

CHAPTER 1 – MANAGERS: KEY TO INFORMATION TECHNOLOGY RESULTS

MULTIPLE CHOICE

1. The scope of the project, the data captured, and the usability of new information technology systems are some of the decisions taken by:
- software developers.
 - managers.
 - software testers.
 - network administrators.

ANS: B

RATIONALE: Managers, working in conjunction with information technology (IT) specialists, must make many decisions when implementing a new IT solution, including how broad the project will be in scope, what data to capture, how databases and applications should be tailored, what information will flow from the systems and to whom, and, most importantly, how people will use the system to make a difference.

2. What approach should be followed by managers to ensure that information technology innovations pay off?
- Linguistic
 - Holistic
 - Relativistic
 - Imperialistic

ANS: B

RATIONALE: Managers are the key to ensuring that information technology innovations pay off; they must lead a holistic approach that includes encouraging the acceptance of change, addressing changes in business processes and organizational structure, establishing new employee roles and expectations, and creating new measurement and reward systems.

3. _____ includes all tools that capture, store, process, exchange, and use information.
- Information technology
 - Information hierarchy
 - Information board
 - Information broadcast

ANS: A

RATIONALE: Information technology includes all tools that capture, store, process, exchange, and use information. The field of information technology includes computer hardware, such as mainframe computers, servers, desktops, laptops, tablets, and smartphones; software, such as operating systems and applications for performing various functions; networks and related equipment, such as modems, routers, and switches; and databases for storing important data.

4. The set of information technology (IT) hardware, software, and networks in an organization is called its _____.
- IT organization

- b. IT hierarchy
- c. IT infrastructure
- d. IT board

ANS: C

RATIONALE: An organization's defined set of information technology (IT) hardware, software, and networks is called its IT infrastructure. An organization's IT infrastructure must be integrated with employees and procedures to build, operate, and support information systems that enable a firm to meet its fundamental objectives.

5. Which of the following information technologies (IT) include information systems that improve the productivity of individual users in performing stand-alone tasks?
- a. Enterprise IT
 - b. Personal IT
 - c. Group IT
 - d. Prototype IT

ANS: B

RATIONALE: Personal information technology (IT) includes information systems that improve the productivity of individual users in performing stand-alone tasks. Examples include personal productivity software such as word processing, presentation, and spreadsheet software; decision support systems, and online learning systems.

6. Rapidstudy, an online platform, is used to enhance the learning capabilities of students. This is an example of:
- a. personal information technology.
 - b. enterprise information technology.
 - c. group information technology.
 - d. prototype information technology.

ANS: A

RATIONALE: Personal information technology includes information systems that improve the productivity of individual users in performing stand-alone tasks. Examples include personal productivity software such as word processing, presentation, and spreadsheet software; decision support systems, and online learning systems.

7. Which of the following information systems employ an analytic model to help users gain insights into a problem situation, examine alternate solutions, and recommend an appropriate course of action?
- a. A word processing software
 - b. A decision support system
 - c. A spreadsheet software
 - d. A web conferencing system

ANS: B

RATIONALE: A decision support system (DSS) employs analytic models to help users gain insights into a problem situation, examine alternative solutions, and recommend an appropriate course of action. For

example, VisualDx is a clinical decision support system that provides instant access to concise disease information and high-quality medical images.

8. VisualDX provides instant access to concise disease information and high-quality medical images. This is an example of:

- a. word processing system.
- b. interorganizational information system.
- c. decision support system.
- d. online learning system.

ANS: C

RATIONALE: A decision support system (DSS) employs analytic models to help users gain insights into a problem situation, examine alternative solutions, and recommend an appropriate course of action. For example, VisualDx is a clinical decision support system that provides instant access to concise disease information and high-quality medical images.

9. Hypermedia, podcasts, and Webcasts are the techniques used in:

- a. decision enabled systems.
- b. product lifecycle systems.
- c. transaction processing systems.
- d. online learning systems.

ANS: D

RATIONALE: Online learning systems encompass a number of computer-enhanced learning techniques, including computer-based simulations, multimedia disks, Web-based learning materials, hypermedia, podcasts, and Webcasts.

10. Which of the following best describes a group information technology information system?

- a. It includes information systems that improve the productivity of individual users in performing stand-alone tasks.
- b. It includes information systems that organizations use to define structured interactions with external customers.
- c. It includes information systems that improve communications and support collaboration among members of a project.
- d. It includes information systems that organizations use to define structured interactions among their employees and suppliers.

