

Chapter 1—The Information System: An Accountant's Perspective

TRUE/FALSE

1. Information is a business resource.

ANS: T PTS: 1

2. IT outsourcing is location-independent computing.

ANS: F PTS: 1

3. Transaction processing systems convert non-financial transactions into financial transactions.

ANS: F PTS: 1

4. Information lacking reliability may still have value.

ANS: F PTS: 1

5. A balance sheet prepared in conformity with GAAP is an example of discretionary reporting.

ANS: F PTS: 1

6. The Management Reporting System provides the internal financial information needed to manage a business.

ANS: T PTS: 1

7. Most of the inputs to the General Ledger System come from the Financial Reporting System.

ANS: F PTS: 1

8. When preparing discretionary reports, organizations can choose what information to report and how to present it.

ANS: T PTS: 1

9. Retrieval is the task of permanently removing obsolete or redundant records from the database.

ANS: F PTS: 1

10. Systems development represents 80 to 90 percent of the total cost of a computer system.

ANS: F PTS: 1

11. The database administrator is responsible for the security and integrity of the database.

ANS: T PTS: 1

12. Custom software is completely finished, tested, and ready for implementation.

ANS: F PTS: 1

13. The internal auditor represents the interests of third-party outsiders.

ANS: F PTS: 1

14. Information Technology (IT) audits can be performed by both internal and external auditors.

ANS: T PTS: 1

15. Custom software is the most affordable systems development option.

ANS: F PTS: 1

16. A database is a collection of interconnected computers and communications devices that allows users to communicate, access data and applications, and share information and resources.

ANS: F PTS: 1

17. Systems maintenance consumes the majority of a system's total costs.

ANS: T PTS: 1

18. Cloud computing is a practice in which the organization sells its IT resources to a third-party outsourcing vendor then leases back IT services from the vendor for a contract period.

ANS: F PTS: 1

19. A potential benefit of cloud computing is that the client firm does not need to know where its data are being processed.

ANS: F PTS: 1

20. One of the greatest disadvantages of database systems is that all data is always available to all users.

ANS: F PTS: 1

21. Under SOX legislation public accounting firms are no longer allowed to provide consulting services to audit clients.

ANS: T PTS: 1

22. One member of a company's audit committee must be an independent CPA.

ANS: F PTS: 1

MULTIPLE CHOICE

1. Which of the following is not a business resource?
- a. raw material
 - b. labor
 - c. information
 - d. all are business resources

ANS: D PTS: 1

2. Which level of management is responsible for short-term planning and coordination of activities necessary to accomplish organizational objectives?
- a. operations management
 - b. middle management
 - c. top management
 - d. line management

ANS: B PTS: 1

3. Which level of management is responsible for controlling day-to-day operations?
- a. top management
 - b. middle management
 - c. operations management
 - d. executive management

ANS: C PTS: 1

4. Location-independent computing in which shared data centers deliver hosted IT services over the Internet.
- a. IT outsourcing
 - b. Network administration
 - c. Cloud computing
 - d. Custom software

ANS: C PTS: 1

5. The value of information for users is determined by all of the following but
- a. reliability
 - b. relevance
 - c. convenience
 - d. completeness

ANS: C PTS: 1

6. An example of a nonfinancial transaction is
- a. sale of products
 - b. cash disbursement
 - c. log of customer calls
 - d. purchase of inventory

ANS: C PTS: 1

7. An example of a financial transaction is
- a. the purchase of computer
 - b. a supplier's price list
 - c. a delivery schedule
 - d. an employee benefit brochure

ANS: A PTS: 1

8. Which subsystem is not part of the Accounting Information System?
- a. Transaction Processing System
 - b. Expert System
 - c. General Ledger/Financial Reporting System
 - d. Management Reporting System

ANS: B PTS: 1

9. The major difference between the Financial Reporting System (FRS) and the Management Reporting System (MRS) is the
- a. FRS provides information to internal and external users; the MRS provides information to internal users
 - b. FRS provides discretionary information; the MRS provides nondiscretionary information
 - c. FRS reports are prepared using information provided by the General Ledger System; the MRS provides information to the General Ledger System
 - d. FRS reports are prepared in flexible, nonstandardized formats; the MRS reports are prepared in standardized, formal formats

