows from oil and gas reserves for disclosure in supplementary information,

- ✓ Installment contracts—Measuring periodic payments on long-term purchase contracts.

In addition to accounting and business applications, compound interest, annuity, and present value concepts apply to personal finance and investment decisions. In purchasing a home or car, planning for retirement, and evaluating alternative investments, you will need to understand time value of money concepts.

Interest is payment for the use of money. It is the excess cash received or repaid over and above the amount lent or borrowed (principal). The amount of interest to be paid is generally stated as a rate over a specific period of time. The custom of expressing interest as a rate is an established business practice. Business managers make investing and borrowing decisions on the basis of the rate of interest involved rather than on the actual dollar amount of interest to be received or paid.

The amount of interest involved in any financing transaction is a function of three variables:

- ✓ Principal—The amount borrowed or invested.

- ✓ Interest rate—A percentage of the outstanding principal.

- ✓ Time—The number of years or fractional portion of a year that the principal is outstanding.

The larger the principal amount, or the higher the interest rate, or the longer the time period, the larger the dollar amount of interest.

Simple interest is computed on the amount of the principal only. It is the return on, or growth of, the principal for one time period. Simple interest is commonly expressed as follows:

Interest = principal × rate × time

where principal is the amount invested or borrowed, rate is the interest rate quoted as an annual rate, and time is expressed in years. To illustrate, if you borrow $1,000 for 3 years with a simple interest rate of 15% per year, the total interest you will pay is $450.

$1000 × (.15) × 3 = $450

If you borrow $1,000 for 3 months at 15%, the interest is $37.50, computed as follows:

$1,000 × (.15) × (.25) = $37.50

Compound interest is computed on principal and on any interest earned that has not been paid or withdrawn. It is the return on or growth of the principal for two or more time periods. Compounding computes interest not only on the principal but also on the interest earned to date on that principal, assuming that the interest is left on deposit or remains unpaid.

To illustrate the difference between simple interest and compound interest, assume that you deposit $1,000 in a bank at 15% interest for three years (as in a previous example) and the interest is compounded annually. Rather than earning $450 in interest, your earnings would be $520.88.

The computations follow:

$1,000 × .15 × 1 = $150 (the first year's interest)

$1,150 × .15 × 1 = $172.50 (the second year's interest)

$1,322.50 × .15 × 1 = $198.38 (the third year's interest)

The difference in the two examples is, of course, the interest that is paid on the accumulated interest.

$150 × (.15) × 1 = $22.50 (additional second year interest)

$322.50 × (.15) × 1 = $48.38 (additional third year interest)

The difference between the two examples ($70.38) is the interest that is compounded on the unpaid interest. Note in the illustration that simple interest uses the principal of $1,000 to compute the interest in all 3 years. Compound interest uses the accumulated balance (principal plus interest to date) at each year-end to compute interest in the succeeding year.

Compound interest is the typical interest computation applied in business transactions, particularly in our economy, where large amounts of long-term assets are used productively and financed over long periods of time. Financial managers view and evaluate their investment opportunities in terms of a series of periodic returns each of which can be reinvested to yield additional returns. Simple interest is usually applicable only to short-term investments and debts that involve a time span of one year or less.

Four different types of compound interest tables are discussed in this review. There are other tables available for complicated financial transactions. The titles of the four tables and their contents are:

- ✓ Future Value of 1—Contains the amounts to which 1 will accumulate if deposited now at a specific rate and left for a specified number of periods.

- ✓ Present Value of 1—Contains the amounts that must be deposited now at a specific rate of interest to equal 1 at the end of a specific number of periods.

- ✓ Future Value of an Annuity of 1—Contains the amounts to which periodic payments of 1 will accumulate if the payments are invested at the end of each period at a specific rate of interest for a specified number of periods.

- ✓ Present Value of an Annuity of 1—Contains the amounts that must be deposited now at a specified rate of interest to permit withdrawals of 1 at the end of regular periodic intervals for a specific number of periods.

The compound interest tables are computed by means of basic formulas. For example, the formula to determine the future value factor (FVF) for 1 is:

$$\mathbf{FVF = (1 + i)^n}$$

where FVF = future value factor for *n* periods at *i* interest, *n* = number of periods, and *i* = rate of interest for a single period (periodic interest rate).

Compound interest tables use the term periods instead of years. Interest is generally expressed in terms of an annual rate, but in many business transactions the compounding period is less than one year. In such circumstances the annual interest rate must be converted to correspond to the length of the period. The process is to convert the "annual interest rate" into the "periodic interest rate" by dividing the annual rate by the number of compounding periods in one year. The number of periods is determined by multiplying the number of years involved by the number of compounding periods per year. It is important to note that the calculation of the periodic interest rate and the determination of the number of compounding periods are independent operations. How frequently interest is compounded can make a substantial difference in the rate of return. A 9% annual interest rate compounded daily provides a 9.42% yield, or a difference of .42%. The 9.42% is referred to as the effective yield. The annual interest rate (9%) is called the stated, nominal, or face rate. When compounding frequency is greater than once a year, the effective interest rate will always be greater than the stated rate.

The following four variables are fundamental to all compound interest problems:

- ✓ Rate of Interest—This rate, unless otherwise stated, is an annual rate that must be adjusted to reflect the length of the compounding period if less than a year.
- ✓ Number of Time Periods—This is the number of compounding periods (a period may be equal to or less than a year).
- ✓ Future Value—The value at a future date of a given sum or sums invested assuming compound interest.
- ✓ Present Value—The value now (present time) of a future sum or sums discounted assuming compound interest.

Many business and investment decisions involve a single amount of money that either exists now or will exist in the future. Single sum problems can generally be classified into one of the following two categories:

- ✓ Computing the unknown future value of a known single sum of money that is invested now for a certain number of periods at a certain interest rate.
- ✓ Computing the unknown present value of a known single sum of money in the future that is discounted for a certain number of periods at a certain interest rate.

When analyzing the information provided, you determine first whether it is a future value problem or a present value problem. If you are solving for a future value, all cash flows must be accumulated to a future point. In this instance, the effect of interest is to increase the amounts or values over time so that the future value is greater than the present value. If you are solving for a present value, all cash flows must be discounted from the future to the present. In the case, the discounting reduces the amounts or values so that the present value is less than the future amount. Preparation of time diagrams aids in identifying the unknown as an item in the future or the present. Sometimes it is neither a future value nor a present value to be determined but, rather, the interest or discount rate or the number of compounding or discounting periods.

To determine the future value of a single sum, multiply the future value factor by its present value (principal), as follows:

$$\mathbf{FV = PV\ (FVF)}$$

where FV = future value, PV = present value, and FVF = future value factor for *n* periods at *i* interest. To illustrate, what is the future value of $50,000 invested for 5 years compounded annually at an interest rate of 11%? With use of the formula, this investment problem is solved as follows:

$$\begin{aligned}
\textbf{Future value} &= \mathbf{PV\ (FVF)} \\
&= \mathbf{\$50{,}000\ (FVF)} \\
&= \mathbf{\$50{,}000\ (1 + .11)^5} \\
&= \mathbf{\$50{,}000\ (1.68506)} \\
&= \mathbf{\$84{,}253}
\end{aligned}$$

The previous example showed that $50,000 invested at an annual compounded interest rate of 11% would be worth $84,253 at the end of 5 years. It follows, then, that $84,253, 5 years in the future, is worth $50,000 now; that is, $50,000 is the present value of $84,253. The present value is the amount that must be invested now to produce the known future value. The present value is always a smaller amount than the future value because interest will be earned and accumulated on the present value of the future date. In determining the future value, we move forward in time using a process of accumulation; in determining present value, we move backward in time using a process called discounting. The present value of 1 (present value factor) may be expressed as a formula:

$$\mathbf{PVF = 1/\ (1 + i)^n}$$

where PVF = present value factor for *n* periods at *i* interest. The present value of a single sum (future value) is as follows:

$$\mathbf{PV = FV\ (PVF)}$$

where PV = present value, FV = future value, and PVF = present value factor for *n* periods at *i* interest. To illustrate, what is the present value of $84,253 to be received or paid in 5 years discounted at 11% compounded annually? With use of the formula, this problem is solved as follows:**Present value = FV (PVF)**

$$\begin{aligned} &= \$84{,}253\ (PVF) \\ &= \$84{,}253\ [1/(1 + 11)^5] \\ &= \$84{,}253\ (.59345) \\ &= \$50{,}000 \end{aligned}$$

The preceding discussion involved only the accumulation of a single principal sum. Individuals frequently encounter situations in which a series of dollar amounts are to be paid or received periodically, such as loans or sales to be repaid in installments, invested funds that will be partially recovered at regular intervals, or cost savings that are realized repeatedly. A life insurance contract is probably the most common and most familiar type of transaction involving a series of equal payments made at equal intervals of time. Such a process of periodic saving represents the accumulation of a sum of money through an annuity. An annuity by definition requires that 1) the periodic payments or receipts always be the same amount, 2) the intervals between the payments must always be the same, and 3) the interest must be compounded once each interval. The future value of an annuity is the sum of all the payments plus the accumulated compound interest on them. It should be noted that the payments may occur at either the beginning or the end of the periods. To distinguish annuities under these two alternatives, an annuity is classified as an ordinary annuity if the payments occur at the end of each period, and as an annuity due if the payments occur at the beginning of each period.

One approach to the problem of determining the future value to which an annuity will accumulate is to compute the value to which each of the payments in the series will accumulate and then total their individual future values. Because the payments that compose an ordinary annuity are deposited at the end of the period, they can earn no interest during the period in which they are originally deposited. Any time the future value of an ordinary annuity is computed, the number of compounding periods will always be one less than the number of rents. Although calculating the individual future values of each payment and totaling the amounts will always produce the correct sum, it can become cumbersome if the number of payments is large. A more efficient way of expressing the future value of an ordinary annuity of 1 is in a formula that is a summation of the individual payments plus the compound interest:

$$\textbf{FVF-OA} = [(1 + i)^n\text{-}1/i]$$

where FVF-OA = future value factor of an ordinary annuity, i = the periodic interest rate, and n = the number of compounding periods. The future value of an ordinary annuity is computed as follows:

Future value of an ordinary annuity = P (FVF-OA)

where P = the periodic payment and FVF-OA = the future value of an ordinary annuity factor for n periods at i interest. To illustrate, what is the future value of five $5,000 deposits made at the end of each of the next five years, earning interest at 12% per year? With use of the formula, this investment problem is solved as follows:

$$\begin{aligned}\textbf{Future value of an ordinary annuity} &= \text{P (FVF-OA)}\\ &= \$5{,}0000\ \text{(FVF-OA)}\\ &= \$5{,}000\ [(1 + .12)^5\text{-}1)/.12]\\ &= \$5{,}000\ (6.35285)\\ &= \$31{,}764.25\end{aligned}$$

The preceding analysis of an ordinary annuity was based on the assumption that the periodic payments occurred at the end of each period. An annuity due assumes periodic payments occur at the beginning of each period. This means an annuity due will accumulate interest during the first period, whereas an ordinary annuity will earn no interest during the first period because the payment is not made or received until the end of the period. In other words, the difference between the two types of annuities is in the number of compounding periods. If payments occur at the end of a period (ordinary annuity), then in determining the future value of an annuity there will be one less interest period than if the payment occurs at the beginning of the period (annuity due). In this example, because the cash flows from the annuity due come exactly one period earlier than for an ordinary annuity, the future value of the annuity due factor is exactly 12% higher than the ordinary annuity factor. For example, the value of an ordinary annuity factor at the end of period one at 12% is 1.00000, whereas for an annuity due it is 1.12000. Thus, the future value of an annuity due factor can be found by multiplying the future value of an ordinary annuity factor by 1 plus the interest rate. For example, to determine the future value of an annuity due interest factor for 5 periods at 12% compound interest, simply multiply the future value of an ordinary annuity interest factor for 5 periods (6.35285) by one plus the interest rate (1 + .12), to arrive at 7.11519. In the previous example, if the initial payment has been made at the beginning of the first period, the interest factor would have been 7.11519. Thus, the resulting value would have been $35,575.95 rather than $31,764.25.

The present value of an annuity is the single sum that, if invested at compound interest now, would provide for an annuity (a series of withdrawals) for a certain number of future periods. In other words, the present value of an ordinary annuity is the present value of a series of equal payments to be withdrawn at equal intervals. The general formula for the present value of any ordinary annuity is as follows:

Present value of an ordinary annuity = P (PVF-OA)

where P = the periodic payment (withdrawal), and PVF-OA = the present value of an ordinary annuity of 1 for *n* periods at *i* interest. The factor for PVF-OA is as follows:

$$\textbf{PVF-OA} = [1-(1/1 + i)^n]/i$$

To illustrate, what is the present value of rental receipts of $6,000 each to be received at the end of each of the next 5 years when discounted at 12%?

Present value of an ordinary annuity = P (PVF-OA)

$$= \$6{,}000\ ([1-(1/1 + i)^n]/i)$$

$$= \$6{,}000\ (3.60478)$$

$$= \$21{,}628.68$$

The present value of the 5 ordinary annuity rental receipts of $6,000 each is $21,628.68. In the example of the present value of an ordinary annuity, the final rent was discounted back the same number of periods that there were rents. In determining the present value of an annuity due, there is always one fewer discount periods. Because each cash flow comes exactly one period sooner in the present value of an annuity due, the present value of the cash flows is exactly 12% higher than the present value of an ordinary annuity. Thus, the present value of an annuity due factor can be found by multiplying the present value of an ordinary annuity factor by 1 plus the interest rate. To determine the present value of an annuity due interest factor for 5 periods at 12% interest, take the present value of the ordinary annuity for 5 periods at 12% interest (3.60478) and multiply it by 1.12 to arrive at the present value of an annuity due, $4.03735.

Often it is necessary to use more than one table or formula to solve time value problems. The business problem encountered may require that computations of both present value of a single sum and present value of an annuity be made. Two common situations are deferred annuities and bond problems.

A deferred annuity is an annuity in which the payments begin after a specified number of periods. A deferred annuity does not begin to produce payments until two or more periods have expired. For example, an ordinary annuity of six annual payments deferred four years means that no payments will occur during the first four years, and that the first of the six payments will occur at the end of the fifth year. An annuity due of six annual payments deferred four years means that no payments will occur during the first four years, and that the first of the six payments will occur at the beginning of the fifth year. In the case of the future value of a deferred annuity the computations are relatively straightforward. Because there is no accumulation or investment on which interest may accrue, the future value of a deferred annuity is the same as the future value of an annuity not deferred. That is, the deferral period is ignored in computing the future value.

In computing the present value of a deferred annuity, the interest that accrues on the original investment during the deferral period must be recognized. To compute the present value of a deferred annuity, compute the present value of an ordinary annuity of 1 as if the payments had occurred for the entire period and then subtract the present value of payments which were not received during the deferral period. This calculation results in the present value of the payments actually received subsequent to the deferral period.

A long-term bond produces two cash flows: 1) periodic interest payments during the life of the bond and 2) the principal (face value) paid at maturity. At the date of issue, bond buyers determine the present value of these two cash flows using the market rate of interest. The periodic interest payments represent an annuity and the principal represents a single sum problem. The current market value of the bonds is the combined present values of the interest annuity and the principal amount.

Bonds are frequently purchased or sold at a premium or a discount. The profession's preferred procedure for amortization of a discount or premium is the effective interest method (also called present value amortization). Under the effective interest method, bond interest is computed first by multiplying the carrying value of the bonds at the beginning of the period by the effective (market) interest rate. The bond discount or premium amortization is then determined by comparing the bond interest expense with the interest to be paid. The effective interest method produces a periodic interest expense equal to a constant percentage of the carrying value of the bonds. Since the percentage used is the effective rate of interest incurred by the borrower at the time of issuance, the effective method results in matching expenses with revenues.

TIME VALUE OF MONEY

REVIEW QUESTIONS

1. Present value is:

   a. the value now of a future amount.
   b. the amount that must be invested now to produce a known future value.
   c. always smaller than the future value.
   d. All of these are true.

2. Which of the following formulas would show the largest value for an interest rate of 5% for six periods?

   a. future value of 1
   b. present value of 1
   c. future value of an ordinary annuity of 1
   d. present value of an ordinary annuity of 1

3. Which formula would you use to determine how much you would need to have deposited three years ago at 10% compounded annually in order to have $1,000 today?

   a. future value of 1 or present value of 1
   b. future value of an annuity due of 1
   c. future value of an ordinary annuity of 1
   d. present value of an ordinary annuity of 1

4. Which formula would you use to determine how much must be deposited now in order to provide for five annual withdrawals at the beginning of each year, starting one year hence?

   a. future value of an ordinary annuity of 1
   b. future value of an annuity due of 1
   c. present value of an ordinary annuity of 1
   d. None of these are correct.

5. Which formula would result in the largest factor for an interest rate of 8% for five periods?

   a. future value of an ordinary annuity of 1
   b. present value of an ordinary annuity of 1
   c. future value of an annuity due of 1
   d. present value of an annuity due of 1

6. Which of the following formulas would result in the smallest factor for an interest rate of 10% for six periods?

   a. future value of an ordinary annuity of 1
   b. present value of an ordinary annuity of 1
   c. future value of an annuity due of 1
   d. present value of an annuity due of 1

7. An amount is deposited for eight years at 12%. If compounding occurs quarterly, then the periodic interest and number of periods are:

   a. 12% for eight periods.
   b. 3% for eight periods.
   c. 12% for 32 periods.
   d. 3% for 32 periods.

8. Tim Roth wants to withdraw $20,000 (including principal) from an investment fund at the end of each year for five years. How should he compute his required initial investment at the beginning of the first year if the fund earns 10% compounded annually?

   a. $20,000 times the future value of a 5-year, 10% ordinary annuity of 1
   b. $20,000 divided by the future value of a 5-year, 10% ordinary annuity of 1
   c. $20,000 times the present value of a 5-year, 10% ordinary annuity of 1
   d. $20,000 divided by the present value of a 5-year, 10% ordinary annuity of

9. Kim Shaw wants to invest a certain sum of money at the end of each year for five years. The investment will earn 6% compounded annually. At the end of five years, she will need a total of $40,000 accumulated. How should she compute her required annual investment?

   a. $40,000 times the future value of a five-year, 6% ordinary annuity of 1
   b. $40,000 divided by the future value of a five-year, 6% ordinary annuity of 1
   c. $40,000 times the present value of a five-year, 6% ordinary annuity of 1
   d. $40,000 divided by the present value of a five-year, 6% ordinary annuity of 1

10. Which of the following transactions would require the use of the present value of an annuity concept in order to calculate the present value of the asset obtained or liability owed at the date of occurrence?

    a. A capital lease is entered into with the initial lease payment due upon the signing of the lease agreement.
    b. A capital lease is entered into with the initial lease payment due one month subsequent to the signing of the lease agreement.
    c. A ten-year 8% bond is issued on January 2 with interest payable semiannually on July 1 and January 1 yielding 7%.
    d. A ten-year 8% bond is issued on January 2 with interest payable semiannually on July 1 and January 1 yielding 9%.

11. Which of the following is true?

    a. Payments occur at the beginning of each period of an ordinary annuity.
    b. Payments occur at the end of each period of an annuity due.
    c. Payments occur at the beginning of each period of an annuity due.
    d. None of these statements are correct.

12. If an annuity due and an ordinary annuity have the same number of equal payments and the same interest rates, then:

    a. the present value of the annuity due is less than the present value of the ordinary annuity.
    b. the present value of the annuity due is greater than the present value of the ordinary annuity.
    c. the future value of the annuity due is equal to the future value of the ordinary annuity.
    d. the future value of the annuity due is less than the future value of the ordinary annuity.

13. Which of the following is false?

    a. The future value of a deferred annuity is the same as the future value of an annuity not deferred.
    b. A deferred annuity is an annuity in which the payments begin after a specified number of periods.
    c. To compute the present value of a deferred annuity, we compute the present value of an ordinary annuity of 1 for the entire period and subtract the present value of the payments, which were not received during the deferral period.
    d. If the first payment is received at the end of the sixth period, it means the ordinary annuity is deferred for six periods.

Questions 14 through 17 apply to the appropriate use of interest rate factors. Given below are the future value factors for 1 at 8% for one to five periods. Each of the questions 14 through 17 is based on 8% interest compounded annually.

Periods	Future Value of 1 at 8%
1	1.080
2	1.166
3	1.260
4	1.360
5	1.469

14. What amount should be deposited in a bank account today to grow to $5,000 three years from today?

    a. $5,000 × 1.260
    b. $5,000 × 1.260 × 3
    c. $5,000 ÷ 1.260
    d. $5,000 ÷ 1.080 × 3

15. If $3,000 is put in a savings account today, what amount will be available three years from today?

    a. $3,000 ÷ 1.260
    b. $3,000 × 1.260
    c. $3,000 × 1.080 × 3
    d. ($3,000 × 1.080) + ($3,000 × 1.166) + ($3,000 × 1.260)

16. What amount will be in a bank account three years from now if $6,000 is invested each year for four years with the first investment to be made today?

    a. ($6,000 × 1.260) + ($6,000 × 1.166) + ($6,000 × 1.080) + $6,000
    b. $6,000 × 1.360 × 4
    c. ($6,000 × 1.080) + ($6,000 × 1.166) + ($6,000 × 1.260) + ($6,000 × 1.360)
    d. $6,000 × 1.080 × 4

17. If $4,000 is put in a savings account today, what amount will be available six years from now?

    a. $4,000 × 1.080 × 6
    b. $4,000 × 1.080 × 1.469
    c. $4,000 × 1.166 × 3
    d. $4,000 × 1.260 × 2

Questions 18 through 21 apply to the use of present value factors. Given below are the present value factors for $1.00 discounted at 10% for one to five periods. Each of the questions 18 through 21 is based on 10% interest compounded annually.

Periods	Present Value of $1 Discounted at 10% per Period
1	0.909
2	0.826
3	0.751
4	0.683
5	0.621

18. If an individual put $4,000 in a savings account today, what amount of cash would be available two years from today?

    a. $4,000 × 0.826
    b. $4,000 × 0.826 × 2
    c. $4,000 ÷ 0.826
    d. $4,000 ÷ 0.909 × 2

19. What is the present value today of $6,000 to be received six years from today?

    a. $6,000 × 0.909 × 6
    b. $6,000 × 0.751 × 2
    c. $6,000 × 0.621 × 0.909
    d. $6,000 × 0.683 × 3

20. What amount should be deposited in a bank today to grow to $3,000 three years from today?

    a. $3,000 ÷ 0.751
    b. $3,000 × 0.909 × 3
    c. ($3,000 × 0.909) + ($3,000 × 0.826) + ($3,000 × 0.751)
    d. $3,000 × 0.751

21. What amount should an individual have in a bank account today before withdrawal if $5,000 is needed each year for four years, with the first withdrawal to be made today and each subsequent withdrawal at one-year intervals? (The balance in the bank account should be zero after the fourth withdrawal.)

    a. $5,000 + ($5,000 × 0.909) + ($5,000 × 0.826) + ($5,000 × 0.751)
    b. $5,000 ÷ 0.683 × 4
    c. ($5,000 × 0.909) + ($5,000 × 0.826) + ($5,000 × 0.751) + ($5,000 × 0.683)
    d. $5,000 ÷ 0.909 × 4

22. At the end of two years, what will be the balance in a savings account paying 6% annually if $5,000 is deposited today? The future value of one at 6% for one period is 1.06.

a. $5,000
b. $5,300
c. $5,600
d. $5,618

23. On January 1, 2000, the Carly Company decided to begin accumulating a fund for asset replacement five years hence. The company plans to make five annual deposits of $30,000 at 9% each January 1 beginning in 2000. What will be the balance in the fund, on January 1, 2005 (one year after the last deposit)? The following 9% interest factors may be used.

	Present Value of Ordinary Annuity	Future Value of Ordinary Annuity
4 periods	3.2397	4.5731
5 periods	3.8897	5.9847
6 periods	4.4859	7.5233

a. $195,699
b. $179,541
c. $163.500
d. $150,000

24. How much must be invested now to receive $10,000 for 15 years if the first $10,000 is received today and the rate is 9%?

Periods	Present Value of Ordinary Annuity at 9%
14	7.78615
15	8.06069
16	8.31256

a. $ 80,667
b. $ 87,862
c. $150,000
d. $ 73,126

Use the following 8% interest factors for questions 25 through 28.

	Present Value of Ordinary Annuity	Future Value of Ordinary Annuity
7 periods	5.2064	8.92280
8 periods	5.7466	10.63663
9 periods	6.2469	12.48756

25. What will be the balance on September 1, 2007 in a fund, which is accumulated by making annual deposits of $8,000 each, beginning September 1, 2000, with the last deposit being made on September 1, 2007? The fund pays interest at 8% compounded annually.

    a. $85,093
    b. $71,382
    c. $60,480
    d. $45,973

26. If $5,000 is deposited annually starting on January 1, 2000 and it earns 8%, what will the balance be on December 31, 2007?

    a. $44,614
    b. $48,183
    c. $53,183
    d. $57,438

27. The Gumbel Company wishes to accumulate $250,000 by May 1, 2008 by making equal annual deposits beginning May 1, 2000 to a fund paying 8% interest compounded annually. What is the required amount of each deposit?

    a. $43,504
    b. $23,504
    c. $21,763
    d. $25,195

28. What amount should be recorded as the cost of a machine purchased December 31, 2000, which is to be financed by making 8 annual payments of $6,000 each beginning December 31, 2001? The applicable interest rate is 8%.

    a. $42,000
    b. $37,481
    c. $63,820
    d. $34,480

29. Gregg Company financed the purchase of a machine by making payments of $4,000 at the end of each of five years. The appropriate rate of interest was 8%. The future value of one for five periods at 8% is 1.46933. The future value of an ordinary annuity for five periods at 8% is 5.8666. The present value of an ordinary annuity for five periods at 8% is 3.99271. What was the cost of the machine to Gregg?

a. $ 5,877
b. $15,791
c. $20,000
d. $23,466

30. A machine is purchased by making payments of $5,000 at the beginning of each of the next five years. The interest rate is 10%. The future value of an ordinary annuity of 1 for five periods is 6.10510. The present value of an ordinary annuity of 1 for five periods is 3.79079. What is the cost of the machine?

a. $33,578
b. $30,526
c. $20,849
d. $18,954

TIME VALUE OF MONEY

REVIEW QUESTION SOLUTIONS

1.	D
2.	C
3.	A
4.	D
5.	C
6.	B
7.	D
8.	C
9.	B
10.	A
11.	C
12.	B
13.	D
14.	C
15.	B
16.	A
17.	B
18.	C
19.	C
20.	D
21.	A
22.	D
23.	A
24.	B
25.	A
26.	D
27.	C
28.	D
29.	B
30.	C

TIME VALUE OF MONEY
Explanation of Review Question Solutions

1. The correct answer is D: all of these are true. The present value grows to the future value. Future value equals present value times a future value factor. Present value equals future value times a present value factor.

2. The correct answer is C, future value of an ordinary annuity of 1. The future value is always higher than the present value for the same number of periods, same amount, and same interest rate. The future value of an annuity is always higher than the present value of an annuity for the same interest rate, same amount and number of periods. The value of an annuity (multiple payments) is always higher than the value of a single sum of the same amount, same interest rate, and same number of periods. The future value and present value factors are all based on an amount of one.

3. The correct answer is A, the future value of 1 or the present value of 1. Both of these are based upon a single sum, which is what the problem mentions. All the other options ask for an annuity, which is a single sum of the same amount for multiple periods. The payments that compose an ordinary annuity are deposited at the end of the period. An annuity due is where the payments that compose the annuity are deposited at the beginning of the period. The present value of an annuity due is the factor for the present value of an ordinary annuity for one fewer period plus one (the number one is added to the factor). The present value of an annuity due factor can be found by multiplying the present value of an ordinary annuity factor by 1 plus the interest rate.

4. The correct answer is D, none of the above is correct. See #3 for definitions. Thus the correct answer is none of the above (the question describes the present value of an annuity due).

5. The correct answer is C, future value of an annuity due of one. You will have to put in more money now to get multiple periodic payments at same interest, number of payments, and amount of payments with the future value of an annuity due. Future value factors are higher than present value factors where all parameters are equal.

6. The correct answer is B, present value of an ordinary annuity of one. Ordinary annuity (payments at end of the year) factors are less than annuity due (payments at the beginning of the year) factors. Present value factors (always less than the number of payment periods) are less than future value factors (always greater than the number of payments).

7. The correct answer is D, 3% for 32 periods. A single amount deposited for eight years at 12% that is compounded quarterly is really 32 (8 years times 4 quarters per year) quarterly periods at 3% (12% interest per year divided by 4 quarters per year).

8. The correct answer is C, $20,000 times the present value of a 5-year (period), 10% ordinary annuity of one; what you invest today to get back an amount in the future is the present value.

9. The correct answer is B, $40,000 divided by the future value of a five-year, 6% ordinary annuity of one. When determining the future value of an annuity you multiply the amount of the annuity by the factor. When you have a target value of a single sum as the result of an annuity, you divide the future single sum by the future value factor for the annuity of one.

10. The correct answer is A; a capital lease is entered into with the initial lease payment due upon the signing of the lease agreement. It seems to me that all of these will require present value concepts, but the present value of a bond is computed when issued on the basis of present value of an annuity (the interest payments) and the present value of a single sum (the repayment of the bond when it matures). The liability for the lease occurs on the date of signing when the first payment is due on the date of signing. We use present value to compute the price of the bond. We amortize any premium or discount thus computed using effective interest methods, not present value computations.

11. The correct answer is C, payments occur at the beginning of each period of an annuity due (true). Payments occur at the *end* of each period of an ordinary annuity.

12. The correct answer is B; the present value of an annuity due is greater than the present value of an ordinary annuity (so A is false). We know that the future value of an annuity due is greater than the future value of an ordinary annuity (C and D are false).

13. The correct answer is D; if the first payment is received at the end of the sixth period, it means the ordinary annuity is deferred for six periods.

14. The correct answer is C, $5,000 divided by the factor 1.260. The first step in a problem is to determine what the problem wants you to compute or, more simply, what you are looking for. We are looking for the present value. The present value factor for a single sum is the inverse (one over the factor) of the future value factor for the same sum (same periods and same interest). You can get the present value by dividing the future value by the future value factor. Note that the facts in #14 apply to questions #14 through #17.

15. The correct answer is B, $3,000 × 1.260. The future value of a present sum is equal to that present sum times the future value factor.

16. The correct answer is A, (\$6,000 × 1.260) + (\$6,000 × 1.166) + (\$6,000 × 1.080) + (\$6,000 × 1.000). This is the future value of an annuity due. An annuity due is a series of equal payments (\$6,000) made at the beginning ("made today") of equal periods of time ("each year"). The future value of an annuity due can be constructed from the future value table. The first period would be period 0 (zero) from this table of the future value of a single sum. The factor for the value of something "today" where the payment is made "today" is 1.000. There are four payments made for four years with the first payment beginning today and the last payment made on the date of computation for the future value ("what is the value three years from now?"). The first factor is the three-year factor times the payment; second factor is the two-year factor times the payment, etc. You can also compute the annuity factor by adding up all the factors and multiplying the quantity by the payment, which is what the present value of an annuity table does (1.260 + 1.166 + 1.080 + 1.000 = 4.506).

17. The correct answer is B, \$4,000 (the single sum payment) × 1.080 (factor for one period) × 1.469 (factor for 5 periods). The question is asking you for a number which does not exist on the chart. You can construct the figure from the chart or even without the chart. The future value of a single sum after one year is that value plus the interest at the percentage rate, making the factor equal to 1 plus the percent of 0.08 (8%), or 1.080 (the factor for one period of a single sum at 8%). The future value (factor) for the second period of a single sum due to compounding is 1.080 times 1.080 or 1.080 squared, which equals 1.1664. If you look at the table above the series of questions, that table shows the second period factor at 8% to be 1.166, which is the same result we got carried to three significant digits. If necessary you can construct your own table, but most tests do not require you to do so.

18. The correct answer is C, \$4,000 divided by the present value of one factor for two periods at 10% of 0.826. Since the present value factor is the inverse or one divided by the future value factor, one can use the present value factor to get a future value by dividing the single sum by the factor.

19. The correct answer is C, \$6,000 × 0.621 × 0.909. The present value factors work similar to the future value factors. You can multiply the five-year period factor times the one-year period factor and get the six-year period factor (5 + 1 = 6). You can also take the one-year period factor and multiply it by itself six times (factor to the root of six). Notice that 0.909 times 0.909 equals 0.8263, which is the factor for two periods from the table. Multiply 0.909 times 0.8263 (0.909 × 0.909) and you will get 0.7511, which is the factor for three periods from the table.

20. The correct answer is D, \$3,000 × 0.751. When using a present value factor times a future value, you simply multiply them to get the present value.

21. The correct answer is A: ($5,000 x1.000) + ($5,000 × 0.909) + ($5,000 × 0.826) + ($5,000 × 0.751). You can use a present value factor table to construct a present value of an annuity factor. In this case we are going to have four payments; the first one is made at the beginning of the period for four years (last payment at the end of the third year). One can do each payment computation individually as we see in the problem or add the factors up and multiply them times one payment: $5,000 × (1.000 + 0.909 + 0.826 + 0.751) or $5,000 × 3.486. This factor that you constructed by adding the sequential factors for the present value of a single sum will give you the present value of an annuity (in this case it is an annuity due because we added a factor of 1.000 to the other factors).

22. The correct answer is D, $5,618. We compute this by $5,000 × 1.06 × 1.06 = $5,618. You need no table since you know it's 6%. so the factor for one period (one year) at 6% interest is 1.06. The future value factor for 6% interest for two periods is 1.06 (future value factor for 6% and one period) times 1.06 equals 1.1236. Multiply the future value factor (1.1236) times the present sum ($5,000) to get the future value.

23. The correct answer is A, $195,699. Whenever you see a problem like this, skip down to the end, and determine what the question is really asking: "What will be the balance in the fund on January 1, 2005?" In order to solve a future value of an annuity question you need to find the number of periods ("five annual deposits of $30,000"), the percentage rate per period ("9%"), and whether the annuity is an annuity due or an ordinary annuity. This is an annuity due ("payments beginning on January 1, 2002"), where payments are made at the beginning of the year, and the question gives us the future value of an ordinary annuity factors. One can convert an ordinary annuity to an annuity due by taking the factor for one period (year) more than the number of periods (years), which is 7.5233 (7 periods future value of an ordinary annuity at 9%) and subtracting one, which is the value of a single sum today (present value or future value of a sum when no time has expired). This gives us an annuity due factor of 6.5233 for six periods at 9% (meaning that the payment is at the beginning of the year and the last payment is one year less than when we wish to have the future value). The factor of 6.5233 times $30,000 payments gives us $195,699.

24. The correct answer is B, $87,862. Similar to the computation of the future value of an annuity due factor from the future value of an ordinary annuity table, this question is asking us to compute the present value of an annuity due. We must now convert the present value of an ordinary annuity factor to a present value of an annuity due. They want fifteen periods at 9% for the factor, so we must go to the factor for 14 periods (7.78615) and add 1.000 (the present value or future value of one when no time has expired), which gives us 8.78615. We want the present value of a series of payments, where the first payment is "received today" (at the beginning of the period = annuity due). The present value of an annuity due factor (8.78615) times the value of the annualized payments ($10,000) equals the present value ("How much must be invested now?") of $87,862.

25. The correct answer is A, $85,093. Notice that the factor tables preceding question #25 will be used for questions #25 though #28. The interest rate of 8% should appear in all those questions. What are they asking? What is the future value ("balance on September 1, 2007") of an annuity ("annual deposits of $8,000 each")? The annuity is an ordinary annuity, one where the payments ("deposits") are made at the end of the period ("last deposit made on September 1, 2007"). How many periods are involved? There are eight periods, or eight payments (first payment September 1, 2000; last made on September 1, 2007). The factor is 8 periods at 8% future value of an ordinary annuity or 10.63663, which is multiplied by $8,000 payments, for a future value of $85,093. Ahhh, the wonder of compound interest!

26. The correct answer is D, $57,438. The factor is for an annuity due, where the payment is at the beginning of the period. As in question #25, there are 8 periods. Since the factor needed is the future value of an annuity due at 8% for 8 periods, we need to take the future value of an ordinary annuity for 9 periods (12.48756) and subtract one from it, giving us a factor of 11.48756, which we multiply by $5,000 annual payments, to get our answer of $57,438.

27. The correct answer is C, $21,763. This is the future value of an annuity due. The factor is computed the same as in question #26. This time we want to know what payments we must make at the end of the year for 8 periods to accumulate $250,000 dollars. In order to get the payments (present value) of an annuity (equal periodic payments), we need to divide the future value ($250,000) by the future value factor (11.48756) to get our answer of $21,763 paid annually at the beginning of the year for 8 periods at 8%.

28. The correct answer is D, $34,480. Eight annual payments of $6,000 each paid at the end of the year (one year between purchase on December 31, 2000 and payment on December 31, 2001). We are looking for the present value of a future annuity, which is computed simply by multiplying the value of one annuity payment ($6,000) times the present value of an ordinary annuity factor (5.7466), giving us our answer of $34,480.

29. The correct answer is B, $15,791. We are looking for the present value of a machine financed by making five equal payments (five periods) of $4,000 yearly at the end of year (ordinary annuity). The interest rate is 8%. The correct factor is the present value factor of 3.99271 multiplied by the payment of $4,000 to give us the value (present value) of $15,791.

30. The correct answer is C. We are looking for the present value of an annuity ("equal payments of $5,000") due for five periods ("at the beginning of the next five years"). The interest is 10%. The present value of an annuity due needs to be computed from the present value of an ordinary annuity factor of four periods at ten percent plus one for the present value of the payment made on the day of the purchase. You can compute the factor $1.1 \times 1.1 \times 1.1 \times 1.1 = 1.4641$, $1.1 \times 1.1 \times 1.1 \times 1.1 = 1.331$, $1.1 \times 1.1 = 1.21$ and 1.1 and 1.0. We must first invert the figures 0.6830, 0.7513, 0.8264, 0.909, and 1 equal 4.1697. Multiplying the present value of an annuity due factor of 4.1697 by the payment of $5,000 gives us $20,848.50.

CAPITAL BUDGETING

After reviewing this chapter, you should be able to:

1. *Determine the acceptability of an investment project using the net present value method*
2. *Determine the acceptability of an investment project using the internal rate of return method*
3. *Explain how the cost of capital is used as a screening tool*
4. *Prepare a net present value analysis of two competing investment projects using either the incremental-cost approach or the total-cost approach*
5. *Make a capital budgeting analysis involving automated equipment*

The term capital budgeting is used to describe how managers plan significant outlays on projects that have long-term implications such as the purchase of new equipment and the introduction of new products. Most companies have many more potential projects than can actually be funded. Therefore, managers must carefully select those projects that promise the greatest future return. How well managers make these capital budgeting decisions is a critical factor in the long-run profitability of the company. Capital budgeting involves investment. A company must commit funds now in order to receive a return in the future. Investments are not limited to stocks and bonds. The purchase of inventory and equipment is also an investment. Investments are characterized by a commitment of funds today in the expectation of receiving a return in the future in the form of additional cash inflows or reduced cash outflows. Virtually any decision that involves an outlay now in order to obtain some return, an increase in revenue, or a reduction in costs in the future is an investment. Typical capital budgeting decisions include:

- ✓ Cost reduction decisions. Should new equipment be purchased to reduce costs?
- ✓ Expansion decisions. Should a new plant, warehouse, or other facility be acquired to increase capacity and sales?
- ✓ Equipment selection decisions. Which of several available machines would be the most cost effective to purchase?
- ✓ Lease or buy decisions. Should new equipment be leased or purchased?

- ✓ Equipment replacement decisions. Should old equipment be replaced now or later?

Capital budgeting decisions tend to fall into two broad categories: screening decisions and preference decisions. Screening decisions are those relating to whether a proposed project meets some preset standard of acceptance. For example, a firm may have a policy of accepting projects only if they promise a return of 20% on the investment. The required rate of return is the minimum rate of return a project must yield to be acceptable. Preference decisions relate to selecting from among several competing courses of action. A firm may be considering five different machines to replace an existing machine on the assembly line. The choice of which machine to purchase is a preference decision.

Business investments commonly promise returns that extend over fairly long periods of time. Therefore, in approaching capital budgeting decisions, it is necessary to employ techniques that recognize the time value of money. A dollar today is worth more than a dollar a year from now. The same concept applies in choosing between investment projects. Those projects that promise returns earlier in time are preferable to those that promise returns later in time. The capital budgeting techniques that recognize these two characteristics of business investments most fully are those that involve discounted cash flows. There are two approaches to making capital budgeting decisions by means of discounted cash flows. One is the net present value method, and the other is the internal rate of return method (time-adjusted rate of return method).

Under the net present value method, the present value of all cash inflows is compared to the present value of all cash outflows that are associated with an investment project. The difference between the present value of these cash flows, called the net present value, determines whether or not the project is an acceptable investment. To illustrate, assume the following data:

> Harper Company is contemplating the purchase of a machine capable of performing certain operations that are now performed manually. The machine will cost $5,000, and it will last for five years. At the end of the five-year period, the machine will have no salvage value. Use of the machine will reduce labor

costs by $1,800 per year. Harper Company requires a minimum return of 20% before taxes on all investment projects.

Should the machine be purchased? Harper Company must determine whether a cash investment now of $5,000 can be justified if it will result in an $1,800 reduction in cost each year over the next five years. The total cost savings is $9,000; however, the company can earn a 20% return by investing its money elsewhere. It is not enough that the cost reductions cover just the original cost of the machine; they must also yield at least a 20% return, or the company would be better off investing the money elsewhere. To determine whether the investment is desirable, it is necessary to discount the stream of annual $1,800 cost savings to its present value and then to compare this counted present value with the cost of the new machine. Since Harper Company requires a minimum return of 20% on all investment projects, this rate is used in the discounting process.