ANS: C

RATIONALE: Group information technology includes information systems that improve communications and support collaboration among the members of a workgroup. Examples include the use of Web conferencing, wikis, and electronic corporate directories.

11. Web conferencing and electronic corporate directories are examples of:

- a. personal information technologies.
- b. group information technologies.
- c. process information technology.
- d. prototype information technology.

ANS: B

RATIONALE: Group information technology (IT) includes information systems that improve communications and support collaboration among members of a workgroup. Examples include the use of Web conferencing, wikis, and electronic corporate directories.

12. Which of the following is an example of a personal information technology system?

- a. Project management software
- b. Instant messaging service
- c. Transaction processing system
- d. Decision support system

ANS: D

RATIONALE: Personal information technology includes information systems that improve the productivity of individual users in performing stand-alone tasks. Examples include personal productivity software such as word processing, presentation, and spreadsheet software; decision support systems, and online learning systems.

13. Which of the following uses information technology to conduct meetings or presentations via the Internet?

- a. Web conferencing
- b. Really simple syndication feed
- c. Podcast
- d. Electronic bulletin board

ANS: A

RATIONALE: Web conferencing uses information technology to conduct meetings or presentations in which participants are connected via the Internet. Screen sharing is the most basic form of Web conference—each participant sees whatever is on the presenter's screen, be it a spreadsheet, legal document, artwork, or blueprint.

14. Which of the following is the most basic form of Web conferencing?

- a. Podcasting
- b. Network sharing
- c. Webinar
- d. Screen sharing

ANS: D

RATIONALE: Web conferencing uses information technology to conduct meetings or presentations in which participants are connected via the Internet. Screen sharing is the most basic form of Web conference—each participant sees whatever is on the presenter's screen, be it a spreadsheet, legal document, artwork, or blueprint.

15. In _____, the audio and video information is shown from the presenter to participants.

- a. screen sharing
- b. network sharing
- c. Webcasting

d. podcasting

ANS: C

RATIONALE: Web conferencing uses information technology to conduct meetings or presentations in which participants are connected via the Internet. Another form of Web conferencing is Webcasting, in which audio and video information is broadcast from the presenter to participants.

16. Which of the following is true of a Webinar?

- a. It automatically delivers to subscribers the updated posts from their favorite blogs with limited one-way communication.
- b. It is a live Internet presentation that supports interactive communications between the presenter and the audience.
- c. It provides a set of tools to report project status.
- d. It determines the resource availability and schedule rooms for meetings over the internet.

ANS: B

RATIONALE: Web conferencing uses information technology to conduct meetings or presentations in which participants are connected via the Internet. Another type of Web conference, a Webinar, is a live Internet presentation that supports interactive communications between the presenter and the audience.

17. A _____ is a Web site that allows users to edit and change its content easily and rapidly.

- a. wiki
- b. forum
- c. podcast
- d. blog

ANS: A

RATIONALE: A wiki (Hawaiian for fast) is a Web site that allows users to edit and change its content easily and rapidly. The wiki may be either a hosted Internet site or a site on a company's intranet.

18. _____ is a free software project that produces libraries and programs for handling multimedia data.

- a. FLmpeg
- b. FFmpeg
- c. LLmpeg
- d. PLmpeg

ANS: B

RATIONALE: FFmpeg is a free software project that produces libraries and programs for handling multimedia data. FFmpeg adopted the use of Trac, an enhanced wiki and issue tracking system, in June 2014 to provide support for software developers.

19. Which of the following is used in large organizations to find the right person to collaborate on an issue or on an opportunity?

- a. Electronic bulletin boards
- b. Electronic yellow pages
- c. Electronic enterprise systems
- d. Electronic corporate directories

ANS: D

RATIONALE: Electronic corporate directories are used in large organizations to find the right person with whom to collaborate on an issue or opportunity. Increasingly, organizations are creating online electronic corporate directories to solve this problem. IBM created an application called Bluepages—IBM's Facebook for the enterprise.

20. Which of the following is true of Bluepages?

- a. It enables an employee to contact other employees and their backups.
- b. It captures data from company transactions and other key events.
- c. It supports sales, marketing, and customer service processes.
- d. It supports the flow of data among different organizations to achieve shared goals.