ANS: A PTS: 1

10. The purpose of the Transaction Processing System includes all of the following except
- a. converting economic events into financial transactions
 - b. recording financial transactions in the accounting records
 - c. distributing essential information to operations personnel to support their daily operations
 - d. measuring and reporting the status of financial resources and the changes in those resources

ANS: D PTS: 1

11. The Transaction Processing System includes all of the following cycles except
- a. the revenue cycle
 - b. the administrative cycle
 - c. the expenditure cycle
 - d. the conversion cycle

ANS: B PTS: 1

12. The primary input to the Transaction Processing System is
- a. a financial transaction
 - b. an accounting record
 - c. an accounting report
 - d. a nonfinancial transaction

ANS: A PTS: 1

13. When designing the data collection activity, which type of data should be avoided?
- a. data that is relevant
 - b. data that is efficient
 - c. data that is redundant
 - d. data that is accurate

ANS: C PTS: 1

14. The most basic element of useful data in the database is
- a. the record
 - b. the key
 - c. the file
 - d. the attribute

ANS: D PTS: 1

15. In a database, a complete set of attributes for a single occurrence of an entity class is called
- a. a key
 - b. a file
 - c. a record
 - d. a character

ANS: C PTS: 1

16. Effective information has all of the following characteristics except
- a. relevance
 - b. completeness
 - c. summarization
 - d. structure

ANS: D PTS: 1

17. Database management tasks do not include
- a. summarization
 - b. storage
 - c. retrieval
 - d. deletion

ANS: A PTS: 1

18. The author distinguishes between the Accounting Information System and the management Information System based on
- a. whether the transactions are financial or nonfinancial
 - b. whether discretionary or nondiscretionary reports are prepared
 - c. the end users of the reports
 - d. the organizational structure of the business

ANS: A PTS: 1

19. Which activity is not part of the finance function?

- a. cash receipts
- b. portfolio management
- c. credit
- d. general ledger

ANS: D PTS: 1

20. Market research and advertising are part of which business function?

- a. materials management
- b. finance
- c. marketing
- d. production

ANS: C PTS: 1

21. Which function manages the financial resources of the firm through portfolio management, banking, credit evaluation, and cash receipts and disbursements?

- a. accounting
- b. finance
- c. materials management
- d. distribution

ANS: B PTS: 1

22. Which of the following is not part of the accounting function?

- a. managing the financial information resource of the firm
- b. capturing and recording transactions in the database
- c. distributing transaction information to operations personnel
- d. managing the physical information system of the firm

ANS: D PTS: 1

23. The term “accounting independence” refers to

- a. data integrity
- b. separation of duties, such as record keeping and custody of physical resources
- c. generation of accurate and timely information
- d. business segmentation by function

ANS: B PTS: 1

24. In the distributed data processing approach

- a. computer services are consolidated and managed as a shared organization resource
- b. the computer service function is a cost center
- c. the end users are billed using a charge-back system
- d. computer services are organized into small information processing units under the control of end users

ANS: D PTS: 1

25. Which of the following is not a cloud computing service?

- a. Software as a service
- b. Infrastructure as a service
- c. Network as a service
- d. Platform as a service

ANS: C PTS: 1

26. Data processing does **not** involve

- a. data control
- b. computer operations
- c. system maintenance
- d. data conversion

ANS: C PTS: 1

27. Attestation services are performed by

- a. external auditors
- b. internal accountants
- c. internal auditors
- d. third-party accountants

ANS: A PTS: 1

28. Which individual is least involved in new systems development?

- a. systems analyst
- b. external auditor
- c. end user
- d. data librarian

ANS: D PTS: 1

29. The objectives of all information systems include all of the following except

- a. support for the stewardship function of management
- b. evaluating transaction data
- c. support for the day-to-day operations of the firm
- d. support for management decision making