Item	Years	Amount of Cash Flow	20% Factor	Present Value of Cash Flows
Annual cost savings	1–5	$1,800	2.991	$5,384
Initial investment	Now	$5,000	1.000	5,000
Net present value				$ 384

According to this analysis, Harper Company should purchase the new machine. The present value of the cost savings is $5,384, as compared to a present value of $5,000 for the investment in the machine. Deducting the present value of the investment required from the present value of the cost savings yields a net present value of $384. Whenever the net present value is zero or greater, an investment project is acceptable. Whenever the net present value is negative, an investment project is not acceptable.

In capital budgeting projects, the focus is on cash flows and not on accounting net income. The reason is that accounting net income is based on accrual concepts that ignore the timing of cash flows into and out of an organization. From a capital budgeting standpoint the timing of cash flows is important, since a dollar received today is more valuable than a dollar received in the future. Therefore, even though the accounting net income figure is useful for many things, it is not used in discounted cash flow analysis. Instead of determining accounting net income, the manager must concentrate on identifying the specific cash flows associated with an investment project.

Most projects will have an immediate cash outflow in the form of an initial investment in equipment or other assets. Any salvage value realized from the sale of old equipment can be recognized as a cash inflow or as a reduction in the required investment. In addition, some projects require that a company expand its working capital. Working capital is current assets (cash, accounts receivable, and inventory) less current liabilities. When a company takes on a new project, the balances in the current asset accounts will often increase. These additional working capital needs should be treated as part of the initial investment in a project. Many projects require periodic outlays for repairs and maintenance and for additional operating costs. These should all be treated as cash outflows for capital budgeting purposes.

On the cash inflow side, a project will normally either increase revenues or reduce costs. Either way, the amount involved should be treated as a cash inflow for capital budgeting purposes. A reduction in costs is equivalent to an increase in revenues. Cash inflows are also frequently realized from salvage of equipment when a project is terminated. In addition, upon termination of a project, any working capital that was tied up in the project can be released for use elsewhere and should be treated as a cash inflow. In summary, the following types of cash flows are common in business investment projects:

Cash outflows

- Initial investment
- Increased working capital needs
- Repairs and maintenance
- Incremental operating costs

Cash inflows

- Incremental revenues
- Reductions in costs
- Salvage value
- Release of working capital

When computing the present value of a project, depreciation is not deducted for two reasons. First, depreciation is not a current cash outflow. Discounted cash flow methods of making capital budgeting decisions focus on cash flows. Although depreciation is a vital concept in computing net income for financial statements, it is not relevant in an analytical framework that focuses on cash flows. A second reason for not deducting depreciation is that discounted cash flow methods automatically provide for return of the original investment, thereby making a deduction for depreciation unnecessary.

In working with discounted cash flows, at least two simplifying assumptions are usually made. The first assumption is that all cash flows other than the initial investment occur at the end of a period. This is somewhat unrealistic in that cash flows typically occur somewhat evenly throughout a period. The purpose of this assumption is to simplify computations. The second assumption is that all cash flows generated by an investment project are immediately reinvested. It is further assumed that the reinvested funds will yield a rate of return equal to the discount rate. Unless these conditions are met, the return computed for the project will not be accurate.

To use the net present value method, we choose some rate of return for discounting cash flows to their present value. A firm's cost of capital is usually regarded as the most appropriate choice for the discount rate. The cost of capital is the average rate of return the company must pay to its long-term creditors and shareholders for the use of their funds.

The internal rate of return can be defined as the interest yield promised by an investment project over its useful life. It is sometimes referred to simply as the yield on a project. The internal rate of return is computed by finding the discount rate that equates the present value of a project's cash outflows with the present value of its cash inflows. The internal rate of return is that discount rate that will cause the net present value of a project to be equal to zero. To compute the internal rate of return of a new project, we must find the discount rate that will cause the net present value of the project to be zero. This may appear to be a simple task at first glance. The chances that a project will yield identical cash flows every year is unlikely. Under this assumption, a trial-and-error process is necessary to find the rate of return that will equate the cash inflows with the cash outflows. The trial-and-error process can be carried out by hand. In short, erratic or uneven cash flows should not prevent a manager from determining a project's internal rate of return. This process can be tedious, but with some practice should become quite easy. One of the first steps in the process is to calculate the net present value of a project, using the desired rate of return. If the net present value (the difference between the sum of the present value of the future cash flows and the initial outlay of cash) is greater than zero, the discount rate that has been selected is not high enough. On the other hand, if the net present value of the project is less than zero (the present value of the future cash flows is less than the initial outlay), the selected discount rate is too high. By a process called interpolation, the actual rate of return can be determined to within a fraction of a percent.

The required rate of return is the minimum rate of return that an investment project must yield to be acceptable. If the internal rate of return is equal to or greater than the required rate of return, then the project is acceptable. If it is less than the required rate of return, then the project is rejected. Quite often, the company's cost of capital is used as the required rate of return. The reasoning is that if a project cannot provide a rate of return at least as great as the cost of funds invested in it, then it is not beneficial.

The cost of capital should operate as a screening device helping management screen out undesirable investment projects. This screening is accomplished in different ways, depending on whether the company is using the internal rate of return method or the net present value method in its capital budgeting analysis. When the internal rate of return method is used, the cost of capital is used as the hurdle rate that a project must clear for acceptance. If the internal rate of return of a project is not great enough to clear the cost of capital hurdle, then the project is ordinarily rejected. When the net present value method is used, the cost of capital is the discount rate used to compute the net present value of a proposed project. Any project yielding a negative net present value is rejected unless other factors are significant enough to require its acceptance.

The net present value method has several important advantages over the internal rate of return method. First, the net present value method is often simpler to use. The internal rate of return method may require several calculations to determine the discount rate that results in a net present value of zero. This can be a very laborious trial-and-error process. Second, a key assumption made by the internal rate of return method is questionable. Both methods assume that cash flows generated by a project during its useful life are immediately reinvested elsewhere. However, the two methods make different assumptions concerning the rate of return that is earned on those cash flows. The net present value method assumes the rate of return is the discount rate, whereas the internal rate of return method assumes the rate of return is the internal rate of return on the project. Specifically, if the internal rate of return of the project is high, this assumption may not be realistic. It is generally more realistic to assume that cash inflows can be reinvested at a rate of return equal to the discount rate, particularly if the discount rate is the company's cost of capital or an opportunity rate of return. If the discount rate is the company's cost of capital, this rate of return can actually be realized by paying off the company's creditors or buying back the company's stock with cash flows from the project. In short, when the net present value method and the internal rate of return method do not agree concerning the attractiveness of a project, it is best to go with the net present value method. Of the two methods, it makes the more realistic assumption about the rate of return that can be earned on cash flows from the project.

The net present value method can be used to compare competing investment projects in two ways. One is the total-cost approach, and the other is the incremental-cost approach. The total-cost approach is the most flexible method of making a net present value analysis of competing projects. Two points should be noted. First, all cash inflows and all cash outflows are included in the comparison under each alternative. No effort is made to isolate those cash flows that are relevant to the decision and those that are not relevant. The inclusion of all cash flows associated with each alternative give the approach its name, the total-cost approach. Second, a net present value figure is computed for each of the alternatives. This is a distinct advantage of the total-cost approach in that an unlimited number of alternatives can be compared side by side to determine the best course of action. Once management has determined the net present value of each alternative that it wishes to consider, it can select the course of action that promises to be the most profitable.

When only two alternatives are being considered, the incremental-cost approach offers a simpler and more direct route to a decision. Unlike the total-cost approach, it focuses only on differential costs. The procedure is to include in the discounted cash flow analysis only those costs and revenues that differ between the two alternatives being considered.

Revenues are not directly involved in some decisions. For example, a company that does not charge for delivery service may need to replace an old delivery truck, or a company may be trying to decide whether to lease or to buy its fleet of executive cars. In situations such as these where no revenues are involved, the most desirable alternative will be the one that promises the least total cost from the present value perspective.

Capital budgeting concepts can be applied in all types of organizations. One problem faced by nonprofit organizations in capital budgeting is determining the proper discount rate. Some nonprofit organizations use the rate of interest paid on special bond issues as their discount rate; others use the rate of interest that could be earned by placing money in an endowment fund rather than spending it on capital improvements; and still others use discount rates that are set somewhat arbitrarily by governing boards. The greatest danger lies in using a discount rate that is too low. Most government agencies, for example, used the interest rate on government bonds as their discount rate. It is now realized that this rate is too low and has resulted in the acceptance of many projects that should not have been undertaken. To resolve this problem, the Office of Management and Budget has specified that federal government units must use a discount rate of at least 10% on all projects. For nonprofit units such as schools and hospitals, it is generally recommended that the discount rate should "approximate the average rate of return on private sector investments."

Future cash flows are often uncertain or difficult to estimate. Investments in automated equipment provide a good example. They tend to be large, and their benefits are often indirect and intangible and, therefore, hard to quantify. The cost involved in automating a process is much greater than the cost of purchasing conventional equipment. The nonhardware costs such as engineering, software development, and implementation can equal or exceed the cost of the equipment itself. Clearly, it is important to realistically estimate such costs before embarking on an automation project.

The benefits of automation roughly fall into two classes: tangible benefits and intangible benefits. The tangible benefits are much easier to identify and measure than the intangible benefits. The tangible benefits of automation usually include decreased labor costs and a reduction in defective output. This reduction in defective output results in fewer inspections, and less scrap, waste, and rework. It can also result in less warranty cost. The intangible benefits of automated systems generally result from their greater speed, consistency, reliability, and flexibility. These factors permit greater throughput and a greater variety of products, and they enhance product quality. In turn, the greater throughput, variety of products, and higher quality should lead to greater sales and profits, although the precise amount of the increase is very difficult to forecast. Automated processes also allow a company to reduce its inventories since the company can more quickly respond to shifts in customer demand. Finally, some managers argue that automation is necessary as a matter of self-preservation. When a company's competition is automating, the company faces the prospect of a loss in market share from attempting to make do with technologically obsolete products and operations. And if a company does not maintain its technical edge, it will lose the ability to catch up with the competition later on. Companies that hold back and do not automate may lose their ability to recognize and then implement the key elements of new technology that provide competitive advantage.

Note that the tangible benefits represent potential cost savings, whereas the intangible benefits represent potential revenue enhancements. Generally, its easier to measure the amount of cost savings associated with an investment project, and that is why items such as reduced direct labor cost always show up in a capital budgeting analysis. But it is harder to measure the impact of a potential revenue enhancement such as greater flexibility or faster market response. As a result, managers may overlook such items when evaluating the benefits from automated equipment. The intangible benefits must be explicitly considered, however, or faulty decisions will follow.

CAPITAL BUDGETING

REVIEW QUESTIONS

1. An increase in the discount rate:

   a. will increase the present value of future cash flows.
   b. will have no effect on net present value.
   c. will reduce the present value of future cash flows.
   d. is one method of compensating for reduced risk.

2. Suppose an investment has cash inflows of R dollars at the end of each year for two years. The present value of these cash inflows, with use of a 12% discount rate, will be:

   a. greater than under a 10% discount rate.
   b. less than under a 10% discount rate.
   c. equal to that under a 10% discount rate.
   d. sometimes greater than under a 10% discount rate and sometimes less; it depends on R.

3. How are the following used in the calculation of the net present value of a proposed project? Ignore income tax considerations.

	Depreciation expense	Salvage value
a.	Include	Include
b.	Include	Exclude
c.	Exclude	Include
d.	Exclude	Exclude

4. The net present value method takes into account:

	Cash Flow Over Life of Project	Time Value of Money
a.	No	Yes
b.	No	No
c.	Yes	No
d.	Yes	Yes

5. Some investment projects require that a company expand its working capital to service the greater volume of business that will be generated. Under the net present value method, the investment of working capital should be treated as:

   a. an initial cash outflow for which discounting is necessary.
   b. a future cash inflow for which discounting is necessary.
   c. both an initial cash outflow for which no discounting is necessary and a future cash inflow for which discounting is necessary.
   d. irrelevant to the net present value analysis.

6. A weakness of using the internal rate of return method to screen investments is:

   a. does not consider the time value of money.
   b. implicitly assumes that the company is able to reinvest cash flows from the project at the company's discount rate.
   c. implicitly assumes that the company is able to reinvest cash flows from the project at the internal rate of return.
   d. does not take into account all of the cash flows from a project.

7. If the net present value of a project is zero based on a discount rate of sixteen percent, then the time-adjusted rate of return:

   a. is equal to sixteen percent.
   b. is less than sixteen percent.
   c. is greater than sixteen percent.
   d. cannot be determined from the information given.

8. When determining a net present value in an inflationary environment, adjustments should be made to:

   a. decrease the discount rate only.
   b. increase the estimated cash flows and increase the discount rate.
   c. increase the estimated cash flows only.
   d. increase the estimated cash flows and decrease the discount rate

9. Kipling Company has invested in a project that has an eight-year life. It is expected that the annual cash inflow from the project will be $20,000. Assuming that the project has an internal rate of return of 12%, how much was the initial investment in the project? (Ignore income taxes in this problem. The present value factor for 12% for 8 periods is 0.404 and the present value of an annuity factor for 12% for 8 periods is 4.968.)

   a. $160,000
   b. $ 99,360
   c. $ 80,800
   d. $ 64,640

10. A planned factory expansion project has an estimated initial cost of $800,000. Using a discount rate of 20%, the present value of future cost savings from the expansion is $843,000. To yield exactly a 20% internal rate of return, the actual investment cost cannot exceed the $800,000 estimate by more than what dollar amount? (Ignore income taxes in this problem. The present value factor for 20% for 10 periods is 0.162 and the present value of an annuity factor for 20% for 10 periods is 4.192.)

   a. $160,000.
   b. $ 20,000.
   c. $ 43,000.
   d. $ 1,075.

11. The Baker Company purchased a piece of equipment with the following expected results:

Useful life	7 years
Yearly net cash inflow	$50,000
Salvage value	-0-
Internal rate of return	20% (3.605 annuity factor)
Discount rate	16% (4.039 annuity factor)

   The initial cost of the equipment was:

   a. $350,000.
   b. $180,250.
   c. $201,950.
   d. It cannot be determined from the information given.

12. Highpoint, Inc., is considering investing in automated equipment with a ten-year useful life. Managers at Highpoint have estimated the cash flows associated with the tangible costs and benefits of automation but have been unable to estimate the cash flows associated with the tangible benefits. Using the company's 10%

discount rate, the net present value of the cash flows associated with just the tangible costs and benefits is a negative $184,350. How large would the annual net cash inflows from the tangible benefits have to be to make this a financially acceptable investment? (Ignore income taxes in this problem. The present value factor for 10% for 10 periods is 0.386 and the present value of an annuity factor for 10% for 10 periods is 6.145.)

a. $18,435
b. $30,000
c. $35,000
d. $71,159

13. The following data pertain to an investment in equipment:

Investment in the project	$10,000
Net annual cash flows	2,400
Working capital required	5,000
Salvage value of the equipment	1,000
Life of the project	8 years

At the completion of the project, the working capital will be released for use elsewhere. Compute the net present value of the project, using a discount rate of 10%. (Ignore income taxes in this problem. The present value factor for 10% for 8 periods is 0.467 and the present value annuity factor for 10% for 8 periods is 5.335.)

a. $ 606
b. $8,271
c. ($1,729)
d. $1,729

14. A piece of equipment has a cost of $20,000. The equipment will provide cost savings of $3,500 each year for ten years, after which time it will have a salvage value of $2,500. If the company's discount rate is 12%, what is the equipment's net present value? (Ignore income taxes in this problem. The present value factor for 12% and 10 periods is 0.322 and the present value annuity factor for 12% and 10 periods is 5.650.)

a. $ 580
b. $ (225)
c. $17,500
d. $ 2,275

15. The following data pertain to an investment proposal:

Investment in the project (equipment)	$14,000
Net annual cash inflows projected	2,800
Working capital required	5,000
Salvage value of the equipment	1,000
Life of the project	10 years

The working capital would be released for use elsewhere when the project is completed. What is the net present value of the project using a discount rate of 8%? (Ignore income taxes in this problem. The present value factor for 8% for 10 periods is 0.463 and the present value of an annuity factor for 8% for 10 periods is 6.710.)

a. $2,566
b. $ (212)
c. $ 212
d. $2,103

16. Horn Corporation is considering investing in a four-year project. Cash inflows from the project are expected to be as follows: Year 1, $2,000; Year 2, $2,200; Year 3, $2,400; and Year 4, $2,600. If using a discount rate of 8%, the project has a positive net present value of $500. What was the amount of the original investment? (Ignore income taxes in this problem. The present value factors for 8% for 1-4 periods are 0.926, 0.857, 0.794, and 0.735.)

a. $1,411
b. $2,411
c. $7,054
d. $8,054

17. The Whitton Company uses a discount rate of 16%. The company has an opportunity to buy a machine for $18,000 that will yield cash inflows of $10,000 per year for each of the next three years. The machine would have no salvage value. The net present value of this machine rounded to the nearest whole dollar is: (Ignore income taxes in this problem. The present value factor for 16% for 3 periods is 0.641 and the present value of an annuity factor for 16% for 3 periods is 2.246.)

a. $22,460.
b. $ 4,460.
c. $(9,980).
d. $12,000.

18. The following data pertain to an investment:

Cost of the investment	$18,955
Life of the project	5 years
Annual cost savings	$ 5,000
Estimated salvage value	$ 1,000
Discount rate	10%

The net present value of the investment is: (Ignore income taxes in this problem. The present value factor for 10% for 5 periods is 0.621 and the present value of an annuity factor for 10% for 5 periods is 3.791.)

a. $3,355.
b. $(3,430).
c. $ -0-.
d. $ 621.

19. Bugle's Bagel Bakery is investigating the purchase of a new bagel-making machine. This machine would provide an annual operating cost savings of $3,650 for each of the next 4 years. In addition, this new machine would allow the production of one new type of bagel that would result in selling 1,500 dozen more bagels each year. The company earns a contribution margin of $0.90 on each dozen bagels sold. The purchase price of this machine is $13,450 and it will have a 4-year useful life. Bugle's discount rate is 14%. The total annual cash inflow from this machine for capital budgeting purposes is: (Ignore income taxes for this problem.)

a. $3,650.
b. $5,150.
c. $4,750.
d. $5,000.

20. The Finney Company is reviewing the possibility of remodeling one of its showrooms and buying some new equipment to improve sales operations. The remodeling would cost $120,000 now and the useful life of the project is 10 years. Additional working capital needed immediately for this project would be $30,000; the working capital would be released for use elsewhere at the end of the 10-year

21. period. The equipment and other materials used in the project would have a salvage value of $10,000 in 10 years. Finney's discount rate is 16%. The immediate cash outflow required for this project would be: (Ignore income taxes for this problem.)

a. $120,000.
b. $150,000.
c. $ 90,000.
d. $130,000.

22. In using the internal rate of return method, it is assumed that cash flows can be reinvested at:

a. the cost of equity.
b. the cost of capital.
c. the internal rate of return.
d. the prevailing interest rate.

23. An investment project has a positive net present value. The internal rate of return is:

a. less than the cost of capital.
b. greater than the cost of capital.
c. equal to the cost of capital.
d. indeterminate; it depends on the length of the project.

23. The _________ assumes returns are reinvested at the cost of capital.

a. payback method
b. internal rate of return method
c. net present value method
d. capital rationing

24. As the cost of capital increases:

a. fewer projects are accepted.
b. more projects are accepted.
c. project selection remains unchanged.
d. None of the above.

25. The longer the life of an investment:

a. the more significant the discount rate.
b. the less significant the discount rate.
c. Length makes no difference.
d. None of the above.

26. The reason cash flow is used in capital budgeting is because:

    a. cash rather than income is used to purchase new machines.
    b. cash outlays need to be evaluated in terms of the present value of the resultant cash inflows.
    c. to ignore the tax shield provided from depreciation ignores the cash flow provided by the machine, which should be reinvested to replace old worn out machines.
    d. All of the above are correct.

27. The net present value method is a better method of evaluation than the internal rate of return method because:

    a. the net present value method assumes cash flows are reinvested at the internal rate of return.
    b. the net present value method is a more liberal method of analysis.
    c. the net present value method assumes that cash flows can be reinvested at the firm's more conservative cost of capital.
    d. None of the above.

28. Assuming that a firm has no capital rationing constraint and that a firm's investment alternatives are not mutually exclusive, the firm should accept all investment proposals:

    a. for which it can obtain financing.
    b. that have a positive net present value.
    c. that have positive cash flows.
    d. that provide returns greater than the after-tax cost of debt.

29. Capital budgeting is primarily concerned with:

    a. capital formation in the economy.
    b. planning future financing needs.
    c. evaluating investment alternatives.
    d. minimizing the cost of capital.

30 If a firm is experiencing no capital rationing, it should accept all investment proposals:

    a. as long as it has available funds.
    b. that return an amount equal to or greater than the cost of capital.
    c. that return an amount greater than the cost of equity.
    d. that are available, regardless of return.

CAPITAL BUDGETING

REVIEW QUESTION SOLUTIONS

1.	C
2.	B
3.	C
4.	D
5.	C
6.	C
7.	A
8.	B
9.	B
10.	C
11.	B
12.	B
13.	A
14.	A
15.	A
16.	C
17.	B
18.	D
19.	D
20.	B
21.	C
22.	B
23.	C
24.	A
25.	A
26.	D
27.	C
28.	B
29.	C
30.	B

CAPITAL BUDGETING
Explanation of Review Question Solutions

1. The correct answer is C, will reduce the present value of future cash flows. An increase in the discount rate will reduce the amount of the present value, and increase the amount of a future value. The present value is always less than the amount of the future cash flows, and the present value factor is always less than the number of the future cash flows. The future value is always more than the amount of present cash flows, and the future value factor is always more than the number of present cash flows. Compensation for the risk is not a factor in computing net present value.

2. The correct answer is B, less than under a 10% discount rate. The present value of future cash flows of 12% is based upon the number one divided by 112% or 0.8928; when using 10% the factors change to 1 divided by 110% or 0.9090. You can see that the present value at a 12% rate is less than the present value at a 10% rate. “R” is the rate, so D is false.

3. The correct answer is C; exclude depreciation expense and include salvage value. When computing present value of a project, depreciation is not deducted. Cash inflows are also frequently realized by the salvage of equipment.

4. The correct answer is D; the net present value takes into account the cash flow over the life of the project and the time value of money. The net present value discounts all cash flows and determines their present value over the life of the project using time value of money concepts by using a present value factor to determine the present value of each cash flow.

5. The correct answer is C; both an initial cash outflow for which no discounting is necessary and a future cash inflow for which discounting is necessary. Working capital needs should be treated as part of the initial investment in the project (p. 78, paragraph 3).

6. The correct answer is C; implicitly assumes that the company is able to reinvest cash flows from the project at the internal rate of return. The book puts it a bit different. The internal rate of return assumes the rate of return is the internal rate of return on the project. It is generally more realistic to assume that the cash inflows can be reinvested at a rate of return equal to the discount rate or the incremental borrowing rate (p. 82, paragraph 2).

7. The correct answer is A, equal to sixteen percent. The time adjusted rate of return is the present value of the future cash flows worked out for the discount rate of sixteen percent. Where the net present value is zero, the cash outflows equal the

cash inflows when adjusted for the discount rate (sixteen percent). The discount rate is the time-adjusted rate of return.

8. The correct answer is B, increase the estimated cash flows and increase the discount rate. If your project is subject to an inflationary environment, higher values for the discount rate and future cash flows should be computed.

9. The correct answer is B, \$99,360. The internal rate of return can be computed by a computer, where equal cash flows are not expected; where the cash flows are equal in amount and periodicity (the time between them is equal) one can use the present value of an annuity (due or ordinary as appropriate) to compute the net present value. Future payments times the factor (8 periods at 12%) gives us \$99,360.

10. The correct answer is C, \$43,000. You are given the discounted future cash flows of \$843,000 and the initial investment of \$800,000, and they ask you what the \$800,000 initial cost cannot be exceeded by to keep within the 20% discount rate, along with two lines of unnecessary factor information. Don't get confused by unnecessary information. One simply subtracts the \$800,000 (initial cost estimate) from the \$843,000 (present value of future cost savings) to get the answer, \$43,000.

11. The correct answer is B, \$180,250. The internal rate of return can be computed using cash flows of equal amounts and equal time between payment periods by using present value of annuity factors to compute the present value of the cash flows. In the internal rate of return, the initial cash out flow (investment) is equal to the present value of annuity factor at the internal rate of return (IRR=20%) = 3.605 × \$50,000 = \$180,250.

12. The correct answer is B, \$30,000. Skip down to the bottom of the question to find what the question wants, then read the question for the needed fact pattern to solve the question. The question wants us to determine how large would the annual net cash inflows from the tangible benefits have to be to make this a financially acceptable investment? In order to compute the payment on the annuity, you need the present value of an annuity factor for the discount rate and the number of periods divided into the amount of the present value (initial cash outflow) = \$184,350 / 6.145 = \$30,000.

13. The correct answer is A, \$606. This is another long one. Skip down to the bottom of the question to find what the question wants, then read the entire question to get the fact pattern needed to solve it: "Compute the net present value of the project using a discount rate of 10%." The present value of the net annual cash flows equals the cash flows times the present value factor times the discount

rate = 1,400 × 5.335 = $12,804. The present value of the salvage value recovery equals the amount of the salvage value times the present value of a single sum for the correct number of periods and the discount rate = $1,000 × .467 = $467. The initial investment is negative and no adjustment for present value is necessary, since the present value factor is 1.000. The working capital cash outflow gives us a negative number computed by the amount of the working capital multiplied by the present value of one at the correct number of periods and the discount rate = $5,000 × .467 = $2,335. One simply adds up all the factors. The positive numbers are $12,804 plus 467 = $13,271 positive. The negative numbers are $10,000 and $2,335 = $12,335. Subtract sum of the present value of the negative cash flows (cash out flows) of $12,335 from the sum of the present value of positive cash flows $13,271, leaves a positive value of $606.

14. The correct answer is A, $580. This question is similar to #13. The present value of the net annual cash flows equals the cash flows times the present value factor times the discount rate = 3,500 × 5.65 = $19,775. The present value of the salvage value recovery equals the amount of the salvage value times the present value of a single sum for the correct number of periods and the discount rate = $2,500 × .322 = $805. The initial investment is negative, and no adjustment for present value is necessary since the present value factor is 1.000 = 20,000 negative. There is no working capital negative cash flow. The positive cash flows are netted = $19,775 + 805 = $20,580. Subtract the sum of the present value of the negative cash flows (cash out flows) of $20,000 from the sum of the present value of positive cash flows $20,580, leaving a positive value of $580.

15. The correct answer is A, $2,566. This question is similar to #13 and #14. The present value of the net annual cash flows equals the cash flows times the present value factor times the discount rate = 2,800 × 6.71 = $18,788. The present value of the salvage value recovery equals the amount of the salvage value times the present value of a single sum for the correct number of periods and the discount rate = $1,000 × .463 = $463. The initial investment is negative and no adjustment for present value is necessary since the present value factor is 1.000 = 14,000. The working capital cash outflow gives us a negative number computed by the amount of the working capital multiplied by the present value of one at the correct number of periods and the discount rate = $5,000 × .463 = $2,315. One simply adds up all the factors. The positive numbers are $18,788 plus 463 = $19,251 positive. The negative numbers are $14,000 and $2,315 = $16,315. Subtract sum of the present value of the negative cash flows (cash out flows) of $16,315 from the sum of the present value of positive cash flows $19,251, leaves a positive value of $2,936. Option A, while not exactly correct, is closest to this answer.

16. The correct answer is C, $7,054. When you have unequal payments you must use multiple present values of a single sum factors to compute each cash flow. Year one: $2,000 × .926 = $1,852. Year two: $2,200 × .857 = $1,885.40. Year three: $2,400 × .794 = $1,905.60. Year four: $2,600 × $1,911. If the project has a $500

positive net present value at the discount rate, then the initial investment equals the net present value subtracted from the sum of the present value of the cash flows = $1,852 + $1,885.40 + $1,905.60 + $1,911 = $7,554; $7,554 minus $500 =$7,054.

17. The correct answer is B, $4,460. This question is similar to #13, #14, and #15. The present value of the net annual cash flows equals the cash flows times the present value factor times the discount rate = 10,000 × 2.246 = $22,460. There is no salvage value. The initial investment is negative, and no adjustment for present value is necessary since the present value factor is 1.000 = 18,000. There is no working capital. One simply adds up all the factors. The positive numbers are $22,460 plus 0 = $22,460 positive. The negative numbers are $18,000 and $0 = $18,000. Subtract sum of the present value of the negative cash flows (cash out flows) of $18,000 from the sum of the present value of positive cash flows $22.460, leaving a positive value of $4,460.

18. The correct answer is D, $621. This question is similar to #13, #14, #15 and #17. The present value of the net annual cash flows equals the cash flows times the present value factor times the discount rate = $5,000 × 3.791 = $18,955. The present value of the salvage value recovery equals the amount of the salvage value times the present value of a single sum for the correct number of periods and the discount rate = $1,000 × .621 = $621. The initial investment is negative, and no adjustment for present value is necessary since the present value factor is 1.000 = 18,955. There is no working capital cash outflow. One simply adds up all the factors. The positive numbers are $18,955 plus 621 = $19,576 positive. The negative numbers are $18,955 and $0 = $18,955. Subtract sum of the present value of the negative cash flows (cash out flows) of $18,955 from the sum of the present value of positive cash flows $19,576, leaving a positive value of $621.

19. The correct answer is D, $5,000. All the problems should be this easy. Accounting problems almost always give you the answer; all you have to do is work out the math. The math on this one is easier than most. The cash inflow is 1500 × $0.09 = $1,350 plus the reduced cash outflow of $3,650 = $5,000. Since the problem gives you these factors all you need to do is add them to get the total annual cash inflow from the machine and ignore the present value factors.

20. The correct answer is B, $150,000. As in problem #19, the fact pattern in the question gives you the answer easily. The immediate cash outflow required for the project is the cost of the remodeling ($120,000) plus the additional immediate working capital ($30,000) for a total of $150,000. Since both figures are immediate, no present value factors need be used.

21. The correct answer is C, the internal rate of return. This is similar to #6, which talks about this weakness of the internal rate of return. The net present value assumes that the cash flows will be invested at the discount rate or the prevailing interest rate (D). The cost of capital (B) is the discount rate or the prevailing interest rate. The cost of equity is hard to figure (A); sometimes it too is the same as the discount or prevailing interest rate.

22. The correct answer is B, greater than the cost of capital. The cost of capital is the discount rate or the prevailing interest rate. If you have a positive net present value, the internal rate of return is higher than the discount rate (cost of capital).

23. The correct answer is C, net present value method. The internal rate of return method assumes returns are reinvested at the internal rate of return. The payback method assumes that the returns are not reinvested, since present value is not used to compute the payback method.

24. The correct answer is A; fewer projects are accepted. The higher the cost of capital, the less likely projects are capable of having a positive net value or a higher internal rate of return than the discount rate. Therefore, fewer projects are accepted.

25. The correct answer is A, the more significant the discount rate. The longer the project goes on the more effect the discount rate has on lowering the present value of future cash flows.

26. The correct answer is D, all of the above are correct. Most projects will have an immediate cash outflow in the form of an initial investment in equipment (A). Depreciation and tax effects are ignored (C) since depreciation is not a cash flow and the savings should be reinvested.

27. The correct answer is C; the net present value method assumes that cash flows can be reinvested at the firm's more conservative cost of capital. This one is similar to #6, #21, and #23. The net present value method assumes that the cash inflows can be invested at the discount rate (cost of capital).

28. The correct answer is B, that have a positive net present value. Financing is not a factor in these computations (A). Positive cash flows are only one factor in the decision (C). Tax is often ignored because the savings granted by depreciation in the tax area should really be reinvested into a new machine when the old one wears out (D).

29. The correct answer is C; evaluating investment alternatives. This is simply a definition.

30. The correct answer is B; that return an amount equal to or greater than the cost of capital. The cost of equity is difficult to measure (C).

CAPITAL INVESTMENT ANALYSIS

After reviewing this chapter, you should be able to:

1. *Compute the after-tax cost of a tax-deductible cash expense and the after-tax benefit from a taxable cash receipt*
2. *Explain how depreciation deductions are computed under the Modified Accelerated Cost Recovery System (MACRS)*
3. *Compute the tax savings arising from the depreciation tax shield using both the MACRS tables and the optional straight-line method*
4. *Compute the after-tax present value of an investment proposal*

Businesses, like individuals, must pay income taxes. In the case of businesses, the amount of income tax that must be paid is determined by the company's net taxable income. Tax deductible expenses decrease the company's net taxable income and reduce the taxes the company must pay. Expenses are often stated on an after-tax basis. For example, assume that a company with a tax rate of 30% is contemplating a training program that costs $60,000. The training program has no immediate effect on sales. The company actually pays $42,000 for the training program after taking into account the impact of this expense on taxes. While the training program costs $60,000 before taxes, it would reduce the company's taxes by $18,000, so its after-tax cost would be only $42,000. An expenditure net of its tax effect is known as after-tax cost. The after-tax cost of any tax-deductible cash expense can be determined using the following formula:

After-tax cost = (1- Tax rate) × Tax-deductible cash expense

This formula is very useful since it provides the actual amount of cash a company must pay after taking into consideration tax effects. It is the actual, after-tax cash outflow that should be used in capital budgeting decisions.

Similar reasoning applies to revenues and other taxable cash inflows. Since these cash receipts are taxable, the company must pay out a portion of them in taxes. The after-tax benefit, or net cash inflow, realized from a particular cash receipt can be obtained by applying a simple variation of the cash expenditure formula:

After-tax benefit = (1- Tax rate) × Taxable cash receipt

Taxable cash receipts should be emphasized because not all cash inflows are taxable. The release of working capital at the termination of an investment project would not be a taxable cash inflow since it simply represents a return of original investment**.**

Depreciation is not a cash flow. For this reason, depreciation is often ignored in discounted cash flow computations. However, depreciation does affect the taxes that must be paid and therefore has an indirect effect on the company's cash flows. To illustrate the effect of depreciation deductions on tax payments consider a company with annual cash sales of $500,000 and cash operating expenses of $310,000. In addition, the company has a depreciable asset on which the depreciation deduction is $90,000 per year. The tax rate is 30%. The depreciation deduction reduces the company's taxes by $27,000. In effect, the depreciation deduction of $90,000 shields $90,000 in revenues from taxation and thereby reduces the amount of taxes that the company must pay. Because depreciation deductions shield revenues from taxation, they are generally referred to as a depreciation tax shield. The reduction in tax payments made possible by the depreciation tax shield is equal to the amount of the depreciation deduction, multiplied by the tax rate:

Tax savings from the depreciation shield = Tax rate × depreciation deduction

When after-tax cash flows for capital budgeting decisions is estimated, the estimate should include the tax savings provided by the depreciation tax shield.

In the past, depreciation deductions for tax purposes were closely tied to the useful life of an asset with year-by-year depreciation deductions typically computed by the straight-line method, the sum-of-the-years'-digits method, or the double-declining-balance method. In computing depreciation deductions, companies generally deducted the salvage value from the asset's cost and depreciated only the remainder. These approaches can still be used for computing depreciation deductions on financial statements.

The Congress, in 1981 and in 1986, made sweeping changes in the way that depreciation deductions are computed for tax purposes. This new approach to depreciation deductions is now known as the Modified Accelerated Cost Recovery System (MACRS). MACRS accelerates depreciation by placing all depreciable assets into one of nine property classes. Each MACRS property class has a prescribed life. This is the life that must be used to depreciate any asset within that property class regardless of the asset's actual useful life. Thus, an asset in the seven-year property class would be depreciated over seven years regardless of its actual useful life. These property classes make it possible to depreciate assets over quite short periods of time. Office equipment, for example, may have a useful life of 10 years or more, but it is in the MACRS 7-year property class. Therefore, the MACRS rules permit office equipment to be depreciated more quickly than would be indicated by its actual useful life. The MACRS property classes utilize various depreciation methods and rates. To simplify depreciation computations, preset tables are available that show allowable depreciation deductions by year for each of the MACRS property classes. The percentage figures used in the tables are based on the declining-balance method of depreciation. A 200% rate was used to develop the figures dealing with the 3, 5, 7, and 10-year property classes; and a 150% rate was used to develop the figures dealing with the 15 and 20-year property classes. In all cases, the tables automatically switch to straight-line depreciation at the point where depreciation deductions would be greater under the straight-line method. The tables apply to both new and used property.

When computing depreciation deductions under the MACRS approach for the first six property classes (3-year property through 20-year property), taxpayers are permitted to take only a half-year's depreciation in the first year and the last year of an asset's life. This is known as the half-year convention. In effect, the half-year convention adds a full year onto the recovery period for an asset. Therefore, assets in the three-year property class are depreciated over four years with only a half-year's depreciation being allowed in the first and fourth years. In like manner, assets in the five-year property class are depreciated over six years with the same pattern holding true for the other property classes. The half-year convention is followed regardless of the time of year in which an asset is purchased or the time of year in which it is sold.

Another special MACRS rule is that salvage value is not considered in computing depreciation deductions. Thus, depreciation deductions are computed on a basis of the full, original cost of an asset without any offset for the asset's expected salvage value. This is actually a benefit to the taxpayer since it allows the entire cost of an asset to be written off as depreciation expense. However, since the entire cost of an asset is written off, any salvage value realized from the sale of an asset at the end of its useful life is fully taxable as income.

Under MACRS, a company can elect to compute depreciation deductions by the optional straight-line method. Under the optional straight-line method, a company is permitted to ignore the MACRS tables and to spread its depreciation deduction somewhat evenly over an asset's property class life. For example, if a company purchased a high capacity photocopier at a cost of $10,000 on April 1. The equipment has a $600 salvage value, and it is in the MACRS five-year property class. If the company elects to use the optional straight-line method, it can deduct $1,000 depreciation in the first year ($10,000 ÷ 5 = $2,000 per year; $2,000 × 1/2 = $1,000). For the next four years the company can deduct $2,000 depreciation each year, and in the final year it can deduct the remaining $1,000. Note that the half-year convention is followed when using the optional straight-line method, the same as with the MACRS tables. Also note that in accordance with the MACRS rules, the asset's salvage value was not considered in computing the depreciation deductions. The option of being able to use the straight-line method in lieu of the percentages in the MACRS tables may be of value to new firms and to firms experiencing economic difficulties. The reason is that such firms often have little or no current taxable income and thus may prefer to stretch out depreciation deductions rather than to accelerate them.

Companies can use any depreciation method they want on financial statements, but they must use MACRS rules for tax purposes. And in fact, most companies do use different depreciation methods on their financial reports than on their tax reports. For capital budgeting purposes, the MACRS tax rules should be used for computing depreciation since the purpose of the calculations is to estimate the impact the depreciation deductions will have on the taxes the company must pay.

The following example is a comprehensive example of income taxes and capital budgeting:

Holland Company owns the mineral rights to land that has a deposit of ore. The company is uncertain as to whether it should purchase equipment and open a mine on the property. After careful study, the following data have been assembled by the company:

Cost of equipment needed	$300,000
Working capital needed	75,000
Estimated annual cash receipts from sale of ore	250,000
Estimated annual cash expenses for salaries, insurance, utilities, and other cash expenses of mining the ore	170,000
Cost of road repairs needed in 6 years	40,000
Salvage value of the equipment in 10 years	100,000
MACRS property class	7-year property

The ore in the mine would be exhausted after 10 years of mining activity, at which time the mine would be closed. The equipment would then be sold for its salvage value. Holland Company uses the MACRS tables in computing depreciation deductions. The company's after-tax cost of capital is 12% and its tax rate is 30%.

Solution:

Cash receipts from sales of ore	$250,000 per year
Less cash payments for salaries, utilities, and other cash expenses	170,000 per year
Net annual cash receipts	$ 80,000

Items and Computations	Years	Amt	Tax effect	After-Tax Cash-flows	Factor	Present Value ofCash
Equipment	Now	$300,000		($300,000)	1.000	($300,000)
Working Cap	Now	75,000		(75,000)	1.000	(75,000)
Cash receipts	1-10	80,000	1- 0.30	56,000	5.650	316,400
Road repairs	6	40,000	1- 0.30	(28,000)	0.507	(14,196)
Depreciation	1	42,900	0.30	12,870	0.893	11,493
	2	73,500	0.30	22,050	0.797	17,574
	3	52,500	0.30	15,750	0.712	11,214
	4	37,500	0.30	11,250	0.636	7,155
	5	26,700	0.30	8,010	0.567	4,542
	6	26,700	0.30	8,010	0.507	4,061
	7	26,700	0.30	8,010	0.452	3,621
	8	13,500	0.30	4,050	0.404	1,636
Salvage value	10	100,000	1- 0.30	70,000	0.322	22,540
Working cap	10	75,000		75,000	0.322	24,150
Net present value of project						$ 35,190

Since the net present value of the proposed mining project is positive, the equipment should be purchased and the mine opened.

The following items should be noted:

- ✓ Cost of new equipment—The initial investment of $300,000 in the new equipment is included in full with no reductions for taxes. This represents an investment, not an expense, so no tax adjustment is needed. This investment does affect taxes through the depreciation deductions.

- ✓ Working capital— Observe that the working capital needed for the project is included in full with no reductions for taxes. Like the cost of the new equipment, the working capital is an investment and not an expense so it needs no tax adjustment. Also observe that no tax adjustment is made when the working capital is released at the end of the project's life. The release of working capital is not a taxable cash flow since it merely represents a return of investment funds back to the company.

