Chapter 1: Introduction to Information Systems

MULTIPLE CHOICE

1. Which of the following is an important component of every information system that helps organizations to improve customer service?
   a. hardware
   b. software
   c. a feedback mechanism
   d. data

   ANS: C PTS: 1 REF: p. 5 MSC: Remember

2. The value of information is directly linked to how it helps decision makers achieve which of the following?
   a. their organization's profits
   b. their organization's goals
   c. their organization's cost reduction initiatives
   d. their organization's quality improvement measures

   ANS: B PTS: 1 REF: p. 8 MSC: Remember

3. Conner is the new manager and he would like to assess the system performance within his department. He is interested in finding out the real value of those systems put in place. What measure is he interested in?
   a. efficiency
   b. effectiveness
   c. productivity
   d. net worth

   ANS: B PTS: 1 REF: p. 9 MSC: Higher Order

4. Vivek is assessing the lowest cost to build 20 computers with the shortest time frame. What measure is he interested in?
   a. efficiency
   b. effectiveness
   c. productivity
   d. net worth

   ANS: A PTS: 1 REF: p. 9 MSC: Higher Order

5. In information systems, what is used to make changes to input or processing activities?
   a. forecasting
   b. feedback
   c. output
   d. conversion

   ANS: B PTS: 1 REF: p. 11 MSC: Remember

6. What is the term used for the process of tracking stock indexes and markets, including purchasing large blocks of stocks, by computerized systems?
   a. feedback
   b. analytics
   c. forecasting
   d. program trading

   ANS: D PTS: 1 REF: p. 12 MSC: Remember

7. What consists of computer equipment used to perform input, processing, and output activities?
   a. information technology
   b. technology infrastructure
   c. telecommunications
   d. hardware

   ANS: D PTS: 1 REF: p. 12 MSC: Remember

8. What type of hardware are keyboards, automatic scanning devices, and equipment that can read magnetic ink characters?
   a. storage hardware
   b. processing hardware
   c. output hardware
   d. input hardware

   ANS: D PTS: 1 REF: p. 13 MSC: Remember

9. What consists of computer programs that govern the operation of the computer?
   a. hardware
   b. software
   c. applications
   d. telecommunications

   ANS: B PTS: 1 REF: p. 13 MSC: Remember

10. Which of the following is an example of application software that allows you to accomplish specific tasks, such as word processing or tabulating numbers?
    a. systems software
    b. Windows 7
    c. Microsoft Office 2010
    d. Windows Vista

    ANS: C PTS: 1 REF: p. 13 MSC: Remember

11. Which of the following connects computers and equipment in a building, around the country, or around the world to enable electronic communications?
    a. telecommunication
    b. telecommuting
    c. a network
    d. a database

    ANS: C PTS: 1 REF: p. 13 MSC: Remember

12. How long can a Twitter tweet be?
    a. 100 characters
    b. 120 characters
    c. 140 characters
    d. 180 characters

    ANS: C PTS: 1 REF: p. 13 MSC: Remember

13. What is considered to be the most important element in a computer-based information system?
    a. hardware
    b. software
    c. procedures
    d. people

    ANS: D PTS: 1 REF: p. 13 MSC: Remember

14. Which of the following is a network based on Web technologies that allows only selected outsiders, such as business partners and customers, to access authorized resources of a company's intranet?
    a. portal
    b. cloud
    c. Wi-Fi
    d. extranet

    ANS: D PTS: 1 REF: p. 14 MSC: Remember

15. What involves using information systems and the Internet to acquire parts and supplies?
    a. e-commerce
    b. e-business
    c. mobile commerce
    d. e-procurement

    ANS: D PTS: 1 REF: p. 16 MSC: Remember

16. What system, developed in the 1950s, was the earliest type of business information system?
    a. the transaction processing system
    b. the enterprise resource planning system
    c. the decision support system
    d. the e-commerce system

    ANS: A PTS: 1 REF: p. 16 MSC: Remember

17. What is the term for an organized collection of people, procedures, software, databases, and devices that support problem-specific decision making?
    a. a TPS
    b. an MIS
    c. a DSS
    d. a virtual reality system