ANS: B PTS: 1

30. Which individuals may be involved in the Systems Development Life Cycle?

- a. accountants
- b. systems professionals
- c. end users
- d. all of the above

ANS: D PTS: 1

31. An appraisal function housed within the organization that performs a wide range of services for management is
- a. internal auditing
 - b. data control group
 - c. external auditing
 - d. database administration

ANS: A PTS: 1

32. Which of the following is not a production support activity?
- a. Maintenance
 - b. Marketing
 - c. Production planning
 - d. Quality control

ANS: B PTS: 1

33. Advantages of cloud computing include all of the following except
- a. Access to whatever computing power is needed
 - b. Paying only for what is used
 - c. Unknown data processing location
 - d. Flexible, short term contracts

ANS: C PTS: 1

34. Motivations for IT outsourcing include each of the following except
- a. IT's highly technical nature
 - b. Long term contracts in IT outsourcing
 - c. Expense of IT
 - d. Dynamically changing nature of IT

ANS: B PTS: 1

35. An internal audit department's independence is compromised when the department reports to:
- a. the company controller
 - b. the audit committee of the board of directors
 - c. Both a. and b.
 - d. Neither a. nor b.

ANS: A PTS: 1

36. What factor conceptually distinguishes external auditing and internal auditing?
- a. Tests of controls
 - b. Substantive tests
 - c. Education
 - d. Constituencies

ANS: D PTS: 1

37. All of the following are external end users except

- a. Cost accountants
- b. Creditors
- c. Stockholders
- d. Tax authorities

ANS: A PTS: 1

38. Useful information must possess all of the following characteristics except

- a. relevance
- b. precision
- c. accuracy
- d. completeness

ANS: B PTS: 1

39. The objectives of an information system include each of the following except

- a. support for the stewardship responsibilities of management
- b. furthering the financial interests of shareholders
- c. support for management decision making
- d. support for the firm's day-to-day operations

ANS: B PTS: 1

40. Accountants play many roles relating to the accounting information system, including all of the following except

- a. system users
- b. system designers
- c. system auditors
- d. system converters

ANS: D PTS: 1

SHORT ANSWER

1. Entities outside the organization with a direct or indirect interest in the firm, such as stockholders, financial institutions, and government agencies, are called _____.

ANS:
stakeholders

PTS: 1

2. Location-independent sharing of data centers hosting IT servers over the internet is called _____.

ANS:
Cloud computing

PTS: 1

3. Transactions with trading partners include _____ and _____.

ANS:
sales, purchases

PTS: 1

4. A practice in which an organization sells its IT resources and leases them back is called _____.

ANS:
IT outsourcing

PTS: 1

5. The task of locating and transferring an existing record from the database for processing is called data _____.

ANS:
retrieval

PTS: 1

6. These tests focus on data rather than process: _____,

ANS:
Substantive tests

PTS: 1

7. Three activities that are part of the finance function are _____, _____, and _____.

ANS:
portfolio management, treasury, credit, cash disbursements, cash receipts

PTS: 1

8. Two distinct ways to structure the Data Processing Department are _____ and _____.

ANS:
centralized, distributed

PTS: 1

9. Two methods to acquire information systems are to _____ and to _____.

ANS:
develop customized systems, purchase commercial systems

PTS: 1

10. The most common audit types are _____, _____, and _____ auditors.

ANS:
internal (operational), external (attestation), fraud

PTS: 1

11. Sales of products to customers, purchases of inventory from vendors, and cash disbursements are all example of _____.

ANS:
financial transactions

PTS: 1

12. The three major subsystems of the AIS are _____, _____, and _____.

ANS:
the transaction processing system, the general ledger/financial reporting system, the management reporting system

PTS: 1

13. The _____ and _____ standards that characterize the AIS clearly distinguish it from the MIS.

ANS:
legal, professional

PTS: 1

14. The transaction processing system is comprised of three cycles: _____, _____, and _____.

ANS:
revenue, expenditure, conversion

PTS: 1

15. The tests that focus on the system itself and how it is designed to reduce risk is called _____.

ANS:

Tests of controls

PTS: 1

16. Sarbanes-Oxley legislation requires that management designs and implements controls over the entire financial reporting process. What systems does this include?