- ✓ Net annual cash receipts—The net annual cash receipts from sales of ore are adjusted for the effects of income taxes. Note that the annual cash expenses are deducted from the annual cash receipts to obtain a net cash receipts figure. This simplifies computations. Road repairs—Since the road repairs occur just once (in the sixth year), they are treated separately from other expenses. Road repairs would be a tax-deductible cash expense; and; therefore; they are adjusted for the effects of income taxes.

- ✓ Depreciation deductions—The equipment is in the MACRS seven-year property class. The tax savings provided by depreciation deductions under the MACRS rules are included in the present value computations. Note that the depreciation deductions are kept separate from cash expenses. These are dissimilar items and they should be treated separately in a capital budgeting analysis.

- ✓ Salvage value of equipment—Since under the MACRS rules a company does not consider salvage in computing depreciation deductions, book value will be zero at the end of the life of an asset. Thus, any salvage value received is fully taxable as income to the company. The after-tax benefit is determined by multiplying the salvage value by 1 - the tax rate.

Unless a company is a tax-exempt organization, such as a not-for-profit school or a governmental unit, income taxes should be considered in making capital budgeting decisions. Tax-deductible cash expenditures and taxable cash receipts are placed on an after-tax basis by multiplying them by 1 - the tax rate. Only the after-tax amount should be used in determining the desirability of an investment proposal. Although depreciation is not a cash outflow, it is a valid deduction for tax purposes and as such affects income tax payments. The depreciation tax shield, computed by multiplying the depreciation deduction by the tax rate, also results in savings in income taxes. Since accelerated methods of depreciation provide the bulk of their tax shield early in the life of an asset, they are advantageous from a present value point of view.

CAPITAL INVESTMENT ANALYSIS

REVIEW QUESTIONS

1. Depreciation expense reduces income taxes by an amount equal to:

   a. one minus the tax rate times the amount of depreciation.
   b. the tax rate times the amount of depreciation.
   c. the amount of the depreciation.
   d. one minus the amount of depreciation.

2. The calculation of the net present value of an investment project requires that the depreciation tax shield be included at:

   a. the amount of the depreciation with no adjustment for taxes.
   b. the amount of the depreciation times one minus the tax rate.
   c. the amount of the depreciation times the tax rate.
   d. zero, since depreciation is not relevant to the calculation of net present value.

3. In a capital budgeting decision, the use of MACRS tables as compared to the optional straight-line method will result in:

   a. equal total depreciation for both methods.
   b. more total depreciation for the MACRS tables method.
   c. more total depreciation for the optional straight-line method.
   d. less depreciation for the MACRS tables method in the early years of asset life.

4. The use of the MACRS tables instead of the optional straight-line method of depreciation has the effect of:

   a. raising the hurdle rate necessary to justify the project.
   b. decreasing the net present value of the project.
   c. increasing the present value of the depreciation tax shield.
   d. increasing the cash outflows at the beginning of the project.

5. Which of the following statements is correct?

   a. Use of the MACRS tables requires that salvage value be deducted in computing depreciation deductions.
   b. Use of the optional straight-line method requires that salvage value not be considered in computing depreciation deductions.
   c. The use of both MACRS tables and the optional straight-line method requires that salvage value be deducted in computing depreciation deductions.
   d. None of the above statements are true.

6. When computing depreciation deductions under the MACRS system, taxpayers must:

   a. use the half-year convention under which taxpayers are allowed to take only a half-year's depreciation in the first year of an asset's life.
   b. use the half-year convention under which taxpayers are allowed to take only a half-year's depreciation in the last year of an asset's life.
   c. use the half-year convention under which taxpayers are allowed to take only a half-year's depreciation in the first and last years of an asset's life.
   d. calculate depreciation for partial periods using the exact number of days if the asset is acquired at some time other than the beginning or end of the fiscal year.

7. Which of the following would decrease the net present value of a project?

   a. A decrease in the income tax rate.
   b. A decrease in the initial investment.
   c. An increase in the useful life of the project.
   d. An increase in the discount rate.

8. A company anticipates a taxable cash receipt of $50,000 in year 4 of a project. The company's tax rate is 30% and its discount rate is 12% (.6355). The present value of this future cash flow is closest to:

   a. $22,243.
   b. $35,000.
   c. $31,755.
   d. $15,000.

9. A company anticipates a taxable cash receipt of $20,000 in year 3 of a project. The company's tax rate is 30% and its discount rate is 8% (.7939). The present value of this future cash flow is closest to:

a. $ 6,000.
b. $15,878.
c. $14,000.
d. $11,114.

10. A company anticipates a taxable cash receipt of $50,000 in year 3 of a project. The company's tax rate is 30% and its discount rate is 14% (.675). The present value of this future cash flow is closest to:

a. $33,750.
b. $35,000.
c. $23,624.
d. $15,000.

11. A company anticipates a taxable cash expense of $10,000 in year 2 of a project. The company's tax rate is 30% and its discount rate is 8% (.8573). The present value of this future cash flow is closest to:

a. ($3,000).
b. ($8,573).
c. ($7,000).
d. ($6,001).

12. A company anticipates a taxable cash expense of $40,000 in year 2 of a project. The company's tax rate is 30% and its discount rate is 10% (.8264). The present value of this future cash flow is closest to:

a. ($23,140).
b. ($33,056).
c. ($12,000).
d. ($28,000).

13. A company anticipates a taxable cash expense of $60,000 in year 2 of a project. The company's tax rate is 30% and its discount rate is 14% (.7695). The present value of this future cash flow is closest to:

a. ($46,170).
b. ($42,000).
c. ($32,318).
d. ($18,000).

14. A company anticipates a depreciation deduction of $30,000 in year 3 of a project. The company's tax rate is 30% and its discount rate is 12% (.7128). The present value of the depreciation tax shield resulting from this deduction is closest to:

    a. $21,000.
    b. $21,354.
    c. $ 6,415.
    d. $ 9,000.

15. A company anticipates a depreciation deduction of $70,000 in year 2 of a project. The company's tax rate is 30% and its discount rate is 14% (.7695). The present value of the depreciation tax shield resulting from this deduction is closest to:

    a. $16,159.
    b. $49,000.
    c. $21,000.
    d. $53,865.

16. A company needs an increase in working capital of $50,000 in a project that will last 4 years. The company's tax rate is 30% and its discount rate is 8% (.735). The present value of the release of the working capital at the end of the project is closest to:

    a. $36,751.
    b. $15,000.
    c. $25,726.
    d. $35,000.

17. Eyring Industries has a truck purchased seven years ago at a cost of $6,000. At the time of purchase, the ultimate salvage value was estimated at $500, but salvage value was ignored in depreciation deductions. The truck is now fully depreciated. Assuming a tax rate of 40%, if the truck is sold for $500, the after-tax cash inflow for capital budgeting purposes will be:

    a. $500.
    b. $300.
    c. $200.
    d. $100.

18. Suppose a machine costs $20,000 now, has an expected life of eight years, and will require a $7,000 overhaul at the end of the third year. If the tax rate is 40%, then the after-tax cost of this overhaul would be:

a. $12,000.
b. $ 4,200.
c. $ 8,000.
d. $ 2,800.

19. Suppose a machine that costs $80,000 has a useful life of 10 years. Also suppose that depreciation on the machine is $8,000 for tax purposes in year 4. The tax rate is 40%. The tax savings from the depreciation tax shield in year 4 would be:

a. $4,800 inflow.
b. $3,200 inflow.
c. $4,600 outflow.
d. $3,200 outflow.

20. Consider a machine which costs $115,000 now and which has a useful life of seven years. This machine will require a major overhaul at the end of the fourth year, which will cost “X” dollars. If the tax rate is 40% and the after-tax outflow for this overhaul is $3,600, then the amount of “X” in dollars is:

a. $6,000.
b. $9,000.
c. $2,160.
d. $1,440.

21. Last year the sales at Jersey Company were $200,000 and were all cash sales. The expenses at Jersey were $125,000 and were all cash expenses. The tax rate was 30%. The after-tax net cash inflow at Jersey last year from these operations was:

a. $37,500.
b. $60,000.
c. $22,500.
d. $52,500.

22. Last year a firm had taxable cash receipts of $800,000 and the tax rate was 30%. The after-tax net cash inflow from these receipts was:

a. $800,000.
b. $640,000.
c. $560,000.
d. $240,000.

23. A company had tax deductible cash expenses of $650,000 last year and the tax rate was 30%. The after-tax net cash outflow for these expenses was:

a. $195,000.
b. $455,000.
c. $650,000.
d. $390,000.

24. At the Bartholomew Company last year all sales were for cash and all expenses were paid in cash. The tax rate was 30%. If the after-tax net cash inflow from these operations last year was $10,500 and total before-tax cash expenses were $35,000, then the total before-tax cash sales must have been:

a. $65,000.
b. $60,000.
c. $45,000.
d. $50,000.

25. Superstrut is considering replacing an old press that cost $80,000 six years ago with a new one that would cost $245,000. The old press has a net book value of $15,000 and could be sold for $5,000. The increased production of the new press would require an investment in additional working capital of $6,000. The company's tax rate is 40%. Superstrut's net investment now in the project would be:

a. $256,000.
b. $242,000.
c. $250,000.
d. $245,000.

26. Kane Company is in the process of purchasing a new machine for its production line. It is near the end of the year and the machine is being offered at a special discount if purchased before the end of the year. Kane has determined that the depreciation deduction for tax purposes on the new machine for the year of purchase would be $13,000. The tax rate is 30%. If Kane purchases the machine and reports a positive net income for the year, the depreciation tax shield for the year of purchase would be:

a. $ 3,900.
b. $ 9,100.
c. $13,000.
d. $ -0-.

27. Last year the sales at Seidelman Company were $700,000 and were all cash sales. The company's expenses were $450,000 and were all cash expenses. The tax rate was 35%. The after-tax net cash inflow at Seidelman last year was:

a. $700,000.
b. $250,000.
c. $162,500.
d. $ 87,500.

28. Maxwell Company purchased a new machine January 1 of Year 1. Data relating to the machine are as follows:

Cost of the machine	$180,000
Salvage value	30,000
Useful life	8 years

The machine is in the MACRS 5-year property class. Maxwell uses a 10% (.4683) discount rate in capital budget analysis. The company's tax rate is 30%. If Maxwell uses the optional straight-line method, what will be the present value of the depreciation tax shield recorded in Year 4?

a. $ 7,376
b. $10,537
c. $15,700
d. $22,500

29. A piece of equipment is in the MACRS 5-year property class and is being depreciated by the optional straight-line method. The tax rate is 35%. If the savings from the depreciation tax shield on this equipment is $3,500 in Year 3, then the original cost of this equipment was:

a. $50,000.
b. $17,500.
c. $21,000.
d. $52,083.

30. Lee Company is considering replacing an old delivery van with a new van. the following data relate to this investment decision:

Cost of the new van	$20,000
Annual cash operating costs of new van	7,000
Useful life of the new van	6 years
Salvage value of the new van	3,500
Original cost of the old van	17,000
Book value of the old van	5,000
Salvage value of the old van now	3,200
Salvage value of the old van in 6 years	500
Annual cash operating costs of the old van	9,000
Overhaul of the old van needed in 3 years	6,500

The old van is in the MACRS 5-year property class and is being depreciated by the optional straight-line method but will last for six more years. The new van also is in the MACRS 5-year property class and will be depreciated using the MACRS tables. The tax rate is 40% and the company's after-tax cost of capital is 12% (.5673).

The net incremental outlay for the purchase of the new van is:

a. $20,000.
b. $13,300.
c. $23,200.
d. $16,800.

CAPITAL INVESTMENT ANALYSIS

REVIEW QUESTION SOLUTIONS

1.	B
2.	C
3.	A
4.	C
5.	B
6.	C
7.	D
8.	A
9.	D
10.	C
11.	D
12.	A
13.	C
14.	C
15.	A
16.	A
17.	B
18.	B
19.	B
20.	A
21.	D
22.	C
23.	B
24.	D
25.	B
26.	A
27.	C
28.	A
29.	A
30.	D

CAPITAL INVESTMENT ANALYSIS

Explanation of Review Question Solutions

1. The correct answer is B, the tax rate times the amount of the depreciation. This is fairly obvious to anyone with a background in tax. The after-tax amount is 1—the tax rate multiplied by the cost expense or the investment yield (A and D are false).

2. The correct answer is C; the amount of the depreciation times the tax rate. The depreciation tax shield is computed according to its effect to shield cash flows from tax.

3. The correct answer is A; equal total depreciation for both methods. By total depreciation they mean total depreciation over the life of the asset. All methods of depreciation yield the same amounts of total depreciation; assuming that the same amount of salvage or no salvage is used.

4. The correct answer is C; increasing the present value of the depreciation tax shield. Since the depreciation is higher in the earlier years where the present value factors are higher, using accelerated depreciation increases the present value of the depreciation tax shield, which would increase the net present value of the project (B is false), lower the hurdle rate for the project (A is false), and decrease cash outflows at the beginning of the project (D is false).

5. The correct answer is B; use of the optional straight-line method requires that salvage value not be considered in computing depreciation deductions. Salvage is ignored for tax purposes under MACRS because it is a cost recovery system (A and C are false).

6. The correct answer is C; use the half-year convention under which taxpayers are allowed to take only a half-year's depreciation in the first and last years of the asset's life. MACRS automatically computes the half-year convention in the table values.

7. The correct answer is D, an increase in the discount rate. The increase in the discount rate would reduce the present value of the future cash inflows, thus reducing the net present value. A decrease in the income tax rate would lower the tax shield effect on raising the amount of future cash flows. A decrease in the initial investment would increase the net present value. An increase in the useful life would add to the positive net cash flows and increase the net present value.

8. The correct answer is A, $22,243. This time we do not ignore the tax effect in the present value computation. $50,000 times .6355 = $31,775 (C, before considering tax effects). $31,775 times (1 minus 30%) = $31,775 times 70% = $22,242.50 (round up for the answer).

9. The correct answer is D, $11,114. This question is similar to #8. The present value factor is multiplied by the future value, then times the after-tax percentage (one minus the tax rate) to give the present value of the after-tax cash flow = $20,000 × .7939 =$15,878 (9b); $15,878 × 70% = $11,114.60.

10. The correct answer is C, $23,624. This question is similar to #8 and #9. The present value factor is multiplied by the future value then times the after-tax percentage (one minus the tax rate) to give the present value of the after-tax cash flow = $50,000 × .675 =$33,750 (A); $33,750 × 70% = $23,625.

11. The correct answer is D, ($6,001)—negative number. This question is similar to #8, #9 and #10. The amount is negative because it is an expense or cash outflow. The present value factor is multiplied by the future value then times the after-tax percentage (one minus the tax rate) to give the present value of the after-tax cash flow = $10,000 × .8573 =$8,573 (11b); $8,573 × 70% = negative $6,001.10.

12. The correct answer is A, ($23,140)—negative number. This question is similar to #8, #9, #10, and #11. The amount is negative because it is an expense or cash outflow. The present value factor is multiplied by the future value, then times the after-tax percentage (one minus the tax rate) to give the present value of the after-tax cash flow = $40,000 × .8264 =$33,056 (B); $33,056 × 70% = negative $23,129.20.

13. The correct answer is C, ($32,318)—negative number. This question is similar to #8, #9, #10, #11, and #12. The amount is negative because it is an expense or cash outflow. The present value factor is multiplied by the future value, then times the after-tax percentage (one minus the tax rate) to give the present value of the after-tax cash flow = $60,000 × .7695 = $46,170 (A); $33,056 × 70% = negative $23,129.20.

14. The correct answer is C, $23,624. This question is similar to #8, #9, #10, #11, #12, and #13 (but not exactly the same). The present value factor is multiplied by the future value, then times the tax rate to give the present value of the depreciation tax shield or positive cash flow resulting from the tax savings = $30,000 × .7128 =$21,384 (B); 21,384 × 30% = $6,415.20.

15. The correct answer is A, $16,159. This question is similar to #14. The present value factor is multiplied by the future value, then times the tax rate to give the present value of the depreciation tax shield or positive cash flow resulting from the tax savings = $70,000 × .7695 =$53,865 (D); $53,865 × 30% = $16,159.50.

16. The correct answer is A, $36,751. The "present value of the release of the working capital at the end of the project is" actually refers to the present value of the cash flow without looking at the tax effect of the depreciation tax shield, which equals cash flow times the appropriate present value factor for the given interest and number of periods = $50,000 × 0.735 = $36,750. Notice that the present value of the after-tax cash flow is given = $36,751 × .7 = $25,725 (D); in this question you don't go the extra step.

17. The correct answer is B, $300. The problem gives you the salvage value or sales price of the old truck and the tax rate. The after-tax cash inflow will be this amount multiplied by the after-tax rate. The after-tax rate equals one minus the tax rate. $500 \times .6 = \$300$.

18. The correct answer is B, $300. The problem gives you the cost of the overhaul at the end of the third year and the tax rate. The after-tax cash inflow will be the amount of the overhaul multiplied by the after-tax rate. The after-tax rate equals one minus the tax rate. $\$7,000 \times .6 = \$4,200$.

19. The correct answer is B, $3,200 inflow. This question is similar to #18. The after-tax cash inflow will be the amount of the annual depreciation expense multiplied by the tax rate to give the future value of the depreciation tax shield or positive cash flow resulting from the tax savings. $\$8,000 \times .4 = \$3,200$.

20. The correct answer is A, $6,000. This question is sinilar to #18. The problem gives you the cost of the after-tax outflow, or cost, of the overhaul at the end of the third year and the tax rate. The after-tax cash inflow will be the amount of the overhaul multiplied by the after-tax rate. The after-tax rate equals one minus the tax rate. The amount of the overhaul equals the after-tax cash flow divided by the after-tax rate = $\$3,600 / .6 = \$6,000$.

21. The correct answer is D, $52,500. The cash inflow from operations equals sales of $200,000 minus expenses of $125,000, which equals a net income of $75,000. The after-tax cash flow is the after-tax rate, one minus the tax rate ($1- 0.3 = 0.7$), times the net income = $.7 \times \$75,000 = \$52,500$.

22. The correct answer is C, $560,000. The after-tax cash flow of taxable cash receipts of $800,000 equals that cash flow times the after-tax rate of 70%, one minus the tax rate (100% - 30% = 70%), which equals $560,000.

23. The correct answer is B, $455,000. The after-tax net cash outflow of tax deductible expenses of $650,000 equals that cash flow times the after-tax rate of 70%, one minus the tax rate (100% - 30% = 70%), which equals $455,000.

24. The correct answer is D, $50,000. The question wants us to compute the before-tax cash sales (cash inflow) given these other facts. The net income equals the after-tax net cash inflow from operations of $10,500 divided by the after-tax rate of 70%, one or 100% minus the tax rate of 30%, which gives us $15,000 net income. The sales equals the before-tax expenses of $35,000 plus the before-tax net income of $15,000, which equals a total of $50,000.

25. The correct answer is B, $242,000. The question wants us to compute the net investment in the project. The net investment equals the net of the negative cash flow or the cost of the machine of $245,000 and the after-tax cash flow from the sale of the old machine ($5,000 times the after-tax rate of 60%, one or 100% minus the tax rate of 40%), which gives us a net of $242,000 investment in the machine. Read the full question carefully. Sometimes it is easier than it looks.

26. The correct answer is A, $3,900. The question wants us to compute the depreciation tax shield for the year of purchase, which should equal the depreciation of $13,000 times the tax rate of 30%, or $3,900.

27. The correct answer is C, $162,500. The question wants us to compute the after-tax net cash inflow for last year. Sales of $700,000 minus expenses of $450,000 give us the net income of $250,000, also referred to as the cash inflow from last year. To get the after-tax cash flow we must multiply the before-tax cash inflow of $250,000 times the after-tax rate of 65% (one or 100% minus the tax rate of 35%), to give the product of $162,500.

28. The correct answer is A, $7,376. Skip down to the bottom of the question. The question wants us to compute the present value of the depreciation tax shield for year four. The depreciation in year four would be the cost of the machine of $180,000, divided by the MACRS five-year class of five years to yield depreciation of $36,000. We can ignore salvage and half-year convention, which only applies in the first and last year (year one and year six). One gets the cash inflow from the depreciation tax shield by multiplying the depreciation of $36,000 times the company tax rate of 30% for a tax shield of $10,800. We get the present value of this cash flow benefit by multiplying $10,800 times the appropriate present value factor 0.4683 = $5,057.64. The closest answer is A.

29. The correct answer is A, $50,000. One can compute the original cost of buying equipment by adding up the total depreciation taken over the life of the asset. The depreciation tax shield is the depreciation multiplied by the tax rate to get the amount of the savings or protection afforded by this noncash expenditure. To get the depreciation one must divide the depreciation of $3,500 by the tax rate of 35% to get $10,000 depreciation expense in year three. This $10,000 one-year depreciation is multiplied by the useful life to get the cost or depreciation basis for the property of $50,000.

30. The correct answer is D, $16,800. Skip down to the bottom to determine that the question wants us to compute “the net incremental outlay for the purchase of the new van.” This question is easier than it looks. The incremental outlay for the purchase is the $20,000 cost minus the $3,200 salvage equals the $16,800. One clue should have been the absence of present value information for the computation of yearly outlays.

BUDGETING

After reviewing this chapter, you should be able to:

1. *Understand why organizations budget and the processes they use to create budgets*
2. *Prepare a sales budget*
3. *Prepare a production budget*
4. *Prepare a direct materials budget*
5. *Prepare a direct labor budget*
6. *Prepare a manufacturing budget*
7. *Prepare an ending finished goods inventory budget*
8. *Prepare a selling and administrative expense budget*

A budget is a detailed plan for the acquisition and use of financial and other resources over a specified time period. It represents a plan for the future expressed in formal quantitative terms. The act of preparing a budget is called budgeting. The use of budgets to control a firm's activities is known as budgetary control. The master budget is a summary of a company's plans that sets specific targets for sales, production, distribution, and financing activities. It generally culminates in a cash budget, a budgeted income statement, and a budgeted balance sheet. The budget represents a comprehensive expression of management's plans for the future and how these plans are to be accomplished.

The terms planning and control are often confused, and occasionally these terms are used in such a way as to suggest that they mean the same thing. Actually, planning and control are two quite distinct concepts. Planning involves developing objectives and preparing various budgets to achieve those objectives. Control involves the steps taken by management to increase the likelihood that the objectives set down at the planning stage are attained, and to ensure that all parts of the organization function in a manner consistent with organizational policies. To be completely effective, a good budgeting system must provide for both planning and control. Good planning without effective control is a waste of time. On the other hand, unless plans are laid down in advance, there are no objectives toward which control can be directed. Companies realize many benefits from a budgeting program. Among these benefits are the following:

1. Budgets provide a means of communicating management's plans throughout the organization.
2. Budgets force managers to think about and plan for the future. In the absence of the necessity to prepare a budget, too many managers would spend all of their time dealing with daily emergencies.
3. The budgeting provides a means of allocating resources to those parts of the organization where they can be used most effectively.
4. The budgeting process can uncover potential bottlenecks before they occur.
5. Budgets coordinate the activities of the entire organization by integrating the plans of the various parts. Budgeting helps to ensure that everyone in the organization is pulling in the same direction.
6. Budgets define goals and objectives that can serve as benchmarks for evaluating subsequent performance.

In the past, some managers have avoided budgeting because of the time and effort involved in the budgeting process. It can be argued that budgeting is actually "free" in that the manager's time and effort are more than offset by greater profits. Moreover, with the advent of computer spreadsheet programs, any company, large or small, can implement and maintain a budgeting program at minimal cost. Budgeting lends itself well to readily available spreadsheet application programs.

In responsibility accounting each budget line item is made the responsibility of a manager, and that manager is held responsible for subsequent deviations between budgeted goals and actual results. Responsibility accounting personalizes accounting information by looking at costs from a personal control standpoint. This concept is central to any effective profit planning and control system. Someone must be held responsible for each cost or else no one will be responsible, and the cost will inevitably grow out of control. Being held responsible for costs does not mean that the manager is penalized if actual results do not measure up to the budgeted goals. However, the manager should take the initiative to correct any unfavorable discrepancies, should understand the source of significant favorable or unfavorable discrepancies, and should be prepared to explain the reasons for discrepancies to higher management. The point of an effective responsibility system is to make sure that nothing "falls through the cracks," that the organization reacts quickly and appropriately to deviations from its plans, and that the organization learns from feedback it gets by comparing budgeted goals to actual results. The point is not to penalize individuals for missing targets.

The overall idea of responsibility accounting can be summarized by noting that it rests on three premises. The first premise is that costs can be organized in terms of levels of management responsibility. The second premise is that the costs charged to a particular level are controllable at that level by its managers. And the third premise is that effective budget data can be generated as a basis for evaluating actual performance.

Operating budgets are ordinarily set to cover a one-year period. The one-year period should correspond to the company's fiscal year so that the budget figures can be compared with the actual results. Many companies divide their budget year into four quarters. The first quarter is then divided into months, and monthly budget figures are established. These near-term figures can often be established with considerable accuracy. The last three-quarters are carried in the budget at quarterly totals only. As the year progresses, the figures for the second are broken down into monthly amounts, then the third-quarter figures are broken down and so forth. This approach has the advantage of requiring periodic review and reappraisal of budget data throughout the year. Continuous or perpetual budgets are used by a significant number of organizations. A continuous or perpetual budget is a 12-month budget that rolls forward one month or quarter as the current month or quarter is completed. One month or quarter is added to the end of the budget as each month or quarter comes to a close. This approach keeps managers focused on the future at least one year ahead. Advocates of continuous budgets argue that with this approach there is less danger that managers will become too focused on short-term results as the year progresses.

The success of a budget program will be determined in large part by the way in which the budget is developed. The most successful budget programs involve managers with cost control responsibilities in preparing their own budget estimates rather than having a budget imposed from a higher level of management. This approach to preparing budget data is particularly important if the budget is to be used to control and evaluate a manager's activities. This budgeting approach, in which managers prepare their own budget estimates, called a self-imposed budget, is generally considered to be the most effective method of budget preparation. A self-imposed budget or participative budget is a budget that is prepared with the full cooperation and participation of managers at all levels. A number of advantages are commonly cited for self-imposed budgets:

1. Individuals at all levels of the organization are recognized as members of the team whose views and judgments are valued by top management.
2. The person in direct contact with an activity is in the best position to make budget estimates. Therefore, budget estimates prepared by such persons tend to be more accurate and reliable.
3. People are more likely to work at fulfilling a budget that they have participated in setting than they are to work at fulfilling a budget that is imposed from higher management.
4. A self-imposed budget contains its own unique system of control in that if people are not able to meet budget specifications, they have only themselves to blame. On the other hand, if a budget is imposed from higher management, they can always say that the budget was unreasonable or unrealistic to start with and, therefore, was impossible to meet.

Budget estimates prepared by lower-level managers cannot necessarily be accepted without question by higher levels of management. If no system of checks and balances is present, self-imposed budgets may be too loose and allow too much "budgetary slack." The result will be inefficiency and waste. Therefore, before budgets are accepted, immediate supervisors must carefully review them. If changes from the original budget seem appropriate, the items in question should be discussed and modified as necessary by mutual consent. All levels of an organization should work together to produce the budget.

The master budget consists of a number of separate, but interdependent, budgets. Examples include: sales budget, production budget, selling and administrative expense budget, direct materials budget, direct labor budget, manufacturing overhead budget, cash budget, budgeted income statement, and budgeted balance sheet.

A sales budget is a detailed schedule showing the expected sales for the budget period; typically, it is expressed in both dollars and units of product. An accurate sales budget is the key to the entire budgeting process. All of the other parts of the master budget are dependent on the sales budget in some way. Thus if the sales budget is sloppily done, then the rest of the budgeting process is largely a waste of time. The sales budget will help determine how many units will have to be produced. Thus, the production budget is prepared after the sales budget. The production budget in turn is used to determine the budgets for manufacturing costs including the direct materials budget, the direct labor budget, and the manufacturing overhead budget. These budgets are then combined with data from the sales budget and the selling and administrative expense budget to determine the cash budget. The selling and administrative expense budget is both dependent on and determinant of the sales budget. This reciprocal relationship arises because sales will in part be determined by the funds committed for advertising and sales promotion.

The sales budget is usually based on the company's sales forecast. Sales from prior years are commonly used as a starting point in preparing the sales forecast. In addition, the manager may examine the company's unfilled back orders, the company's pricing policy and marketing plans, trends in the industry, and general economic conditions. Sophisticated statistical tools may be used to analyze the data and to build models that are helpful in predicting key factors influencing the company's sales. The sales budget is the starting point in preparing the master budget. All other items in the master budget, including production, purchases, inventories, and expenses, depend on the sales budget in some way. The sales budget is constructed by multiplying the budgeted sales in units by the selling price. A schedule of expected cash collections is prepared after the sales budget. This schedule will be needed later to prepare the cash budget.

Cash collections consist of collections on sales made to customers in prior periods plus collections on sales made in the current budget period.

The production budget is prepared after the sales budget. The production budget lists the number of units that must be produced during each period to meet sales needs and to provide for the desired ending inventory. Production needs can be determined as follows:

Budgeted sales in units	XXXX
Added desired ending inventory	XXXX
Total needs	XXXX
Less beginning inventory	XXXX
Required production	XXXX

Production requirements for a period are influenced by the desired level of the ending inventory. Inventories should be carefully planned. Excessive inventories tie up funds and create storage problems. Insufficient inventories can lead to lost sales or crash production efforts in the following period.

A merchandising firm prepares a merchandising purchases budget showing the amount of goods to be purchased from its suppliers during the period. The merchandise purchases budget is in the same basic format as the production budget except that it shows goods to be purchased rather than goods to be produced as shown below:

Budgeted cost of goods sold	XXXX
Add desired ending inventory	XXXX
Total needs	XXXX
Less beginning inventory	XXXX
Required purchases	XXXX

A merchandising firm should prepare an inventory purchases budget for each item carried in stock. Some large retail organizations make such computations on a frequent basis to ensure that adequate stocks are on hand to meet customer needs.

After the production requirements have been computed, a direct materials budget can be prepared. The direct materials budget details the raw materials that must be purchased to fulfill the production budget and to provide for adequate inventories. The required purchases of raw materials are computed as follows:

Raw materials needed for production	XXXX
Add desired ending inventory	XXXX
Total raw material needs	XXXX
Less beginning inventory	XXXX
Raw materials to be purchased	XXXX

Preparing a budget of this kind is one step in a company's overall material requirements planning (MRP). MRP is an operations management tool that uses a computer to help manage materials and inventories. The objective of MRP is to ensure that the right materials are on hand, in the right quantities, and at the right time to support the production budget. The direct material budget is usually accompanied by a schedule of expected cash disbursements for raw materials. This schedule is needed to prepare the overall cash budget. Disbursements for raw materials consist of payments for purchases on account in prior periods plus any payments for purchases in the current budget period.

The direct labor budget is also developed from the production budget. Direct labor requirements must be computed so that the company will know whether sufficient labor time is available to meet production needs. By knowing in advance just what will be needed in the way of labor time throughout the budget year, the company can develop plans to adjust the labor force as the situation may require. Firms that neglect to budget run the risks of facing labor shortages or having to hire and lay off at awkward times. Erratic labor policies lead to insecurity and inefficiency on the part of employees. To compute direct labor requirements, the number of units of finished product to be produced each period is multiplied by the number of direct labor hours required to produce a single unit. Many different types of labor may be involved. If so, then computations should be by type of labor needed. The direct labor requirements can then be translated into expected direct labor costs.

The manufacturing overhead budget provides a schedule of all costs of production other than direct materials and direct labor. Since some of the overhead costs are not cash outflows, the total budgeted manufacturing overhead costs must be adjusted to determine the cash disbursements for manufacturing overhead.

The carrying cost of unsold units is computed on the ending finished goods inventory budget. This computation is needed for two reasons: first, to determine cost of goods sold on the budgeted income statement; and second, to know what amount to put on the balance sheet inventory account for unsold units.

The selling and administrative expense budget lists the budgeted expenses for areas other than manufacturing. In large organizations, this budget would be a compilation of many smaller, individual budgets submitted by department heads and other persons responsible for selling and administrative expenses. For example, the marketing manager in a large organization would submit a budget detailing the advertising expenses for each budget period.

BUDGETING
REVIEW QUESTIONS

1. The budget or schedule that provides necessary input data for the direct labor budget is the:

   a. raw materials purchases budget.
   b. production budget.
   c. schedule of cash collections.
   d. cash budget.

2. Which of the following is ***not*** a benefit of budgeting?

   a. It uncovers potential bottlenecks before they occur.
   b. It coordinates the activities of the entire organization by integrating the plans and objectives of the various parts.
   c. It ensures that accounting records comply with generally accepted accounting principles.
   d. It provides benchmarks for evaluating subsequent performance.

3. The materials purchases budget:

   a. is the beginning point in the budget process.
   b. must provide for desired ending inventory as well as for production.
   c. is accompanied by a schedule of cash collections.
   d. is completed after the cash budget.

4. The master budget process usually begins with the:

   a. production budget.
   b. operating budget.
   c. sales budget.
   d. cash budget.

5. There are various budgets within the master budget. One of these budgets is the production budget. Which of the following **best** describes the production budget?

   a. It details the required direct labor hours.
   b. It details the required raw materials.
   c. It is calculated on the sales budget and the desired ending inventory.
   d. It summarizes the costs of producing units for the budget period.

6. Fairmont, Inc., uses an accounting system that charges costs to the manager who has been delegated the authority to make decisions concerning the department's costs. For example, if the sales manager accepts a rush order that will result in higher than normal manufacturing costs, these additional costs are charged to the sales manager because the authority to accept or decline the rush order was given to the sales manager. This type of accounting system is known as:

   a. responsibility accounting.
   b. contribution accounting.
   c. absorption accounting.
   d. operational accounting.

7. Pardee Company plans to sell 12,000 units during the month of August. If the company has 2,500 units on hand at the start of the month, and plans to have 2,000 units on hand at the end of the month, how many units must be produced during the month?

   a. 11,500
   b. 12,500
   c. 12,000
   d. 14,000

8. Modesto Company produces and sells Product AlphaB. To guard against stockouts, the company requires that 20% of the next month's sales be on hand at the end of each month. Budgeted sales of Product AlphaB over the next four months are:

June	30,000
July	40,000
August	60,000
September	50,000

   Budgeted production for August would be:

   a. 62,000 units.
   b. 70,000 units.
   c. 58,000 units.
   d. 50,000 units.

9. Friden Company has budgeted sales and production over the next quarter as follows:

	April	May	June
Sales in units	100,000	120,000	?
Production in units	104,000	128,000	156,000

The company has 20,000 units of product on hand at April 1. A minimum of 20% of the next month's sales needs in units must be on hand at the end of each month. July sales are expected to be 140,000 units. Budgeted sales for June would be (in units):

a. 188,000.
b. 160,000.
c. 128,000.
d. 184,000.

10. Walsh Company expects sales of Product W to be 60,000 units in April, 75,000 units in May, and 70,000 units in June. The company desires that the inventory on hand at the end of each month be equal to 40% of the next month's expected unit sales. Due to excessive production during March, on March 31 there were 25,000 units of Product W in the ending inventory. Given this information, Walsh Company's production of Product W for the month of April should be:

a. 60,000 units.
b. 65,000 units.
c. 75,000 units.
d. 66,000 units.

11. Superior Industries' sales budget shows quarterly sales for the next year as follows: first quarter, 10,000 units; second quarter, 8,000 units; third quarter, 12,000 units; and fourth quarter, 14,000 units. Company policy is to have a finished goods inventory at the end of each quarter equal to 20% of the next quarter's sales. Budgeted production for the second quarter should be:

a. 7,200 units.
b. 8,000 units.
c. 8,800 units.
d. 8,400 units.

12. The Tobler company has budgeted production for the next year as follows: first quarter, 10,000 units; second quarter, 12,000 units; third quarter, 16,000 units; and fourth quarter, 14,000 units. Four pounds of raw materials are required for each unit produced. Raw materials on hand at the start of the year total 4,000 pounds. The raw materials inventory at the end of each quarter should equal 10% of the next quarter's production needs. Budgeted purchases of raw materials in the third quarter would be:

a. 63,200 pounds.
b. 62,400 pounds.
c. 56,800 pounds.
d. 50,400 pound
e.

13. Marple Company's budgeted production in units and budgeted raw materials purchases over the next three months are given below:

	January	February	March
Budgeted production	60,000	?	100,000
Budgeted raw material in pounds	129,000	165,000	188,000

Two pounds of raw materials are required to produce one unit of product. The company wants raw materials on hand at the end of each month equal to 30% of the following month's production needs. The company is expected to have 36,000 pounds of raw materials on hand on January 1. Budgeted production for February should be:

a. 105,000 units.
b. 82,500 units.
c. 150,000 units.
d. 75,000 units.

14. The Waverly Company has budgeted sales for the next year as follows: first quarter, 12,000 units; second quarter, 14,000 units; third quarter, 18,000 units; and fourth quarter, 16,000 units. The ending inventory of finished goods for each quarter should equal 25% of the next quarter's budgeted sales in units. The finished goods inventory at the start of the year is 3,000 units. Scheduled production for the third quarter should be:

a. 17,500 units.
b. 18,500 units.
c. 22,000 units.
d. 13,500 units.

15. The Willsey Merchandise Company has budgeted $40,000 in sales for the month of December. The company's cost of goods sold is 30% of sales. If the company has budgeted to purchase $18,000 in merchandise during December, then the budgeted change in inventory levels over the month of December is:

    a. $ 6,000 increase.
    b. $10,000 decrease.
    c. $22,000 decrease.
    d. $15,000 increase.

16. The Stacy Company makes and sells a single product, Product R. Budgeted sales for April are $300,000. Gross margin is budgeted at 30% of sales dollars. If the net income for April is budgeted at $40,000, the budgeted selling and administrative expenses are:

    a. $133,333.
    b. $ 50,000.
    c. $102,000.
    d. $ 78,000.

17. Paradise Company plans the following beginning and ending inventory levels (in units) for July:

	July 1	July 30
Raw material	40,000	50,000
Work in process	10,000	10,000
Finished goods	80,000	50,000

Two units of raw material are needed to produce each unit of finished product. If Paradise Company plans to sell 480,000 units during July, the number of units it would have to manufacture during July would be:

    a. 440,000 units.
    b. 480,000 units.
    c. 510,000 units.
    d. 450,000 units.

18. Paradise Company plans the following beginning and ending inventory levels (in units) for July:

	July 1	July 30
Raw material	40,000	50,000
Work in process	10,000	10,000
Finished goods	80,000	50,000

Two units of raw material are needed to produce each unit of finished product. If 500,000 finished units were to be manufactured during July, the units of raw material needed to be purchased would be:

a. 1,000,000 units.
b. 1,020,000 units.
c. 1,010,000 units.
d. 990,000 units.

19. Barley Enterprises has budgeted units sales for the next four months as follows:

October	4,800 units
November	5,800 units
December	6,400 units
January	5,200 units

The ending inventory for each month should be equal to 15% of the next month's sales in units. The inventory on September 30 was below this level and contained only 600 units. The total units to be produced in October is:

a. 4,530.
b. 5,070.
c. 5,670.
d. 5,890.

20. Barley Enterprises has budgeted units sales for the next four months as follows:

October	4,800 units
November	5,800 units
December	6,400 units
January	5,200 units

The ending inventory for each month should be equal to 15% of the next month's sales in units. The inventory on September 30 was below this level and contained only 600 units. The desired ending inventory for December is:

a. 960.
b. 870.
c. 780.
d. 690.

21. Roberts Enterprises has budgeted sales in units for the next five months as follows:

June	4,500 units
July	7,100 units
August	5,300 units
September	6,700 units
October	3,700 units

Past experience has shown that the ending inventory for each month must be equal to 10% of the next month's sales in units. The inventory on May 31 contained 410 units. The company needs to prepare a production budget for the second quarter of the year. The opening inventory in units for September is:

a. 370 units.
b. 6,700 units.
c. 530 units.
d. 670 units.

22. Roberts Enterprises has budgeted sales in units for the next five months as follows:

June	4,500 units
July	7,100 units
August	5,300 units
September	6,700 units
October	3,700 units

Past experience has shown that the ending inventory for each month must be equal to 10% of the next month's sales in units. The inventory on May 31 contained 410 units. The company needs to prepare a production budget for the second quarter of the year. The total number of units to be produced in July is:

a. 7,630 units.
b. 7,100 units.
c. 6,920 units.
d. 7,280 units.

23. Roberts Enterprises has budgeted sales in units for the next five months as follows:

June	4,500 units
July	7,100 units
August	5,300 units
September	6,700 units
October	3,700 units

Past experience has shown that the ending inventory for each month must be equal to 10% of the next month's sales in units. The inventory on May 31 contained 410 units. The company needs to prepare a production budget for the second quarter of the year. The desired ending inventory for August is:

a. 530 units.
b. 670 units.
c. 710 units.
d. 370 units.

24. Noel Enterprises has budgeted sales in units for the next five months as follows:

January	6,800 units
February	5,400 units
March	7,200 units
April	4,600 units
May	3,800 units

Past experience has shown that the ending inventory for each month must be equal to 10% of the next month's sales in units. The inventory on December 31 contained 400 units. The company needs to prepare a production budget for the second quarter of the year. The opening inventory in units for April is:

a. 380 units.
b. 460 units.
c. 4,600 units.
d. 720 units.

25. Noel Enterprises has budgeted sales in units for the next five months as follows:

January	6,800 units
February	5,400 units
March	7,200 units
April	4,600 units
May	3,800 units

Past experience has shown that the ending inventory for each month must be equal to 10% of the next month's sales in units. The inventory on December 31 contained 400 units. The company needs to prepare a production budget for the second quarter of the year. The total number of units to be produced in February is:

a. 5,580 units.
b. 5,400 units.
c. 6,120 units.
d. 5,220 units.