    ANS: C PTS: 1 REF: p. 17 MSC: Remember

18. What involves computers understanding and acting on verbal or written commands?
    a. virtual reality
    b. artificial intelligence
    c. natural language processing
    d. learning systems

    ANS: C PTS: 1 REF: p. 17 MSC: Remember

19. Company JX is replacing its old human resources systems with one that would manage all aspects of the organization, including the financial and manufacturing systems, as coordinated systems. What system is this?
    a. transaction processing
    b. enterprise resource planning
    c. artificial intelligence
    d. expert

    ANS: B PTS: 1 REF: p. 17 MSC: Higher Order

20. What branch of artificial intelligence allows computers to recognize and act on patterns or trends?
    a. vision systems
    b. neural networks
    c. robotic systems
    d. natural language processing

    ANS: B PTS: 1 REF: p. 18 MSC: Remember

21. Which of the following activities is part of the value chain of an organization?
    a. human resources
    b. information technology
    c. marketing and sales
    d. infrastructure service

    ANS: C PTS: 1 REF: p. 19 MSC: Remember

22. Gillian has been asked to plan and control all of the activities involved in ensuring that the organization can determine the demands of the clients. Which one of the following terms refers to this activity?
    a. customer relationship management
    b. inventory management
    c. demand planning
    d. supply chain management

    ANS: D PTS: 1 REF: p. 19 MSC: Higher Order

23. What do customer relationship management programs help companies manage?
    a. loyalty programs
    b. finished product inventory
    c. product design
    d. service life cycle

    ANS: A PTS: 1 REF: p. 20 MSC: Remember

24. Loretta made a proposal to the CEO about the need to change some of the ways procurement is handled in the organization. She is recommending new rules of procurement as well as enhancing some of the existing processes to align them to best practices in the industry. What is the term used to refer to what Loretta is doing?
    a. cultural change
    b. cultural shift
    c. organizational learning
    d. organizational change

    ANS: C PTS: 1 REF: p. 27 MSC: Higher Order

25. What does user satisfaction with a computer system and the information the system generates often depend on?
    a. cost of the system
    b. quality of the system
    c. whether it was outsourced or not
    d. the hardware that comes with it

    ANS: B PTS: 1 REF: p. 28 MSC: Remember

26. Which of the following is a measure of how widely technology is spread throughout an organization?
    a. technology development
    b. technology acceptance
    c. technology diffusion
    d. technology adoption

    ANS: C PTS: 1 REF: p. 29 MSC: Remember

27. What is best described as the extent to which technology permeates an area or department?
    a. technology deployment
    b. technology development
    c. technology adoption
    d. technology infusion

    ANS: D PTS: 1 REF: p. 29 MSC: Remember

28. User training is a key to getting the most from any information system. What department ensures that appropriate training is available?
    a. Web administration
    b. support
    c. database administration
    d. systems development

    ANS: B PTS: 1 REF: p. 30 MSC: Remember

29. What activity involves reducing the number of employees to cut costs?
    a. outsourcing
    b. off shoring
    c. on-demand computing
    d. downsizing

    ANS: D PTS: 1 REF: p. 31 MSC: Remember

30. Company XA is looking at adding more services to its portfolio and is considering renting the necessary infrastructure needs from external agents. What term refers to this concept?
    a. outsourcing
    b. contracting
    c. on-demand computing
    d. customized technology

    ANS: D PTS: 1 REF: p. 31 MSC: Higher Order

31. Which of the following is one of five forces identified in Michael Porter's competitive forces model?
    a. the threat of merging of competitors
    b. the threat of globalization
    c. the threat of substitute products and services
    d. the threat of new information systems

    ANS: C PTS: 1 REF: p. 33 MSC: Remember

32. Which of the following characteristics can be attributed to highly competitive industries?
    a. They have low fixed costs for entering or leaving the industry.
    b. There are high degrees of product differentiation.
    c. They have high turnover rates.
    d. They exist in greater number and they seek the same objectives.