ANS: A

RATIONALE: IBM created an application called Bluepages—IBM's Facebook for the enterprise. This group IT application enables an employee to contact other employees and their backups, in case of an absence or vacation.

21. Which of the following information technologies (IT) is used by organizations to define structured interactions among their own employees and with external customers?

- a. Private IT
- b. Group IT
- c. Enterprise IT
- c. Prototype IT

ANS: C

RATIONALE: Enterprise information technology (IT) includes information systems that organizations use to define structured interactions among their own employees and/or with external customers, suppliers, government agencies, and other business partners.

22. Successful implementation of enterprise information technology system requires:

- a. a set of tools for project managers and members to report project plans and status.
- b. the radical redesign of fundamental work processes and the automation of new processes.
- c. information systems that improve communications and support collaboration among members of a workgroup.
- d. integrated data, text, voice, and video in a single solution that encompasses instant messaging, presence information, and video conferencing.

ANS: B

RATIONALE: Enterprise information technology (IT) includes information systems that organizations use to define structured interactions among their own employees and/or with external customers, suppliers, government agencies, and other business partners. Successful implementation of these systems often requires the radical redesign of fundamental work processes and the automation of new processes.

23. In an enterprise information technology, payroll is a part of the:

- a. target process.
- b. requirement process.

- c. design process.
- d. planning process.

ANS: A

RATIONALE: Enterprise information technology includes information systems that organizations use to define structured interactions among their own employees and/or with external customers, suppliers, government agencies, and other business partners. Target processes may include purely internal activities within the organization (such as payroll) and those that support activities with external customers and suppliers.

24. Interorganizational systems are examples of ____.
- a. group information technologies
 - b. private information technologies
 - c. marketing information technologies
 - d. enterprise information technologies

ANS: D

RATIONALE: Enterprise information technology includes information systems that organizations use to define structured interactions among their own employees and/or with external customers, suppliers, government agencies, and other business partners. Three examples of enterprise information technology are transaction processing, enterprise, and interorganizational systems.

25. A ____ captures data from company transactions and other key events, and then updates the firm's records, which are maintained in electronic files or databases.
- a. transaction processing system (TPS)
 - b. transaction migration system (TMS)
 - c. transaction secured system (TSS)
 - d. transaction broadcast system (TBS)

ANS: A

RATIONALE: A transaction processing system (TPS) captures data from company transactions and other key events, and then updates the firm's records, which are maintained in electronic files or databases. Each TPS supports a specific activity of the firm, and several may work together to support an entire business process.

26. Shipment planning and shipment execution are the stages involved in:
- a. inventory control.
 - b. structured interaction.
 - c. order processing.
 - d. target process.

ANS: C

RATIONALE: Each transaction processing system (TPS) supports a specific activity of the firm, and several may work together to support an entire business process. For example, some organizations use many TPSs to support their order processing, which includes order entry, shipment planning, shipment execution, inventory control, and accounts receivable.

27. Data captured using the order entry transaction processing system is used to:

- a. replicate a set of orders.
- b. process the refund for returned orders.
- c. create new orders.
- d. update a file of open orders.

ANS: D

RATIONALE: Data captured using the order entry transaction processing system is used to update a file of open orders—orders received but not yet shipped.

28. Which of the following acts as an input to the shipment planning transaction processing system that determines the orders to be filled, the shipping date, and the location from which each order will be shipped?

- a. The open order file
- b. The planned order file
- c. The exchange order file
- d. The local order file

ANS: A

RATIONALE: Data captured using the order entry transaction processing system (TPS) is used to update a file of open orders—orders received but not yet shipped. The open order file, in turn, is used as input to the shipment planning TPS, which determines the orders to be filled, the shipping date, and the location from which each order will be shipped. The result is the planned order file, which is passed downstream to the shipment execution TPS, and so on.

29. Which of the following best describes an enterprise system?

- a. It captures data from company transactions and other key events, and then updates the firm's records, which are maintained in electronic files or databases.
- b. It enables the sharing of information across all business functions and all levels of management.
- c. It includes information systems that improve communications and support collaboration among the members of a workgroup.
- d. It encompasses a number of computer-enhanced learning techniques, including computer-based simulations, multimedia DVDs, Web-based learning materials, hypermedia, podcasts, and Webcasts.

ANS: B

RATIONALE: Many organizations employ enterprise systems to support their operation and planning functions and to enable the sharing of information across all business functions and all levels of management. These systems employ a database of key operational and planning data that can be shared by all employees and, in some situations, customers and suppliers.