ANS:

This includes the financial reporting system, the general ledger system, and the transaction processing systems that supply the data for financial reporting.

PTS: 1

17. Why is it necessary to distinguish between AIS and MIS?

ANS:

Because of the highly integrative nature of modern information systems, management and auditors need a conceptual view of the information system that distinguishes key processes and areas of risk and legal responsibility from the other (non-legally binding) aspects of the system. Without such a model, critical management and audit responsibilities under SOX may not be met.

PTS: 1

18. How has SOX legislation impacted the consulting practices of public accounting firms?

ANS:

Prior to SOX, a gray area of overlap existed between assurance and consulting services. Auditors were once allowed to provide consulting services to their audit clients. This is now prohibited from doing so under SOX legislation.

PTS: 1

19. What is discretionary reporting?

ANS:

Reports used by management that the company is not obligated by law, regulation, or contract to provide. These are often used for internal problem-solving issues rather than by external constituents.

PTS: 1

20. Name the five characteristics of information.

ANS:

Relevance, accuracy, completeness, summarization, and timeliness.

PTS: 1

ESSAY

1. Contrast the responsibilities of operations management, middle management, and top management. Explain the different information needs for each level of management.

ANS:

Operations management is directly responsible for controlling day-to-day operations. Operations managers require detailed information on individual transactions such as sales, shipment of goods, usage of labor and materials in the production process, and internal transfers of resources from one department to another. Budgeting information and instructions flow downward from top and middle management to operations management.

Middle managers perform short-term planning and coordination of activities necessary to accomplish organizational objectives. Middle management requires information that is more summarized and oriented toward reporting on overall performance and problems, rather than routine operations.

Top management is responsible for longer-term planning and setting organizational objectives. Information provided to top management is highly summarized.

PTS: 1

2. Explain the difference between data and information.

ANS:

Data are facts which may or may not be processed; data have no particular impact on the user. Information is processed data that causes the user to take action.

PTS: 1

3. Why do auditors need to understand the organizational structure of the business?

ANS:

The structure of an organization reflects the distribution of responsibility, authority, and accountability throughout the organization. Auditors need to know how the organization functions to properly audit it.

PTS: 1

4. Several advantages of cloud computing have been discussed. Discuss at least three.

ANS:

The advantages of cloud computing include access to whatever computing power it needs, paying only for what is used, and flexible and relatively short term computing contracts.

PTS: 1

5. Name and explain the purpose of the three major subsystems of the AIS:

_____	_____
_____	_____
_____	_____

ANS:

TPS	records the financial transactions of the firm
GL/FRS	produces the financial statements etc. required by law
MRS	provides information to internal management for decision making

PTS: 1

6. What are the three primary functions performed by the transaction processing system?

ANS:

converting economic events into financial transaction, recording financial transaction in the accounting records (journals and ledgers), and distributing essential financial information to operations personnel to support daily operations.

PTS: 1

7. What factors motivate management to outsource IT?

ANS:

Management may be motivated to outsource It because the IT segment of an organization comprises highly technical, dynamically changing, and expensive activities. The administrative burden and high costs associated with managing and maintaining IT functions are also motivation.

PTS: 1

8. Describe the problem of data redundancy.

ANS:

Information systems have limited collection, processing, and data storage capacity. Data redundancy overloads facilities and reduces the overall efficiency of the system. Inconsistency among redundant data elements can result in inappropriate actions and bad decisions.

PTS: 1

9. Compare and contrast IT outsourcing and cloud computing.

ANS:

IT outsourcing involved an organization selling its IT resources (hardware, software, and facilities) to a third-party outsourcing vendor and then leasing back IT services from the vendor for a contract period of typically between five and ten years. A variant of IT outsourcing, called cloud computing, is location-independent computing whereby shared data centers deliver hosted IT services over the Internet. An organization pursuing cloud computing signs a contract with an IT service provider to provide computing resources. When demand exceeds the provider's IT capacity, it acquires additional capacity from data centers in the "cloud" that are connected via the Internet. The advantage to the client organization is access to whatever computing power it needs, while it pays only for what it uses. Also, cloud computing contracts are flexible and relatively short term. In contrast, traditional outsourcing contracts tend to be fixed price, inflexible, and much longer term.