    ANS: D PTS: 1 REF: p. 33 MSC: Higher Order

33. Why is competition so fierce in the restaurant industry?
    a. entry costs are low
    b. buyers have much bargaining power
    c. suppliers have much bargaining power
    d. there is less regulation

    ANS: A PTS: 1 REF: p. 33 MSC: Remember

34. What type of competitive advantage strategy, which focuses on becoming more efficient and reducing costs, has Walmart and other retailers followed for years?
    a. differentiation strategy
    b. creating new products and services strategy
    c. niche strategy
    d. cost leadership strategy

    ANS: D PTS: 1 REF: p. 34 MSC: Remember

35. What type of competitive advantage strategy involves frequent innovation?
    a. differentiation strategy
    b. creating new products and services strategy
    c. niche strategy
    d. cost leadership strategy

    ANS: B PTS: 1 REF: p. 34-36 MSC: Remember

36. Porsche, which produces only high-performance sports cars and SUVs, uses what type of strategy to gain competitive advantage?
    a. differentiation strategy
    b. niche strategy
    c. cost leadership strategy
    d. altering the industry structure strategy

    ANS: B PTS: 1 REF: p. 35 MSC: Remember

37. What did organizations focus on when they first began using information systems?
    a. reducing costs and improving productivity
    b. gaining competitive advantage and using the most current technology
    c. reducing costs and gaining competitive advantage
    d. using the most current technology and improving productivity

    ANS: A PTS: 1 REF: p. 36 MSC: Remember

38. Which of the following is a measure of performance used to evaluate the contribution of information systems to a business?
    a. return on investment
    b. balance sheet
    c. income statement
    d. earnings per share

    ANS: A PTS: 1 REF: p. 38 MSC: Higher Order

39. What measure is used by a company to assess the yield of its profits and benefits based on past performance?
    a. net present value
    b. return on investment
    c. earnings growth
    d. market share

    ANS: B PTS: 1 REF: p. 38 MSC: Higher Order

40. Which of the following costs are included in the total cost of ownership?
    a. hiring costs
    b. technical support costs
    c. maintenance costs
    d. hardware and software costs

    ANS: B PTS: 1 REF: p. 38 MSC: Remember

41. Company ABC is evaluating a new information system that was implemented five years ago for its human resources division. The company has a good record of all the expenses associated with that system. What measure can be used in this case to assess the value of the information system?
    a. return on investment
    b. net present value
    c. earnings growth
    d. total cost of ownership

    ANS: D PTS: 1 REF: p. 38 MSC: Higher Order

42. Jennifer is a business system analyst with Company X and she was given the responsibility to engage into a set of activities to create a new system. Jennifer has completed several tasks already and she is now ready to propose a solution to her manager. Which stage is she in?
    a. systems investigation
    b. systems analysis
    c. systems design
    d. systems construction

    ANS: C PTS: 1 REF: p. 38 MSC: Higher Order

43. The Green Mile project has just successfully completed its penetration test and the business lead was pleased with the result. Which is the next stage for the project?
    a. systems design
    b. systems construction
    c. systems implementation
    d. systems maintenance and review

    ANS: C PTS: 1 REF: p. 38 MSC: Higher Order

44. What is it called when an organization hires an outside company to perform some or all of a systems development project?
    a. global import
    b. off shoring
    c. systems investigation
    d. outsourcing

    ANS: D PTS: 1 REF: p. 39 MSC: Remember

45. Which phase of systems development aims to gain a clear understanding of the problem to be solved or the opportunity to be addressed?
    a. systems analysis
    b. systems investigation
    c. systems design
    d. systems implementation

    ANS: B PTS: 1 REF: p. 39 MSC: Remember

46. The ability of an organization to achieve its goals is often a function of which of the following?
    a. the organization's finances
    b. the organization's culture
    c. the organization's ability to adapt
    d. the organization's corporate responsibility

    ANS: B PTS: 1 REF: p. 40 MSC: Remember

TRUE/FALSE

1. Computers are required to organize or process data.

   ANS: F PTS: 1 REF: p. 4

2. Information and data are essentially the same.

   ANS: F PTS: 1 REF: p. 6

3. Using a computer to forecast future sales and order more inventory before a shortage can occur is an example of information system feedback.

   ANS: T PTS: 1 REF: p. 11

4. A CBIS is a single set of hardware, software, databases, telecommunications, people, and procedures configured to collect, manipulate, store, and process data into information.