30. Customer relationship management (CRM) and product life cycle management (PLM) are common types of:

- a. personal systems.
- b. group systems.
- c. resource planning systems.
- d. enterprise systems.

ANS: D

RATIONALE: Enterprise systems employ a database of key operational and planning data that can be shared by all employees and, in some situations, customers and suppliers. The three most common types of enterprise systems are enterprise resource planning systems, customer relationship management systems, and product life cycle management systems.

31. Which of the following systems support the supply chain processes such as order processing, inventory management, and purchasing?

- a. Customer relationship management (CRM)
- b. Product life cycle management (PLM)
- c. Enterprise resource planning (ERP)
- d. Organizational information system (OIS)

ANS: C

RATIONALE: An enterprise resource planning (ERP) system is a set of integrated programs that manage a company's vital business operations. They support the supply chain processes, such as order processing, demand planning, inventory management, and purchasing.

32. _____ systems support the sales and marketing processes.

- a. Customer relationship management (CRM)
- b. Product life cycle management (PLM)
- c. Enterprise resource planning (ERP)
- d. Organizational information system (OIS)

ANS: A

RATIONALE: A customer relationship management (CRM) system helps a company manage all aspects of customer encounters. This includes sales, marketing, and customer service processes.

33. Which of the following supports the flow of data among different organizations to achieve shared goals?

- a. Customer relationship management
- b. Product life cycle management
- c. Enterprise resource planning system
- d. Interorganizational information system

ANS: D

RATIONALE: Interorganizational information systems support the flow of data among different organizations to achieve shared goals. For example, some organizations need to share data for purchase orders, invoices, and payments along with information about common suppliers and financial institutions.

34. Fillkart, an online shopping Web site, needs to share data for purchase orders, invoices, and payments along with information about common suppliers and financial institutions. Which of the following will support these needs of Fillkart?

- a. Customer relationship management.
- b. Product life cycle management.
- c. Interorganizational information system.
- d. Enterprise resource planning.

ANS: C

RATIONALE: Interorganizational information systems support the flow of data among different organizations to achieve shared goals. For example, some organizations need to share data for purchase orders, invoices, and payments along with information about common suppliers and financial institutions.

35. Which of the following is true of interorganizational information systems?

- a. It speeds up the flow of material and information.
- b. It increases the effort of processing a transaction.
- c. It increases the cost of processing a transaction.
- d. It reduces the flow of payments while concentrating on the flow of material and information.

ANS: A

RATIONALE: Interorganizational information systems support the flow of data among different organizations to achieve shared goals. They speed up the flow of material, payments, and information, while allowing companies to reduce the effort and costs of processing such transactions.

36. Which of the following is a step taken by organizations to ensure efficient and effective sharing of information?

- a. Discussing the gist of the information
- b. Duplicating the information
- c. Increasing the cost of processing the information
- d. Using compatible technologies

ANS: D

RATIONALE: To ensure efficient and effective sharing of information, organizations must agree in advance on the nature and format of information to be exchanged, and they must use compatible technologies. The companies must work together to resolve technical issues relating to data definitions and formats, database designs, standards to ensure high data quality, and compatible technology infrastructures.

37. Organizations are concerned about the profits they receive for their investments in information technology (IT) than the amount spent on the investment. This is to done to:

- a. ensure smooth introduction and adoption of IT.
- b. identify appropriate IT opportunities.
- c. ensure that IT risks are mitigated.
- d. adopt the section 404 of the Sarbanes-Oxley Act.

ANS: B

RATIONALE: The most important consideration is what organizations are getting out of their investments in information technology (IT), not how much they are investing in IT. This helps to identify the appropriate IT opportunities.

38. Identify the industry that has the highest information technology spending.

- a. Agriculture
- b. Food
- c. Finance

d. Automobile

ANS: C

RATIONALE: Organizations typically spend 1 to 6 percent of their total revenues on information technology (IT); this spending is generally higher for industries in which IT is more critical to success, such as health care and financial services.

39. The Change Management Continuum Model, the Unified Theory of Acceptance and Use of Technology, and the Diffusion of Innovation Theory are the theories that can help:

- a. in smooth introduction and adoption of information technology.
- b. to identify appropriate information technology opportunities.
- c. in ensuring that information technology risks are mitigated.
- d. to implement the section 404 of the Sarbanes-Oxley Act.