PTS: 1

10. Distinguish between the accounting information system and the management information system.

ANS:

The AIS processes financial (e.g., cash receipts) and nonfinancial (e.g., addition to the approved vendor list) transactions that directly affect the processing of the financial transaction. These are handled by the three major subsystems: transaction processing, general ledger/financial reporting, and management reporting.

The MIS processes additional nonfinancial transactions that contribute to the decision making of managers.

PTS: 1

11. Describe the attest function and its objectives.

ANS:

The attest function, or the task of an external audit is an independent attestation performed by an expert—the auditor—who expresses an opinion regarding the presentation of financial statements. The attest function is performed by Certified Public Accountants (CPA) who work for public accounting firms that are independent of the client organization being audited. The audit objective is always associated with assuring the fair presentation of financial statements. These audits are, therefore, often referred to as financial audits. The Securities and Exchange Commission (SEC) requires all publicly traded companies to undergo a financial audit annually. CPAs conducting such audits represent the interests of outsiders: stockholders, creditors, government agencies, and the general public.

PTS: 1

12. Why is it important to organizationally separate the accounting function from other functions of the organization?

ANS:

The accounting function provides record-keeping services for all of the operations and day-to-day activities of other departments, which affect the financial position of the organization. Record keeping tasks must be kept separate from any area that has custody over assets. Thus, the accounting function must remain independent so that the protection of the firm's assets is carried out in an environment with minimum possibilities for theft.

PTS: 1

13. How does SOX affect the provision of attest and advisory services?

ANS:

Prior to the passage of SOX, accounting firms could provide advisory services concurrently to audit (attest function) clients. SOX legislation, however, greatly restricts the types of non-audit services that auditors may render audit clients. It is now unlawful for a registered public accounting firm that is currently providing attest services for a client to provide the following services: bookkeeping or other services related to the accounting records or financial statements of the audit client, financial information systems design and implementation, appraisal or valuation services, fairness opinions, or contribution-in-kind reports, actuarial services, internal audit outsourcing services, management functions or human resources, broker or dealer, investment adviser, or investment banking services, legal services and expert services unrelated to the audit, or any other service that the Board determines, by regulation, is impermissible.

PTS: 1

14. What are the similarities and differences between external auditors and internal auditors?

ANS:

The characteristic that conceptually distinguishes external auditors from internal auditors is their respective constituencies: while external auditors represent outsiders, internal auditors represent the interests of the organization. Nevertheless, in this capacity, internal auditors often cooperate with and assist external auditors in performing aspects of financial audits. This cooperation is done to achieve audit efficiency and reduce audit fees. For example, a team of internal auditors can perform tests of computer controls under the supervision of a single external auditor. The independence and competence of the internal audit staff determine the extent to which external auditors may cooperate with and rely on work performed by internal auditors. External auditors can rely in part on evidence gathered by internal audit departments that are organizationally independent and report to the board of directors' audit committee. A truly independent internal audit staff adds value to the external audit process.

PTS: 1

15. What are fraud audits and why have they become more common?

ANS:

The objective of a fraud audit is to investigate anomalies and gather evidence of fraud that may lead to criminal conviction. Sometimes fraud audits are initiated when corporate management suspects employee fraud. Alternatively, boards of directors may hire fraud auditors to investigate their own executives if theft of assets or financial fraud is suspected. Organizations victimized by fraud usually contract with specialized fraud units of public accounting firms or with companies that specialize in forensic accounting. In recent years fraud audits have increased in popularity as a corporate governance tool. They have been thrust into prominence by a corporate environment in which both employee theft of assets and major financial frauds by management (e.g., Enron, WorldCom, etc.) have become rampant.

PTS: 1