   ANS: T PTS: 1 REF: p. 12

5. The technology infrastructure is a set of shared IS resources that form the foundation of each computer-based information system.

   ANS: T PTS: 1 REF: p. 12

6. Today's more advanced processor chips have the power of 1990s-era supercomputers.

   ANS: T PTS: 1 REF: p. 13

7. Applications software, such as Windows Vista and Windows Seven, control basic computer operations, such as start-up and printing.

   ANS: F PTS: 1 REF: p. 13

8. Private cloud computing applications are available to everyone.

   ANS: F PTS: 1 REF: p. 13

9. Information about the documents on the Web and access to these documents are controlled and provided by tens of thousands of special computers called Web servers.

   ANS: T PTS: 1 REF: p. 14

10. Transaction processing systems were developed in the 1950s.

ANS: T PTS: 1 REF: p. 16

11. C2C stands for computer-to-computer e-commerce.

ANS: F PTS: 1 REF: p. 16

12. DSS systems were first developed over 30 years ago.

ANS: T PTS: 1 REF: p. 16

13. Mobile commerce is the use of mobile, wireless devices to place orders and conduct business.

ANS: T PTS: 1 REF: p. 16

14. While technologically advanced, e-commerce unfortunately offers few advantages for streamlining work activities.

ANS: F PTS: 1 REF: p. 16

15. Electronic business goes beyond e-commerce and e-procurement by using information systems and the Internet to perform all business-related tasks and functions.

ANS: T PTS: 1 REF: p. 16

16. Computers have been used to perform common business applications since the 1950s.

ANS: T PTS: 1 REF: p. 16

17. A virtual reality system is an example of one of the most common types of information systems.

ANS: F PTS: 1 REF: p. 17

18. Companies soon learned that they could use the data stored in transaction processing systems to make better decisions.

ANS: T PTS: 1 REF: p. 17

19. A decision support system is an organized collection of people, procedures, software, databases, and devices that provides routine information to managers and decision makers.

ANS: F PTS: 1 REF: p. 17

20. A MIS typically provides standard reports generated with data and information from a TPS or ERP system.

ANS: T PTS: 1 REF: p. 17

21. MIS reports may be generated daily, weekly, monthly, or yearly.

ANS: T PTS: 1 REF: p. 17

22. A DSS can include a collection of models to support a decision maker, a collection of facts, and procedures that help decision makers interact with the DSS.

ANS: T PTS: 1 REF: p. 17

23. DSS became more widely used in the 1980s as a result of dramatic improvements in technology.

ANS: T PTS: 1 REF: p. 17

24. With an AI system, the computer takes on the characteristics of human intelligence.

ANS: T PTS: 1 REF: p. 17

25. Directional sound, tactile and force feedback devices, voice recognition, and other technologies are used to enrich the virtual reality experience.

ANS: T PTS: 1 REF: p. 17

26. Neural networks give the computer the ability to make suggestions and function like an expert in a particular field, helping enhance the performance of a novice user.

ANS: F PTS: 1 REF: p. 18

27. The unique value of neural networks is that they allow organizations to capture and use the wisdom of experts and specialists.

ANS: F PTS: 1 REF: p. 18

28. Depending on the customer, value might mean lower prices, better service, higher quality, or uniqueness of the product.

ANS: T PTS: 1 REF: p. 19

29. Customer relationship management software often uses a variety of information sources.

ANS: T PTS: 1 REF: p. 20

30. The IS support organization is a multi-faceted group, providing user assistance in hardware and software acquisition and use, data administration, user training and assistance, and software development.

ANS: F PTS: 1 REF: p. 23

31. Most IS careers involve working in a project team.

ANS: T PTS: 1 REF: p. 24

32. Organizational culture consists of the major understandings and assumptions of a business or other organization.

ANS: T PTS: 1 REF: p. 25

33. In some cases, top-level managers can form organization culture rapidly.

ANS: T PTS: 1 REF: p. 26

34. Sustaining change almost always harms an organization while disruptive change almost always helps an organization.

ANS: F PTS: 1 REF: p. 26

35. Disruptive change often results in new, successful companies and offers consumers the potential of new products and services at reduced costs with superior performance.