ANS: A

RATIONALE: Several theories on organizational change management can help smooth the introduction and adoption of information technology. Three such theories are: the Change Management Continuum Model, the Unified Theory of Acceptance and Use of Technology, and the Diffusion of Innovation Theory.

40. Which of the following models describe the key activities that are needed to build commitment for change?

- a. The Unified Acceptance Model
- b. The Change Management Technology Model
- c. The Change Management Continuum Model
- d. The Diffusion of Innovation Model

ANS: C

RATIONALE: D.R. Conner developed the Change Management Continuum Model, which describes the key activities that are needed to build commitment for change. This model provides a roadmap to guide management actions at each stage of the introduction of a new system.

41. The _____ provides a roadmap to guide the management actions at each stage of the introduction of a new system.

- a. Unified Acceptance Model
- b. Change Management Continuum Model
- c. Change Management Technology Model
- d. Diffusion of Innovation Model

ANS: B

RATIONALE: D.R. Conner developed the Change Management Continuum Model, which describes key activities that are needed to build commitment for change. This model provides a roadmap to guide the management actions at each stage of the introduction of a new system.

42. Which of the following is a phase of the Change Management Continuum Model?

- a. Inform
- b. Adopt

- c. Perception
- d. Internalization

ANS: A

RATIONALE: Inform, educate, and commit are the phases of the Change Management Continuum Model. Its goal is to make people aware of the change and why it is occurring.

43. Positive perception, adoption, and institutionalization are the stages of the _____ phase of the Change Management Continuum Model.

- a. inform
- b. educate
- c. contact
- d. commit

ANS: B

RATIONALE: The educate phase makes people recognize the impact of change on them and their way of working. Positive perception, adoption, and institutionalization are the stages of the educate phase of the Change Management Continuum Model.

44. The _____ stage of the Change Management Continuum Model demonstrates a positive impact on the organization.

- a. internalization
- b. institutionalization
- c. adoption
- d. perception

ANS: C

RATIONALE: The adoption stage comes under the educate phase of the Change Management Continuum Model. It describes the change that has demonstrated a positive impact on the organization.

45. Identify the stage in the Change Management Continuum Model that incorporates the changes in the routine operating procedures of an organization.

- a. Internalization
- b. Perception
- c. Adoption
- d. Institutionalization

ANS: D

RATIONALE: Institutionalization stage in the Change Management Continuum Model incorporates the changes in the routine operating procedures of an organization. It comes under the educate phase.

46. Which of the following best describes the awareness stage of the Change Management Continuum Model?

- a. A person becoming aware that a change is to take place
- b. A person gaining basic knowledge of the change
- c. A person incorporating the change in routine operating procedures
- d. A person committed to a change due to personal interest

ANS: B

RATIONALE: In the awareness stage of the Change Management Continuum Model, a person has a basic knowledge of the change. This stage comes under the inform phase.

47. Which of the following is true of the Internalization phase of the Change Management Continuum Model?

- a. Employees are highly committed to the change because it suits their interests.
- b. Employees formally incorporate the change into routine operating procedures of the organization.
- c. Employees comprehend the nature and intent of the change and how he or she will be affected.
- d. Employees gain a basic knowledge of the change.

ANS: A

RATIONALE: In the internalization stage of the Change Management Continuum Model, people are highly committed to the change because it matches their interests, goals, and values. This phase comes under the commit phase.

48. Usefulness, ease of use, management expectations, and facilitating conditions are the key factors of:

- a. the Change Management Continuum Model.
- b. the Diffusion of Innovation Theory.
- c. the Change Management Consistent Model.
- d. the Unified Theory of Acceptance and Use of Technology.

ANS: D

RATIONALE: The Unified Theory of Acceptance and Use of Technology identifies four key factors that directly determine a user's acceptance and usage of information technology. They are usefulness, ease of use, management expectations, and facilitating conditions.

49. In the Unified Theory of Acceptance and Use of Technology, who provides the technical infrastructure help in learning and using the new technology?

- a. End user
- b. Client
- c. Super user
- d. Tester

ANS: C

RATIONALE: In the Unified Theory of Acceptance and Use of Technology, the end users want to know that they will be provided with sufficient time to be trained in a quality manner and that there will be others (help desk or "super users") available to help when necessary. The necessary organizational and technical infrastructures must be in place to support end users in learning and using the new technology.