26. Noel Enterprises has budgeted sales in units for the next five months as follows:

January	6,800 units
February	5,400 units
March	7,200 units
April	4,600 units
May	3,800 units

Past experience has shown that the ending inventory for each month must be equal to 10% of the next month's sales in units. The inventory on December 31 contained 400 units. The company needs to prepare a production budget for the second quarter of the year. The desired ending inventory for March is:

a. 720 units.
b. 460 units.
c. 540 units.
d. 380 units.

27. Wellfleet Company manufactures recreational equipment for children. The Purchasing Department is finalizing plans for next year and has gathered the following information regarding two of the components used in both tricycles and bicycles:

	Part A19	Part B12	Tricycles	Bicycles
Beginning inventory	3,500	1,200	800	2,150
Ending inventory	2,000	1,800	1,000	900
Unit cost	$1.20	$4.50	$54.50	$89.60
Projected unit sales			96,000	130,000
Component usage:				
Tricycles	2 per unit	1 per unit		
Bicycles	2 per unit	4 per unit		

The budgeted dollar value of Wellfleet Company's purchases of Part A19 for next year is:

a. $383,580.
b. $538,080.
c. $540,600.
d. $480,000.

28. The LFM Company makes and sells a single product, Product T. Each unit of product T requires 1.3 hours of labor at a labor rate of $9.10 per hour. LFM Company needs to prepare a Direct Labor Budget for the second quarter of next year. The budgeted direct labor cost per unit of Product T would be:

a. $ 9.10.
b. $11.83.
c. $ 7.00.
d. $10.40.

29. The LFM Company makes and sells a single product, Product T. Each unit of product T requires 1.3 hours of labor at a labor rate of $9.10 per hour. LFM Company needs to prepare a Direct Labor Budget for the second quarter of next year. The company has budgeted to produce 25,000 units of Product T in June. The finished goods inventories on June 1 and June 30 were budgeted at 500 and 700 units, respectively. Budgeted direct labor costs incurred in June would be:

a. $293,384.
b. $304,031.
c. $295,750.
d. $227,500.

30. The Culver Company is preparing its Manufacturing Overhead Budget for the third quarter of the year. Budgeted variable overhead is $3.00 per unit produced; budgeted fixed factory overhead is $75,000 per month, with $16,000 of this amount being factory depreciation. If the budgeted production for July is 6,000 units, then the total budgeted factory overhead for July is:

a. $77,000.
b. $82,000.
c. $85,000.
d. $93,000.

BUDGETING
REVIEW QUESTION SOLUTIONS

1.	B
2.	C
3.	B
4.	C
5.	C
6.	A
7.	A
8.	C
9.	B
10.	B
11.	C
12.	A
13.	D
14.	A
15.	A
16.	B
17.	D
18.	C
19.	B
20.	C
21.	D
22.	C
23.	B
24.	B
25.	A
26.	B
27.	B
28.	B
29.	C
30.	D

BUDGETING

Explanation of Review Question Solutions

1. The correct answer is B, production budget. The direct labor budget, manufacturing overhead, and the direct materials budget are prepared from the production budget.

2. The correct answer is C; it ensures that accounting records comply with generally accepted accounting principles. Circle or highlight the word not. We have three true answers and one false. Budgeting advantages are uncovering potential bottlenecks (A), coordinated entire enterprise activities (B), helping evaluate performance from benchmarks (D), etc.

3. The correct answer is B; the materials purchases budget must provide for desired ending inventory as well as for production. The budget process often begins with the sales budget, since most budgeting is sales driven (A). Materials purchase has to do with meeting the needs of sales, while collections (C) and cash (D) are not involved.

4. The correct answer is C; the master budget usually begins with the sales budget. The cash budget usually comes just before preparing the budgeted financial statements (D). The production budget usually comes after the sales budget (A). Operating budgets (B) are used to manage the business operations for one year.

5. The correct answer is C; the production budget is calculated on the sales budget and the desired ending inventory. The production budget is designed to produce sufficient product to cover the delivery of sales. The other options are true but are not the overall best answer.

6. The correct answer is A, responsibility accounting. Absorption accounting or full costing accounting is where you absorb all the costs as product costs, which is required under GAAP. Operational cost accounting is a hybrid cost accounting system, which combines process and job cost systems when costs are accumulated for each unique batch which shares characteristics of processes, and batches (job order).

7. The correct answer is A, 11,500. Set up the inventory chart with beginning inventory plus units produced equals units available. Units available minus ending inventory equals units transferred out or sold. Planned sales in units of 12,000 plus desired ending inventory of 2,000 equals desired available units of 14,000. Desired available units of 14,000 less beginning inventory of units of 2,500 means that 11,500 units must be produced to meet demand.

8. The correct answer is C, 58,000 units. The ending inventory of the month must be 20% of next month's budgeted sales; this gives us the budgeted figures for the end of the current month. The end of the month for one month is the beginning of the month for the following month. August budgeted sold units are 60,000, to which you add the end of the month inventory of 10,000 units (computed by multiplying the September budgeted sales times 20% ending inventory of prior month (August)), giving you 70,000 units available in August. Subtract the beginning inventory of 12,000 units (calculated by multiplying the August budgeted sales of 60,000 units times the 20% requirement for ending inventory), from the 70,000 units available gives us the budgeted production for August of 58,000 units.

9. The correct answer is B, 160,000. The question wants us to compute the budgeted sales for June in units. First compute the inventory items for April. Beginning inventory of 20,000 plus production of 104,000 units equals 124,000 units available. Units available of 124,000 minus 100,000 units sold equals ending inventory of 24,000 units for April and the beginning inventory for May. Beginning inventory of 24,000 units plus production of 128,000 units equals 152,000 units available. Units available of 152,000 minus 120,000 units sold equals ending inventory of 32,000 units for May and the beginning inventory for June. Since 32,000 units ending inventory for May is 20% of sales in units for June, divide 32,000 by 20% for 160,000 units of sales for June.

10. The correct answer is B, 65,000 units. The question wants us to compute the budgeted production for April. The ending inventory of April needs to be 40% of the May sales of 75,000 units or 30,000 units. Add the April end inventory of 30,000 units to the April sales of 60,000 units for April to get available units for April of 90,000. Subtract the April beginning inventory of 25,000 units from the 90,000 available units to give us the 65,000 budgeted units of production for April.

11. The correct answer is C, 8,800 units. Budgeted production for the second quarter is computed using inventory computation. End inventory in units of the second quarter equals the third quarter budgeted unit sales of 12,000 times 20% or 2,400. The beginning inventory in units of the second quarter equals the second quarter budgeted unit sales of 8,000 times 20% or 1,600 units. Add the end inventory of the 2,400 units to budgeted sales of 8,000 and get 10,400 units budgeted available for second quarter. Subtract second quarter budgeted beginning inventory of 1,600 from the 10,400 budgeted available units to get the 8,800 units of budgeted production for the second quarter.

12. The correct answer is A, 63,200 pounds. The question wants us to compute the budgeted purchases of raw materials for the third quarter. This requires a bit more computation to compute units to pounds using the factor that 4 pounds of raw material are needed per unit. Raw materials beginning inventory in the third quarter is 10% of third quarter budgeted production of 16,000 units times 4 pounds per unit, or 6,400 pounds. Raw materials ending inventory in the third quarter is 10% of fourth quarter budgeted production of 14,000 units times 4 pounds per unit, or 5,600 pounds. Add the pounds at the end of third quarter of 5,600 to the pounds used in production for the third quarter of 64,000, 16,000 units times 4 pounds per unit, to give the pounds available of 69,600 pounds. Subtract the beginning inventory for the third quarter of 6,400 pounds from the 69,600 pounds available to get the budgeted purchases of raw material in pounds of 63,200.

13. The correct answer is D, 75,000 units. The question asks us to compute the budgeted unit production for February. Two pounds of raw material are needed per unit. Adding the January raw materials beginning inventory of 36,000 pounds to the budgeted raw materials in pounds of 129,000 gives you the raw materials available. Subtracting the January budgeted production in pounds of 120,000, two pounds per unit times 60,000 units, from the raw materials available of 210,000 equals January raw materials ending inventory and February raw materials beginning inventory of 45,000. February beginning raw materials inventory of 45,000 pounds plus budgeted raw materials of 165,000 pounds equals raw materials pounds available of 210,000 pounds. Subtracting the February ending inventory in pounds of 60,000, March budgeted unit production of 100,000 times 2 pounds per unit times 30%, from the pounds available of 210,000 equals February production of 150,000 pounds or 75,000 units (150,000 pounds divided by 2 pounds per unit.

14. The correct answer is A, 17,500 units. The sum of third quarter production of 18,000 units plus the ending inventory of 4,000 units, fourth quarter production of 16,000 times 25%, equals units available of 22,000. Subtract beginning inventory of 4,500, third quarter production of 18,000 times 25%, from the 22,000 units available for a third quarter production of 17,500 units.

15. The correct answer is A, $6,000 increase. The question wants us to compute the budgeted change in inventory levels over the month of December. The company intends to purchase $18,000, while it expects to sell $12,000 ($40,000 of sales times cost of goods sold percentage of 30%); therefore the company expects to increase its inventory by $6,000, the purchases minus the sales. One need not know what the current inventory is to know that the inventory is going up by $6,000.

16. The correct answer is B, $50,000. The question wants to know the budgeted selling and administrative expenses for April. Sales are $300,000 with a 30% gross margin; therefore gross profit is $90,000 ($300,000 sales times 30% gross margin percentage), and cost of goods sold is $210,000 ($300,000 sales minus the $90,000 gross profit). If the net income is $40,000, then the selling and administrative expenses are $50,000 ($90,000 gross profit minus $40,000 net income). Set up the problem as a chart.

17. The correct answer is D, 450,000 units. The question asks for the number of units manufactured in July. Sales of 480,000 units plus ending inventory of 50,000 units minus beginning inventory of 80,000 units equals units manufactured of 450,000 units. The trick here is to realize that the finished goods inventory amounts are given in the chart, and to understand that beginning inventory plus goods manufactured equals goods available; and goods available minus goods sold equals goods in ending inventory.

18. The correct answer is C, 1,010,000 units. The question asks for the units of raw material purchased. First you need to determine the number of units of raw material needed for 500,000 finished units manufactured, which is 1,000,000 (500,000 units times two units of raw materials per unit of finished goods). Ending inventory of 50,000 units of raw materials plus 1,000,000 units of raw materials used to manufacture equals 1,050,000 units of raw material available. Raw materials available minus beginning inventory of 40,000 units of raw materials equals 1,010,000 units of raw materials purchased.

19. The correct answer is B, 5,070. The question asks for the total units to be produced (budgeted production) in October. You have to be careful because the problem gives us two ways to get inventory; one is the wrong way, and the correct way is the 600 units on September 30 given in the last line. The budgeted ending inventory for October is 15% of the November budgeted sales of 5,800 units or 870 units. Add the ending inventory of 870 units to the October budgeted sales of 4,800 to get the budgeted units available of 5,670. Subtract the beginning inventory of 600 units from the units available to get 5,070 for units produced for October.

20. The correct answer is C, 780 units. The question asks for the desired ending inventory for December, which equals 15% of the "next month's (January) unit sales" of 5,200, which equals 780 units.

21. The correct answer is D, 670 units. The question asks for the opening (beginning) inventory in units for September. The opening inventory is the ending inventory of the prior month of August, which equals 10% of the September sales in units of 6,700 or 670 units.

22. The correct answer is C, 6,920 units. The question asks for the number of units to be produced in July. The beginning inventory in July is the ending inventory in June, which is 10% of the July budgeted sales of 7,100 units or 710 units. The units available in July equals the sum of the ending inventory for July, 10% of August budgeted sales of 5,300, or 530 plus the budgeted units sold in July of 7,100 units or 7,630 units available. The production equals the number of units available of 7,630 minus the beginning inventory of 710 units or 6,920 units.

23. The correct answer is B, 670 units. The question asks for the budgeted ending inventory for August, which equals 10% of the budgeted sales for September of 6,700 or 670 units for ending inventory in August.

24. The correct answer is B, 460 units. The question asks for the opening (beginning) inventory for units in April, which is equal to the ending inventory in March, which equals 10% of the April budgeted unit sales of 4,600 or 460 units.

25. The correct answer is A, 5,580 units. The question asks for the February budgeted unit production. The 720 ending unit inventory in February is 10% of the March budgeted unit sales of 7,200. Add 720 (unit ending inventory) to the budgeted unit sales for February of 5,400; this gives us 6,120 units available. Subtracting the beginning inventory of 540 units, 10% of February sales of 5,400 units, from the 6,120 units available give us 5,580-budgeted unit production for February.

26. The correct answer is B, 460 units. The computation and the given facts are identical to question #24.

27. The correct answer is B, $538,080. The question asks for the budgeted dollar value of Wellfleet Company’s purchases of Part A19 for the next year. Projected unit production is 96,200, or 96,000 units plus the rise in inventory of 200 units, or with parts of two times that figure for tricycles of 192,400 parts. The bicycles will need 257,500 parts, 128,750 units sales, 130,000 sales with a 1250 unit fall in inventory, times two parts per unit, or 449,900 parts produced. The drop in inventory of 1,500 parts indicates that purchases budgeted are equal to the production minus the drop or 448,400 parts. The dollar value of those purchased parts is the number of parts, 448,400, times $1.20 price per part or $538,080.

28. The correct answer is B, $11.83. The question asks for the budgeted direct labor cost per unit of product T. Simply multiply the number of hours of labor per part of 1.3 hours times the labor rate of $9.10 to get $11.83 of labor per part.

29. The correct answer is C, $295,750. The question asks for the budgeted direct labor costs incurred in June. The question is very simple. Simply multiply the $11.83 cost per unit (computed in #28) times the number of units budgeted for production of 25,000 units to get the cost of $295,750.

30. The correct answer is D, $93,000. The question asks for the total budgeted factory overhead for July. Variable factory overhead is $3.00 per unit produced times the number of units produced in July of 6,000 units for a total of $18,000. Add the variable costs of $18,000 to the fixed cost of 75,000 to get $93,000 factory overhead for July.

MANAGERIAL DECISIONS

After reviewing this chapter, you should be able to:

1. *Distinguish between relevant and irrelevant costs in decisions*
2. *Prepare an analysis showing whether to keep or replace old equipment*
3. *Prepare an analysis showing whether a product line or other organizational segment should be dropped or retained*
4. *Prepare a well-organized make or buy analysis*
5. *Prepare an analysis showing whether a special order should be accepted*
6. *Determine the most profitable use of a constrained resource*
7. *Prepare an analysis showing whether joint products should be sold at the split-off point or processed further*

Making decisions is one of the basic functions of a manager. Managers are constantly faced with problems of deciding what products to sell, what production methods to use, whether to make or buy component parts, what prices to charge, what channels of distribution to use, whether to accept special orders at special prices, and so forth. Decision-making is often a difficult task that is complicated by the existence of numerous alternatives and massive amounts of data, only some of which is relevant. Every decision involves choosing from among at least two alternatives. In making a decision, the costs and benefits of one alternative must be compared to the costs and benefits of other alternatives. Costs that differ between alternatives are called relevant costs. Distinguishing between relevant and irrelevant cost and benefit data is critical for two reasons. First, irrelevant data can be ignored and need not be analyzed. This can save decision-makers tremendous amounts of time and effort. Second, bad decisions can easily result from erroneously including irrelevant cost and benefit data when analyzing alternatives. To be successful in decision making, managers must be able to tell the difference between relevant and irrelevant data and must be able to correctly use the relevant data in analyzing alternatives.

Only those costs and benefits that differ in total between alternatives are relevant in a decision. If a cost will be the same regardless of the alternative selected, then the decision has no effect on the cost and it can be ignored. An avoidable cost is a cost that can be eliminated in whole or in part by choosing one alternative over another. Avoidable costs are relevant costs. Unavoidable costs are irrelevant costs. Two broad categories of costs are never relevant in decisions. These irrelevant costs are sunk costs and future costs that do not differ between the alternatives. A sunk cost is a cost that has already been incurred and that cannot be avoided regardless of what a manager decides to do. Sunk costs are always the same, no matter what alternatives are being considered, and they are, therefore, always irrelevant and should be ignored. Future costs that do differ between alternatives are relevant. In managerial accounting, the terms avoidable cost, differential cost, and relevant cost are often used interchangeably. To identify the costs that are avoidable (differential) in a particular decision situation, and are, therefore, relevant, these steps should be followed:

1. Eliminate costs and benefits that do not differ between alternatives. These irrelevant costs consist of sunk costs and future costs that do not differ between alternatives.
2. Use the remaining costs and benefits that do differ between alternatives in making the decision. The costs that remain are the differential or avoidable costs.

Costs that are relevant in one decision situation are not necessarily relevant in another. Simply put, this means that the manager needs different costs for different purposes. For one purpose, a particular group of costs may be relevant; for another purpose, an entirely different group of costs may be relevant. Thus, in each decision situation the manager must examine the data at hand and isolate the relevant costs.

One of the most difficult concepts that managers have to learn is that sunk costs are never relevant in decisions. The temptation to include sunk costs in the analysis is especially strong in the case of old equipment. Regardless of the kind of sunk cost involved, the conclusion is always the same. Sunk costs are not avoidable; and, therefore, they should be ignored in decisions. This is illustrated below in a machine replacement example.

The question to be addressed in this example is: "Do we replace an existing machine with a new machine that will accomplish the same basic tasks but will reduce the amount of scrap and waste thus reducing variable expenses." The facts are presented below:

Old Machine

Original cost	$175,000
Remaining book value	140,000
Remaining life	4 years
Disposal value now	90,000
Disposal value in 4 years	-0-
Annual variable expenses	345,000
Annual revenue from sales	500,000

New Machine

List price new	$200,000
Expected life	4 years
Disposal value in 4 years	-0-
Annual variable expenses	300,000
Annual revenue from sales	500,000

Old Machine

Remaining book value	$140,000
Disposal value	90,000
Loss on disposal	$ 50,000

Given the potential loss if the old machine is sold, a manager may make the erroneous decision to keep the old machine. A manager may tend to think this way even though the new machine is clearly more efficient than the old machine. An error made in the past cannot be corrected by simply keeping the old machine. The investment that has been made in the old machine is a sunk cost. The portion of this investment that remains on the company’s books should not be considered in a decision about whether to buy the new machine. The following analysis should be used:

	Total Costs and Revenues—Four Years		
	Old	New	Differential
Sales	$2,000,000	$2,000,000	-0-
Variable expenses	(1,380,000)	(1,200,000)	180,000
Depreciation new machine		(200,000)	(200,000)
Depreciation old machine	(140,000)	(140,000)	-0-
Disposal old machine		90,000	90,000
Total income	$ 480,000	$ 550,000	$70,000

Looking at all four years together, the firm will be $70,000 better off by purchasing the new machine. The $140,000 book value of the old machine had no effect on the outcome of the analysis. Since this book value is a sunk cost, it must be absorbed by the firm regardless of whether the old machine is kept and used or whether it is sold. If the old machine is kept and used, then the $140,000 book value is deducted in the form of depreciation. If the old machine is sold, then the $140,000 book value is deducted in the form of a lump-sum write-off. Either way, the company bears the same $140,000 cost and the differential cost is zero.

What costs, in the example above, are relevant in the decision concerning the new machine? Looking at the original cost data, we should eliminate the sunk costs and the future costs and benefits that do not differ between the alternatives at hand.

1. The sunk costs: The remaining book value of the old machine ($140,000).
2. The future costs and benefits that do not differ:
   a. The sales revenue ($500,000 per year).
   b. The variable expenses (to the extent of $300,000 per year).

The costs and benefits that remain will form the basis for a decision.

Reduction in variable expenses (4 years)	$ 180,000
Cost of the new machine	(200,000)
Disposal of old machine	90,000
Net advantage of the new machine	$ 70,000

Managers often have difficulty accepting the idea that sunk costs are never relevant in a decision. Some managers also have difficulty accepting the principle that future costs that do not differ between alternatives are never relevant in a decision. The following example will illustrate how future costs should be handled in a decision:

A company is contemplating the purchase of a new labor-saving machine that will cost $30,000 and have a 10-year useful life. Data concerning the company's annual sales and costs, with and without the new machine, are shown below:

	Old Machine	New Machine
Units produced and sold	5,000	5,000
Selling price per unit	$40	$40
Direct materials per unit	14	14
Direct labor per unit	8	5
Variable overhead per unit	2	2
Fixed costs - other	$62,000	$62,000
Fixed costs new machine		3,000

The new machine will save $3 per unit in direct labor costs but will increase fixed costs by $3,000 per year. All other costs and number of units produced and sold will remain the same. The analysis is as follows:

1. Eliminate the sunk costs. (No sunk costs in this example.)
2. Eliminate the future costs and benefits that do not differ between the alternatives.
    a. The selling price per unit and the number of units sold do not differ between the alternatives.
    b. The direct materials cost per unit, the variable overhead cost per unit, and the number of units produced do not differ between the alternatives.
    c. The fixed costs—others do not differ between the alternatives.

The remaining costs, direct labor and the fixed costs associated with the new machine, are the only relevant costs.

Savings in direct labor costs	$15,000
Less increase in fixed costs	3,000
Net annual cost savings	$12,000

This example illustrates that future costs that do not differ between alternatives are indeed irrelevant in the decision making process and can be safely eliminated from the analysis.

Isolating relevant cost is desirable for at least two reasons. First, only rarely will enough information be available to prepare a detailed income statement for both alternatives. Second, mingling irrelevant costs with relevant costs may cause confusion and distract from the matters that are really critical. The danger always exists that an irrelevant piece of data may be used improperly resulting in an incorrect decision. The best approach is to ignore irrelevant data and base the decision entirely on the relevant data. Relevant cost analysis combined with the contribution approach to the income statement provides a powerful tool for decision making.

Decisions relating to whether old product lines or other segments of a company should be dropped and new ones added are among the most difficult that a manager has to make. In such decisions, many qualitative and quantitative factors must be considered. Ultimately, any final decision to drop an old segment or to add a new one is going to hinge primarily on the impact the decision will have on net operating income. To assess this impact, it is necessary to make a careful analysis of the costs involved.

Consider the three major product lines of the Discount Drug Company, drugs, cosmetics, and housewares. Sales and cost information for the preceding month for each separate product line and for the store in total are below.

		Product Line		
	Total	Drugs	Cosmetics	Housewares
Sales	$250,000	$125,000	$75,000	$50,000
Less variable expenses	105,000	50,000	25,000	30,000
Contribution margin	145,000	75,000	50,000	20,000
Less fixed expenses:				
Salaries	50,000	29,500	12,500	8,000
Advertising	15,000	1,000	7,500	6,500
Utilities	2,000	500	500	1,000
Depreciation-Fixtures	5,000	1,000	2,000	2,000
Rent	20,000	10,000	6,000	4,000
Insurance	3,000	2,000	500	500
General administrative	30,000	15,000	9,000	6,000
Total fixed expenses	125,000	59,000	38,000	28,000
Net operating income (loss)	$20,000	$16,000	$12,000	$(8,000)

What can be done to improve the company’s overall performance? One product line, housewares, shows a net operating loss for the month. Would dropping this line cause profits in the company as a whole to improve? In deciding whether the line should be dropped, management should reason as follows:

If the housewares line is dropped, then the company will lose $20,000 per month in contribution margin. By dropping the line it may be possible to avoid some fixed costs. To show how the manager should proceed in a product-line analysis should consider the following:

1. The salaries expense represents salaries paid to employees directly in each product-line area. All of the employees working in housewares would be discharged if the line were dropped. Savings - $8,000
2. The advertising expense represents direct advertising of each product line and is avoidable if the line is dropped. Savings - $6,500
3. The utilities expense represents utility costs for the entire company. The amount charged to each product line is an allocation based on space occupied and is not avoidable if the product line is dropped. Savings - $-0-
4. The depreciation expense represents depreciation on fixtures used for display of the various product lines. Although the fixtures are nearly new, they are custom-built and will have little resale value if the housewares line is dropped. Savings - $-0-
5. The rent expense represents rent on the entire building and it is allocated to the product lines on the basis of sales dollars. The monthly rent of $20,000 is fixed under a long-term lease agreement. Savings - $-0-
6. The insurance expense represents insurance carried on inventories within each of the three product-line areas. Savings - $500
7. The general administrative expense represents the cost of accounting, purchasing, and general management, which are allocated to the product lines in the basis of sales dollars. Total administrative costs will not change if the housewares line is dropped. Savings - $-0-

The costs which cannot be avoided if the product line is dropped total $15,000. To determine how dropping the line will affect the overall profits of the company, compare the contribution margin that will be lost ($20,000) to the costs that can be avoided ($15,000) if the line is dropped. In this case, the fixed costs that can be avoided, by dropping the product line are less than the contribution margin that will be lost. Therefore, based on the data given, the housewares line should not be discontinued unless a more profitable use can be found for the floor and counter space that it is occupying.

The conclusion that the housewares line should not be dropped seems to conflict with the data. The housewares line is showing a loss rather than a profit. The explanation for this apparent inconsistency lies at least in part with the common fixed costs that are being allocated to the product lines. One of the dangers in allocating common fixed costs is that such allocations can make a product line or other segment of a business look less profitable than it really is. By allocating the common fixed costs among all product lines, the housewares line has been made to look as if it were unprofitable whereas dropping the line would result in a decrease in overall company net operating income.

A decision to produce a fabricated part internally, rather than to buy the part externally from a supplier, is called a make or buy decision. Actually, any decision relating to vertical integration is a make or buy decision since the company is deciding whether to meet its own needs internally or to buy externally. Integration provides certain advantages. An integrated firm is less dependent on its suppliers and may be able to ensure a smoother flow of parts and materials for production than a nonintegrated firm. Many firms feel that they can control quality better by producing their own parts and materials, rather than by relying on the quality control standards of outside suppliers. The integrated firm realizes profits from the parts and materials that it is making rather than buying as well as profits from its regular operations. The advantages of integration are counterbalanced by some advantages of using external suppliers. By pooling demand from a number of firms, a supplier may be able to enjoy economies of scale in research and development and in manufacturing. These economies of scale can result in higher quality and lower costs than would be possible if the firm were to attempt to make the parts on its own. A company must be careful to retain control over activities that are essential to maintaining its competitive position. To provide an illustration of a make or buy decision, consider Mountain Cycle Works. The company is now producing the heavy-duty gear shifters used in its most popular line of mountain bikes. The company's accounting department reports the following costs of producing the shifter internally:

	Per Unit	8,000 Units
Direct materials	$6	$48,000
Direct labor	4	32,000
Variable overhead	1	8,000
Supervisor's salary	3	24,000
Depreciation-special equip	2	16,000
Allocated general overhead	5	40,000
Total costs	$21	$168,000

An outside supplier has offered to sell Mountain Cycle Works 8,000 shifters a year at a price of only $19 each. To approach the decision of whether to make or buy the shifter, the manager should focus on the differential costs. The differential costs can be obtained by eliminating those costs that are not avoidable. The costs that remain after making these eliminations are the costs that are avoidable to the company by purchasing from an outside supplier. If these avoidable costs are less than the outside purchase price, then the company should continue to manufacture its own shifters and reject the outside supplier's offer. The company should purchase from the outside only if the outside purchase price is less than the costs that can be avoided internally as a result of stopping production of the shifters.

In this example, the only costs that can be avoided are direct materials, direct labor, variable overhead, and supervisor's salary. The depreciation of the special equipment and the general overhead allocation will continue regardless of the decision that is made. By comparing the avoidable costs, $14 in house versus $19 from an outside supplier, Mountain Cycle works should reject the outside supplier's offer. There is one additional factor that the company may wish to consider before coming to a final decision. This factor is the opportunity cost of the space now being used to produce the shifters.

If the space being used to produce the shifters would otherwise be idle, then Mountain Cycle Works should continue to produce its own shifters and the supplier's offer should be rejected. Idle space that has no alternative use has an opportunity cost of zero. If the space now being used to produce shifters could be used to produce a new bike line, that would generate a segment margin of $60,000 per year, Mountain Cycle Works would be better off to accept the suppliers offer and to use the available space to produce the new product line.

	Make	Buy
Differential cost per unit	$ 14	$ 19
Number of units	8,000	8,000
Total annual cost	$112,000	$152,000
Opportunity cost	$ 60,000	.
Total cost	$172,000	$152,000
Difference in favor of purchasing		$ 20,000

Opportunity costs are not recorded in the accounts of an organization. They do not represent actual dollar outlays. They represent economic benefits that are forgone as a result of pursuing some course of action. The opportunity costs of Mountain Cycle Works are sufficiently large in this case to make continued production of the shifters very costly from an economic point of view.

Managers must be able to evaluate whether a special order should be accepted, and if the order is accepted, the price that should be charged. A special order is a one-time order that is not considered part of the company's normal ongoing business. A special order is profitable as long as the incremental revenue from the special order exceeds the incremental costs of the order. It is important to make sure that there is idle capacity and that the special order does not cut into normal operations and sales. If a company is operating at capacity, opportunity costs have to be taken into account as well as the incremental costs.

Managers are routinely faced with the problem of deciding how constrained resources are going to be utilized. When a limited resource of some type restricts the company's ability to satisfy demand, the company is said to have a constraint. Because of the constrained resource, the company cannot fully satisfy demand, so the manager must decide how the constrained resource should be used. Fixed costs are usually unaffected by such choices, so the manager should select the course of action that will maximize the firm's total contribution margin. To maximize total contribution margin, a firm should not necessarily promote those products that have the highest unit contribution margins. Rather, promoting those products or accepting those orders that provide the highest unit contribution margin in relation to the constrained resource will maximize total contribution margin. The manager should look at the contribution margin per unit of the constrained resource. This figure is computed by dividing the contribution margin by the amount of the constrained resource a unit of product requires.

Profits can be increased by effectively managing the organization's constraints. One aspect of managing constraints is to decide how to best utilize them. If the constraint is a bottleneck in the production process, the manager should select the product mix that maximizes the total contribution margin. The manager should take an active role in managing the constraint itself. Management should focus efforts on increasing the efficiency of the bottleneck operation and on increasing its capacity. Such efforts directly increase the output of finished goods and will often pay off in an almost immediate increase in profits. It is often possible for a manager to effectively increase the capacity of a bottleneck. This is called relaxing or elevating the constraint. Managers should focus much of their attention on managing bottlenecks. Managers should emphasize products that most profitably utilize the constrained resource. They should also make sure that products are processed smoothly through the bottlenecks with minimal lost time due to breakdowns and setups. The capacity of a bottleneck can be effectively increased in several ways, including:

- ✓ Working overtime on the bottleneck.
- ✓ Subcontracting some of the processing that would be done at the bottleneck.
- ✓ Investing in additional machines at the bottleneck.
- ✓ Shifting workers from processes that are not bottlenecks to the process that is a bottleneck.
- ✓ Focusing business process improvement efforts such as TQM and Business Process Re-engineering on the bottleneck.
- ✓ Reducing defective units. Each defective unit that is processed through the bottleneck and subsequently scrapped takes the place of a good unit that could be sold.

The last three methods of increasing the capacity of the bottleneck are particularly attractive since they are essentially free and may even yield additional cost savings.

In some industries, a number of end products are produced from a single raw material. Firms that produce several end products from a common input are faced with the problem of deciding how the cost of that input is going to be divided among the end products. Two or more products that are produced from a common input are known as joint products. The term joint products is used to describe those manufacturing costs that are incurred in producing joint products up to the split-off point. The split-off point is that point in the manufacturing process at which the joint products can be recognized as separate products. At that point, some of the joint products will be in final form ready to be marketed to the consumer. Others will still need further processing on their own before they are in marketable form.

Joint product costs are irrelevant in decisions regarding what to do with a product from the split-off point forward. The reason is that by the time the product arrives at the spit-off point, the joint product costs have already been incurred and, therefore, are sunk costs. Sell or process further decisions address whether or not to process a product past the split-off point. It will always be profitable to continue processing a joint product after the split-off point so long as the incremental revenue from such processing exceeds the incremental processing cost incurred after the split-off point. Joint product costs that have already been incurred up to the split-off point are sunk costs which are always irrelevant in decisions concerning what to do from the split-off point forward.

Activity-based costing can be used to help identify potentially relevant costs for decision-making purposes. Activity-based costing improves the traceability of costs by focusing on the activities caused by a product or other segment. Managers should exercise caution against reading more into this traceability than really exists. People have a tendency to assume that if a cost is traceable to a segment, then the cost is automatically an avoidable cost. That is not true. The costs provided by a well-designed, activity-based costing system are only potentially relevant. Before making a decision, managers must still decide which of the potentially relevant costs are actually avoidable. Only those costs that are avoidable are relevant and the others should be ignored. The method used to assign a cost to a product or other segment does not change the basic nature of the cost. A sunk cost, such as depreciation of old equipment, is still a sunk cost regardless of whether it is traced directly to a particular segment on an activity basis allocated to all segments on the basis of labor-hours or treated in some other way in the costing process.

MANAGERIAL DECISIONS

REVIEW QUESTIONS

1. Costs which are always relevant in decision making are those costs which are:

    a. variable.
    b. avoidable.
    c. sunk.
    d. fixed.

2. Consider a decision facing a firm of either accepting or rejecting a special offer for one of its products. A cost that is not relevant is:

    a. direct materials.
    b. variable overhead.
    c. fixed overhead that will be avoided if the special offer is accepted.
    d. common fixed overhead that will continue if the special offer is not accepted.

3. To maximize total contribution margin, a firm faced with a production constraint should:

    a. promote those products having the highest unit contribution margin.
    b. promote those products having the highest contribution margin ratios.
    c. promote those products having the highest contribution margin per unit of constrained resource.
    d. promote those products having the highest contribution margins and contribution margin ratios.

4. Which of the following is *not* an effective way of dealing with a production constraint?

    a. Reduce the number of defective units produced at the bottleneck.
    b. Pay overtime to workers assigned to the bottleneck.
    c. Pay overtime to workers assigned to work stations located after the bottleneck in the production process.
    d. Subcontract work that would otherwise require use of the bottleneck.

5. A joint product is:

    a. any product which consists of several parts.
    b. any product provided by a firm with more than one product line.
    c. any product involved in a make or buy decision.
    d. one of several products produced from a common input.

6. The Lantern Corporation has 1,000 obsolete lanterns that are carried in inventory at a manufacturing cost of $20,000. If the lanterns are remachined for $5,000, they could be sold for $9,000. Alternatively, the lanterns could be sold for scrap for $1,000. Which alternative is more desirable and what are the total relevant costs for that alternative?

a. remachine and $5,000
b. remachine and $25,000
c. scrap and $20,000
d. scrap and $19,000

7. Relay Corporation manufactures batons. Relay can manufacture 300,000 batons a year at a variable cost of $750,000 and a fixed cost of $450,000. Based on Relay's predictions for next year, 240,000 batons will be sold at the regular price of $5.00 each. In addition, a special order was placed for 60,000 batons to be sold at a 40% discount off the regular price. Total fixed costs would be unaffected by this order. By what amount would the company's net operating income be increased or decreased as a result of the special order?

a. $ 60,000 decrease
b. $ 30,000 increase
c. $ 36,000 increase
d. $180,000 increase

8. The manufacturing capacity of Jordan Company's facilities is 30,000 units a year. A summary of operating results for last year follows:

Sales (18,000 units @ $100)	$1,800,000
Variable costs	990,000
Contribution margin	810,000
Fixed costs	495,000
Net operating income	$ 315,000

A foreign distributor has offered to buy 15,000 units at $90 per unit next year. Jordan expects its regular sales next year to be 18,000 units. If Jordan accepts this offer and rejects some business from regular customers so as not to exceed capacity, what would be the total net operating income next year? (Assume that the total fixed costs would be the same no matter how many units are produced and sold.)

a. $390,000
b. $705,000
c. $840,000
d. $855,000

9. Wagner Company sells product A for $21 per unit. Wagner's unit product cost based on the full capacity of 200,000 units is as follows:

Direct materials	$ 4
Direct labor	5
Manufacturing overhead	6
Unit product cost	$15

A special order offering to buy 20,000 units has been received from a foreign distributor. The only selling costs that would be incurred on this order would be $3 per unit for shipping. Wagner has sufficient idle capacity to manufacture the additional units. Two-thirds of the manufacturing overhead is fixed and would not be affected by this order. Assume that direct labor is an avoidable cost in this decision. In negotiating a price for the special order, the minimum acceptable price per unit should be:

a. $14.
b. $15.
c. $16.
d. $18.

10. A study has been conducted to determine if one of the departments in Parry Company should be discontinued. The contribution margin in the department is $50,000 per year. Fixed expenses charged to the department are $65,000 per year. It is estimated that $40,000 of these fixed expenses could be eliminated if the department is discontinued. These data indicate that if the department is discontinued, the company's overall net operating income would:

a. decrease by $25,000 per year.
b. increase by $25,000 per year.
c. decrease by $10,000 per year.
d. increase by $10,000 per year.

11. A study has been conducted to determine if Product A should be dropped. Sales of the product total $200,000 per year; variable expenses total $140,000 per year. Fixed expenses charged to the product total $90,000 per year. The company estimates that $40,000 of these fixed expenses will continue even if the product is dropped. These data indicate that if Product A is dropped, the company's overall net operating income would:

a. decrease by $20,000 per year.
b. increase by $20,000 per year.
c. decrease by $10,000 per year.
d. increase by $30,000 per year.

12. Lusk Company produces and sells 15,000 units of Product A each month. The selling price of Product A is $20 per unit, and variable expenses are $14 per unit. A study has been made concerning whether Product A should be discontinued. The study shows that $70,000 of the $100,000 in fixed expenses, charged to Product A, would continue even if the product was discontinued. These data indicate that if Product A is discontinued, the company's overall net operating income would:

    a. decrease by $60,000 per month.
    b. increase by $10,000 per month.
    c. increase by $20,000 per month.
    d. decrease by $20,000 per month.

13. Manor Company plans to discontinue a department that has a contribution margin of $24,000 and $48,000 in fixed costs. Of the fixed costs, $21,000 cannot be avoided. The effect of this discontinuance on Manor's overall net operating income would be a(n):

    a. decrease of $3,000.
    b. increase of $3,000.
    c. decrease of $24,000.
    d. increase of $24,000.

14. Gata Company plans to discontinue a department that has a $48,000 contribution margin and $96,000 of fixed costs. Of these fixed costs, $42,000 cannot be avoided. What would be the effect of this discontinuance on Gata's overall operating income?

    a. increase of $48,000
    b. decrease of $48,000
    c. increase of $6,000
    d. decrease of $6,000

15. The Cook Company has two divisions—Eastern and Western. The divisions have the following revenues and expenses:

	Eastern	Western
Sales	$550,000	$500,000
Variable costs	275,000	200,000
Direct fixed costs	180,000	150,000
Allocated fixed costs	170,000	135,000
Net income (loss)	(75,000)	15,000

The management of Cook is considering the elimination of the Eastern Division. If the Eastern Division were eliminated, the direct fixed costs associated with this division could be avoided. However, allocated fixed costs would still be $305,000 in total. Given these data, the elimination of the Eastern Division would result in an overall company net income (loss) of:

a. $15,000.
b. ($155,000).
c. ($75,000).
d. ($60,000).

16. Manor Company plans to discontinue a department that has a contribution margin of $25,000 and $50,000 in fixed costs. Of the fixed costs, $21,000 cannot be eliminated. The effect on the profit of Manor Company of discontinuing this department would be:

a. a decrease of $4,000.
b. an increase of $4,000.
c. a decrease of $25,000.
d. an increase of $25,000.

17. Green Company produces 1,000 parts per year which are used in the assembly of one of its products. The unit cost of these parts is:

Variable manufacturing cost	$12
Fixed manufacturing cost	9
Unit product cost	$21

The part can be purchased from an outside supplier at $20 per unit. If the part is purchased from the outside supplier, two thirds of the fixed manufacturing costs can be eliminated. The annual impact on the company's net operating income as a result of buying the part from the outside supplier would be:

a. $1,000 increase.
b. $1,000 decrease.
c. $5,000 increase.

d. $2,000 decrease.

18. Pitkin Company produces a part used in the manufacture of one of its products. The unit product cost of the part is $33 computed as follows:

Direct materials	$12
Direct labor	8
Variable manufacturing overhead	3
Fixed manufacturing overhead	10
Unit product cost	$33

An outside supplier has offered to provide the annual requirement of 10,000 of the parts for only $27 each. The company estimates that 30% of the fixed manufacturing overhead costs above will continue if the parts are purchased from the outside supplier. Assume that direct labor is an avoidable cost in this decision. Based on these data, the per unit dollar advantage or disadvantage of purchasing the parts from the outside supplier would be:

a. $3 advantage.
b. $1 advantage.
c. $1 disadvantage.
d. $4 disadvantage.

19. Cardinal Company needs 20,000 units of a certain part to use in one of its products. The following information is available:

Direct materials	$ 4
Direct labor	16
Variable manufacturing overhead	8
Fixed manufacturing overhead	10
Total cost to make part	$38
Cost to buy the part	$36

Oriole Company has offered to sell this part to Cardinal Company for $36 each. If Cardinal buys the part from Oriole instead of making it, Cardinal would not have any use for the released capacity. In addition, 60% of the fixed manufacturing overhead costs will continue regardless of what decision is made. Assume that direct labor is an avoidable cost in this decision. In deciding whether to make or buy the part, the total relevant costs to make the part are:

a. $560,000.
b. $640,000.
c. $720,000.
d. $760,000.

20. Golden, Inc., has been manufacturing 5,000 units of Part 10541 which is used in one of its products. At this level of production, the unit product cost of Part 10541 is as follows:

Direct materials	$ 2
Direct labor	8
Variable manufacturing overhead	4
Fixed manufacturing overhead	6
Unit product cost	$20

Brown Company has offered to sell Golden 5,000 units of Part 10541 for $19 a unit. Golden has determined that two thirds of the fixed manufacturing overhead will continue even if Part 10541 is purchased from Brown. Assume that direct labor is an avoidable cost in this decision. To determine whether to accept Brown's offer, the relevant costs to Golden of manufacturing the parts internally, are:

a. $70,000.
b. $80,000.
c. $90,000.
d. $95,000.

21. The following standard costs pertain to a component part manufactured by Ashby Company:

Direct materials	$ 2
Direct labor	5
Manufacturing overhead	20
Standard cost per unit	$27

The company can purchase the part from an outside supplier for $25 per unit. The manufacturing overhead is 60% fixed and this fixed portion would not be affected by this decision. Assume that direct labor is an avoidable cost in this decision. What is the relevant amount of the standard cost per unit to be considered in a decision of whether to make the part internally or buy it from the external supplier?

a. $ 2
b. $15
c. $19
d. $27

22. The SP Company makes 40,000 motors to be used in the production of its sewing machines. The average cost per motor at this level of activity is:

Direct materials	$5.50
Direct labor	5.60
Variable factory overhead	4.75
Fixed factory overhead	4.45

An outside supplier recently began producing a comparable motor that could be used in the sewing machine. The price offered to SP Company for this motor is $18. If SP Company decides not to make the motors, there would be no other use for the production facilities and total fixed factory overhead costs would not change. If SP Company decides to continue making the motor, how much higher or lower would net income be than if the motors are purchased from the outside supplier? Assume that direct labor is a variable cost in this company.

a. $276,000 higher
b. $ 86,000 higher
c. $ 92,000 lower
d. $178,000 higher

23. Products A, B, and C are produced from a single raw material input. The raw material costs $90,000 from which 5,000 units of A, 10,000 units of B, and 15,000 units of C can be produced each period. Product A can be sold at the split-off point for $2 per unit or it can be processed further at a cost of $12,500 and then sold for $5 per unit. Product A should be:

a. sold at the split-off point since further processing would result in a loss of $.50 per unit.
b. processed further since this will increase profits by $2,500 each period.
c. sold at the split-off point since further processing will result in a loss of $2,500 each period.
d. processed further since this will increase profits by $12,500 each period.

24. The Wyeth Company produces three products, A, B, and C, from a single raw material input. Product A can be sold at the split-off point for $40,000, or it can be processed further at a total cost of $15,000 and then sold for $58,000. Joint product costs total $60,000 annually. Product A should be:

a. discontinued since revenues after further processing are less than total joint product costs.
b. sold at the split-off point.
c. process further and then sold.
d. processed further only if its share of the total joint product costs is less than the incremental revenues from further processing.

25. The Tolar Company has 400 obsolete desk calculators that are carried in inventory at a total cost of $26,800. If these calculators are upgraded at a total cost of $10,000, they can be sold for a total of $30,000. As an alternative, the calculators can be sold in their present condition for $11,200. The sunk cost in this situation is:

   a. $10,000.
   b. $26,800.
   c. $11,200.
   d. $ -0-.

26. The Tolar Company has 400 obsolete desk calculators that are carried in inventory at a total cost of $26,800. If these calculators are upgraded at a total cost of $10,000, they can be sold for a total of $30,000. As an alternative, the calculators can be sold in their present condition for $11,200. What is the net advantage or disadvantage to the company from upgrading the calculators?

   a. $ 8,800 advantage
   b. $18,000 disadvantage
   c. $20,000 advantage
   d. $ 8,000 disadvantage

27. The Tolar Company has 400 obsolete desk calculators that are carried in inventory at a total cost of $26,800. If these calculators are upgraded at a total cost of $10,000, they can be sold for a total of $30,000. As an alternative, the calculators can be sold in their present condition for $11,200. Assume that Tolar decides to upgrade the calculators. At what selling price per unit would the company be as well off as if it just sold the calculators in their present condition?

   a. $ 8
   b. $30
   c. $53
   d. $67

28. The Immanuel Company has just obtained a request for a special order of 6,000 jigs to be shipped at the end of the month at a selling price of $7 each. The company has a production capacity of 90,000 jigs per month with total fixed production costs of $144,000. At present, the company is selling 80,000 jigs per month through regular channels at a selling price of $11 each. For these regular sales, the cost for one jig is:

Variable production cost	$4.60
Fixed production cost	1.80
Variable selling expense	1.00

If the special order is accepted, Immanuel will not incur any selling expense; however, it will incur shipping costs of $.30 per unit. If Immanuel accepts this special order, the change in the monthly net operating income will be a:

a. $12,600 increase.
b. $14,400 increase.
c. $ 3,600 increase.
d. $ 1,800 increase.

29. The Immanuel Company has just obtained a request for a special order of 6,000 jigs to be shipped at the end of the month at a selling price of $7 each. The company has a production capacity of 90,000 jigs per month with total fixed production costs of $144,000. At present, the company is selling 80,000 jigs per month through regular channels at a selling price of $11 each. For these regular sales, the cost for one jig is:

Variable production cost	$4.60
Fixed production cost	1.80
Variable selling expense	1.00

If the special order is accepted, Immanuel will not incur any selling expense; however, it will incur shipping costs of $.30 per unit. At what selling price per unit should Immanuel be indifferent between accepting or rejecting the special offer?

a. $7.40
b. $7.70
c. $6.40
d. $4.90

30. The Immanuel Company has just obtained a request for a special order of 6,000 jigs to be shipped at the end of the month at a selling price of $7 each. The company has a production capacity of 90,000 jigs per month with total fixed production costs of $144,000. At present, the company is selling 80,000 jigs per month through regular channels at a selling price of $11 each. For these regular sales, the cost for one jig is:

Variable production cost	$4.60
Fixed production cost	1.80
Variable selling expense	1.00

If the special order is accepted, Immanuel will not incur any selling expense; however, it will incur shipping costs of $.30 per unit. Suppose that regular sales of jigs total 85,000 units per month and all other conditions remain the same. If Immanuel accepts the special order, the change in monthly operating income will be:

a. $14,400 increase.
b. $ 7,200 increase.
c. $ 3,600 decrease.
d. $ 5,400 decrease.

MANAGERIAL DECISIONS

REVIEW QUESTION SOLUTIONS

1.	B
2.	D
3.	C
4.	C
5.	D
6.	A
7.	B
8.	B
9.	A
10.	C
11.	C
12.	A
13.	B
14.	C
15.	B
16.	B
17.	D
18.	A
19.	B
20.	B
21.	B
22.	B
23.	B
24.	C
25.	B
26.	A
27.	C
28.	A
29.	D
30.	B

MANAGERIAL DECISIONS
Explanation of Review Question Solutions

1. The correct answer is B, avoidable. An avoidable cost is a cost that can be eliminated in whole or in part by choosing one alternative over another. Alternative costs are relevant costs. Irrelevant costs are unavoidable costs, which include sunk costs (C) and future costs that do not differ between alternatives. A sunk cost is a cost that has already been incurred and that cannot be avoided regardless of what a manager decides to do. Alternative costs, sunk costs, and unavoidable future costs can be variable (A), costs that vary with the activity, such as sales, fixed (D), costs that do not change on the basis of sales or other activity, or mixed costs (semi-variable or those costs that contain both variable and fixed elements). Many variable costs are avoidable in some circumstances, such as increased production, but sometimes they are unavoidable; it depends upon the circumstances.

2. The correct answer is D, common fixed overhead that will continue if the special offer is not accepted. Direct materials (A) and variable overhead (B) will change in proportion to the increased production called for under the special offer. The fixed overhead that is avoidable (C) is relevant (see #1 above).

3. The correct answer is C; promote those products having the highest contribution margin per unit of constrained resource. If you promote the one with the highest unit contribution margin or contribution margin, you can obtain the best profit, where there is no constrained resource (A, B and D are false). The contribution margin per unit of the constrained resource equals the contribution margin divided by the amount of the constrained resource that a unit of product requires. This is a specific amount for each product.

4. The correct answer is C; pay overtime to workers assigned to work stations located after the bottleneck in the production process. Highlight or circle the word not. This question has three true options and one false, which is the correct answer. One type of a constraint is a bottleneck. Managing the bottleneck constraint to increase production includes working overtime on the bottleneck (B), subcontracting bottleneck work (D), employing additional machines at the bottleneck, shifting workers to the bottleneck from other processes, business process improvement and re-engineering the bottleneck, and reducing defective units passing through the bottleneck (A).

5. The correct answer is D; one of several products produced from a common input. Two or more products that are produced from a common input are known as joint products. Decisions to produce a fabricated part internally, rather than buying the part externally from a supplier, is a make-or-buy decision. Any product that consists of several parts is just that a product with many parts (A). Many firms have a product mixture of several diversified product lines (B).

6. The correct answer is A, re-machine and $5,000. The correct alternative is to re-machine because if you sell for scrap you net $1,000 in relevant revenue (equals income since no costs are relevant). If you re-machine you net $4,000 in relevant income, $9,000 revenue less $5,000 relevant cost. The $20,000 cost to produce the obsolete lanterns is a sunk cost (irretrievable or lost cost), and is therefore not relevant, since it does not change regardless of the alternative.

7. The correct answer is B, $30,000 increase. Set up a chart for three columns: 300,000 batons, 240,000 batons, and 60,000 special order batons. You add a fourth column for dollars per unit for the variable items: revenue, variable costs, and contribution margin. Plug into the chart what you know. The 240,000 units will give net income of $1,200,000 revenue, $5.00 per unit times 240,000 units, minus $600,000 variable cost, $2.50 per unit, $750,000 divided by 300,000units, times 240,000 units, equals contribution margin of $600,000, minus $450,000 fixed costs (given) equals $150,000. The $30,000 increase equals the $180,000 revenue ($5,00 × 40% × 60,000 units) minus $150,000 variable cost ($2.50 per unit × 60,000 units) is the contribution margin. Fixed costs are not relevant to the special order because the 240,000 units of regular orders covered them.

8. The correct answer is B, $705,000. Variable costs equal $990,000 divided by 18,000 units or $55 per unit. Sales with the special order are $1,500,000 ($100 times 15,000 units) plus $1,350,000 ($90 times 15,000 units) or $2,850,000. Sales of $2,850,000 minus variable costs of 1,650,000 ($55 times 30,000 units) equals contribution margin of $1,200,000; contribution margin minus $495,000 equals net income of $705,000.

9. The correct answer is A, $14. Skip down to the last line in the question and underline “the minimum acceptable price per unit;” this is what the question is asking. Whenever you have a special order that will not change fixed costs, the minimum acceptable price per unit is any price that results in a positive contribution margin. The total variable costs per unit of product equal $4 for direct materials, $5 for direct labor, $2 for manufacturing overhead ($6 times 1/3) for a total of $13 variable cost. The minimum acceptable price should be $14, because it is the best answer from those available, assuming that the company purchasing the item pays the $3 shipping.

10. The correct answer is C, decrease by $10,000 per year. The question asks, "If the department is discontinued, the company's overall net operating income would?" The department has a contribution margin of $50,000 and $40,000 fixed expenses, leaving $10,000 net income that would be lost if the department was discontinued.

11. The correct answer is C, decrease by $10,000 per year. The sales of product A are $200,000 minus variable expenses of $140,000; that gives a contribution margin of $60,000 minus the product segment fixed expenses of $50,000, $90,000 fixed expenses minus the $40,000 that would continue even if the segment was discontinued, giving us a net loss of $10,000.

12. The correct answer is A, decrease by $60,000 per month. This question is similar to #11. The sales of product A are $300,000, $20 dollars selling price per unit times 15,000 units, minus variable expenses of $210,000, $14 variable cost per unit times 15,000 units, giving a contribution margin of $90,000 minus the product segment fixed expenses of $30,000, $100,000 fixed expenses minus the $70,000 that would continue even if the segment was discontinued, gives us a net loss (decrease) of $60,000.

13. The correct answer is B, increase of $3,000. This question is similar to #10. The question asks, "the effect of the discontinuance of a this department on the company's overall net operating income would be?" The department has a contribution margin of $24,000 and $27,000 fixed expenses ($48,000 fixed costs (expenses) minus the $21,000 "that cannot be avoided"), leaving $3,000 net income that would be increased if the department were discontinued.

14. The correct answer is C, increase of $6,000. This question is similar to #10 and #13. The question asks, "the effect of the discontinuance of a this department on the company's overall net operating income would be?" The department has a contribution margin of $48,000 and $54,000 fixed expenses ($96,000 fixed costs (expenses) minus the $42,000 that would continue even if the segment was discontinued), leaving $6,000 net income that would be increased if the department were discontinued.

15. The correct answer is B, loss of $155,000. The question asks, "Elimination of the Eastern Division would result in an overall company net income (loss) of?" The net income of the Western Division is $15,000 and would be the only net income remaining; the allocated fixed costs of 170,000 would continue even if the segment were discontinued, leaving us with a net loss of $155,000. Another way to do this is to subtract the total allocated fixed costs that would continue of $305,000 from the income of $150,000 to get the $155,000 net loss on the noneliminated costs.

16. The correct answer is B, an increase of $4,000. The department contribution margin of $25,000 minus the $29,000 fixed costs ($50,000 fixed costs (expenses) minus the $21,000 that would continue even if the segment were discontinued), leaving $4,000 net income that would be increased if the department was discontinued.

17. The correct answer is D, $2,000 decrease. How much can the company save or lose by buying the part for $20 rather than manufacturing it? A buy-or-make decision is a choice between fabricating a part internally and buying it from an external supplier. The alternative is to continue making the part at a manufacturing cost of $12 variable and $6 fixed ($9 times the 2/3 of fixed cost that could be eliminated by the purchase), at the current rate of production of 1,000 parts per year, totaling $18 per part. The difference is $20 to buy vs. $18 to make the part or $2 times the 1,000 parts or a $2,000 decrease in net operating income if we buy.

18. The correct answer is A, $3 advantage. The alternative cost to manufacture the product is $12 of direct materials, $8 of direct labor, $3 of variable manufacturing overhead and $7 of fixed manufacturing overhead that would be eliminated by buying the part, $10 fixed manufacturing overhead minus $3 (30% × $10 of fixed manufacturing overhead which will continue in either event make or buy) giving us total avoidable expense of $30. $30 to make and $27 to buy gives a $3 advantage to buying. Look at the wording of the answers and the question carefully to determine what the question is asking.

19. The correct answer is B, $640,000. Skip down to the end to find out that the question asks: "total relevant costs to make the part are?" The wording and fact pattern chart are similar to #18. Total avoidable or relevant unit costs are the sum of direct materials of $4, direct labor of $16, variable manufacturing overhead of $8, and fixed manufacturing overhead is $4 ($10 less $6 (60% of $10)), giving a total of $32 total relevant unit costs. Multiply the $32 total relevant unit costs times the 20,000 units made to get $640,000 dollars (relevant costs to make the part). This is the answer; you need not go any further.

20. The correct answer is B, $80,000. This question is very much the same as #19. The question asks "the relevant costs of making the parts internally?" The relevant (avoidable) unit costs are the sum of direct materials of $2, direct labor of $8, variable manufacturing overhead of $4, and $2 ($6 minus $4 (2/3 of $6)) of fixed manufacturing overhead, equaling $16. Relevant costs of $16 per unit times 5,000 units is $80,000 of relevant costs.

21. The correct answer is B, $15. The question asks for the "relevant costs of the standard cost per unit" considered in the make-or-buy decision. The relevant unit costs include direct materials of $2, direct labor of $5, and manufacturing overhead of $8 ($20 total less $12 (60% of $20)), to give us $15 relevant unit costs.

22. The correct answer is B, $86,000 higher. The question asks how much higher or lower would net income be if they continue making the motor. The other use of the facilities is talking about opportunity costs that are relevant costs if you can use the facilities to produce another item at a profit. Relevant costs include direct materials of $5.50, direct labor of $5.60, variable factory overhead of $4.75, and fixed factory overhead of $0, since all $4.45 per unit cannot be avoided by the decision, for a total of $15.85 per part. $18 to buy minus $15.85 to manufacture equals $2.15 per unit higher income if you continue to make or $86,000 dollars for 40,000 units of production ($2.15 times 40,000 units).

23. The correct answer is B, processed further since this will increase profits by $2,500 each period. The relevant revenue and costs only include those after the split-off point. The revenue from 5000 units of A equals the unit sales price of $5 times 5,000 units or $25,000 minus costs of $12,500 giving total revenue of $12,500. Processing further then compares income of $12,500 by processing to $10,000 ($2 times 5,000 units) income from selling for $2 per unit at split-off, showing that further processing will increase income by $2,500 ($12,500 income vs. $10,000 income).

24. The correct answer is C, process further and then sold. You cannot discontinue product A, because if you do so you will have to discontinue products B and C, since they are joint products (A). Joint product costs are irrelevant to a sell-or-process-further decision (D), since they remain unchanged whether you process further or sell after split-off. The real question is whether to process further or sell at split-off (B and C); we must do a computation to determine which is best. The revenue from processing further of $58,000 less the $15,000 cost equals $43,000 net income from processing further that, when compared with $40,000 gained from sale at split-off, indicates that the company makes $3,000 more by processing further.

25. The correct answer is B, $26,800. The question asks for the sunk costs. Sunk costs are always the same no matter which alternative you select. They are gone and cannot be recovered; just think of them being placed in a boat and sunk to the bottom of the sea. You cannot change them. The initial cost of the calculators of $26,800 is not relevant to whether you sell for scrap at $11,200 or process further for a net income of $18,800 ($30,000 revenue minus $11,200 costs to process further).

26. The correct answer is A, $8,800 advantage. The facts are the same as in #25. The question is what is the advantage to upgrading calculators as opposed to selling them as is. The total cost of $26,800 is a sunk or irrelevant cost that can be ignored. The net income from upgrading the calculators is $30,000 revenue from sales of the upgraded calculators less the $10,000 cost of upgrade for a net of $20,000. Compare the $20,000 net income from upgraded calculators to the $11,200 revenue from sales without upgrading to find an $8,800 advantage to the upgrade.

27. The correct answer is C, $53. The fact pattern is identical to #25 and #26. You can save time in these cases by using some of your prior calculations to help with the current one. I would have thought that this would be equal to the net income derived from the upgraded calculators of $20,000 divided by 400 units, or $50 per unit. The question implies that the correct answer is the $11,200, derived from the outright sale plus the cost of upgrading them of $10,000 or $21,200 divided by 400 for a cost of $53.

28. The correct answer is A, $12,600 increase. The question asks "what is the change in monthly net operating income if they accept the special order?" Since they do not tell us how much fixed production cost will change due to this order we have to assume no change will occur in fixed costs. We can also eliminate variable selling expense, because we are told that no variable selling expense will be incurred due to the sale. Therefore the variable cost per unit of $4.60 times 6,000 units or $27,600 cost, the sales revenue is $7 times 6,000 units or $42,000, the shipping cost is $0.30 × 6,000 units or $1,800 netting $12,600.

29. The correct answer is D, $4.90. The fact pattern is identical to #28. The question is asking at what selling price per unit would the company do just as well to accept or not accept the special order, which would be the point where the sales price would equal the relevant costs. The previous question defines the relevant costs at $4.60 for the variable production cost and $0.30 for the relevant shipping cost for a total relevant cost of $4.90.

30. The correct answer is B, $7,200 increase. The fact pattern is identical to #28 and #29, except for an increase in total sales to 85,000 units per month. The question asks what operating income will be if the special order is accepted. You would have to give up sales of 1,000 units at $11 each with variable selling expense of $1.00 and variable production cost of $4.60 which would come to $5.40 net income per unit times 1000 units or $5,400 lost revenue. The income from the sales of the 6000 units is $12,600 minus the $5,400 lost revenue for turning down 1,000 units of regular sales for a net increase of $7,200.

THE CASH BUDGET

After reviewing this chapter, you should be able to:

1. *Prepare a cash budget*
2. *Prepare a budgeted income statement and a budgeted balance sheet*
3. *Determine the economic order quantity (EOQ) and the reorder point*

The cash budget pulls together the data developed in the master budget process. The cash budget is composed of four major sections:

1. The receipts section
2. The disbursements section
3. The cash excess or deficiency section
4. The financing section

The receipts section consists of a listing of all cash inflows except for financing, expected during the budget period. Generally, the major source of receipts will be from sales.

The disbursements section consists of all cash payments that are planned for the budget period. These payments will include raw materials purchases, direct labor payments, manufacturing overhead costs, and so on, as contained in their respective budgets. In addition, other cash disbursements such as equipment purchases, dividends, and other cash withdrawals by owners are listed.

The cash excess or deficiency section is computed as follows:

Cash balance, beginning	XXXX
Add receipts	XXXX
Total cash available	XXXX
Less disbursements	XXXX
Excess (deficiency)	XXXX

If there is a cash deficiency during any budget period, the company will need to borrow funds. If there is a cash excess during any budget period, funds borrowed in previous periods can be repaid or the idle funds can be placed in short-term or other investments.

The financing section provides a detailed account of the borrowings and repayments projected to take place during the budget period. It also includes a detail of interest payments that will be due on the money borrowed.

Generally speaking, the cash budget should be broken down into time periods that are as short as feasible. There can be considerable fluctuations in cash balances that would be hidden by looking at a longer time period. While a monthly cash budget is most common, many firms budget cash on a weekly or even daily basis. Following is an example of a cash budget.

Selling and administrative	7	93,000	130,900	184,750	129,150	537,800
Equipment purchases		50,000	40,000	20,000	20,000	130,000
Dividends		8,000	8,000	8,000	8,000	32,000
Total disbursements		352,500	540,000	632,000	426,500	1,951,000
Excess (deficiency) of cash available						
over disbursements		(80,000)	(20,000)	148,000	134,000	61,500
Financing:						
Borrowings (beginning balance)		120,000	60,000			
Repayments				(100,000)	(80,000)	
Interest (at 10% per year)				(7,500)	(6,500)	
Total financing		120,000	60,000	(107,500)	(86,500)	
Cash balance, ending		$ 40,000	$40,000	$ 40,500	$47,500	$ 61,500

The budgeted income statement is one of the key schedules in the budget process. It shows the company's planned profit for the upcoming budget period, and it stands as a benchmark against which subsequent company performance can be measured. Following are two examples of budgeted income statements

HAMPTON FREEZE INC.
Budgeted Income Statement
For the Year Ended December 31, 2001

	Schedule	
Sales (100,000 units at $20)	1	$ 2,000,000
Less cost of goods sold (100,000 at $13)	6	1,300,000
Gross margin		700,000
Less selling and administrative expenses	7	577,800
Net operating income		122,200
Less interest expense	8	14,000
Net income		$ 108,200

EXAMPLE COMPANY
Master Budget Income Statement

	Budget Formula (per unit)	Sales in Units 1,900	2,000	2,100
Sales	$ 75.00	$ 142,500	$ 150,000	$ 157,500
Less variable expenses:				
Direct materials	12.00	22,800	24,000	25,200
Direct labor	31.00	58,900	62,000	65,100
Variable manufacturing overhead	7.50	14,250	15,000	15,750
Variable selling and administrative	4.00	7,600	8,000	8,400
Total variable expenses	54.50	103,550	109,000	114,450
Contribution margin	$ 20.50	$ 38,950	$ 41,000	$ 43,050
Less fixed expenses				
Fixed manufacturing overhead		18,000	18,000	18,000
Fixed selling and administrative		9,000	9,000	9,000
Total fixed expenses		27,000	27,000	27,000
Net income		$ 11,950	$ 14,000	$ 16,050

The budgeted balance sheet is developed by beginning with the current balances and adjusting it for the data contained in the other budgets. Below is an example of a budgeted balance, with explanations:

HAMILTON FREEZE, INC.
Budgeted Balance Sheet
December 31, 2001

Assets					
Current Assets					
Cash	$ 47,500	(a)			
Accounts receivable	120,000	(b)			
Raw materials inventory	4,500	(c)			
Finished goods inventory	39,000	(d)			
Total current assets			$	211,000	
Plant and equipment					
Land	80,000	(e)			
Buildings	830,000	(f)			
Accumulated depreciation	(392,000)	(g)			
Plant and equipment, net				518,000	
Total assets			$	729,000	
Liabilities and Stockholders' Equity					
Current liabilities					
Accounts payable			$	27,900	(h)
Stockholders' equity					
Common stock	$ 175,000	(I)			
Retained earnings	526,100	(j)			
Total stockholders' equity				701,100	
Total liabilities and stockholders' equity			$	729,000	

a. The ending cash balance, as projected by the cash budget
b. Thirty percent of fourth-quarter sales
c. The ending raw materials calculation from the direct materials budget
d. Finished goods inventory budget
e. From the December 31, 2000, balance sheet
f. The December 31, 2000 balance sheet plus purchased equipment
g. The December 31, 2000 plus budgeted depreciation for 2001
h. One-half of the fourth-quarter raw materials purchases
i. From the December 31, 2000, balance sheet
j. The December 31, 2000 balance sheet plus projected net income minus dividends

In the traditional approach to budgeting, the manager starts with last year's budget and adds to it (or subtracts from it) according to anticipated needs. This is an incremental approach to budgeting in which the previous year's budget is taken for granted as a baseline. Zero-base budgeting is an alternative approach that is sometimes used, particularly in the governmental and not-for-profit sectors of the economy. Under a zero-base budget, managers are required to justify all budgeted expenditures not just changes in the budget from the previous year. The baseline is zero rather than last year's budget. A zero-base budget requires considerable documentation. In addition to all of the schedules in the usual master budget, the manager must prepare a series of "decision packages" in which all of the activities of the department are ranked according to their relative importance and the cost of each activity is identified. Higher-level managers can then review the decision packages and cut back in those areas that appear to be less critical or whose costs do not appear to be justified.

Inventory planning and control are an essential part of the budgeting system. Inventory levels should not be left to chance but should be carefully planned. Selecting the right level of inventories involves balancing three groups of costs: inventory ordering costs, inventory carrying costs, and the costs of not carrying sufficient inventory.

Inventory ordering costs are incurred each time an inventory item is ordered. These costs may include clerical costs associated with ordering inventory and some handling and transportation costs. They are triggered by the act of ordering inventory and are essentially the same whether 1 unit or 10,000 units are ordered; these costs are driven by the number of orders placed, not by the size of the orders. If inventory ordering costs are large, a manager may want to place small numbers of big orders on an infrequent basis rather than large numbers of small orders.

Inventory ordering costs are incurred to keep units in inventory. These costs include storage costs, handling costs, property taxes, insurance, and the interest on the funds invested in inventories. The amount and value of inventories that are held by the company drive these costs. In addition to these costs, work in process inventories create operating problems. Work in process may physically get in the way and make it difficult to keep track of operations. Work in process tends to hide problems that are not discovered until it is too late to take corrective action. This results in erratic production, inefficient operations, lost orders, high defect rates, and substantial risks of obsolescence. These intangible costs of work in process inventories are largely responsible for the movement to just-in-time (JIT). If inventory carrying costs are high, managers will want to reduce the overall level of inventories and to place frequent orders in small quantities.

The costs of not carrying sufficient inventory result from not having enough inventory in stock to meet customers' needs. These costs include lost sales, customer ill will, and the costs of expediting orders for goods not held in stock. If these costs are high, managers will want to hold large inventories.

Conceptually, the right level of inventory to carry is the level that will minimize the total of these three groups of costs. This problem can be broken down into two dimensions; how much to order (or how much to produce in a single production run) and how often to do it. These two dimensions, how much to order and how often to order, determine the average level of inventories and the likelihood of being out of stock.

It is the size of the order that minimizes the sum of the costs of ordering inventory and the costs of carrying inventory. The economic order quantity (EOQ) answers the question of how much to order. The EOQ can be found by using the following formula:

$$E = \sqrt{2QP/C}$$

Where:

E = Economic order quantity (EOQ)
Q = Annual quantity used in units
P = Cost of placing one order
C = Annual cost of carrying one unit is stock

The EOQ concept can also be applied to the problem of determining the economic lot size. When companies manufacture a variety of products, they must decide how many units of one product should be manufactured before switching over to another product. The number of units in a lot or production run is referred to as the lot size or batch size. This is a problem because switching from one product to another requires changing setting on machines, changing tools, and getting different materials ready for processing. Making these changes requires time and may involve substantial out-of-pocket costs. These setup costs are analogous to the order costs and they can be used in the EOQ formula in place of the order costs to determine the optimal lot or batch size.

Managers involved in the theory of constraints would go even further in reducing lot sizes. When a particular work center is not a constraint, the only significant cost involved in setups is typically direct labor wages. However, since direct labor wages are considered to be a fixed cost rather than a variable cost in the theory of constraints, the incremental cost of setups is considered to be zero. Therefore, at work centers that are not a constraint, the economic lot size in the theory of constraints is as small as a single unit.

Managers should be extremely cautious when applying the results of ABC analyses to computation of the economic lot size. Typically, one of the results of an ABC analysis is a dramatic increase in the apparent costs of setups. The reason for this is that under conventional costing systems, many of the costs that might be attributed to switching over from one product to another are lumped into the general manufacturing overhead cost pool and distributed to products based on direct labor-hours or some other measure of volume. When an ABC analysis is done, these costs are separately identified as setup costs. As a consequence, setup costs appear to increase, and this would seem to imply that the economic lot size should be increased. However, a close examination of the costs attributed to setups in the ABC analysis will usually reveal that most of the costs cannot actually be avoided by reducing the number of setups. For example, machinery depreciation may be included in setup costs. However, reducing the number of setups may have no impact at all on the amount of machinery depreciation actually incurred.

It was stated earlier that the inventory problem has two dimensions; how much to order and how often to order. The "how often to order" dimension involves what are commonly termed the reorder point and the safety stock. The basic idea is to minimize the costs of holding inventory while ensuring that there will be no stockouts.

The reorder point tells the manager when to place an order or when to initiate production to replenish depleted stocks. It is dependent on three factors, the EOQ, the lead time, and the rate of usage during the lead time. The lead time can be defined as the interval between the time that an order is placed and the time when the order is finally received from the supplier or from the production line. If the rate of usage during the lead time is known with certainty, the reorder point can be determined by the following formula:

$$\text{Reorder point} = \text{Lead time} \times \text{average daily or weekly usage}$$

To illustrate the formula's use, assume that a company's EOQ is 500 units, that the lead time is three weeks, and that the average weekly usage is 50 units.

Reorder point = 3 weeks × 50 units per week = 150 units

The reorder point would be 150 units. That is, the company will automatically place a new order for 500 units when inventory stocks drop to a level of 150 units, or three weeks supply left on hand.

The previous example assumed that the 50 units per week usage rate was constant and was known with certainty. Although some firms enjoy the luxury of certainty, the more common situation is to find considerable variation in the rate of usage of inventory items from period to period. If usage varies from period to period, the firm that reorders in the way computed above may soon find itself out of stock. A sudden spurt in demand, a delay in delivery, or a snag in processing an order may cause inventory levels to be depleted before a new shipment arrives. Companies that experience problems in demand, delivery, or processing of orders have found that they need some type of buffer to guard against stockouts. Such a buffer is called a safety stock. A safety stock serves as a kind of insurance against greater than usual demand and against problems in the ordering and delivery of goods. Its size is determined by deducting average usage from the maximum usage that can reasonably be expected during a period.

For example, if the firm in the preceding example was faced with variable demand for its product, it would compute a safety stock as follows:

Maximum expected usage per week	65 units
Average usage per week	50 units
Excess	15 units
Lead time	× 3 weeks
Safety stock	45 units

The reorder point is then determined by adding the safety stock to the average usage during the lead time. In formula form, the reorder point would be shown as follows:

Reorder point = (lead time × average daily or weekly usage) + Safety stock

THE CASH BUDGET
REVIEW QUESTIONS

1. The cash budget must be prepared before you can complete the:

   a. production budget.
   b. budgeted balance sheet.
   c. raw materials budget.
   d. schedule of cash disbursements.

2. The economic order quantity (EOQ) in an inventory management system is:

   a. the order quantity that yields the lowest unit purchase cost.
   b. the order quantity that yields the lowest inventory handling cost.
   c. the order quantity that yields the lowest total cost of ordering and carrying inventory.
   d. the order quantity with the largest purchase discount.

3. The Stewart Company uses the Economic Order Quantity (EOQ) model in its inventory management. A decrease in which of the following variables would increase the company's EOQ?

   a. annual sales
   b. cost per order
   c. safety stock level
   d. inventory carrying costs

4. The level of safety stock depends on all of the following, ***except:***

   a. the level of uncertainty of the sales forecast.
   b. the level of customer dissatisfaction when goods are unavailable.
   c. the level of uncertainty in the lead time for shipments from suppliers.
   d. the ordering cost per order.

5. A method of budgeting in which the cost of each program must be justified every year is called:

   a. operational budgeting.
   b. zero-based budgeting.
   c. continuous budgeting.
   d. responsibility accounting.

6. Parlee Company's sales are 30% in cash and 70% on credit. Sixty percent of the credit sales are collected in the month of sale, 25% in the month following the sale, and 12% in the second month following the sale. The remainder are uncollectible. The following are budgeted sales data:

January	$60,000
February	70,000
March	50,000
April	30,000

Total cash receipts in April would be budgeted to be:

a. $38,900.
b. $47,900.
c. $27,230.
d. $36,230.

7. Budgeted sales in Allen Company over the next four months are given below:

September	$100,000
October	160,000
November	180,000
December	120,000

Twenty-five percent of the company's sales are for cash and 75% are on account. Collections for sales on account follow a stable pattern as follows: 50% of a month's credit sales are collected in the month of the sale, 30% are collected in the month following the sale, and 15% are collected in the second month following the sale. The remainder are uncollectible. Given these data, cash collections for December should be:

a. $153,000.
b. $138,000.
c. $120,000.
d. $130,500.

8. The PDQ Company makes collections on credit sales according to the following schedule:

25% in the month of the sale
70% in the month following the sale
4% in the second month following the sale
1% uncollectible

The following sales have been budgeted:

April	$100,000
May	120,000
June	110,000

Cash collections in June would be:

a. $113,400.
b. $110,000.
c. $111,000.
d. $115,500.

9. Orion Corporation is preparing a cash budget for the six months beginning January 1. Shown below are the company's expected collection pattern and the budgeted sales for the period.

Expected collection pattern:

65% collected in the month of the sale
20% collected in the month after the sale
10% collected in the second month after the sale
4% collected in the third month after the sale
1% uncollectible

Budgeted sales are: January, $160,000; February, $185,000; March, $190,000; April, $170,000; May, $200,000; and June, $180,000.

The estimated total cash collections during April from sales and accounts receivables would be:

a. $155,900.
b. $167,000.
c. $171,666.
d. $173,400.

10. ABC Company has a cash balance of $9,000 on April 1. The company must maintain a minimum cash balance of $6,000. During April expected cash receipts are $45,000. Expected cash disbursements during the month total $52,000. During April the company will need to borrow:

   a. $2,000.
   b. $4,000.
   c. $6,000.
   d. $8,000.

11. Avril Company makes collections on sales according to the following schedule:

   30% in the month of the sale
   60% in the month following the sale
   8% in the second month following the sale

   Sales are expected to be: January, $100,000; February, $120,000; and March, $110,000. Cash collections in March should be budgeted to be:

   a. $110,000.
   b. $110,800.
   c. $105,000.
   d. $113,000.

12. Jasper, Inc., produces automobile headlight assemblies for sport-utility vehicles. Data concerning a particular metal fasten that is used in one of the company's products appear below.

Economic order quantity	600 units
Average weekly usage	150 units
Maximum weekly usage	175 units
Lead time	2 weeks

   The safety stock would be:

   a. 350 units.
   b. 175 units.
   c. 50 units.
   d. 75 units.

13. KAB, Inc., a small retail store, had the following results for May. The budgets for June and July are given below:

	May (actual)	June (budget)	July (budget)
Sales	**$42,000**	**$40,000**	**$45,000**
Cost of sales	21,000	20,000	22,500
Gross margin	21,000	20,000	22,500
Operating expenses	20,000	20,000	20,000
Operating income	$ 1,000	$ 0	$ 2,500

Sales are collected 80% in the month of the sale and the balance in the month following the sale. (There are no bad debts.) The goods that are sold are purchased in the month prior to sale. Suppliers of the goods are paid in the month following the sale. The operating expenses are paid in the month of the sale. The amount of cash collected during the month of June should be:

a. $32,000.
b. $40,000.
c. $40,400.
d. $41,000.

14. KAB, Inc., a small retail store, had the following results for May. The budgets for June and July are given below:

	May (actual)	June (budget)	July (budget)
Sales	**$42,000**	**$40,000**	**$45,000**
Cost of sales	21,000	20,000	22,500
Gross margin	21,000	20,000	22,500
Operating expenses	20,000	20,000	20,000
Operating income	$ 1,000	$ 0	$ 2,500

Sales are collected 80% in the month of the sale and the balance in the month following the sale. (There are no bad debts.) The goods that are sold are purchased in the month prior to sale. Suppliers of the goods are paid in the month following the sale. The operating expenses are paid in the month of the sale. The cash disbursements during the month of June for goods purchased, for resale and for operating expenses, should be:

a. $40,000.
b. $41,000.
c. $42,500.
d. $43,500.

15. Justin's Plant Store, a retailer, started operations on January 1. On that date, the only assets were $16,000 in cash and $3,500 in merchandise inventory. For purposes of budget preparation, assume that the company's cost of goods sold is 60% of sales. Expected sales for the first four months appear below.

January	$10,000
February	24,000
March	16,000
April	25,000

The company desires that the merchandise inventory on hand at the end of each month be equal to 50% of the next month's merchandise sales. All purchases of merchandise inventory must be paid in the month of purchase. Sixty percent of all sales should be for cash; the balance will be on credit. Seventy-five percent of the credit sales should be collected in the month following the month of sale, with the balance collected in the following month. Variable operating expenses should be 10% of sales and fixed expenses (all depreciation) should be $3,000 per month. Cash payments for the variable operating expenses are made during the month the expenses are incurred. In a budgeted income statement for the month of February, net income would be:

a. $9,000.
b. $1,800.
c. $ -0-.
d. $4,200.

16. Justin's Plant Store, a retailer, started operations on January 1. On that date, the only assets were $16,000 in cash and $3,500 in merchandise inventory. For purposes of budget preparation, assume that the company's cost of goods sold is 60% of sales. Expected sales for the first four months appear below.

January	$10,000
February	24,000
March	16,000
April	25,000

The company desires that the merchandise inventory on hand at the end of each month be equal to 50% of the next month's merchandise sales. All purchases of merchandise inventory must be paid in the month of purchase. Sixty percent of all sales should be for cash; the balance will be on credit. Seventy-five percent of the credit sales should be collected in the month following the month of sale, with the balance collected in the following month. Variable operating expenses should be 10% of sales and fixed expenses (all depreciation) should be $3,000 per month. Cash payments for the variable operating expenses are made during the month the expenses are incurred. In a budgeted balance sheet, the Merchandise Inventory on February 28 would be:

a. $4,800.
b. $7,500.
c. $9,600.
d. $3,200.

17. Justin's Plant Store, a retailer, started operations on January 1. On that date, the only assets were $16,000 in cash and $3,500 in merchandise inventory. For purposes of budget preparation, assume that the company's cost of goods sold is 60% of sales. Expected sales for the first four months appear below.

January	$10,000
February	24,000
March	16,000
April	25,000

The company desires that the merchandise inventory on hand at the end of each month be equal to 50% of the next months merchandise sales. All purchases of merchandise inventory must be paid in the month of purchase. Sixty percent of all sales should be for cash; the balance will be on credit. Seventy-five percent of the credit sales should be collected in the month following the month of sale, with the balance collected in the following month. Variable operating expenses should be 10% of sales and fixed expenses (all depreciation) should be $3,000 per month.

Cash payments for the variable operating expenses are made during the month the expenses are incurred. The Accounts Receivable balance that would appear in the March 31 budgeted balance sheet would be:

a. $15,000.
b. $16,000.
c. $ 8,800.
d. $12,400.

18. Justin's Plant Store, a retailer, started operations on January 1. On that date, the only assets were $16,000 in cash and $3,500 in merchandise inventory. For purposes of budget preparation, assume that the company's cost of goods sold is 60% of sales. Expected sales for the first four months appear below.

January	$10,000
February	24,000
March	16,000
April	25,000

The company desires that the merchandise inventory on hand at the end of each month be equal to 50% of the next month's merchandise sales. All purchases of merchandise inventory must be paid in the month of purchase. Sixty percent of all sales should be for cash; the balance will be on credit. Seventy-five percent of the credit sales should be collected in the month following the month of sale, with the balance collected in the following month. Variable operating expenses should be 10% of sales and fixed expenses (all depreciation) should be $3,000 per month. Cash payments for the variable operating expenses are made during the month the expenses are incurred. In a budget of cash receipts for March, the total cash receipts would be:

a. $17,800.
b. $ 8,200.
c. $20,200.
d. $16,000.

19. Justin's Plant Store, a retailer, started operations on January 1. On that date, the only assets were $16,000 in cash and $3,500 in merchandise inventory. For purposes of budget preparation, assume that the company's cost of goods sold is 60% of sales. Expected sales for the first four months appear below.

January	$10,000
February	24,000
March	16,000
April	25,000

The company desires that the merchandise inventory on hand at the end of each month be equal to 50% of the next month's merchandise sales. All purchases of merchandise inventory must be paid in the month of purchase. Sixty percent of all sales should be for cash; the balance will be on credit. Seventy-five percent of the credit sales should be collected in the month following the month of sale, with the balance collected in the following month. Variable operating expenses should be 10% of sales and fixed expenses (all depreciation) should be $3,000 per month. Cash payments for the variable operating expenses are made during the month the expenses are incurred. In a budget of cash disbursements for March, the total cash disbursements would be:

a. $11,200.
b. $13,900.
c. $22,300.
d. $16,900.