50. The _____ explains how a new idea or product gains acceptance and spreads through a specific population or subset of an organization.

- a. Change Management Continuum Model
- b. Diffusion of Innovation Theory
- c. Change Management Consistent Model
- d. Unified Theory of Acceptance and Use of Technology

ANS: B

RATIONALE: The Diffusion of Innovation Theory was developed by E.M. Rogers to explain how a new idea or product gains acceptance and diffuses (or spreads) through a specific population or subset of an organization. A key point of this theory is that adoption of any innovation does not happen all at once for all members of the targeted population; rather, it is a drawn-out process, with some people quicker to adopt the innovation than others.

51. Which of the following adopter categories is very conservative and highly skeptical of change?

- a. Laggard
- b. Early majority
- c. Early adopter
- d. Innovator

ANS: A

RATIONALE: Laggards are very conservative and highly skeptical of change. Their peers need to demonstrate on the benefits of change to convince them.

52. Which of the following adopter categories is considered as risk takers?

- a. Laggard
- b. Early majority
- c. Late majority
- d. Innovator

ANS: D

RATIONALE: Innovators are always the first to try new products and ideas. They are considered as risk takers.

53. Which of the following best describes late majority?

- a. They are the first to try new products and ideas.
- b. They listen to and follow the opinion of leaders.
- c. They are skeptical to changes and new ideas.
- d. They are the leaders whom others listen to and understand the need for change.

ANS: C

RATIONALE: Late majorities are people who are skeptical to changes and new ideas. They need to be provided with details of successful implementation of changes.

54. John, a product manager, decides to adopt to a new strategy to improve the quality of products served by his company. He also has the additional responsibility of convincing his team members to use the new strategy. In the context of innovation adopters, John is an example of a(n):

- a. laggard.
- b. early adopter.
- c. early majority.
- d. late majority.

ANS: B

RATIONALE: John is an example of an early adopter. Early adopters are opinion leaders whom others listen to and follow; they are aware of the need for change.

55. What is the strategy required by successful enterprise information technology system?

- a. Top-down imposition of standards and procedures
- b. Bottom-up imposition of standards and procedures

- c. Refactoring the standards and procedures
- d. Reengineering the standards and procedures

ANS: A

RATIONALE: A successful enterprise information technology (IT) system requires the top-down imposition of standards and procedures that spell out exactly how transactions must be conducted and how the supporting information must be captured, stored, and shared. As a result, senior management sometimes encourages adoption of enterprise IT by threatening penalties for nonconformance.

56. Data assets must be secured from unwanted intrusion, loss, and alteration. This is to:
- a. ensure the smooth adoption of the systems information technology.
 - b. ensure the smooth transfer of information technology.
 - c. ensure the smooth mitigation of risks in information technology.
 - d. ensure the smooth induction of information technology.

ANS: C

RATIONALE: Information technology (IT) resources are used to capture, store, process, update, and exchange information that controls valuable organizational assets. As a result, special measures are needed to ensure that the information and its control mechanisms can stand up to intense scrutiny. Data assets must be secure from unwanted intrusion, loss, and alteration, and personal data must be secured to protect individual privacy rights. If information technology assets including data, software, hardware, and networks are rendered inoperable due to a disaster of any type, business continuity plans must be in place to ensure the ongoing operation of critical business functions that depend on those assets. Failure to ensure that IT risks are mitigated can lead to serious problems, such as business disruptions, data breaches exposing employee and/or customer personal data, and legal penalties.

57. Exposing employee and customer personal data to an untrusted environment is an example of:
- a. data spam.
 - b. data phishing.
 - c. data adware.
 - d. data breach.

ANS: D

RATIONALE: A data breach is the unintended release of sensitive data or the access of sensitive data by unauthorized individuals. Data breaches expose the employee and/or customer personal data.

58. Data breaches lead to:
- a. the physical damage of a personal computer.
 - b. the loss of business opportunity.
 - c. the decreased customer support cost for information hotlines.
 - d. the decreased customer support cost for credit monitoring services.

ANS: B

RATIONALE: Data breaches involving large databases of personal information are all too common. The cost to an organization that suffers a data breach can be quite high, including lost business opportunity associated with customers whose patronage has been lost due to the incident, public relations–related costs to manage the firm’s reputation, and increased customer support costs for information hotlines and credit monitoring services for victims.