20. Information on the actual sales and inventory purchases of the Law Company for the first quarter follow:

	Sales	Purchases
January	$120,000	$60,000
February	100,000	78,000
March	130,000	90,000

Collections from Law Company's customers are normally 60% in the month of sale, 30% in the month following the sale, and 8% in the second month following the sale. The balance is uncollectible. Law Company takes full advantage of the 3% discount allowed on purchases paid by the end of the following month.

The company expects sales in April of $150,000 and inventory purchases of $100,000. Operating expenses for the month of April are expected to be $38,000, of which $15,000 is salaries and $8,000 is depreciation. The remaining operating expenses are variable with respect to the amount of sales in dollars. Those operating expense requiring a cash outlay are paid for during the month incurred. Law Company's cash balance on March 1 was $43,000, and on April 1 was $35,000. The expected cash collections from customers during April would be:

a. $150,000.
b. $137,000.
c. $139,000.
d. $117,600.

21. Information on the actual sales and inventory purchases of the Law Company for the first quarter follow:

	Sales	Purchases
January	$120,000	$60,000
February	100,000	78,000
March	130,000	90,000

Collections from Law Company's customers are normally 60% in the month of sale, 30% in the month following the sale, and 8% in the second month following the sale. The balance is uncollectible. Law Company takes full advantage of the 3% discount allowed on purchases paid by the end of the following month.

The company expects sales in April of $150,000 and inventory purchases of $100,000. Operating expenses for the month of April are expected to be $38,000, of which $15,000 is salaries and $8,000 is depreciation. The remaining operating expenses are variable with respect to the amount of sales in dollars. Those operating expense requiring a cash outlay are paid for during the month incurred. Law Company's cash balance on March 1 was $43,000, and on April 1 was $35,000. The expected cash disbursements during April, for inventory purchases, would be:

a. $100,000.
b. $ 97,000.
c. $ 90,000.
d. $ 87,300.

22. Information on the actual sales and inventory purchases of the Law Company for the first quarter follow:

	Sales	Purchases
January	$120,000	$60,000
February	100,000	78,000
March	130,000	90,000

Collections from Law Company's customers are normally 60% in the month of sale, 30% in the month following the sale, and 8% in the second month following the sale. The balance is uncollectible. Law Company takes full advantage of the 3% discount allowed on purchases paid by the end of the following month.

The company expects sales in April of $150,000 and inventory purchases of $100,000. Operating expenses for the month of April are expected to be $38,000, of which $15,000 is salaries and $8,000 is depreciation. The remaining operating expenses are variable with respect to the amount of sales in dollars. Those operating expense requiring a cash outlay are paid for during the month incurred. Law Company's cash balance on March 1 was $43,000, and on April 1 was $35,000. The expected cash disbursements during April, for operating expenses, would be:

a. $38,000.
b. $30,000.
c. $23,000.
d. $15,000.

23. Information on the actual sales and inventory purchases of the Law Company for the first quarter follow:

	Sales	Purchases
January	$120,000	$60,000
February	100,000	78,000
March	130,000	90,000

Collections from Law Company's customers are normally 60% in the month of sale, 30% in the month following the sale, and 8% in the second month following the sale. The balance is uncollectible. Law Company takes full advantage of the 3% discount allowed on purchases paid by the end of the following month.

The company expects sales in April of $150,000 and inventory purchases of $100,000. Operating expenses for the month of April are expected to be $38,000, of which $15,000 is salaries and $8,000 is depreciation. The remaining operating expenses are variable with respect to the amount of sales in dollars. Those operating expense requiring a cash outlay are paid for during the month incurred. Law Company's cash balance on March 1 was $43,000, and on April 1 was $35,000. The expected cash balance on April 30 would be:

a. $54,700.
b. $62,700.
c. $19,700.
d. $28,700.

24. The LaPann Company has obtained the following sales forecast data:

	Cash	Credit
July	$80,000	$240,000
August	70,000	220,000
September	50,000	180,000
October	60,000	200,000

The regular pattern of collection of credit sales is 20% in the month of sale, 70% in the month following the month of sale, and the remainder in the second month following the month of the sale. There are no bad debts. The budgeted accounts receivable balance on September 30 is:

a. $126,000.
b. $148,000.
c. $166,000.
d. $190,000.

25. The LaPann Company has obtained the following sales forecast data:

	Cash	Credit
July	$80,000	$240,000
August	70,000	220,000
September	50,000	180,000
October	60,000	200,000

The regular pattern of collection of credit sales is 20% in the month of sale, 70% in the month following the month of sale, and the remainder in the second month following the month of the sale. There are no bad debts. The budgeted cash receipts for October are:

a. $188,000.
b. $248,000.
c. $226,000.
d. $278,000.

26. The LaGrange Company had the following budgeted sales for the first half of the current year:

	Cash	Credit
January	$70,000	$340,000
February	50,000	190,000
March	40,000	135,000
April	35,000	120,000
May	45,000	160,000
June	40,000	140,000

The company is in the process of preparing a cash budget and must determine the expected cash collections by month. To this end, the following information has been assembled:

Collections on sales:	60% in the month of the sale
	30% in the month following the sale
	10% in the second month following the sale

The accounts receivable balance on January 1 of the current year was $70,000, of which $50,000 represented uncollected December sales and $20,000 represented uncollected November sales. The total cash collected by LaGrange Company during January would be:

a. $410,000.
b. $254,000.
c. $344,000.
d. $331,500.

27. The LaGrange Company had the following budgeted sales for the first half of the current year:

	Cash	Credit
January	$70,000	$340,000
February	50,000	190,000
March	40,000	135,000
April	35,000	120,000
May	45,000	160,000
June	40,000	140,000

The company is in the process of preparing a cash budget and must determine the expected cash collections by month. To this end, the following information has been assembled:

Collections on sales: 60% in the month of the sale
30% in the month following the sale
10% in the second month following the sale

The accounts receivable balance on January 1 of the current year was $70,000, of which $50,000 represented uncollected December sales and $20,000 represented uncollected November sales. What is the budgeted accounts receivable balance on June 1 of the current year?

a. $ 56,000
b. $ 64,000
c. $ 76,000
d. $132,000

28. The Bandeiras Company, a merchandising firm, has budgeted its activity for December according to the following information:

1. Sales at $550,000, all for cash.
2. Merchandise inventory on November 30 was $300,000.
3. Budgeted depreciation for December is $35,000.
4. The cash balance at December 1 was $25,000.
5. Selling and administrative expenses are budgeted at $60,000 for December and are paid in cash.
6. The planned merchandise inventory on December 31 is $720,000.
7. The invoice cost for merchandise purchases represents 75% of the sales price. All purchases are paid for in cash.

The budgeted cash receipts for December are:

a. $412,500.
b. $137,500.
c. $585,000.
d. $550,000.

29. The Bandeiras Company, a merchandising firm, has budgeted its activity for December according to the following information:

1. Sales at $550,000, all for cash.
2. Merchandise inventory on November 30 was $300,000.
3. Budgeted depreciation for December is $35,000.
4. The cash balance at December 1 was $25,000.
5. Selling and administrative expenses are budgeted at $60,000 for December and are paid in cash.
6. The planned merchandise inventory on December 31 is $720,000.
7. The invoice cost for merchandise purchases represents 75% of the sales price. All purchases are paid for in cash.

The budgeted cash disbursements for December are:

a. $382,500.
b. $442,500.
c. $472,500.
d. $477,500.

30. The Bandeiras Company, a merchandising firm, has budgeted its activity for December according to the following information:

1. Sales at $550,000, all for cash.
2. Merchandise inventory on November 30 was $300,000.
3. Budgeted depreciation for December is $35,000.
4. The cash balance at December 1 was $25,000.
5. Selling and administrative expenses are budgeted at $60,000 for December and are paid in cash.
6. The planned merchandise inventory on December 31 is $720,000.
7. The invoice cost for merchandise purchases represents 75% of the sales price. All purchases are paid for in cash.

The budgeted net income for December is:

a. $107,500.
b. $137,500.
c. $ 42,500.
d. $ 77,500.

THE CASH BUDGET

REVIEW QUESTION SOLUTIONS

1.	B
2.	C
3.	D
4.	D
5.	B
6.	D
7.	D
8.	D
9.	D
10.	B
11.	D
12.	C
13.	C
14.	B
15.	D
16.	A
17.	C
18.	A
19.	B
20.	B
21.	D
22.	B
23.	A
24.	C
25.	B
26.	D
27.	C
28.	D
29.	B
30.	C

THE CASH BUDGET
Explanation of Review Question Solutions

1. The correct answer is B, the budgeted balance sheet (and the income statement). Most budgets are sales driven, and the sales budget determines the production budget (A) that also relies on the purchases of raw materials (C). The cash receipts and cash disbursements budget (D) is part of the cash budget, which comes after the sales, production, cash receipts and all other budgets save the financial statement budgets.

2. The correct answer is C; the order quantity that yields the lowest total cost of ordering and carrying inventory. The economic order quantity equals the square root of the entire amount of two times the annual quantity used in units times cost of placing one order, divided by the annual cost of carrying one unit in stock.

3. The correct answer is D, inventory carry costs. A decrease in cost per order would decrease economic order quantity. Safety stock (C) is the quantity of the maximum usage minus the average usage to determine excess usage that is multiplied by the period of time needed for safety.

4. The correct answer is D, the ordering cost per order. Highlight or circle the word *except*. There are three true answers and one false; we are looking for the false one. Companies that experience variation in demand (A), delivery (C), or processing need some type of buffer or safety stock. The level of customer dissatisfaction with unavailable goods (B) is another factor. Ordering cost per order is a factor in economic order quantity, not safety stock.

5. The correct answer is B, zero-based budgeting. In traditional budgeting, also called incremental budgeting, the manager starts with last year's budget and changes it according to anticipated needs. In zero-based budgeting, managers start with zero and are expected to justify all budgeted expenditures, not just those changes since the prior year. Continuous budgeting (C), as opposed to an operating budget that is normally for the business year, requires a budget that never ends but is constantly being updated so that it continues year after year. Responsibility budgeting (D) is where those who have control of certain aspects of the business at lower levels are held accountable for the performance of those areas over which they have control.

6. The correct answer is D, $36,230. You can use the sales chart given in the problem to compute the problem by multiplying each sales number times 70% to get credit sales first and then by the appropriate percentage for collections in April: February sales ($70,000) times 70% then times 12% equals $5,880, March sales ($50,000) times 70% times 25% equals $8,750, April sales ($30,000) times 70% times 60% equals $12,600, and April sales ($30,000) times 30% equals $9,000. Sum up the credit sales collected in April and the April cash sales to get $36,230 ($5,880 plus $8,750 plus $12,600 plus $9,000).

7. The correct answer is D, $130,500. This problem is computed exactly the same as #6, with different numbers. You can use the sales chart given in the problem to compute the problem by multiplying each sales number times 75% to get credit sales first and then by the appropriate percentage for collections in December: October sales ($160,000) times 75% then times 15% equals $18,000, November sales ($180,000) times 75% times 30% equals $40,050, December sales ($120,000) times 75% times 60% equals $54,000, and December sales ($120,000) times 25% equals $30,000. Sum up the credit sales collected in December and the December cash sales to get $130,500 ($18,000 plus $40,050 plus $54,000 plus $30,000).

8. The correct answer is D, $115,500. This problem is similar to #6 and #7. Collections in June from April sales is $100,000 times 4% or $4,000, from May sales is $120,000 times 70% or $84,000, and from June sales is $110,000 times 25% or $27,500; the sum of which is $115,500.

9. The correct answer is D, $173,400. This problem is similar to #6, #7, and #8. Collections in April from January sales is 4% times $160,000 or $6,400, from February is 10% times $185,000 pr $18,500, from March is 20% times $190,000 or $38,000, and from April is 65% times $170,000 or $110,500; the sum of the collections for these four months is $173,400.

10. The correct answer is B, $4,000. This is a classic inventory problem; beginning cash balance of 9,000 is added to cash inflows of $45,000 giving $54,000 cash available minus cash outflow of $52,000 gives you $2,000 cash left over requiring you to borrow 4,000 more to have an ending cash balance of $6,000.

11. The correct answer is D, $113,000. The question is similar to #6 through #9. Collections in March for January sales is 30% of $100,000 or $30,000, for February is 60% of $120,000 or $72,000 and for March is 30% of $110,000 or $33,000; the sum of these three months is $113,000.

12. The correct answer is C, 50 units. The question wants you to compute safety stock for 2 weeks lead-time. Safety stock equals excess units times the lead-time. Maximum weekly usage of 175 units less average weekly usage of 150 units equals excess units of 25 units; 25 units times 2 weeks equals 50 units safety stock.

13. The correct answer is C, $40,400. The question asks the amount of cash collected in the month of June. The June collections for May are the May sales of $42,000 times the 20% collection rate or $8,400, and June sales of $40,000 times the collection rate of 80% or $32,000; $8,400 plus $32,000 equals $40,400.

14. The correct answer is B, $41,000. The question asks for the June cash disbursements for goods purchased and operating expenses. The goods purchased are paid in the month following the sale; therefore the May purchases of $21,000 and the June operating expenses of $20,000 equal $41,000 total cash disbursements in June.

15. The correct answer is D, $4,200. The question asks for the budgeted net income for February. Budgeted sales of $24,000 minus cost of goods sold of 60% of sales of $24,000 or $14,400 for a gross profit of $9,600 less operating expenses of $5,400, $3,000 fixed expense plus variable expense of $2,400, sales of $24,000 times 10% budgeted; this gives a net income of $4,200.

16. The correct answer is A, $4,800. The question asks for the budgeted inventory for February 28. The ending inventory equals 50% of the cost of the following month's sales of merchandise. February ending inventory equals March sales of 16,000 times 60% gives cost of goods sold of $9,600 times 50% which equals $4,800 ending inventory.

17. The correct answer is C, $8,800. The question asks for the March 31 accounts receivable balance. Since 60% of all sales are cash, 40% of all sales are on credit. All January sales should be collected by March 31, since 75% are collected in the month after the month of sale and 25% are collected the next month. February sales of $24,000 times 40% times 25% still remain in accounts receivable on March 31, or $2,400 plus 40% of March sales of $16,000 or $6,400; which equals $8,800.

18. The correct answer is A, $17,800. The question asks for the total cash receipts for March. The facts are the same as in #17. March collections include $10,000 January sales times 40% (percent of sales on credit) times 25% collected in March equals $1,000, February sales of $24,000 times 40% times 75% collected in March of $7,200, and March sales of 16,000 times cash percentage of 60% equals $9,600; the total of these three months is $17,800.

19. The correct answer is B, $13,900. The facts of the question are the same as in #17 and #18. The question asks for the cash disbursements for March. Cash disbursements equal purchases of product for resale and variable operating expenses for the month. The purchases are determined by inventory analysis; cost of goods sold of $9,600 (sales of $16,000 times 60% cost percentage), plus ending inventory of $7,500, April sales of $25,000 times 60% cost percentage times 50% inventory budget percent of cost of sales, equals $17,100 cost of goods available for sale (COGAS); COGAS minus beginning inventory of $4,800, March sales of $16,000 times 60% cost percentage times 50% inventory budget percent of cost of sales, equals purchases of $12,300. Purchases of $12,300 and variable operating expense of $1,600 (10% of March sales of $16,000) equals $13,900.

20. The correct answer is B, $137,000. The question asks for “expected cash collections from customers during April.” This question is similar to other questions. April collections equals 60% of April sales of $150,000 or $90,000, 30% of the March sales of $130,000 or $39,000, and 8% of February sales of $100,000 or $8,000 for a grand total of $137,000.

21. The correct answer is D, $87,300. The question asks for the expected cash disbursements for inventory purchases in April. The last sentence of the paragraph under the table says, “Law Company takes full advantage of the 3% discount allowed on purchases paid by the end of the following month.” What this implies (but doesn’t explicitly state) is that Law Company pays for its inventory in the month following purchase; therefore, the cash disbursed in April for inventory purchases is $90,000 (purchases in March) less 3%, or $87,300.

22. The correct answer is B, $30,000. The question has the same fact pattern as #20 and #21. The cash outlay for operating expenses equals the operating expenses of $38,000 minus the depreciation of $8,000 for a $30,000 cash disbursement.

23. The correct answer is A, $54,700. This question has the same fact pattern as #20, #21, and #22, and the answers to those problems, with additional information, gives you the answer to this problem. Law Company started the month with a cash balance of $35,000; in #20, we computed $137,000 cash collections from customers; in #21, we computed $87,300 cash disbursements for inventory; in #22, we computed $30,000 cash disbursements for other operating expenses; therefore, $35,000 plus $137,000 minus $87,300 minus $30,000 equals $54,700.

24. The correct answer is C, $166,000. The question asks for the accounts receivable balance on September 30. The sales from July are completely collected by the end of September (10%, 70%, and 20%). The accounts from August still have 10% (70% and 20% collected) of $220,000 to be collected or $22,000. The accounts from September only have 20% collected, therefore 80% still is in accounts receivable of the $180,000 of sales, or $144,000. The total of $144,000 from September and $22,000 from August gives $166,000 in accounts receivable.

25. The correct answer is B, $248,000. The question asks for the budgeted cash receipts for October. The cash receipts are 20% of the $200,000 credit sales for October for a total of $40,000, 70% of the $180,000 credit sales for September or $126,000, 10% of the August $220,000 sales for a total of $22,000, and 100% of the cash sales for October of 60,000. The sum of all three is $248,000.

26. The correct answer is D, $331,500. The question asks for the total cash collected during January. The total cash collected equals $70,000 cash sales, 60% times $340,000 January sales or $204,000, the $20,000 (10% of November sales of $200,000), and 30% of the $125,000 sales of December ($50,000 / 40%. The 40% is accounted for by the 30% collected one month after the sale and 10% collected two months after the sale, or 100% minus the 60% already collected in the month of sale (December)).

27. The correct answer is C, $76,000. The question asks the budgeted accounts receivable balance on June 1. The May accounts receivable are 60% collected, leaving 40% of $160,000 or $64,000. The April accounts receivable are 90% collected, 60% in April and 30% in May, leaving 10% uncollected of the $120,000 credit sales or $12,000. The sum of the March and April accounts (balance on June 1) is $76,000.

28. The correct answer is D, $550,000. The question asks for the budgeted cash receipts for December. The cash receipts are given as sales all for cash of $550,000. No credit sales in prior months for which cash collections are expected are mentioned.

29. The correct answer is C, $472,500. The question asks for the December cash disbursements. The December beginning cash balance is $25,000 plus cash influx of $550,000 equals $575,000 cash available; minus sales and administrative expense of $60,000 leaves $515,000 to spend on the merchandise purchases. The cost of goods sold (COGS) for December equals 75% of $550,000 or $412,500. If you add COGS to the ending inventory of $720,000, the cost of goods available for sale (COGAS) is $1,132,500. Subtract beginning merchandise inventory of $300,000 and you have purchases of $832,500. Selling and administrative expenses are $60,000, paid in cash. If you are to believe these numbers, $892,500 must have been paid in cash. The only other alternative is that either the beginning or the ending inventory figure is wrong.

30. The correct answer is C, $42,500. The question asks for the net income for December. Sales of $550,000 minus COGS of $412,500 leaves gross margin of $137,500; subtract the selling and administrative expense of $60,000 and the depreciation of $35,000 and you get $42,500 net income.

INTERNAL CONTROL SYSTEMS

After reviewing this chapter, you should be able to:

1. *Discuss the nature of internal control and its importance to both management and the accounting professional*
2. *Describe the three key concepts in the study of internal control*
3. *Identify the five components of internal control, and discuss their characteristics*
4. *Describe the requirements of understanding internal control*
5. *Know how to obtain an understanding of internal control*

The reason a company establishes a system for control is to help meet its own goals. The system consists of many specific policies and procedures designed to provide management with reasonable assurance that the goals and objectives it believes important to the entity will be met. These policies and procedures are often called controls, and collectively they comprise the entity's internal control. Control systems must be cost beneficial. The controls adopted are selected by comparing the costs to the organization to the benefits expected. One benefit to management is the reduced cost of an audit when the auditor evaluates internal control as good or excellent and assesses control risk as low. Management typically has the following three concerns, or broad objectives, in designing an effective control system.

- ✓ Reliability of financial reporting
- ✓ Efficiency and effectiveness of operations
- ✓ Compliance with applicable laws and regulations

Management is responsible for preparing financial statements for investors, creditors, and other users. Management has both a legal and professional responsibility to be sure that the information is fairly prepared in accordance with reporting requirements such as generally accepted accounting principles.

Controls within an organization are meant to encourage efficient and effective use of its resources, including personnel, to optimize the company's goals. An important part of these controls is accurate information for internal decision making. A variety of information is used for making critical business decisions. Another part of effectiveness and efficiency is safeguarding assets and records. The physical assets of a company can be stolen, misused, or accidentally destroyed unless they are protected by adequate controls. The same is true of nonphysical assets such as accounts receivable, important documents, and records. Safeguarding certain assets and records has become increasingly important since the advent of computer systems. Large amounts of information stored on computer media such as magnetic tape can be destroyed if care is not taken to protect them. Safeguarding of accounting records also affects the reliability of financial reporting.

There are many laws and regulations that organizations are required to follow. Some are only indirectly related to accounting. Examples include environmental protection and civil rights laws. Others are closely related to accounting. Examples include income tax regulations and fraud. One important law affecting all companies subject to the Securities and Exchange Act of 1934 is the Foreign Corrupt Policies Act of 1977. This law requires that a company maintain proper record-keeping systems. These systems have not been defined by the 1977 law, which amended the securities acts, but they include a sufficient system to enable the preparation of reliable external financial statements and to prevent off-the-books slush funds and payment of bribes.

The accounting professional is interested primarily in controls that relate to the reliability of financial reporting. This is the area that directly impacts the financial statements and their related assertions and, therefore, impacts the accounting professional's objective of determining that the financial statements are fairly stated. The financial statements are not likely to correctly reflect generally accepted accounting principles if the controls affecting the reliability of financial reporting are inadequate. On the other hand, the statements can be fairly stated even if the company's controls do not promote efficiency and effectiveness in its operations. Accounting professionals have significant responsibility for the discovery of material fraudulent financial reporting and misappropriation of assets and the direct effects of illegal acts. Accounting professionals are therefore also concerned with a client's controls over the safeguarding of assets and compliance with applicable laws and regulations if they affect the fairness of the financial statements. Accounting professionals should emphasize controls concerned with the reliability of data for external reporting purposes, but controls affecting internal management information, such as budgets and internal performance reports, should not be completely ignored. These types of information are often important sources of evidence in helping the accounting professional decide whether the financial statements are fairly presented. If the controls over these internal reports are considered inadequate, the value of the reports diminishes.

The primary emphasis by accounting professionals should be on controls over classes of transactions rather than account balances. The reason is that the accuracy of the output of the accounting system is heavily dependent upon the accuracy of inputs and processing. For example, if products sold, units shipped, or unit selling prices are wrong in billing customers for sales, both sales and accounts receivable will be misstated. If controls are adequate to make sure billings, cash receipts, sales returns and allowances, and charge-offs are correct, the ending balance in accounts receivable is likely to be correct. During the study of internal control, the accounting professional does not, however, ignore internal controls over account balances. For example, transaction related objectives typically have no effect on three balance-related accounting objectives: realizable value, rights and obligations, and presentation and disclosure. The accounting professional is likely to make a separate evaluation as to whether management has implemented internal controls for each of these three balance-related accounting objectives.

There are three key concepts that underlie the study of internal control. Management, not the accountant, must establish and maintain the entity's controls. This concept is consistent with the requirement that management, not the accountant, is responsible for the preparation of financial statements in accordance with generally accepted accounting principles. A company should develop internal controls that provide reasonable but not absolute assurance that the financial statements are fairly stated. Internal controls are developed by management after considering both the costs and benefits of the controls. Management is often unwilling to implement an ideal system because the costs may be too high. For example, it is unreasonable to expect management of a small company to hire several additional accounting personnel to bring about a small improvement in the reliability of accounting data. Internal controls can never be regarded as completely effective regardless of the care followed in their design and implementation. Even if systems personnel could design an ideal system, its effectiveness depends on the competency and dependability of the people using it. For example, assume that a procedure for counting inventory is carefully developed and requires two employees to count independently. If neither of the employees understands the instructions or if both are careless in doing the counts, the count of inventory is likely to be wrong. Even if the count is right, management might override the procedure and instruct an employee to increase the count quantities in order to improve reported earnings. Similarly, the employees might decide to overstate the counts intentionally to cover up theft of inventory by one or both of them. An act of two or more employees to steal assets or misstate records is called collusion. Internal control includes five categories of controls that management designs and implements to provide reasonable assurance that management's control objectives will be met. These are called the components of internal control and are 1) the control environment, 2) risk assessment, 3) control activities, 4) information and communications, and 5) monitoring. The control environment is the umbrella for the other four components. Without an effective control environment, the other four components are unlikely to result in effective internal controls regardless of their quality. The categories contain many controls. The accounting professional is concerned primarily with those designed to prevent or detect material misstatements in the financial statements.

The essence of an effectively controlled organization lies in the attitude of its management. If top management believes that control is important, others in the organization will sense that and respond by conscientiously observing the controls established. On the other hand, if it is clear to members of the organization that control is not an important concern to top management and is given lip service rather than meaningful support, it is almost certain that management's control objectives will not be effectively achieved. The control environment consists of actions, policies, and procedures that reflect the overall attitudes of top management, directors, and owners of an entity about control and its importance to the entity. For the purpose of understanding and assessing the control environment, the following are the most important subcomponents the accounting professional should consider.

Integrity and ethical values are the product of the entity's ethical and behavioral standards and how they are communicated and reinforced in practice. They include management's actions to remove or reduce incentives and temptations that might prompt personnel to engage in dishonest, illegal, or unethical acts. They also include the communication of entity values and behavioral standards to personnel through policy statements and code of conduct and by example.

Competence is the knowledge and skills necessary to accomplish tasks that define the individual's job. Commitment to competence includes management's consideration of the competence levels for specific jobs and how those levels translate into requisite skills and knowledge.

An effective board of directors is independent of management and its members are involved in and scrutinize management's activities. All public companies traded on the New York Stock Exchange are required to have an audit committee composed of outside directors. Many other companies also have audit committees. The audit committee is usually charged with oversight responsibility for the entity's financial reporting process and must maintain ongoing communication with both external and internal auditors. This allows auditors and directors to discuss matters that might relate to such things as the integrity or actions of management.

Management, through its activities, provides clear signals to employees about the importance of control. For example, does management take significant risks, or are they risk averse? Are profit plans and budget data set as best possible plans or most likely targets? Can management be described as fat and bureaucratic, lean and mean, dominated by one or a few individuals, or is it just right? Understanding these and similar aspects of management's philosophy and operating style gives the accounting professional a sense of its attitude about control.

The entity's organizational structure defines the lines of responsibility and authority that exist. By understanding the client's organizational structure, the accounting professional can learn the management and functional elements of the business and perceive how controls are carried out.

In addition to the informal aspects of communication, formal methods of communication about authority and responsibility and similar control-related matters are equally important. These might include such methods as memoranda from top management about the importance of control and control-related matters, formal organizational and operational plans, and employee job descriptions and related policies.

The most important aspect of internal control is personnel. If employees are competent and trustworthy, other controls can be absent and reliable financial statements will result. Honest, efficient people are able to perform at a high level even when there are few other controls to support them. Even if there are numerous other controls, incompetent or dishonest people can reduce the system to a shambles. Even though personnel may be competent and trustworthy, people have certain innate shortcomings. They can become bored or dissatisfied, personal problems can disrupt their performance, or their goals may change. Because of the importance of competent, trustworthy personnel in providing effective control, the methods by which persons are hired, evaluated, trained, promoted, and compensated are an important part of the internal control structure.

Risk assessment for financial reporting is management's identification and analysis of risks relevant to the preparation of financial statements in conformity with generally accepted accounting principles. For example, if a company frequently sells products at a price below inventory cost because of rapid technology changes, it is essential for the company to incorporate adequate controls to overcome the risk of overstating inventory.

Control activities are the policies and procedures, in addition to those included in the other four components that help ensure that necessary actions are taken to address risks in the achievement of the entity's objectives. There are potentially many such control activities in any entity. However, they generally fall into the following five categories:

- ✓ Adequate separation of duties
- ✓ Proper authorization of transactions and activities
- ✓ Adequate documents and records
- ✓ Physical control over assets and records
- ✓ Independent checks on performance

Four general guidelines for separation of duties to prevent both fraud and errors are of special significance to accounting professionals. They are separation of the custody of assets from accounting (record-keeping), separation of the authorization of transactions from the custody of related assets, separation of operational responsibility from record-keeping responsibility, and separation of duties within data processing.

Every transaction must be properly authorized if controls are to be satisfactory. If any person in an organization could acquire or expend assets at will, complete chaos would result. Authorization can be either general or specific. General authorization means that management establishes policies for the organization to follow. Subordinates are instructed to implement these general authorizations by approving all transactions within limits set by the policy. Specific authorization has to do with individual transactions. Management is often unwilling to establish a general policy of authorization for some transactions. Instead, it prefers to make authorizations on a case-by-case basis. There is also a distinction between authorization and approval. Authorization is a policy decision for either a general class of transactions or specific transactions. Approval is the implementation of management's general authorization decisions. For example, assume that management sets a policy authorizing the ordering of inventory when there is less than a three-week supply on hand. That is a general authorization. When a department orders inventory, the person responsible for maintaining the perpetual record approves the order to indicate that the authorization policy has been met.

Documents and records are the physical objects upon which transactions are entered and summarized. They include such diverse items as sales invoices, purchase orders, subsidiary records, sales journals, and employee time cards. In a computerized accounting system, many of these documents and records are maintained in the form of computer files until they are printed out for specific purposes. Both documents of original entry and records upon which transactions are entered are important, but the inadequacy of documents normally causes greater control problems. Documents perform the function of transmitting information throughout the client's organization and between different organizations. The documents must be adequate to provide reasonable assurance that all assets are properly controlled and all transactions correctly recorded. Certain relevant principles dictate the proper design and use of documents and records. Documents and records should be:

- ✓ Prenumbered consecutively to facilitate control over missing documents and as an aid in locating documents when they are needed at a later date.

- ✓ Prepared at the time a transaction takes place or as soon thereafter as possible. When there is a longer time interval, records are less credible and the chance for misstatement is increased.

- ✓ Sufficiently simple to ensure that they are clearly understood.

- ✓ Designed for multiple use whenever possible to minimize the number of different forms.
- ✓ Constructed in a manner that encourages correct preparation.

A control closely related to documents and records is the chart of accounts, which classifies transactions into individual balance sheet and income statement accounts. The chart of accounts is an important control because it provides the framework for determining the information presented to management and other financial statement users. The chart of accounts is helpful in preventing classification errors if it accurately and precisely describes which type of transactions should be in each account. The procedures for proper record keeping should be spelled out in systems manuals to encourage consistent application. The manuals should provide sufficient information to facilitate adequate record keeping and the maintenance of proper control over assets. Larger companies with reasonably complex computer systems will also maintain a standards manual pertaining to the data processing system.

It is essential to adequate internal control to protect assets and records. If assets are left unprotected, they can be stolen. If records are not adequately protected, they can be stolen, damaged, or lost. In the event of such an occurrence, the accounting process as well as normal operations could be seriously disrupted. When a company is highly computerized, it is especially important to protect its computer equipment, programs, and data files. The equipment and programs are expensive and essential to operations. The data files are the records of the company, and if damaged, could be costly or even impossible to reconstruct. The most important type of protective measure for safeguarding assets and records is the use of physical precautions. An example is the use of storerooms for inventory to guard against theft. When the storeroom is under the control of a competent employee, there is also further assurance that obsolescence is minimized. Fireproof safes and safety deposit vaults for the protection of assets such as currency and securities are other important physical safeguards. There are three categories of controls related to safeguarding data processing equipment, programs, and data files. As with other types of assets, physical controls are used to protect the computer facilities. Access controls deal with ensuring that only authorized people can use the equipment and have access to software and data files. Backup and recovery procedures are steps an organization can take in the event of a loss of equipment, programs, or data.

The last category of control procedures is the careful and continuous review of the other four, often referred to as independent checks or internal verification. The need for independent checks arises because internal control tends to change over time unless there is a mechanism for frequent review. Personnel are likely to forget or intentionally fail to follow procedures, or become careless unless someone observes and evaluates their performance. In addition, both fraudulent and unintentional misstatements are possible, regardless of the quality of the controls. An essential characteristic of the persons performing internal verification procedures is independence from the individuals originally responsible for preparing the data. The least expensive means of internal verification is the separation of duties. Computerized accounting systems can be designed so that many internal verification procedures can be automated as part of the system.

The purpose of an entity's accounting information and communication system is to identify, assemble, classify, analyze, record, and report the entity's transactions, and to maintain accountability for the related assets. An accounting information and communication system has several subcomponents, typically made up of classes of transactions such as sales returns, collections, acquisitions, and so on. For each class of transactions, the accounting system must satisfy all of the six transaction-related accounting objectives. For a small company with active involvement by the owner, a simple computerized accounting system involving primarily one honest competent accountant may provide an adequate accounting information system. A larger company requires a more complex system that includes carefully defined responsibilities and written procedures.

Monitoring activities deal with ongoing or periodic assessment of the quality of internal control performance by management to determine that controls are operating as intended and that they are modified as appropriate for changes in conditions. Information for assessment and modification comes from a variety of sources including studies of existing internal control, internal auditor reports, exception reporting on control activities, reports by regulators such as a bank regulatory agency, feedback from operating personnel, and complaints from customers about billing charges.

The size of a company has a significant effect on the nature of internal control and the specific controls. Obviously, it is more difficult to establish adequate separation of duties in a small company. It would also be unreasonable to expect a small firm to have internal auditors. However, if the various subcomponents of internal control are examined, it becomes apparent that most are applicable to both large and small companies. Even though it may not be common to formalize policies in manuals, it is certainly possible for a small company to have competent, trustworthy personnel with clear lines of authority; proper procedures for authorization, execution, and recording of transactions; adequate documents, records, and reports; physical controls over assets and records; and, to a limited degree, independent checks on performance. A major control available in a small company is the knowledge and concern of the top operating person, who is frequently an owner-manager. A personal interest in the organization and a close relationship with the personnel makes careful evaluation of the competence of the employees and the effectiveness of the overall system possible. For example, internal control can be significantly strengthened if the owner conscientiously performs such duties as signing all checks after carefully reviewing supporting documents, reviewing bank reconciliations, examining accounts receivable statements sent to customers, approving credit, examining all correspondence from customers and vendors, and approving the charge-off of bad debts.

The accounting professional must obtain information about the integrity of management and the nature and extent of the accounting records to be satisfied that sufficient, competent evidence is available to support the financial statement balances.

The understanding should allow the accounting professional to identify the types of potential errors and fraud that might affect the financial statements, and to assess the risk that such misstatements might occur in amounts that are material to the financial statements.

Each of the five components of internal control must be studied and understood. In obtaining that understanding, the accounting professional should consider two aspects: 1) the design of the various controls within each component and 2) whether they have been placed into operation.

Information is obtained about the control environment for each of the subcomponents. The accounting professional then uses the understanding as a basis for assessing management's attitude and awareness about the importance of control. The accounting professional obtains knowledge about management's risk assessment process by determining how management identifies risks relevant to financial reporting, evaluating their significance and likelihood of occurrence, and deciding the actions needed to address the risks. Questionnaires and discussions with management are the most common ways to obtain this understanding. Accounting professionals obtain an understanding of the control environment and risk assessment in a similar manner for most engagements, but obtaining an understanding of control activities varies considerably. For smaller clients, it is common to identify few or even no control activities because controls are often ineffective due to limited personnel. In that case, the accounting professional assesses risk as high. For clients with extensive controls where the accounting professional believes controls are likely to be excellent, it is often appropriate to identify many controls during the understanding phase. In other engagements, the accounting professional may identify a limited number of controls during this phase and then identify additional controls later in the process. The extent to which controls are identified is a matter of professional judgment. To understand the design of the accounting system, the accounting professional determines 1) the major classes of transactions of the entity; 2) how those transactions are initiated; 3) what accounting records exist and their nature; 4) how transactions are processed from initiation to completion, including the extent and nature of computer use; and 5) the nature and details of the financial reporting process followed. Typically, this is accomplished and documented by a narrative description of the system or by flowcharting. The operation of the accounting system is often determined by tracing one or a few transactions through the system. The most important knowledge the accounting professional needs about monitoring is the major types of monitoring activities a company uses and how these activities are used to modify internal controls when necessary. Discussion with management is the most common way to obtain this understanding. In practice, the study of internal control and assessment of control risk varies considerably from client to client. For smaller clients, many accounting professionals obtain only a level of understanding sufficient to assess whether the statements are reliable, evaluate the control environment for management's attitude, and determine the adequacy of the client's accounting system.

The accounting professional's task in obtaining an understanding of internal control is to find out about the components of internal control, to see that they have been placed into operation, and to document the information obtained in a useful manner. A logical starting point for obtaining information initially is with appropriate client personnel. Inquiries of client personnel at the management, supervisory, and staff level will usually be conducted as part of obtaining an understanding of internal control. To design, implement, and maintain internal controls, an entity must have extensive documentation of its own. This includes policy manuals and documents and systems manuals and documents. This information is read by the accounting professional and discussed with company personnel to ensure that it is properly interpreted and understood. The five components of internal control all involve the creation of many documents and records. These will have been presented to some degree in the policy and systems manuals. By examining actual, completed documents and records, the accounting professional can bring the contents of the manuals to life and better understand them. Examination of the documents and records also provides evidence that the control policies and procedures have been placed into operation. In addition to examining completed documents and records, the accounting professional can observe client personnel in the process of preparing them and carrying out their normal accounting and control activities. This further enhances understanding and knowledge that controls have been placed into operation. Observation, documentation, and inquiry can be conveniently and effectively combined in the form of the transaction walk-through. With this procedure, the accounting professional selects one or a few documents for the initiation of a transaction type and traces it (them) through the entire accounting process. At each stage of processing, inquiries are made and current activities are observed, in addition to examining completed documentation for the transaction or transactions selected.

Three commonly used methods of documenting the understanding of internal control are narratives, flowcharts, and internal control questionnaires. These may be used separately or in combination.

A narrative is a written description of a client's internal controls. A proper narrative of an accounting system and related controls includes four characteristics:

- ✓ The origin of every document and record in the system. For example, the description should state where customer orders come from and how sales invoices arise.
- ✓ All processing that takes place. For example, if sales amounts are determined by a computer program that multiplies quantities shipped by stored standard prices, which should be described.
- ✓ The disposition of every document and record in the system. The filing of documents, sending them to customers, or destroying them should be shown.
- ✓ An indication of the controls relevant to the assessment of control risk. These typically include separation of duties, authorizations and approvals, and internal verification.

An internal control flowchart is a symbolic, diagrammatic representation of the client's documents and their sequential flow in the organization. An adequate flowchart includes the same four characteristics identified for narratives. Flowcharting is advantageous primarily because it can provide a concise overview of the client's system, which is useful to the accounting professional as an analytical tool in evaluation. A well-prepared flowchart aids in identifying inadequacies by facilitating a clear understanding of how the system operates. For most uses, it is superior to narratives as a method of communicating the characteristics of a system, especially to show adequate separation of duties. It is easier to follow a diagram than to read a description. It is also usually easier to update a flowchart than a narrative. It would be unusual to use both a narrative and a flowchart to describe the same system since both are intended to describe the flow of documents and records in an accounting system. Sometimes a combination of a narrative and flowchart is used. The decision to use one or the other or a combination of the two is dependent on two factors: relative ease of understanding by current and subsequent-year users and the relative cost of preparation.

An internal control questionnaire asks a series of questions about the controls in each engagement area as a means of indicating to the accounting professional aspects of internal control that may be inadequate. In most instances, it is designed to require a "yes" or a "no" response, with "no" responses indicating potential internal control deficiencies. The primary advantage of using a questionnaire is the ability to thoroughly cover each engagement area reasonably quickly at the beginning of the engagement. The primary disadvantage is that individual parts of the client's systems are examined without providing an overall view. In addition, a standard questionnaire is often inapplicable to some clients, especially smaller ones. The use of both questionnaires and flowcharts is highly desirable for understanding the client's system. Flowcharts provide an overview of the system, and questionnaires are useful checklists to remind the accounting professional of many different types of controls that should exist. When properly used, a combination of these two approaches should provide the accounting professional with an excellent description of the system. It is often desirable to use the client's narratives or flowcharts and have the client fill out the internal control questionnaire. When understandable and reliable narratives, flowcharts, and questionnaires are not available from a client, which is frequently the case, the accounting professional must prepare them.

INTERNAL CONTROL SYSTEMS
REVIEW QUESTIONS

1. Which of the following is *not* typically one of management's concerns in designing an effective internal control structure?

   a. reliability of financial accounting
   b. obtaining the best internal control system possible
   c. compliance with applicable laws and regulations
   d. efficiency and effectiveness of operations

2. The financial statements are ***not*** likely to correctly reflect generally accepted accounting principles if:

   a. the controls affecting the reliability of financial reporting are inadequate.
   b. the company's controls do not promote efficiency.
   c. the company's controls do not promote effectiveness.
   d. all of the above are correct.

3. An act of two or more employees to misstate records is called:

   a. malfeasance.
   b. collusion.
   c. defalcation.
   d. felony.

4. One of the following is ***not*** an element of the internal control structure.

   a. the control environment
   b. the accounting system
   c. control procedures
   d. audits

5. The essence of an effectively controlled organization lies in the:

   a. effectiveness of its independent auditor.
   b. effectiveness of its internal auditor.
   c. attitude of its employees.
   d. attitude of its management.

6. The most important aspect of any system of controls is:

   a. proper authorization procedures.
   b. competent and trustworthy personnel.
   c. separation of duties.
   d. regular review by top management.

7. An important part of the internal control structure includes the methods by which persons are:

   a. hired.
   b. evaluated.
   c. compensated.
   d. all of the above are important.

8. In order to ensure unbiased information, record keeping is typically included in a separate department under the:

   a. treasurer.
   b. vice president of operations.
   c. controller.
   d. internal auditor
   e.

9. Within the data processing department, the individual or group that develops special flowcharts for the applications, tests the programs and documents the results, is the:

   a. systems analyst.
   b. programmer.
   c. computer operator.
   d. data control group.

10. Adequate separation of duties within a data processing department would ensure that:

   a. the programmer does not have access to the computer operation.
   b. the librarian does not have physical control over the computer run instructions.
   c. the computer operator does ***not*** have access to computer run instructions.
   d. the data control group has as little independence as possible.

11. The individual or group whose function is to test the effectiveness and efficiency of all aspects of the system is the:

    a. systems analyst.
    b. programmer.
    c. computer operator.
    d. data control group.

12. Authorizations can be either general or specific. Which of the following is ***not*** an example of a general authorization?

    a. a sales price list for merchandise
    b. credit limits for various classes of customers
    c. a sales manager's authorization for a sales return
    d. automatic reorder points for raw materials inventory

13. The procedures for proper record keeping should be spelled out in:

    a. the corporate bylaws.
    b. systems manuals.
    c. run manuals.
    d. minutes of the board of directors.

14. The most important type of protective measure for safeguarding assets and records is:

    a. adequate separation of duties among personnel.
    b. proper authorization of transactions.
    c. the use of physical precautions.
    d. adequate documentation.

15. Which of the following is ***not*** a control related to safeguarding data processing equipment, programs, and data files?

    a. physical controls
    b. automated internal verification procedures
    c. access controls
    d. backup and recovery procedures

16. A major control available in a small company which might not be feasible in a large company is:

    a. a wider segregation of duties.
    b. a voucher system.
    c. fewer transactions to process.
    d. the owner-manager’s personal interest and close relationship with the personnel.

17. Narratives, flowcharts, and internal control questionnaires are three commonly used methods of:

    a. documenting the study of internal controls.
    b. testing the internal control structure.
    c. designing the audit manual and procedures.
    d. documenting the accounting professional’s understanding of the client’s organizational structure
    e.

18. Which of the following statements is ***not*** correct?

    a. It would be unusual to use both a narrative and a flowchart to describe the same system.
    b. The use of both questionnaires and flowcharts on the same system engagement is highly desirable for understanding the client’s system.
    c. The advantage of the narrative description is the ease of describing the details of the internal control structure.
    d. When available and understandable narratives, flowcharts, and questionnaires are available from the client, it is desirable to use them rather than have the accounting professional prepare his or her own documents.

19. Which of the following statements about the internal control questionnaire is ***not*** correct?

    a. The primary advantage of the questionnaire approach is the relative completeness of coverage of each engagement area that a good instrument affords.
    b. The questionnaire can be prepared reasonably quickly, and it can be accomplished at the beginning of the engagement.
    c. The primary disadvantage of the questionnaire approach is that individual parts of the system are examined without providing an overall view.
    d. It is unacceptable for the accounting professional to rely on an internal control questionnaire which has been filled out by the client’s personnel.

20. Which of the following tests would ***not*** be a program control?

a. validity test
b. parity test
c. completeness test
d. limit test

21. Internal accounting control comprises the plan or organization and the procedures and records that are concerned with the safeguarding of assets and the:

a. decision processes of management.
b. reliability of financial records.
c. authorization of transactions.
d. achievement of administrative objectives.

22. Which of the following activities would be least likely to strengthen a company's internal control?

a. separating accounting from other financial operations
b. maintaining insurance for fire and theft
c. fixing responsibility for the performance of employee duties
d. carefully selecting and training employees

23. A system of internal accounting control normally would include procedures that are designed to provide reasonable assurance that:

a. employees act with integrity when performing their assigned tasks.
b. transactions are executed in accordance with management's general or specific authorization.
c. decision processes leading to management's authorization of transactions are sound.
d. collusive activities would be detected by segregation of employee duties.

24. A well designed system of internal control that is functioning effectively is most likely to detect an irregularity arising from:

a. the fraudulent action of several employees.
b. the fraudulent action of an individual employee.
c. informal deviations from the official organization chart.
d. management fraud.

25. Which of the following is ***not*** an element of an entity's internal control structure?

   a. control risk
   b. control procedures
   c. the accounting system
   d. the control environment

26. An accounting professional is **least** likely to test for the control that provides for:

   a. segregation of the functions of recording disbursements and reconciling the bank account.
   b. comparison of receiving reports and vendors' invoices with purchase orders.
   c. approval of the purchase and sale of marketable securities.
   d. classification of revenue and expense transactions by product line.

27. Which of the following statements about an internal control system is ***not*** valid?

   a. No one person should be responsible for the custodial responsibility and the recording responsibility for an asset.
   b. Transactions must be properly authorized before such transactions are processed.
   c. Because of the cost benefit relationship, a client may apply control procedures on a test basis.
   d. Control procedures reasonably ensure that collusion among employees cannot occur.

28. The use of fidelity bonds protects a company from embezzlement losses and also:

   a. protects employees who make unintentional error from possible monetary damages resulting from such errors.
   b. allows the company to substitute the fidelity bonds for various parts of internal accounting control.
   c. reduces the company's need to obtain expensive business interruption insurance.
   d. minimizes the possibility of employing persons with dubious records in positions of trust.

29. It is important for the accounting professional to consider the competence of the client's employees because their competence bears directly and importantly upon the:

   a. cost/benefit relationship of the system of internal control.
   b. achievement of the objectives of the system of internal control.
   c. comparison of recorded accountability with assets.
   d. timing of the tests to be performed.

30. Effective internal control in a small company that has an insufficient number of employees to permit proper division of responsibilities can best be enhanced by:

a. employment of temporary personnel to aid in the separation of duties.
b. direct participation by the owner of the business in the record keeping activities of the business.
c. engaging an accounting professional to perform monthly “write-up” work.
d. delegation of full, clear-cut responsibility to each employee for the functions assigned to each.

INTERNAL CONTROL SYSTEMS

REVIEW QUESTION SOLUTIONS

1.	B
2.	A
3.	B
4.	D
5.	D
6.	B
7.	D
8.	C
9.	B
10.	A
11.	D
12.	C
13.	B
14.	C
15.	B
16.	D
17.	A
18.	C
19.	D
20.	B
21.	B
22.	B
23.	B
24.	B
25.	A
26.	D
27.	D
28.	D
29.	B
30.	B

INTERNAL CONTROL SYSTEMS
Explanation of Review Question Solutions

1. The correct answer is B, obtaining the best internal control system possible. Any system of internal control must be cost effective, so achieving the best system possible regardless of the cost would not be a goal. Management often has three concerns in designing an internal control system: reliability of financial reporting (A), efficiency and effectiveness of operations (D), and compliance with applicable laws and regulations (C).

2. The correct answer is A; the controls affecting the reliability of financial reporting are adequate. Circle or highlight the word not. We have three true answers and one false one. Good financial information depends upon both efficiency (B) and effectiveness (C), but, by themselves, they do not determine if the financial statements correctly reflect GAAP. Efficiency and effectiveness are instrumental in safeguarding records.

3. The correct answer is B, collusion. An act of two or more employees to steal assets or misstate records is called collusion. A defalcation (C) is an irregularity, embezzlement, peculation, misappropriation, misapplication, or fraud committed by an owner, officer or other fiduciary of an entity that results in defaulting on a loan or other agreement. Felony (D, dictionary definition) is a crime for which the punishment in federal law may be death or imprisonment for more than one year. Malfeasance (A, legal dictionary) is the unjust performance of some act which the party had no right, or which he had contracted not to do. It differs from misfeasance and nonfeasance.

4. The correct answer is D, audits. Circle or highlight the word not. We have three true answers and one false one. The components or elements of internal control are the control environment (A), risk assessment, the accounting system (B), control activities (C), information and communication, and monitoring.

5. The correct answer is D, attitude of its management. The essence of an effectively controlled organization lies in the attitude of its management (exact quote from the text). The attitude of the employees (C) flows from the attitudes of management; management sets the tone. The effectiveness of the internal auditors (B) stems from the level of cooperation it receives and the backing of the board of directors. The effectiveness of external auditors (A) does not really affect the internal control system; they are there to observe and to provide an opinion on what already exists.

6. The correct answer is B, competent and trustworthy personnel. Even if systems personnel could design an ideal system, its effectiveness depends upon the competency and dependability of the people using it. The question uses the phrase “the most important aspect of any system of controls is?” Certainly proper authorization procedures (A), separation of duties (C), and regular review by top management (D) are all internal control measures, but they are not the most important aspects of the system. (Why isn’t management’s attitude “the most important aspect” and only “the essence of an effectively controlled organization?”)

7. The correct answer is D, all of the above. Hiring, evaluations, and compensation of employees are all important aspects of the internal control structure.

8. The correct answer is C, controller. The controller is usually an experienced accountant who directs internal accounting processes and procedures, including cost accounting. The treasurer (A) has custody of the cash, and supervises the personnel who control the cash in bank accounts and on-hand, such as tellers. Internal auditors (D) monitor, assess, and analyze organizational risks and controls; and review and confirm information and compliance with policies, procedures, and laws, and report their findings to the board of directors, audit committee and top management. The vice president of operations (B) is the administrative official responsible for the day-to-day supervision of all aspects of the business.

9. The correct answer is B, the programmer. Systems analysts (A) research the systems and procedures an organization uses, and decide if and how computers or computer applications could be used to improve them. Programmers (B) write, test, develop, and maintain computer software programs. The data control group (D) tests the effectiveness and efficiency of all aspects of the system. The computer operator (C) makes sure the computer performs its functions correctly and helps to get the software and hardware of the computer up and running when it goes down.

10. The correct answer is A; the programmer does not have access to the computer operation. If the programmer could operate the computer, he could insert code that would allow him to alter documentation at will. The computer operator (C) is expected to perform operations. The librarian (B) would have little use for the run instructions.

11. The correct answer is D, data control group. See question #9 for definitions.

12. The correct answer is C; a sales manager’s authorization for a sales return. Highlight or circle the word not. This question has three true and one false selection. A general authorization is an automatic authorization when certain numerical data or computations based upon that data exceed certain levels. A sales manager’s authorization of a sales return is a specific authorization that needs his personal signature or approval.

13. The correct answer is B, systems manuals. The corporate bylaws (A) and the minutes of the board of directors (D) are obvious wrong answers to this question. There is no need for the corporate bylaws (written by the founder of the company and amended by owners) or the board of directors to concern themselves with accounting procedures unless they are also accountants. Program run instructions (C) deal with the operation of the computer and require a description of the input, detailed operating instructions, possible error conditions and description of the output.

14. The correct answer is C, the use of physical precautions (“The most important type of protective measure for safeguarding assets and records is the use of physical precautions.”). There are five control activities or policies and procedures, including adequate separation of duties (A), proper authorization (B), adequate documents (D), physical control of assets and records (C), and independent checks on performance.

15. The correct answer is B, automated internal verification procedures. Highlight or circle the word not. This question has three true and one false selection. Physical controls, access controls, and backup and recovery procedures all relate to safeguarding data processing equipment, programs, and data files. Automated internal verification procedures help to verify that the information is correct, but take no part in safeguarding the assets.

16. The correct answer is D; the owner-manager’s personal interest and close relationship with the personnel. “A major control available in a small company is the knowledge and concern of the top operating person. The owner-manager’s personal interest and close relationship with the personnel makes careful evaluation of the competence of the employees and the effectiveness of the overall system possible (direct quote).” Segregation of duties (A) may not be possible in a small company due to the lack of personnel. A voucher system (B) may be impossible in a small company due to the lack of separate departments to take on the functions, i.e. accounting, treasurer, cashier, receiving, purchasing, etc. The fact that there are fewer transactions to process (C) is not a control system or method.

17. The correct answer is A, documenting the study of internal controls. “Questionnaires and flowcharts are highly desirable for understanding (and documenting) the internal control system.” Later on the paragraph mentions narratives.

18. The correct answer is C; the advantage of the narrative description is the ease of describing the details of the internal control structure. Highlight or circle the word not. This question has three true and one false selection. In most cases, a flowchart is superior to a narrative as a method of communicating the characteristics of a system. It would be unusual to use both a narrative and a flowchart to describe the same system since both are intended to describe the flow of documents and records in an accounting system (A). The use of both questionnaires and flowcharts is highly desirable for understanding the client's system (B). When understandable and reliable narratives, flowcharts, and questionnaires are not available from a client, the accountant must prepare them (D).

19. The correct answer is D; it is unacceptable for the accounting professional to rely on an internal control questionnaire that has been filled out by the client's personnel. Highlight or circle the word not. This question has three true and one false selection. It is often desirable to use the client's narratives or flowcharts and have the client fill out the internal control questionnaire. The primary advantage of using a questionnaire is the ability to thoroughly cover each engagement area reasonably quickly at the beginning of the engagement (A and B). The primary disadvantage is that individual parts of the client's systems are examined without providing an overall view (C).

20. The correct answer is B, parity test. Program controls are written into programs to determine if input, processing, or output is erroneous. The parity test or checking refers to the use of parity bits (binary digits) to check that data has been transmitted accurately when communicating information from one machine to another. The parity bit is added to every data unit (typically seven or eight bits) that is transmitted. The parity bit for each unit is set so that all bytes have either an odd number or an even number of set bits. The validity test (A) compares the codes as entered, such as transaction codes, with a table of valid codes. The format test is where the content of a field is tested for a prescribed format. Logic tests included the validity test and the format test to show that data when correctly entered is correctly recorded in the computer. The completeness test (C) examines every field in a record to determine whether all are complete. The reasonableness or limit test (D) compares contents to see if amounts are within defined limits. Note that this is another true-false type question; i.e., which one is NOT a program control.

21. The correct answer is B, reliability of financial records. Safeguarding of certain assets and records has become increasingly important since the advent of computer systems. Safeguarding of accounting records also affects the reliability of financial reporting. Notice that the question makes a distinction between internal control and internal accounting control. Accounting professionals should emphasize controls concerned with the reliability of data for external reporting purposes, but controls affecting internal management information such as budgets and internal performance reports should not be completely ignored.

22. The correct answer is B, maintaining insurance for fire and theft. While separation of duties (A), fixing responsibility for employee duties (C) and carefully selecting and training employees (D) are all important duties, maintaining insurance against theft on important assets is a valid control measure. The question points out the *relative* importance of these duties.

23. The correct answer is B; transactions are executed in accordance with management's general or specific authorization. Collusive activities by their very nature require two or more conspirators and therefore can bypass separation of duties controls easily (D). Accountants rarely concern themselves with the decision processes of management (C). The integrity of employees performing their assigned task is not something accountants can oversee easily (A).

24. The correct answer is B; the fraudulent action of an individual employee is most likely detected by an internal control system. Several employees cooperating can defeat separation of duties (A) and may remain undetectable. If a deviation from the organizational chart is informal, it is not documented and may remain undetected (C). Management fraud is the most easily undetected form of fraud (D).

25. The correct answer is A, the control risk. There are five elements of the internal control structure: the control environment (A), risk assessment, control activities or procedures (B), information and communications (C), and monitoring. (Note: see #4)

26. The correct answer is D; classification of revenue and expense transactions by product line. Highlight or circle the word least. Classification of revenue and expense by product line is not a control procedure.

27. The correct answer is D; control procedures reasonably insure that collusion among employees cannot occur. Circle or highlight the word not. Collusion is one of the methods that employees defeat internal control.

28. The correct answer is D; minimizes the possibility of employing persons with dubious records in positions of trust. Bonding adds another layer of control since the bonding company often checks into the backgrounds of people that it bonds to reduce risk. Employees often make small monetary errors (A). Fidelity bonds are only possible if the company contains internal controls that would minimize the bonding company risk (B). Bonding has nothing to do with business interruption insurance (C).

29. The correct answer is B; achievement of the objectives of a system of internal control. Competence is the knowledge and skills necessary to accomplish tasks that define an individual's job.

30. The correct answer is B; direct participation by the owner of the business in the record keeping activities of the business. For example, internal control can be significantly strengthened if the owner conscientiously performs such duties as signing all checks after carefully reviewing supporting documents, reviewing bank reconciliations, examining accounts receivable statements sent to customers, approving credit, examining all correspondence from customers and vendors, and approving the charge-off of bad debts.

EVALUATING INVESTMENT/BUSINESS OPPORTUNITIES

After reviewing this chapter, you should be able to:

1. *Rank investment projects in order of preference using the internal rate of return method and the net present value method with the profitability index*
2. *Determine the payback period for an investment*
3. *Compute the simple rate of return for an investment*

When considering investment opportunities, managers must make two types of decisions; screening decisions and preference decisions. Screening decisions pertain to whether or not some proposed investment is acceptable. Preference decisions come after screening decisions and attempt to answer the following questions: “How do the remaining investment proposals, all of which have been screened and provide an acceptable rate of return, rank in terms of preference?" That is, which one(s) would be best for the firm to accept? Preference decisions are more difficult to make than screening decisions because investment funds are usually limited. This often requires that some profitable investment opportunities must be passed up. Sometimes preference decisions are called ranking decisions or rationing decisions because they ration limited investment funds among many competing alternatives or there may be many alternatives that must be ranked. Either the internal rate of return method or the net present value method can be used in making preference decisions. If the two methods are in conflict, it is best to use the net present value method which is more reliable.

When using the internal rate of return method to rank competing investment projects, the preference rule is: The higher the internal rate of return, the more desirable the project. An investment project with an internal rate of return of 18 percent is preferable to another project that promises a return of only 15 percent. Internal rate of return is widely used to rank projects.

If the net present value method is used to rank projects, the net present value of one project cannot be compared directly to the net present value of another project unless the investments in the projects are of equal size and have nearly identical projected cash inflows. To compare two projects on a valid basis, the present value of the cash inflows should be divided by the initial investment. The result is called the profitability index. The formula for the profitability index follows:

$$\text{Profitability index} = \frac{\text{Present value of future cash flows}}{\text{Investment required}}$$

When using the profitability index to rank competing investment projects, the preference rule is the higher the profitability index, the more desirable the project. The profitability index is an application of the techniques for utilizing scarce resources. The scarce resource is a limited amount of funds available for investment, and the profitability index is similar to the contribution margin per unit of the scarce resource. A few details should be clarified with respect to the computation of the profitability index. The investment required refers to any cash outflows that occur at the beginning of the project reduced by any salvage value recovered from the sale of old equipment. The investment required also includes any investment in working capital that the project may need. Finally, it should be noted that the present value of cash inflows is net of all outflows that occur after the project starts.

Discounted cash flows methods have gained widespread acceptance as decision-making tools. Other methods of making capital budgeting decisions are also used, however, and are preferred by some managers. Two of these methods are known as the payback method and the simple rate of return method. Both methods have been in use for many years, but are now declining in popularity as the primary tools for project evaluation.

The payback method centers on a span of time known as the payback period. The payback period can be defined as the length of time that it takes for a project to recoup its initial cost out of the cash receipts that it generates. This period is sometimes referred to as the time it takes for an investment to pay for itself. The basic premise of the payback method is that the more quickly the cost of an investment can be recovered, the more desirable is the investment. The payback period is expressed in years. When the net annual cash inflow is the same every year, the following formula can be used to compute the payback period:

$$\text{Payback period} = \frac{\text{Investment required}}{\text{Net annual cash inflow}}$$

The payback method is not a true measure of the profitability of an investment. Rather, it simply tells the manager how many years will be required to recover the original investment. Unfortunately, a shorter payback does not always mean that one investment is more desirable than another. A further criticism of the payback method is that it does not consider the time value of money. A cash inflow received several years in the future is weighed equally with a cash inflow to be received right now. On the other hand, under certain conditions the payback method can be very useful. For one thing, it can help identify which investment proposals are in the "ballpark." That is, it can be used as a screening tool to help answer the question, "should we consider this proposal further?" If a proposal does not provide a payback within some specified period, then there may be no need to consider it further. In addition, the payback period is often of great importance to new firms that are cash poor. When a firm is cash poor, a project with a short payback period but a low rate of return might be preferred over another project with a high rate of return but a long payback period. The reason is that the company may simply need a faster return of its cash investment. And finally, the payback method is sometimes used in industries where products become obsolete very rapidly such as consumer electronics. Since products may last only a year or two, the payback period on investments must be very short.

The payback period is computed by dividing the investment in a project by the net annual cash inflows that the project will generate. If new equipment is replacing old equipment, then any salvage to be received on disposal of the old equipment should be deducted from the cost of the new equipment, and only the incremental investment should be used in the payback computation. In addition, any depreciation deducted in arriving at the project's net income must be added back to obtain the project's expected net annual cash inflow.

When the cash flows associated with an investment project change from year to year, the simple payback formula illustrated earlier is no longer appropriate, and the computations involved in deriving the payback period can be fairly complex. It is necessary to track the unrecovered investment year by year. The following example will illustrate the procedure:

Year	Initial Investment	Cash Inflow	Balance
1	$6,000	$1,000	$5,000
2		2,000	3,000
3		1,000	2,000
4		500	1,500
5		3,000	-0-

As can be seen from the example, the project will payback at sometime during the fifth year. It is normally assumed that that cash inflows are received even throughout the period. Therefore, when it is seen that the project will be paid back during a particular year, divide the unrecovered balance (in this case $1,500) by the cash inflow for the year of payback ($3,000). In the example, the payback is 4.5 years.

The simple rate of return method is another capital budgeting technique that does not involve discounted cash flows. This method is also known as the accounting rate of return, the unadjusted rate of return, and the financial statement method. Unlike other capital budgeting methods, the simple rate of return method does not focus on cash flows. Rather, it focuses on accounting net income. The approach is to estimate the revenues that will be generated by a proposed investment and then to deduct from these revenues all of the project operating expenses associated with the project. This net income figure is then related to the initial investment in the project. The simple rate of return is equal to the incremental revenues minus the incremental expenses (including depreciation) divided by the initial investment. If a cost reduction project is being evaluated, the formula is: the simple rate of return is equal to the cost savings minus depreciation on the new equipment divided by the initial investment. The most damaging criticism of the simple rate of return method is that it does not consider the time value of money. A dollar received ten years from now is viewed as being equal to a dollar received today. Thus, the manager may be misled if the alternatives being considered have different cash flow patterns. For example, assume that project A has a high simple rate of return but yields the bulk of its cash flows many years from now. Another project, B, has a somewhat lower simple rate of return but yields the bulk of its cash flows over the next few years. Project A has a higher simple rate of return than project B; however, project B might in fact be a much better investment if the time value of money were considered.

A post-audit of an investment project involves a follow-up after the project has been approved to see whether or not expected results are actually realized. This is a key part of the capital budgeting process in that it provides management with an opportunity, over time, to see if realistic data are being submitted to support capital budgeting proposals. It also provides an opportunity to reinforce successful projects as needed, to strengthen or perhaps salvage projects that are encountering difficulty, to terminate unsuccessful projects before losses become too great, and to improve the overall quality of future investment proposals. In performing a post-audit, the same technique should be used as was used in the original approval process. That is, if a project was approved on the basis of a net present value analysis, then the same procedure should be used in performing the post-audit. However, the data used in the post-audit analysis should be actual, observed data rather than estimated data. This affords management with an opportunity to make a side-by-side comparison to see how well the project has worked out. It also helps ensure that estimated data received on future proposals will be carefully prepared, since the persons submitting the data will know that their estimates will be given careful scrutiny in the post-audit process. Actual results that are far out of line with original estimates should be carefully reviewed by management and corrective action taken as necessary. Those managers responsible for the original estimates should be required to provide a full explanation of any major differences estimated and actual results.

EVALUATING INVESTMENT/ BUSINESS OPPORTUNITIES

REVIEW QUESTIONS

1. The net present value and internal rate of return methods of capital budgeting are superior to the payback method in that they:

   a. are easier to implement.
   b. consider the time value of money.
   c. require less input.
   d. reflect the effects of depreciation and income taxes.

2. Which of the following capital budgeting techniques consider(s) cash flow over the entire life of the project?

	Internal rate of return	Payback
a.	Yes	Yes
b.	Yes	No
c.	No	Yes
d.	No	No

3. The payback method measures:

   a. how quickly investment dollars may be recovered.
   b. the cash flow from an investment.
   c. the economic life of an investment.
   d. the profitability of an investment.

4. An investment project that requires a present investment of $210,000 will have cash inflows of "R" dollars each year for the next five years. The project will terminate in five years. Consider the following statements (ignore income tax considerations):

    I. If "R" is less than $42,000, the payback period exceeds the life of the project.
    II. If "R" is greater than $42,000, the payback period exceeds the life of the project.
    III. If "R" equals $42,000, the payback period equals the life of the project.

   Which statement(s) is/are true?

   a. Only statements I and II are correct.
   b. Only statements I and III are correct.
   c. Only statements II and III are correct.
   d. Statements I, II, and III are correct.

5. Which one of the following statements about the payback method of capital budgeting is correct?

   a. The payback method does not consider the time value of money.
   b. The payback method considers cash flows after the payback has been reached.
   c. The payback method uses discounted cash flow techniques.
   d. The payback method will lead to the same decision as other methods of capital budgeting.

6. The evaluation of an investment having uneven cash flows using the payback method:

   a. cannot be done.
   b. can be done only by matching cash inflows and investment outflows on a year-by-year basis.
   c. will produce essentially the same results as those obtained through the use of discounted cash flow techniques.
   d. requires the use of a sophisticated calculator or computer software.

7. The capital budgeting method that divides a project's annual incremental net income by the initial investment is the:

   a. internal rate of return method.
   b. the simple or accounting rate of return method.
   c. the payback method.
   d. the net present value method.

8. Buy-rite Pharmacy has purchased a small auto for delivering prescriptions. The auto was purchased for $9,000 and will have a 6-year useful life and a $3,000 salvage value. Delivering prescriptions should increase gross revenues by at least $5,000 per year. The cost of these prescriptions to the pharmacy will be about $2,000 per year. The pharmacy depreciates all assets using the straight-line method. The payback period for the auto is:

   a. 3.0 years.
   b. 1.8 years.
   c. 2.0 years.
   d. 1.2 years.

9. A company with $800,000 in operating assets is considering the purchase of a machine that costs $75,000 and which is expected to reduce operating costs by $20,000 each year. The payback period for this machine in years is closest to:

   a. 0.27 years.
   b. 10.7 years.
   c. 3.75 years.
   d. 40 years.

10. The Higgins Company has just purchased a piece of equipment at a cost of $120,000. This equipment will reduce operating costs by $40,000 each year for the next eight years. This equipment replaces old equipment that was sold for $8,000 cash. The new equipment has a payback period of:

   a. 8.0 years.
   b. 2.8 years.
   c. 10.0 years.
   d. 3.0 years.

11. The Keego Company is planning a $200,000 equipment investment that has an estimated five-year life with no estimated salvage value. The company has projected the following annual cash flows for the investment.

Year	Cash Inflows
1	$120,000
2	60,000
3	40,000
4	40,000
5	40,000

Assuming that the cash inflows occur evenly throughout the year, the payback period for the investment is:

a. 0.75 years.
b. 1.67 years.
c. 4.91 years.
d. 2.50 years.

12. Denny Corporation is considering replacing a technologically obsolete machine with a new state-of-the-art numerically controlled machine. The new machine would cost $450,000 and would have a ten-year useful life. Unfortunately, the new machine would have no salvage value. The new machine would cost $20,000 per year to operate and maintain, but would save $100,000 per year in labor and other costs. The old machine can be sold now for scrap for $50,000. The simple rate of return on the new machine is closest to:

a. 8.75%.
b. 20.00%.
c. 7.78%.
d. 22.22%.

13. The Jason Company is considering the purchase of a machine that will increase revenues by $32,000 each year. Cash outflows for operating this machine will be $6,000 each year. The cost of the machine is $65,000. It is expected to have a useful life of five years with no salvage value. For this machine, the simple rate of return is:

a. 20%.
b. 40%.
c. 49.2%.
d. 9.2%.

14. Perkins Company is considering several investment proposals, as shown below:

	A	B	C	D
Investment required	$80,000	$100,000	$60,000	$75,000
Present value of future cash flows	96,000	150,000	84,000	120,000

Rank the proposals in terms of preference using the profitability index.

a. D, B, C, A
b. B, D, C, A
c. B, D, A, C
d. A, C, B, D

15. Information on four investment proposals is given below:

Proposal	Investment	Net Present Value
1	$50,000	$30,000
2	60,000	24,000
3	30,000	15,000
4	45,000	9,000

Rank the proposals in terms of preference according to the profitability index.

a. 3, 4, 1, 2
b. 1, 2, 3, 4
c. 1, 3, 2, 4
d. 2, 1, 4, 3

16. Shields Company has gathered the following data on a proposed investment project:

Investment required in equipment	$400,000
Annual cash inflows	80,000
Salvage value	-0-
Life of the investment	10 years
Discount rate	10%

The payback period for the investment is closest to:

a. 0.2 years.
b. 1.0 years.
c. 3.0 years.
d. 5.0 years.

17. Shields Company has gathered the following data on a proposed investment project:

Investment required in equipment	$400,000
Annual cash inflows	80,000
Salvage value	-0-
Life of the investment	10 years
Discount rate	10%

The simple rate of return on the investment is closest to:

a. 5%.
b. 10%.
c. 15%.
d. 20%.

18. Oriental Company has gathered the following data on a proposed investment project:

Investment in depreciable equipment	$200,000
Annual net cash flows	50,000
Life of the equipment	10 years
Salvage value	-0-
Discount rate	10%

The company uses straight-line depreciation on all equipment.

The payback period for the investment would be:

a. 2.41 years.
b. 0.25 years.
c. 10 years.
d. 4 years.

19. Oriental Company has gathered the following data on a proposed investment project:

Investment in depreciable equipment	$200,000
Annual net cash flows	50,000
Life of the equipment	10 years
Salvage value	-0-
Discount rate	10%

The company uses straight-line depreciation on all equipment.

The simple rate of return on the investment would be:

a. 10%.
b. 35%.
c. 15%.
d. 25%.

20. Apex Corporation is planning to buy production machinery costing $100,000. This machinery's expected useful life is five years, with no residual value. apex uses a discount rate of 10% and has calculated the following data pertaining to the purchase and operation of this machinery:

Year	Estimated annual cash flow
1	$60,000
2	30,000
3	20,000
4	20,000
5	20,000

The payback period is:

a. 2.50 years.
b. 2.75 years.
c. 3.00 years.
d. 5.00 years.

21. Fast Food, Inc., has purchased a new donut maker. It cost $16,000 and has an estimated life of 10 years. The following annual donut sales and expenses are projected:

Sales		$22,000
Expenses:		
Flour, etc.	$10,000	
Salaries	6,000	
Depreciation	1,600	17,600
Net income		4,400

The payback period on the new machine is closest to:

a. 5 years.
b. 2.7 years.
c. 3.6 years.
d. 1.4 years.

22. Fast Food, Inc., has purchased a new donut maker. It cost $16,000 and has an estimated life of 10 years. The following annual donut sales and expenses are projected:

Sales		$22,000
Expenses:		
Flour, etc.	$10,000	
Salaries	6,000	
Depreciation	1,600	17,600
Net income		4,400

The simple rate of return for the new machine is closest to:

a. 20%.
b. 37.5%.
c. 27.5%.
d. 80.0%.

23. Purvell Company has just acquired a new machine. Data on the machine follow:

Purchase cost	$50,000
Annual cost savings	15,000
Life of the machine	8 years

The company uses straight-line depreciation and a $5,000 salvage value. Assume cash flows occur uniformly throughout a year.

The payback period would be closest to:

a. 3.33 years.
b. 3.0 years.
c. 8.0 years.
d. 2.9 years.

24. Purvell Company has just acquired a new machine. Data on the machine follow:

Purchase cost	$50,000
Annual cost savings	15,000
Life of the machine	8 years

The company uses straight-line depreciation and a $5,000 salvage value. Assume cash flows occur uniformly throughout a year.

The simple rate of return would be closest to:

a. 30.0%.
b. 17.5%.
c. 18.75%.
d. 12.5%.

25. Hanley Company purchased a machine for $125,000 that will be depreciated on the straight-line basis over a five-year period with no salvage value. The related cash flow from operations is expected to be $45,000 a year. These cash flows from operations occur uniformly throughout the year.

What is the payback period?

a. 2.1 years
b. 2.3 years
c. 2.8 years
d. 4.2 years

26. Hanley Company purchased a machine for $125,000 that will be depreciated on the straight-line basis over a five-year period with no salvage value. The related cash flow from operations is expected to be $45,000 a year. These cash flows from operations occur uniformly throughout the year.

What is the simple rate of return on the initial investment?

a. 16%
b. 24%
c. 28%
d. 36%

27. Which of the following is ***not*** a time-adjusted method for ranking investment proposals?

a. Net payback method
b. Payback method
c. Internal rate of return
d. All of the above are time-adjusted methods.

28. Which of the following statements about the "payback method" is true?

a. The payback method considers cash flows after the payback has been reached.
b. The payback method does not consider the time value of money.
c. The payback method uses discounted cash-flow techniques.
d. The payback method generally leads to the same decision as other investment selection methods.

29. There are several disadvantages to the payback method, among them:

a. payback ignores the time value of money.
b. payback emphasizes receiving money back as fast as possible for reinvestment.
c. payback is easy to use and to understand.
d. payback can be used in conjunction with time adjusted methods of evaluation.

30. If the capital budgeting decision includes a replacement analysis, then:

   a. a gain from the sale of the old asset will represent a tax savings inflow.
   b. only incremental cash flows should be looked at.
   c. the sales price and tax savings will increase the cash inflows throughout the asset's life.
   d. All of the above statements are correct.

EVALUATING INVESTMENT/BUSINESS OPPORTUNITIES

REVIEW QUESTION SOLUTIONS

1.	B
2.	B
3.	A
4.	B
5.	A
6.	B
7.	B
8.	A
9.	C
10.	B
11.	D
12.	A
13.	A
14.	A
15.	C
16.	D
17.	B
18.	D
19.	C
20.	A
21.	B
22.	C
23.	A
24.	C
25.	C
26.	A
27.	B
28.	B
29.	A
30.	B

EVALUATING INVESTMENT/BUSINESS OPPORTUNITIES
Explanation of Review Question Solutions

1. The correct answer is B, consider the time value of money. The accounting rate of return takes into account depreciation. Net present value and internal rate of return analyze net cash flows and depreciation only to determine the cash flow where income tax is reduced by the amount of depreciation (D).

2. The correct answer is B, yes for internal rate of return and no for payback period. The cash flow is considered over the entire life of the project for internal rate of return and net present value. Accounting rate of return deals with financial accounting income. The payback period deals with cash flows, until the initial investment is paid back, and does not consider the time value of money.

3. The correct answer is A, how quickly investment dollars may be recovered. Accounting rate of return concerns itself with profitability. The net present value and the internal rate of return deals with cash flows over the economic life of the investment. While payback deals with cash flows also, the best answer is how quickly investment dollars are recovered.

4. The correct answer is B; only statements I and III are correct. This is a question where there are three real true-false alternatives, and the combination of those alternatives makes up the options. If you divide 210,000 by 5, the life of the project, you get $42,000 in cash flows for 5 years. An alternate way to do this is to divide by $42,000 and get 5 years. Item I has R, the yearly cash flow, at less than $42,000, so the payback period would indeed exceed the life of the project. Since the life of the project equals 5 years, and the annual cash flows equal $42,000, option III is true also.

5. The correct answer is A, the payback method does not consider the time value of money. Option B is false since the payback method only concerns itself with the cash flows up to the payback. The cash flows are discounted in the net present value and the internal rate of return methods (C). Each method in capital budgeting can lead to its own conclusion; only the net present value and the internal rate of return are similar enough to give you the same answer (D).

6. The correct answer is B, the payback method. The net present value method, the accounting or simple rate of return, payback method, and the internal rate of return can all be computed with uneven cash flows (A). The accounting rate of return gives the same answer for cumulatively the same uneven cash flows as for the even cash flows; therefore some might say it “does not work” for uneven cash flows. The internal rate of return requires a sophisticated calculator or computer unless you are going to extrapolate the answer (D). The answer with the payback period will yield a different answer than those techniques using the discounted cash flow techniques (C, NPV and IRR).

7. The correct answer is B, the simple or accounting rate of return method. The accounting rate of return divides the annual incremental net income by the initial investment.

8. The correct answer is A, 3.0 years. The annual cash inflow will be a $5,000 increase in gross revenues less the $2,000 cost of the prescriptions or $3,000. With equal cash flows one can divide the cash flow of $3,000 into the initial investment of $9,000 to get the payback period of 3.0 years.

9. The correct answer is C, 3.75 years. Divide the initial investment of $75,000 by the expected increase in cash flows due to reduction of operating expenses of $20,000 to get a payback period of 3.75 years.

10. The correct answer is B, 2.8 years. Divide the $112,000 initial investment ($120,000 cost of new machine minus $8,000 sales price on old machine) by the annual net cash flow of $40,000 to get the payback period of 2.8 years.

11. The correct answer is D, 2.50 years. The question asks for the payback period using uneven cash flows. The best way to compute this is with a chart; $200,000 initial investment minus $120,000 first year cash flow leaves $80,000 to payback after the first year positive cash flow; $80,000 investment remaining after the first year minus $60,000 second year cash flow leaves $20,000 remaining after the second year. The cash flow in the third year is $40,000, and when divided by the $20,000 remaining cash flow we get 0.5. Add up the years and we get 2.5 years payback period (the two first years plus the 0.5 for the last year).

12. The correct answer is A, 8.75%. The formula for simple or accounting rate of return is equal to the cost savings minus the depreciation of new equipment all divided by the initial investment. The cost savings equals $100,000 savings less the $20,000 new or incremental expenses or $80,000. The initial investment equals the $450,000 cost of the new equipment minus the proceeds from the $50,000 sale of the old machine for scrap leaves a $400,000 initial investment. The quantity of the $80,000 yearly cost savings minus $45,000 depreciation gives us $35,000 that is divided by $400,000 initial investment, giving us a simple rate of return of 8.75%.

13. The correct answer is A, 20%. $32,000 revenues minus $6,000 costs minus $13,000 depreciation gives us annual net financial income of $13,000, divided by initial investment of $65,000 equals 20% simple rate of return.

14. The correct answer is A: D, B, C, A. The profitability index equals the present value of future cash flows divided by the investment required. If the present value of future cash flows is greater than the initial investment we have a positive net present value. The greater the profitability index the greater the return on the project over the minimum acceptable or threshold return on investment rate of interest. Use the chart of the given factual information to do the computations. The project A profitability ratio is 1.2 ($96,000 present value of cash flows divided by $80,000 investment required). The project B profitability ratio is 1.5 ($150,000 present value of cash flows divided by $100,000 investment required). The project C profitability ratio is 1.4 ($84,000 present value of cash flows divided by $60,000 investment required). The project D profitability ratio is 1.6 ($120,000 present value of cash flows divided by $75,000 investment required). The projects arranged in descending order of profitability are 1.6 for D, 1.5 for B, 1.4 for C and 1.2 for A.

15. The correct answer is C; 1, 3, 2, 4. The profitability index can be evaluated using the net present value (instead of present value of future cash flows) divided by the investment required. The proposal 1 NPV profitability ratio is 0.6 ($30,000 PV of cash flows divided by $50,000 investment required). The proposal 2 NPV profitability ratio is 0.4 ($24,000 NPV of cash flows divided by $60,000 investment required). The proposal 3 NPV profitability ratio is 0.5 ($15,000 PV of cash flows divided by $30,000 investment required). The proposal 4 NPV profitability ratio is 0.2 ($9,000 PV of cash flows divided by $50,000 investment required). The projects are then arranged in descending order of profitability: 1 of 0.6, 3 of 0.5, 2 of 0.4 and 4 of 0.2.

16. The correct answer is D, 5.0 years. The $400,000 initial investment is divided by the $80,000 annual cash flows to give us a payback period of 5.0 years; the project has even cash flows.

17. The correct answer is B, 10%. The formula for simple or accounting rate of return is equal to the cost savings minus the depreciation of new equipment all divided by the initial investment. The annual depreciation is $400,000 (cost of equipment) divided by 10 years (useful life), or $40,000. The simple rate of return on the investment is $80,000 (annual cash inflows) minus $40,000 depreciation, or $40,000 per year financial income, divided by the $400,000 initial investment, for a simple rate of return of 10%.

18. The correct answer is D, 4 years. Divide the $200,000 initial investment by the annual net cash flows of $50,000, where the annual cash flows are even numbers per year to get the payback period of 4.0 years.

19. The correct answer is C, 15%. The formula for simple or accounting rate of return is equal to the cost savings minus the depreciation of new equipment all divided by the initial investment. The annual depreciation is $200,000 (cost of equipment) divided by 10 years (useful life), or $20,000. The simple rate of return on the investment is $50,000 (annual cash flows) minus $20,000 depreciation, or $30,000 financial income, divided by $200,000 investment, for a simple rate of return of 15%.

20. The correct answer is A, 2.5 years. The cash flows are uneven, requiring cumulative annual cash flow methods of computation. The $100,000 investment minus the $60,000 first year cash flow equals the $40,000 second year remaining investment. The $40,000 remaining investment minus the $30,000 second year cash flow equals $10,000 second year remaining investment. The $10,000 second year remaining investment of $10,000 is divided by the $20,000 third year cash flow to give 0.5. The payback period is the sum of the years or 2.5 years (two years plus the calculated 0.5 for the final year).

21. The correct answer is B, 2.7 years. The annual net cash flow from the donut maker equals revenue minus cash expense. Either leave out depreciation (i.e., subtract Flour, etc, and Salaries only from Sales) or add back depreciation to net income to get cash flow. Net income of $4,400 plus $1,600 depreciation gives $6,000 cash flow. Divide the initial investment of $16,000 by the $6,000 annual cash flow to get a 2.67-year payback period.