59. Which of the following requires that all reports filed with the Securities and Exchange Commission (SEC) include a statement signed by the chief executive officer and the chief financial officer attesting the accuracy of the information provided in the reports?

- a. Smooth adoption of information technology
- b. Smooth introduction of information technology
- c. Diffusion of innovation Act
- d. Section 404 of the Sarbanes-Oxley Act

ANS: D

RATIONALE: Section 404 of the Sarbanes-Oxley Act requires that all reports filed with the Securities and Exchange Commission (SEC) include a statement signed by the chief executive officer and the chief financial officer attesting that the information contained in the reports is accurate. The company also must submit to an audit to prove that it has controls in place to ensure accurate information.

60. An organization has to submit an audit to prove that it has accurate information on their assets. This is done to be in accordance to the:

- a. Section 906 of the Sarbanes-Oxley Act.
- b. Section 404 of the Sarbanes-Oxley Act.
- c. Section 802 of the Sarbanes-Oxley Act.
- d. Section 301 of the Sarbanes-Oxley Act.

ANS: B

RATIONALE: Section 404 of the Sarbanes-Oxley Act requires that all reports filed with the Securities and Exchange Commission (SEC) include a statement signed by the CEO and CFO attesting that the information contained in the reports is accurate. The company also must submit to an audit to prove that it has controls in place to ensure accurate information.

61. Hackers carry out a denial-of-service attack on an organization's Web site. This leads to the:

- a. violation of legally mandated procedures for controlling information technology assets.
- b. violation of generally accepted accounting principles.
- c. inability to continue operations due to a deliberate attack on the information technology assets.
- d. theft of computers from a corporate training facility.

ANS: C

RATIONALE: Hackers carry out a denial-of-service attack on an organization's Web site. This leads to the inability to continue the information technology (IT) operations due to a deliberate attack on the IT assets.

62. Which of the following scenarios best describes the violation of legally mandated procedures for controlling the information technology (IT) assets?

- a. IT system controls are inadequate to meet specific federal Sarbanes-Oxley guidelines that require companies to maintain the integrity of financial data.
- b. IT system controls are violated so that the same person can both initiate a purchase order and approve the invoice for that purchase order.
- c. Employees waste time at work visiting Web sites unrelated to their work.
- d. Hackers access and download customer data, including account numbers, and carry out a denial-of-service attack on an organization's Web site.

ANS: A

RATIONALE: Information technology (IT) system controls are inadequate to meet specific federal Sarbanes-Oxley guidelines that require companies to maintain the integrity of financial data. This is an example of violating legally mandated procedures for controlling IT assets.

63. Employees of Jackshay Corp. misuse their time by viewing online shopping Web sites that is unrelated to their job. This leads to:

- a. violation of generally accepted accounting principles.
- b. violation of the organization's defined procedures and/or accounting practices.
- c. compromise of confidential data regarding organizational plans, products, or services.
- d. inappropriate use of information technology resources that reduces worker productivity.

ANS: D

RATIONALE: Employees waste time at work visiting Web sites unrelated to their work. This is an example of inappropriate use of information technology resources that reduces worker productivity.

64. Which of the following scenarios best describes the compromise of confidential data regarding organizational plans, products, or services?

- a. Fire destroys all the physical assets in an organization.
- b. Employees use corporate email to disseminate sexually explicit material.
- c. Senior executive loses laptop containing critical data.
- d. Employees waste time at work visiting Web sites unrelated to their work.

ANS: C

RATIONALE: A senior executive has lost his laptop that contains critical data. This is an example that describes compromise of confidential data regarding organizational plans, products, or services.

65. Increased costs and wasted effort are consequences of:

- a. failed information technology projects.
- b. missed information technology projects.
- c. complicated information technology projects.
- d. overlooked information technology projects.

ANS: A

RATIONALE: Managers cannot afford to ignore information technology (IT) projects, because failed IT projects lead to increased costs, missed opportunities, and wasted time and effort. Far too much money and time has been wasted on failed, ineffective, or wasted information systems in both the private industry and public service arenas.

TRUE/FALSE:

1. Companies capture significant benefits by just implementing information technology into their operations.

ANS: False

RATIONALE: Companies that merely insert information technology (IT) into their operations without making changes that exploit the new IT capabilities will not capture significant benefits.

2. A decision support system (DSS) employs theoretical models to help users gain insights into a real time situation.

ANS: False

RATIONALE: A decision support system (DSS) employs analytic models to help users gain insights into a problem situation, examine alternative solutions, and recommend an appropriate course of action.