22. The correct answer is C, $27.5%. The facts in 22 are the same as 21. The formula for simple or accounting rate of return is equal to the cost savings minus the depreciation of new equipment all divided by the initial investment. Divide the $4,400 net income by the $16,000 initial investment to get 27.5% simple rate of return.

23. The correct answer is A, 3.33 years. The $50,000 initial investment is divided by the $15,000 annual cash flows to give us a payback period of 3.33 years; the project has even cash flows.

24. The correct answer is C, 18.75%. The facts are the same as #23. The formula for simple or accounting rate of return is equal to the cost savings minus the depreciation of new equipment all divided by the initial investment. The depreciation equals $50,000 cost minus $5,000 salvage to give $45,000 depreciation basis; divided by 8 years, gives $5,625 depreciation per year. The annual cost savings is $15,000 minus the $5,625 depreciation to give $9,375 financial income; divide the financial income by the $50,000 initial investment to get 18.75% simple rate of return.

25. The correct answer is C, 2.8 years. The payback period equals the initial investment of $125,000 divided by the $45,000 cash flow from operations giving us a 2.77-year payback period (round up).

26. The correct answer is A, 16%. The facts are the same as #25. The formula for simple or accounting rate of return is equal to the cost savings minus the depreciation of new equipment all divided by the initial investment. The depreciation equals $125,000 cost minus $0 salvage to give $125,000 depreciation basis; divided by 5 years, gives $25,000 depreciation per year. The annual cash flow from operations is $45,000 minus the $25,000 depreciation to give $20,000 annual financial income; divide the financial income by the $125,000 initial investment to get 16% simple rate of return.

27. The correct answer is B, payback method. Circle or highlight the word not. The net payback method is a method that uses present value of future cash flows to determine when the payback is achieved. The calculation for the net payback method (A) is very similar to the break-even method in cost-volume-profit analysis. The internal rate of return (C) and the net present value methods use present value (time-adjusted) methods (D).

28. The correct answer is B; the payback method does not consider the time value of money. The payback method does NOT use discounted cash flow techniques; the cash flows are NOT discounted (C). The payback method considers cash flows up to the point where the payback is reached (A). The payback method is only concerned with how fast the initial investment is recovered and therefore assesses the length of time the investment is at risk; therefore it often develops different conclusions than the other methods. (Note: This question is almost exactly like #5)

29. The correct answer is A; payback ignores the time value of money. The fact that payback emphasizes receiving money back as fast as possible is the advantage, not a disadvantage, of the payback method (B). Payback is easy to use and understand; this is an advantage (C). Payback can be used with time-adjusted methods (D). All the answers are true but the first one is a disadvantage and the last three are advantages. The question asks for a disadvantage.

30. The correct answer is B; only incremental cash flows should be looked at. The gain from the sale of the old asset is an initial cash inflow that can be used to offset the initial investment dollar per dollar (A). Sales price does not increase the cash flows in and of itself, but only through tax savings it decreases cash outflow due to tax or protects cash inflow from tax effects if after tax effects are desired (C).

EMPLOYEE BENEFITS

After reviewing this chapter, you should be able to:

1. *Describe the characteristics of a sound benefits program*
2. *Recognize management concerns about the costs of employee benefits and discuss ways to control those costs*
3. *Explain the employee benefits required by law*
4. *Discuss suggested ways to control the costs of health care programs*
5. *Describe those benefits that involve payment for time not worked*
6. *Discuss the recent trends in retirement policies and programs*
7. *Describe the major factors involved in the management of pension plans*
8. *List the types of service benefits that employers may provide*

Employee benefits constitute an indirect form of compensation intended to improve the quality of the work lives and the personal lives of employees. Benefits represent 40 percent of total payroll costs to employees. In return, employers generally expect employees to be supportive of the organization and to be productive. Since employees have come to expect an increasing number of benefits, the motivational value of these benefits depends on how the benefits program is designed and communicated. Once viewed as a gift from the employer, benefits are now considered rights to which all employees are entitled, and they have become one of the fastest-growing areas of employment law and litigation.

An employee benefits program should be based on specific objectives. The objectives an organization establishes will depend on many factors, including the size of the firm, its location, the degree of unionization, profitability, and industry patterns. These aims must be compatible with the organization's strategic compensation plan. The chief objectives of most benefit programs are to improve employee satisfaction, to meet employee health and safety requirements, to attract and motivate employees, to reduce turnover, and to maintain a favorable competitive position. These objectives must be considered within the framework of cost containment.

Unless an organization has a flexible benefits plan, a uniform package of benefits should be developed. Before a new benefit is introduced, the need for it should be determined through consultation with employees. To serve their intended purpose, employee benefits programs must reflect the changes that are continually occurring within our society. Particularly significant are changes in the composition and lifestyles of the workforce. To accommodate the individual needs of employees, there is a trend toward flexible benefit plans, also known as cafeteria plans. These plans enable individual employees to choose benefits that are best suited to their particular needs. They also prevent certain benefits from being wasted on employees who have no need for them. Typically, employees are offered a basic or core benefits package of life and health insurance, sick leave, and vacation, plus a specified number of credits they may use to "buy" whatever other benefits they need. Other benefit options might include prepaid legal services, financial planning, or long-term care insurance.

The communication of employee benefits information improved significantly with passage of the Employee Retirement Income Security Act (ERISA) in 1974. The act requires that employees be informed about their pension and certain other benefits in a manner calculated to be understood by the average employee. Additionally, employees can sue their employers for misleading them about health and welfare benefits under ERISA. In an important case, the U.S. Supreme Court ruled in Varity Corp. v Howe in 1996 that employees are entitled to relief when employers have deliberately mislead them about these plans. Problems can arise when managers discuss benefits with groups of employees or in one-on-one talks and employees receive inaccurate information. Or a manager could mislead an employee by stating that the organization’s insurance policy does not cover a particular condition when, in fact, it does or that a maternity leave provision is 120 days when the plan is actually 60 days.

According to a 1995 U.S. Chamber of Commerce study of 929 companies, the cost of employee benefits in that year averaged 40.7% of payroll. The average distribution of these benefits was $14,678 per employee per year. Costs of benefits were higher in manufacturing than in nonmanufacturing industries. Benefit costs as a percent of total labor costs declined for the first time in the decade of the 1990s in 1994, after reaching a record 41.3 percent of payroll in 1993.

Since many benefits represent a fixed rather than a variable cost, management must decide whether or not it can afford this cost under less favorable economic conditions. As managers can readily attest, if an organization is forced to discontinue a benefit, the negative effects of cutting it may outweigh any positive effects that accrued from providing it. Besides the actual costs of employee benefits, there are costs of administering them. The federal reporting requirements under ERISA require a considerable amount of paperwork for employers. In addition, new requirements, such as those mandated by the Consolidated Omnibus Budget Reconciliation Act of 1986 (COBRA), now require employers to make health coverage at the same rate the employer would pay available to employees, their spouses, and their dependents upon termination of employment, death, or divorce. Thus former employees and their families benefit by paying a lower premium for health coverage than is available to individual policyholders. While the former employee pays the premiums, employers have to establish procedures to collect premiums and to keep track of former employees and their dependents.

Legally required employee benefits constitute nearly a quarter of the benefits packages that employers provide. These benefits include employer contributions to Social Security, unemployment insurance, workers' compensation insurance, and state disability insurance.

Passed in 1935, the Social Security Act provides an insurance plan designed to protect covered individuals against loss of earnings resulting from various causes. These causes may include retirement, unemployment, disability, or in the case of dependents, the death of the worker supporting them. Thus as with any type of casualty insurance, Social Security does not pay off except in the case where a loss of income is actually incurred through loss of employment. The Social Security program is supported by means of a tax levied against an employee's earnings that must be matched by the employer in each pay period. The tax revenues are used to pay three major types of benefits: 1) old-age insurance benefits, 2) disability benefits, and 3) survivors' insurance benefits. To qualify for old-age benefits, a person must have reached retirement age and be fully insured. A fully insured person has earned forty credits, a maximum of four credits a year for ten years. Having enough credits to be fully insured makes one eligible for retirement benefits, but it does not determine the amount. The amount of monthly Social Security retirement benefits is based on earnings, adjusted for inflation, over the years an individual is covered by Social Security. The Social Security program provides disability benefits to workers too severely disabled to engage in substantial gainful work. To be eligible for such benefits, an individual's disability must have existed for at least six months and must be expected to continue for at least twelve months or be expected to result in death. After receiving disability payments for twenty-four months, a disabled person receives Medicare protection. Those who are eligible for disability benefits must have worked under Social Security long enough and recently enough before becoming disabled. Disability benefits are computed on the same basis as retirement benefits and are converted to retirement benefits when the individual reaches the age of 65. Survivors' insurance benefits represent a form of life insurance paid to members of a deceased person's family who meet the eligibility requirements.

Employees who have been working in employment covered by the Social Security Act and who are laid off may be eligible for up to twenty-six weeks of unemployment insurance benefits during their unemployment. Eligible persons must submit an application for unemployment compensation with their state employment agency, register for available work, and be willing to accept any suitable employment that may be offered to them. Their previous wage rate and previous period of employment determine the amount of compensation that workers are eligible to receive, which varies among states. Funds for unemployment compensation are derived from a federal payroll tax based on the wages paid to each employee, up to an established maximum.

Both state and federal workers' compensation insurance is based on the theory that the cost of work-related accidents and illnesses should be considered one of the costs of doing business and should be ultimately be passed on to the consumer. In all states, except New Jersey, South Carolina, and Texas, workers' compensation insurance is compulsory. When compulsory, every employer subject to it is required to comply with the law's provisions for the compensation of work-related injuries. The law is compulsory for the employee as well. In the three states where it is elective, employers have the option of either accepting or rejecting the law. If they reject it, and suits are filed against them, they lose the customary common-law defenses: 1) assumed risk of employment, 2) negligence of a fellow employee, and 3) contributory negligence.

Three methods of providing for workers' compensation coverage are commonly used. One method is for the state to operate an insurance system that employers may join, in some states they are required to join. A second method is for states to permit employers to insure with private companies. And third, in some states, employers may be certified by the commission handling workers' compensation to handle their own coverage without any type of insurance. Workers' compensation laws typically provide that employees will be paid a disability benefit based on a percentage of their wages. Each state also specifies the length of the period of payment and usually indicates a maximum amount that may be paid. Benefits, which vary from state to state, are generally provided for four types of disability: 1) permanent partial disability, 2) permanent total disability, 3) temporary partial disability, and 4) temporary total disability. Disabilities may result from injuries or accidents, as well as from occupational diseases such as black lung, radiation illness, and asbestosis. In addition to the disability benefits, provision is made for payment of medical and hospitalization expenses up to certain limits, and in all states, death benefits are paid to survivors of the employee. Workers' compensation costs have skyrocketed to the point where some employers say they have laid off or postponed new hiring and expansion specifically because of "comp costs."

The Family and Medical Leave Act (FMLA) was passed and became effective on August 5, 1993. The FMLA applies to employers having fifty or more employees during twenty or more calendar workweeks in the current or preceding year. It requires the employer to provide up to twelve weeks of unpaid, job-protected leave to eligible employees for certain family and medical reasons. The FMLA is simple in principle, but requires revising policies and procedures for compliance. This affects an organization's benefits program in several of its provisions: It mandates continuation of medical coverage, it prohibits loss of accrued benefits, it provides for restoration of benefits after leave, it permits substitution of paid leave and vacation during leave, it makes communication and notice compulsory, and it prohibits waiver of benefits.

The benefits that receive the most attention from employers today because of high costs and employee concern are health care benefits. In the past, health insurance plans covered only medical, surgical, and hospital expenses. Today employers include prescription drugs as well as dental, optical, and mental health care benefits in the package they offer their workers. According to an U.S. Chamber of Commerce study, medical and medical related benefits costs average 10.4 percent of payroll costs. Since 1980, the employer cost of providing medical and dental insurance has increased by more than 250%. Health insurance premiums paid by employers increased more than 50% faster than medical care costs, compounding the problems facing employers. The approached used to contain the costs of health care benefits include reductions in coverage, increased deductibles or copayments, and increased coordination of benefits to make sure the same expense is not paid by more than one insurance reimbursement. Other cost-containment efforts involve alternative to traditional medical care: the use of health maintenance organizations and preferred providers, incentives for outpatient surgery and testing, and mandatory second opinions for surgical procedures. Employee assistance programs and wellness programs may also allow an organization to cut the costs of its health care benefits.

Health maintenance organizations are organizations of physicians and other health care professionals that provide a wide range of services to subscribers and their dependents on a prepaid basis. As a result of the federal HMO Act of 1973, employers having twenty-five or more employees and a health insurance plan must offer a federally qualified HMO as a voluntary option.

Preferred provider organizations have also helped to contain costs. The preferred provider organization (PPO) is a group of physicians who establish an organization or a network of doctors that guarantees lower costs to the employer through lower service charges or agreed-upon utilization controls. Unlike HMOs, where employees may have little choice in the doctor they see, PPOs allow employees to select from a list of physicians, their doctor of choice.

Another important medical cost containment program is medical savings accounts (MSAs). Employer-offered MSA plans provide employees with comprehensive medical insurance carrying high deductibles. Employers establish a fund from which to pay employee medical costs "before" the deductible is satisfied. For example, ABC Company might offer its employees a comprehensive medical program with a $2,500 deductible while depositing up to $2,500 in an employee account from which employee-incurred health expenses are paid up to the established deductible. If an employee does not spend all the money in his or her personalized account, the remainder is refunded as a cash reward. The benefits of an MSA include:

- ✓ The employer pays lower medical premiums.
- ✓ Employees retain discretion over medical spending.
- ✓ Employees can "shop" for the best cost/quality medical care available commensurate with their individual needs.

Dental plans are designed to help pay for dental care costs and to encourage employees to receive regular dental attention. Like medical plans, dental care plans may be operated by insurance companies, dental service corporations, those administering Blue Cross/ Blue Shield plans, HMOs, and groups of dental care providers. Typically, the insurance pays a portion of the charges, and the subscriber pays the remainder. Optical care insurance is another, relatively new benefit that many employers are offering. Coverage can include visual examinations and a percentage of the costs of lenses and frames.

The "payment for time not worked" category of benefits includes paid vacations, bonuses given in lieu of paid vacations, payments for holidays not worked, paid sick leave, military and jury duty, and payments for absence due to a death in the family or other personal reasons. These benefits constitute approximately 9.7 percent of the employer's total payroll costs. It is generally agreed that vacations are essential to the well-being of an employee. Both hourly and salaried workers can usually expect to be paid for ten holidays a year. The type of business tends to influence both the number and observance of holidays. Virtually all employers in the United States, however, observe and pay their employees for New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. Many employers give workers an additional two or three personal days off to use at their discretion. There are several ways in which employees may be compensated during periods when they are unable to work because of illness or injury. Most public employees, as well as many in private firms, receive a set number of sick-leave days each year to cover such absences. In some situations, sick leave that employees do not use can be accumulated to cover prolonged absences. Accumulated vacation leave may sometimes be used as a source of income when sick-leave benefits have been exhausted. Group insurance that provides income protection during a long-term disability is also made available by some employers.

A one-time payment is sometimes given to employees who are being terminated. Known as severance pay, it may cover only a few days' wages or wages for several months. The pay received is usually dependent on the employee's years of service. Severance pay can also be based on the reason for termination, the salary or grade level of the employee, the title or level in the organization, or a combination of factors.

While not required by law, in some industries unemployment compensation is augmented by supplemental unemployment benefits (SUBs), which are financed by the employer. These plans enable an employee who is laid off to draw, in addition to state unemployment compensation, weekly benefits from the employer that are paid from a fund created for this purpose.

One of the oldest and most popular employee benefits is group term life insurance which provides death benefits to beneficiaries and may also provide accidental death and dismemberment benefits. The premium costs are normally paid by the employer. A small but growing number of employers are offering long-term care insurance as part of their benefits package. Long-term care insurance is designed to pay for nursing home and other medical-related costs during old age.

A significant trend in workforce demographics is the increased age of U.S. workers. Therefore, retirement becomes an important part of life, requiring sufficient and careful preparation. In convincing job applicants that theirs is a good organization to work for, they usually emphasize the retirement benefits that can be expected after a certain number of years of employment. Each employee is typically given an annual personalized statement of benefits that contains information about projected retirement income from pensions, Social Security, and employee investment plans. With an increasing older workforce, a trend of recent years has been the early retirement of employees before the traditional retirement age of 65. While the United States has no law mandating a specific retirement age, there have not been an overwhelming number of older persons who remain on the job. The early retirement trend partly reflects voluntary departures. To avoid layoffs particularly, or more recently hired members of protected classes, and to reduce salary and benefit costs, employers often encourage early retirement. Encouragement comes in the form of increased pension benefits for several years or cash bonuses. The cost of these retirement incentives can frequently be offset by the lower compensation paid to replacements and/or by a reduction in the workforce. The major factor affecting the decision to retire early are the individual's personal financial condition and health and the extent to which he or she receives satisfaction from the work. Attractive pension benefits, possibilities of future layoffs, and inability to meet the demands of their jobs are also among the reasons workers choose to retire early.

Originally, pensions were based on a reward philosophy, which viewed pensions primarily as a way to retain personnel by rewarding them for staying with the organization until they retired. Because of the vesting requirements negotiated into most union contracts and more recently required by law, pensions are now based on an earnings philosophy. The philosophy regards a pension as deferred income that employees accumulate during their working lives and that belongs to them after a specified number of years service whether or not they remain with the employer until retirement. Since the passage of the Social Security Act of 1935, pension plans have been used to supplement the floor of protection provided by Social Security. The decision whether or not to offer a pension is up to the employer. Today, 47% of the workforce is covered by traditional pensions, 401(k) plans, and other savings plans. The majority of private pension plans and a significant number of public plans integrate their benefits with Social Security benefits.

There are major ways to categorize pension plans: 1) according to contributions made by the employer and 2) according to the amount of pension benefits to be paid. In a contributory plan, contributions to a pension plan are made by employees and employers. In a noncontributory plan, the contributions are made solely by the employer. Most of the plans existing in privately held organizations are noncontributory, whereas those in government are contributory plans. When pension plans are classified by the amount of pension benefits to be paid, there are two basic types: the defined-benefit plan and the defined-contribution plan. Under a defined-benefit plan, the amount an employee is to receive upon retirement is specifically set forth. This amount is usually based on the employee's years of service, average earnings during a specific period of time, and age at time of retirement. A defined-contribution plan establishes the basis on which an employer will contribute to the pension fund. The contributions may be made through profit sharing, thrift plans, matches of employee contributions, employer-sponsored Individual Retirement Accounts (IRAs), and various other means. The amount of benefits employees receive on retirement is determined by the funds accumulated in their account at the time of retirement and what retirement benefits these funds will purchase. These plans do not offer the benefit-security predictability of a defined-benefit plan. The use of traditional defined-benefit plans, with their fixed payouts, is in decline. Defined-benefit plans are less popular with employers because they cost more and because they require compliance with complicated government rules.

The most significant change in pension coverage is the tremendous growth of tax-deferred 401(k) savings plans, which are named after Section 401(k) of the Internal Revenue Code. The 401(k) savings plans are particularly popular with smaller employers who find these pension plans less costly than defined-benefit programs. Changes in the Fair Labor Standards Act made in 1996 will encourage smaller employers to set up 401(k) plans by removing complicated filing rules in exchange for employer contributions of 3 percent of pay for workers who participate in the plan or 2 percent of pay for all workers whether or not they participate. The 401(k) savings plans allow employees to save through payroll deductions and to have their contributions matched by the employer. Unlike traditional defined-benefit pension plans, which guarantee payments based on years of service, the 401(k) plans guarantee nothing. Return depends entirely on how much money goes into the plan and the rate of return on investments. A current trend is for organizations to allow their employee considerable control over the investment of their 401(k) savings.

Private pension plans are subject to federal regulation under the Employee Retirement Income Security Act (ERISA). Although the act does not require employers to establish a pension plan, it provides certain standards and controls for pension plans. It requires minimum funding standards to ensure that benefits will be available when an employee retires. It also requires that the soundness of the actuarial assumptions on which the funding is based be certified by an actuary at least every three years.

Vesting is a guarantee of accrued benefits to participants at retirement age, regardless of their employment status at the time. Vested benefits that have been earned by an employee cannot be revoked by an employer. Under ERISA, all pension plans must provide that employees will have vested rights in their accrued benefits after certain minimum-years-of-service requirements have been met. While vesting is required by

ERISA, portability, the ability to move pension funds between employers, is optional. Employees are well advised to seek out pension options that are portable if at all possible.

Three government agencies administer ERISA; the Internal Revenue Service (IRS), the Department of Labor, and the Pension Benefit Guaranty Corporation (PBGC). The IRS is concerned primarily with qualified retirement plans, those that offer employers and employees favorable income tax treatment under a special section of the tax law. The Department of Labor's main responsibility is to protect participants' rights. The federal government's Pension Benefit Guaranty Corporation insures about 40 million of the 76 million covered workers' pensions. Pensions in workplaces with fewer than twenty-five employees are not covered. The PBGC ensures that if a plan is terminated, guaranteed minimum benefits are paid to participants. The PBGC is supported by premiums paid by employers.

In 1984 the Retirement Equity Act (REA) amended ERISA. REA is intended to provide greater equity under private pension plans for workers and their spouses by taking into account changes in work patterns, the status of marriage as an economic partnership, and the substantial contributions made by both spouses. All qualified pension plans are affected by the act, which brought major changes in eligibility and vesting provisions, parental leave, spouse survivor benefits, assignments of benefits in divorce cases, and other areas. If an employee declines to elect survivors' benefits, the employer is required to inform prospective beneficiaries of this fact. The Deficit Reduction Act of 1984 has had a significant impact on employee benefits, such as pension and group insurance plans, in determining what is taxable and nontaxable to employees.

Pension funds may be administered through either a trusteed or an insured plan. In a trusteed pension plan, pension contributions are placed in a trust fund. The investment and administration of the fund are handled by trustees appointed by the employer or, if the employees are unionized, by either the employer or the union. Contributions to an insured pension plan are used to purchase insurance annuities. The responsibility for administering these funds rests with the insurance company providing the annuities. Private and public pension funds constitute the largest pool of investment capital in the world with over $4 trillion in assets.

To help workers cope with a wide variety of problems that interfere with the way they perform their jobs, organizations have developed employee assistance programs (EAPs). An employee assistance program typically provides diagnosis, counseling, and referral for advice or treatment when necessary for problems related to alcohol or drug abuse, emotional difficulties, and financial or family difficulties. The main intent is to help employees solve their personal problems or at least to prevent problems from turning into crises that affect their ability to work productively. To handle crises, many EAPs offer twenty-four-hour hot lines. An important part of an EAP is the counseling services it provides to employees. While most organizations expect managers to counsel subordinates, some employees may have problems that require the services of professional counselors. One of the benefits most frequently mentioned in literature for employees is the educational assistance plan. The primary purpose of this plan is to help employees keep up to date with advances in their fields and to help them get ahead in the organization. The increased employment of women with dependent children has created an unprecedented demand for childcare arrangements. Today benefits may include financial assistance, alternative work schedules, family leave, and on-site childcare centers. The most common childcare benefit offered by employers is the dependent-care spending account. With this account, a portion of a worker's pay before taxes is set aside for caring for a dependent.

The variety of benefits and services that employers offer today could not have been imagined a few years ago. Some of the most common are foods services, on-site health services, legal services, financial planning, housing and moving expenses, transportation pooling, purchasing assistance, credit unions, recreational and social services and awards.

Benefits are an established and integral part of the total compensation package. In order to have a sound benefits program there are certain basic considerations. It is essential that a program be based on specific objectives that are compatible with organizational philosophy and policies as well as affordable. Through committees and surveys a benefit package can be developed to meet employees' needs. Through the use of flexible benefit plans, employees are able to choose those benefits that are best suited for their individual needs. An important factor in how employees view the program is the full communication of benefits information through meetings, printed material, and annual personalized statements of benefits.

EMPLOYEE BENEFITS

REVIEW QUESTIONS

1. Of the following, the one that would ***not*** be considered a chief objective of most benefits programs is:

   a. reducing turnover.
   b. improving employee satisfaction.
   c. "sidestepping" legal requirements for employee health and safety.
   d. attracting and motivating employees.

2. To obtain employee input regarding benefits packages, employers often use:

   a. performance appraisals.
   b. psychological tests.
   c. union reports.
   d. opinion surveys.

3. Susie Jones has definite preferences in terms of the benefits offered by her employer. Susie will be able to select the benefits she values highly and avoid those she does not need or want if her employer offers this benefit format:

   a. employee selection plan.
   b. cafeteria plan.
   c. benefit pool.
   d. modified benefits system.

4. According to a recent U.S. Chamber of Commerce study, employee benefits represent what portion of payroll costs?

   a. approximately 15%
   b. between 20 and 30%
   c. approximately 50%
   d. between 35 and 45%

5. Sam Smith was recently laid off by ABC Corporation. Under current federal law, ABC must offer Sam, Sam's spouse, and Sam's dependents extended health coverage for a period of time. While Sam must pay the entire premium, the coverage will be significantly cheaper than if Sam purchased an individual policy for his family. The law that helps Sam and his family is known as the:

   a. Employee Retirement Income Security Act (ERISA).
   b. Consolidated Omnibus Budget Reconciliation Act (COBRA).
   c. Tax Equity and Fiscal Responsibility Act (TEFRA).
   d. Retirement Equity Act (REA).

6. Of all the benefits typically available to employees, the least expensive benefits are:

   a. life insurance and death benefits.
   b. health and medical insurance.
   c. retirement and savings plans.
   d. paid time-off plans (vacations, sick leave, holidays, etc.).

7. The Social Security insurance program is funded by:

   a. employer contributions.
   b. employee contributions.
   c. employee contributions with matching employer contributions.
   d. employee contributions and general tax funds.

8. Of the following, which is ***not*** a benefit covered under Social Security insurance?

   a. old-age insurance benefits
   b. disability benefits
   c. short-term disability caused by a job-related accident
   d. survivors' benefits

9. Which of the following is ***not*** a common method for employers to provide workers' compensation protection to their employees?

   a. federally sponsored insurance programs
   b. state-operated insurance systems
   c. purchasing insurance from commercial insurance carriers
   d. assuming all risks for work-related injuries and illnesses to employees (self-insurance)

10. The federal Family and Medical Leave Act:

   a. applies to employers having 10 or more employees during 20 or more calendar workweeks in the current or preceding year.
   b. preempts state laws under all circumstances.
   c. provides for continuation of medical coverage.
   d. requires the employer to provide up to 24 weeks of unpaid, job-protected leave for certain family and medical reasons.

11. The federal Family and Medical Leave Act provides all of the following ***except:***

a. up to 12 weeks of unpaid leave.
b. promotions missed during leave.
c. continuation of medical benefits.
d. job protection.

12. Today, health insurance plans typically cover all of the following ***except:***

a. prescription drugs.
b. optical.
c. dental.
d. life insurance.

13. Because of rapidly rising costs and employee concerns, the benefits that are currently receiving the most attention from employers are:

a. pension plans.
b. life and disability insurance plans.
c. employee assistance programs.
d. health care insurance plans.

14. Organizations of physicians and other health care professionals that provide a wide range of services to subscribers on a prepaid basis are known as:

a. preferred provider organizations (PPOs).
b. major medical plans.
c. health maintenance organizations (HMOs).
d. integrated medical practices.

15. Hospitals or groups of physicians that contract with an employer to provide medical resources on a more cost-efficient basis in exchange for a greater share of patients are known as:

a. preferred provider organizations (PPOs).
b. major medical plans.
c. health maintenance organizations (HMOs).
d. integrated medical practices.

16. The benefits of medical savings accounts (MSAs) include all of the following ***except:***

    a. employees retain discretion over medical spending.
    b. employees can "shop" for the best cost/quality medical care available for their individual needs.
    c. employers pay lower medical care premiums.
    d. the total costs incurred for services decrease.

17. Bob Jones has just been permanently laid off from his present position. His company, ACME Manufacturing, has issued Bob a check that represents one month's pay for every year Bob worked at ACME. This check is Bob's:

    a. unused vacation pay.
    b. unused holiday pay.
    c. severance pay.
    d. unused sick leave.

18. A plan that enables an employee who is laid off to draw, in addition to state unemployment compensation, weekly benefits from the employer that are paid from a fund created for this purpose is referred to as:

    a. severance pay.
    b. supplemental unemployment benefits (SUBs).
    c. leave insurance compensation.
    d. unemployment protection payments.

19. All of the following are common reasons why employees take early retirement ***except:***

    a. the possibility of future layoffs.
    b. failing health.
    c. inability to meet the demands of their jobs.
    d. fear of losing prestige.

20. A pension plan where contributions are made jointly by employees and employers is referred to as a:

    a. contributory plan.
    b. noncontributory plan.
    c. defined-benefit plan.
    d. defined-contribution plan.

21. The decision on whether or not a pension plan should be offered is the responsibility of the:

    a. union and Department of Labor representatives.
    b. employees in consultation with the employer.
    c. employer.
    d. Pension Benefit Guaranty Corporation.

22. Payments to a pension plan are made jointly by the employer and the employee under the type of plan known as the:

    a. contributory plan.
    b. noncontributory plan.
    c. defined-benefit plan.
    d. defined-contribution plan.

23. Former employees receive a set, predetermined payment each month under a:

    a. contributory pension plan.
    b. noncontributory pension plan.
    c. defined-contribution pension plan.
    d. defined-benefit pension plan.

24. A popular plan that offers employees an opportunity to save through payroll deductions and have their contributions matched by the employer is known as the:

    a. 401(k) plan.
    b. tax reduction plan.
    c. ERISA benefit plan.
    d. Individual Retirement Plan.

25. After an employee works for an employer for a certain period of time, the employee is entitled to the money in his or her pension plan. The worker is now:

    a. secured.
    b. endowed.
    c. vested.
    d. integrated.

26. Of the following, which pension law sought to give spouses of covered workers more economic protection?

    a. Employee Retirement Income Security Act (ERISA).
    b. Consolidated Omnibus Budget Reconciliation Act (COBRA).
    c. Tax Equity and Fiscal Responsibility Act (TEFRA).
    d. Retirement Equity Act (REA).

27. In a trusteed pension plan, pension funds are typically administered and invested by:

    a. the employer.
    b. the employees.
    c. the employer and its employees jointly.
    d. financial specialists appointed by the employer.

28. Which of the following government agencies is ***not*** responsible for the administration of ERISA?

    a. the Department of Labor.
    b. the Internal Revenue Service.
    c. the Pension Guaranty Corporation.
    d. the Department of Personnel and Operational Management.

29. Vesting guarantees:

    a. withdrawal of benefits at any time.
    b. automatic funding of pension plans.
    c. accrued pension benefits at retirement age.
    d. selection of pension options.

30. Employer-sponsored employee assistance programs (EAPs) are created to help workers overcome hurdles in their personal lives. Which employee is the most likely to receive help under a typical EAP?

    a. John Jones, who needs assistance to overcome a chemical dependency problem.
    b. Steve Brown, who needs legal help in a personal bankruptcy proceeding.
    c. Cindy Savage, who needs a list of qualified day-care facilities near the office.
    d. Kate Johnson, who needs help choosing an appropriate M.B.A. program.

EMPLOYEE BENEFITS

REVIEW QUESTION SOLUTIONS

1.	C
2.	D
3.	B
4.	D
5.	B
6.	A
7.	C
8.	C
9.	A
10.	C
11.	B
12.	D
13.	D
14.	C
15.	A
16.	D
17.	C
18.	B
19.	D
20.	A
21.	C
22.	A
23.	D
24.	A
25.	C
26.	D
27.	D
28.	D
29.	C
30.	A

EMPLOYEE BENEFITS
Explanation of Review Question Solutions

1. The correct answer is C, “sidestepping” legal requirements for employee health and safety. This answer is an easy one. Circle or highlight the word not. This answer has three true selections and one false selection. The chief objectives of most benefit plans are to improve employee satisfaction (B), to meet (not sidestep) employee health and safety requirements, to attract and motivate employees (D), to reduce turnover (A), and to maintain a favorable competitive position.

2. The correct answer is D, opinion surveys. The textbook does not cover this question; however, it seems to be a logical answer.

3. The correct answer is 3b, cafeteria plan. The key here is simply to know the correct terminology.

4. The correct answer is D, between 35 and 45%. According to a 1995 U.S. Chamber of Commerce study of 929 companies, the cost of employee benefits in that year averaged 40.7 percent of payroll. Benefits declined for the first time in 1994 after reaching a record 41.3% of payroll.

5. The correct answer is B, Consolidated Omnibus Budget Reconciliation Act (COBRA). The COBRA of 1986 requires that employers make health coverage at the same rate the employer would pay available to employees, their spouses, and their dependents upon termination, of employment, death or divorce. ERISA of 1974 requires that employees be informed about their pensions and certain other benefits in a manner that the average employee can understand, and provides standards to insure benefits will be available when the employee retires. The Retirement Equity Act (REA) of 1984 amended ERISA to provide greater equity to workers and their spouses covered by private pension plans, requiring eligibility and vesting, parental leave, spouse survivor benefits, assignments of benefits in divorce cases, etc. TEFRA was a tax act that provided sweeping changes in tax rates and deductions, but did not affect employee benefits to any great extent.

6. The correct answer is A, life insurance and death benefits. Health care benefits (B) are costly, and make up 10.4 percent of payroll costs. Payments for time not worked (D) include paid vacations, holidays, sick leave, military or jury duty, absence due to death in family, or other personal reasons, and constitute 9.7 percent of employer payroll costs. Pension funds (C) constitute the largest pool of investment capital in the world. Almost half, 47%, of the workforce are covered by traditional pensions, 401(k) plans, and other savings plans.

7. The correct answer is C; employee contributions with matching employer contributions. The social security program is supported by means of a tax levied against an employee’s earnings that must be matched by the employer in each pay period.

8. The correct answer is C; short term disability caused by job-related accident. Circle or highlight the word not. There are three true selections and one false one. Short-term disabilities caused by job-related accident are covered by worker's compensation insurance. Social security revenues are used to pay benefits for old-age insurance (A), disability (B), and survivor's insurance (D). In order for a disability to be covered under social security, it must have existed for at least six months and must be expected to continue for at least 12 months, or expected to result in death.

9. The correct answer is A, federally sponsored insurance programs. Circle or highlight the word not. There are three true selections and one false one. The three methods of worker's compensation commonly used are a state run insurance system (B), private companies (C), or self-insurance (D), that is to pay all claims out of profits without using a state or private insurance company. Federally sponsored insurance programs are not an option (i.e., do not exist).

10. The correct answer is C, provides for continuation of medical coverage. The FMLA requires employers to provide up to twelve weeks (not 24, as in D) of unpaid, job-protected leave to eligible employees for certain family and medical reasons. FMLA applies to employers having 50 or more employees (not 10, as in A) during twenty or more calendar workweeks in the current or preceding year. Whenever a question says the word all or never, as in selection B, the answer is most like wrong, although there are exceptions to most rules.

11. The correct answer is B, promotion missed during leave. FMLA requires or mandates up to 12 weeks of job-protected (D) unpaid leave (A) with continuation of medical benefits (C; see #10 above), prohibits loss of accrued benefits, provides for restoration of benefits after leave, and permits substitution of paid leave and vacation during leave, prohibits waiver of benefits, and requires communication and notice.

12. The correct answer is D, life insurance. Circle or highlight the word except. This answer has three true selections and one false selection. Today employers include prescription drugs (A) as well as dental (C), optical (B), and mental health care benefits in addition to the traditional benefits for medical, surgical, and hospital expenses.

13. The correct answer is D, health insurance plans. The benefits that receive the most attention from employers today, because of high costs and employee concern, are health care benefits.

14. The correct answer is C, health maintenance organizations (HMOs). HMOs are organizations of physicians and other health care professionals that provide a wide range of services to subscribers and their dependents on a prepaid basis. The PPO (A) is a group of physicians who establish an organization or a network of doctors that guarantees lower costs to the employer though lower service charges or agreed-upon utilization controls. Major medical insurance plans (B) use large insurance companies to insure the costs of health care using subscribed individual medical practitioners to provide the care.

15. The correct answer is A, preferred provider organizations (PPOs). See the definition above for PPOs.

16. The correct answer is D, the total costs incurred for services decrease. Circle or highlight the word except. This answer has three true selections and one false selection. The benefits of an MSA include the employer pays lower medical premiums (C), the employees retain discretion over medical spending (A), and employees can shop for the best cost-quality medical care available commensurate for their individual needs (B).

17. The correct answer is C, severance pay, which is a one time payment given to a terminated employee in recognition for years of service which may represent as little as a few days wages or as much as several months. Workers can usually expect to be paid for ten holidays a year (holiday pay). Workers can expect to receive benefits in the form of paid vacations or bonus in lieu of them, payments for holidays not worked, paid sick leave, military and jury duty pay, and payments for absence due to death in family or other personal reasons; these are all categorized as "payment for time not worked." These benefits often accrue and carry over and may be paid to an employee who is leaving as unused vacation pay (A), unused holiday pay (B), and unused sick pay (D).

18. The correct answer is B, supplemental unemployment benefits (SUBs). While not required by law, in some industries' unemployment compensation is augmented by supplemental unemployment benefits. SUBs allow laid-off workers to draw from fund benefits in addition to the weekly state unemployment compensation. Severance pay (A) is a one-time payment given to a terminated employee in recognition for years of service which may represent as little as a few days wages or as much as several months.

19. The correct answer is D, fear of losing prestige. Circle or highlight the word except. This answer has three true selections and one false selection. Workers take early retirement on the basis of attractive pension benefits in the form of increased pension benefits or cash bonus for early retirement, failing health (B), personal financial condition, personal satisfaction from the job, possibilities of future layoffs (A), and inability to meet the demands of their jobs (C).

20. The correct answer is A, contributory plan. A contributory plan is simply where the employer and the employee make the pension plan payments jointly. A defined benefit plan (C) provides a specific level of benefit to an employee on retirement usually based upon years of service, average earnings during a particular period of time and age at retirement. A defined contribution plan (D) defines the amount of the contribution paid into the plan by the employee and employer, and the employee receives whatever pension has accrued to him or her at their retirement in equal annual payments based upon life expectancy and the size of the fund. A noncontributory plan (B) is one where the employer makes the contributions on behalf of the employee who is not required to make any contributions toward the retirement plan to receive benefits. Both defined benefit and defined contribution plans can be either contributory or noncontributory.

21. The correct answer is C, the employer. Union and department of labor representatives (A) and the employees themselves (B) can bargain with the employer to gain for their members or the employees pension benefits, but the decision to provide those benefits ultimately lies with the employer. The Pension Benefit Guaranty Corporation (D) insures about 40 million of the 76 million covered worker's pensions. The PBGC ensures that if a plan is terminated, guaranteed minimum benefits are paid to participants. The PBGC is funded by employer payments.

22. The correct answer is A, contributory plan. This question is identical to #20 in virtually every way.

23. The correct answer is D, defined-benefit pension plan. See question #20 for definitions and explanations of the answer.

24. The correct answer is A, 401(k) plan. The 401(k) plan is a defined contribution plan with a separate investment account that is owned by the employee, and employee contributions made through payroll deductions are matched by the employer. Individual retirement accounts (not plans, D) are defined contribution plans that are set up by an employee with annual payments to the plan limited by salary and participation in other plans, which allow individuals almost complete control over their own retirement plan. ERISA (C) does not require employers to establish plans but does set certain standards that the plans must follow. "Tax reduction plan" (B) may be a vague reference to the tax deferred payments to retirement plans and the tax deduction afforded employers of qualified plans, but is not standard terminology.

25. The correct answer is C, vested. Vesting is a guarantee of accrued benefits to participants at retirement age, regardless of their employment status at this time. Secured (A), endowed (B), and integrated (D) do not seem to apply to pension plans in the manner described in the question.

26. The correct answer is D, Retirement Equity Act (REA). These four federal acts were defined previously. See #5 for explanations and definitions.

27. The correct answer is D, financial specialists appointed by the employer. Pension funds may be administered through either a trusteed or insured plan. In the trusteed plan, trustees, or financial specialists, appointed by the employer, handle the pension trust fund investment and administration or, if the employees are unionized, the employer or the union appoints the financial specialists. In an insured plan the pension contributions are used to purchase insurance annuities and the insurance company is responsible for administering and investing the funds.

28. The correct answer is D, the Department of Personnel and Operational Management (DPOM). Circle or highlight the word not. This answer has three true selections and one false selection. DPOM looks like a twisted form of the Office of Personnel Management or OPM that is responsible for keeping the payroll records and paying the payroll for federal employees and retirees of certain agencies of the federal government. Three government agencies administer ERISA: the Internal Revenue Service (A), the Department of Labor (B), and the Pension Benefit Guaranty Corporation (C).

29. The correct answer is C, accrued pension benefits at retirement age. Vesting is a guarantee of accrued benefits to participants at retirement age, regardless of their employment status at this time. Vesting does not guarantee withdrawal of benefits at any time (A), automatic funding of pension plans (B), or selection of pension options (D).

30. The correct answer is A; John Jones, who needs assistance to overcome a chemical dependency. Employer-sponsored employee assistance programs (EAPs) provide diagnosis, counseling, and referral for advice or treatment when necessary for problems related to alcohol or drug abuse, emotional difficulties, and financial or family difficulties. The main problem is to help employees solve personal problems so that these problems do not affect their work productivity. While day care programs and personal financial assistance are important goals, drug and alcohol dependency and mental health problems receive priority in these cases due to anti-discrimination laws that prevent employers from using a health problem to justify termination or other mistreatment disguised as a disciplinary problem.