3. Webinar is the most basic form of Web conference.

ANS: False

RATIONALE: Screen sharing is the most basic form of Web conference—each participant sees whatever is on the presenter's screen, be it a spreadsheet, legal document, artwork, blueprint, or a medical scan image.

4. Product life cycle management supports only the research and development phase of a product.

ANS: False

RATIONALE: Product life cycle management (PLM) systems support the processes associated with the various phases of the life cycle of a product, including sales and marketing, research and development, concept development, product design, prototyping and testing, manufacturing process design, production and assembly, delivery and product installation, service and support, and product retirement and replacement.

5. Interorganizational information systems help to reduce the effort and cost of processing a company's transaction.

ANS: True

RATIONALE: Interorganizational information systems speed up the flow of material, payments, and information, while allowing companies to reduce the effort and costs of processing such transactions.

6. When a new information technology is introduced, managers are highly encouraged to adopt the technology first and then try to figure out its implications.

ANS: False

RATIONALE: All too often when new information technology is introduced, managers adopt the technology first and then try to figure out what to do with it and how to cope with its implications. Such an approach is strongly discouraged as it can cause an increase in costs, lost worker productivity, wasted effort, and missed business opportunities.

7. The goal of commit phase in the Change Management Continuum Model is to make people aware of the change.

ANS: False

RATIONALE: The goal of commit phase in the Change Management Continuum Model is to make people accept the change since it has become a part of their everyday life.

8. Introducing an enterprise information technology system represents a major organizational change.

ANS: True

RATIONALE: Introducing an enterprise information system requires large amounts of resources and significant changes in procedures, roles and responsibilities, reward systems, and decision making. In other words, it represents a major organizational change.

9. Laggards are risk takers who attempts to try new products and ideas.

ANS: False

RATIONALE: Laggards are very conservative and highly skeptical of change.

10. Fire destroys resources at the corporate headquarters of an organization. This is an example of violation of generally accepted accounting principles.

ANS: False

RATIONALE: Fire destroying the resources of an organization is an example of inability to continue operations due to a natural disaster or accident.

ESSAY:

1. George, a physician, searches a database by symptoms, visual clues, and other patient factors to diagnose diseases and develop treatment plans. Discuss the support system used by the physician.

ANS: The physician uses a decision support system (DSS). It employs analytic models to help users gain insights into a problem situation, examine alternative solutions, and recommend an appropriate course of action. For example, VisualDx is a clinical decision support system that provides instant access to concise disease information and high-quality medical images. Its database encompasses more than 1300 medical conditions and nearly 30,000 images. Physicians can search this database by symptoms, visual clues, and other patient factors to diagnose diseases and develop treatment plans.

2. What are the benefits of interorganizational information systems?

ANS: Interorganizational information systems support the flow of data among different organizations to achieve shared goals. For example, some organizations need to share data for purchase orders, invoices, and payments along with information about common suppliers and financial institutions.

Interorganizational information systems speed up the flow of material, payments, and information, while allowing companies to reduce the effort and costs of processing such transactions.

3. Discuss the Diffusion of Innovation theory. What is the difference between an innovator and a laggard?

ANS: The Diffusion of Innovation Theory was developed by E.M. Rogers to explain how a new idea or product gains acceptance and diffuses (or spreads) through a specific population or subset of an organization. A key point of this theory is that adoption of any innovation does not happen all at once for all members of the targeted population; rather, it is a drawn-out process, with some people quicker to adopt the innovation than others.

An innovator is a risk taker who is always the first to try new products and ideas, whereas a laggard is a person who is very conservative and skeptical of change.

4. Explain Section 404 of the Sarbanes-Oxley Act with an example.

ANS: Section 404 of the Sarbanes-Oxley Act requires that all reports filed with the Securities and Exchange Commission (SEC) include a statement signed by the chief executive officer (CEO) and chief financial officer (CFO) attesting that the information contained in the reports is accurate. The company also must submit to an audit to prove that it has controls in place to ensure accurate information. For example, the SEC brought charges against the CEO and CFO of a Florida-based computer equipment company for misrepresenting to external auditors and the investing public the state of its internal controls over financial reporting. The CFO agreed to pay a \$23,000 penalty and to be barred from serving as an officer and director of a publicly traded company for five years. The SEC is continuing to litigate its case against the company's CEO.