ANS: T PTS: 1 REF: p. 26

36. The degree to which an organization supports the use of an information system is not an important factor that can lead to better attitudes about it.

ANS: F PTS: 1 REF: p. 26

37. Studies have shown that user satisfaction and technology acceptance are not particularly significant in healthcare, as professionals in this industry are quick to learn and accept new technology.

ANS: F PTS: 1 REF: p. 28

38. An organization can have a high level of infusion in one part of its operations and a low level of diffusion overall.

ANS: T PTS: 1 REF: p. 29

39. If an organization has a high level of both diffusion and infusion, with computers throughout the organization, information systems are being used to their full potential.

ANS: F PTS: 1 REF: p. 29

40. Reengineering and continuous improvement mean the same thing.

ANS: F PTS: 1 REF: p. 29

41. One organization can spend less than another on information systems, but still get better value.

ANS: T PTS: 1 REF: p. 31

42. According to Porter's five-forces model, the more these forces combine in any instance, the less likely it is that firms will seek competitive advantage and the less obvious the results of such an advantage will be.

ANS: F PTS: 1 REF: p. 33

43. When the threat of new market entrants is high, the desire to seek and maintain competitive advantage to dissuade new entrants is also usually high.

ANS: T PTS: 1 REF: p. 33

44. Many companies in the computer industry introduce new products and services frequently in an attempt to gain a cost leadership position.

ANS: F PTS: 1 REF: p. 34

45. Today, companies are shifting from strategic management to performance-based management of their information systems and carefully consider both strategic advantage and costs.

ANS: T PTS: 1 REF: p. 36

46. By adding a significant amount of value to their products and services, organizations ensure that they will exceed budgets and generate income losses.

ANS: F PTS: 1 REF: p. 38

47. Improved productivity can result in faster customer response, lower costs, and increased customer satisfaction.

ANS: T PTS: 1 REF: p. 38

48. ROI calculations can be complex, including investment returns over multiple years and the impact of the time value of money.

ANS: T PTS: 1 REF: p. 38

49. Information systems can help bring new products and services in less time, thus reducing time to market.

ANS: T PTS: 1 REF: p. 38

50. Because of the difficulty in determining all the costs, total cost of ownership is seldom used to plan for and maximize the value of IS investments.

ANS: F PTS: 1 REF: p. 38

51. Systems analysis defines the problems and opportunities associated with the existing system.

ANS: T PTS: 1 REF: p. 39

52. The systems development component focuses solely on the development of new information systems and seldom becomes involved in the maintenance and review of information systems.

ANS: F PTS: 1 REF: p. 39

53. The primary goal of a for-profit organization is to maximize shareholder value.

ANS: T PTS: 1 REF: p. 41

54. An organization is a system, which means that it has inputs, processing, outputs, and feedback.

ANS: T PTS: 1 REF: p. 41

55. Opportunities in information systems are available to people from foreign countries, including Russia and India.

ANS: T PTS: 1 REF: p. 46

COMPLETION

1. A(n) _____ is a formal collection of people and other resources established to accomplish a set of goals.

ANS: organization

PTS: 1 REF: p. 3

2. A(n) _____ administrator focuses on the planning, policies, and procedures regarding the use of corporate data and information.

ANS: database

PTS: 1 REF: p. 4

3. _____ data is a form of data that is represented by numbers, letters, and other characters.

ANS: Alphanumeric

PTS: 1 REF: p. 6

4. _____ is the awareness and understanding of a set of information and the ways the information can be made useful to support a specific task or reach a decision.

ANS: Knowledge

PTS: 1 REF: p. 6

5. The collection of rules, procedures, and relationships that must be followed by an expert system to achieve the proper outcome is contained in the expert system's _____.

ANS: knowledge base

PTS: 1 REF: p. 7

6. _____ workers are people who create, use, and disseminate knowledge.

ANS: Knowledge

PTS: 1 REF: p. 7

7. Resources such as materials, people, and money serve as _____ to the organization from the environment.

   ANS: inputs

   PTS: 1 REF: p. 9

8. In information systems, _____ means converting or transforming data into useful outputs.

   ANS: processing

   PTS: 1 REF: p. 11

9. In information systems, the activity of gathering and capturing raw data is called _____.

   ANS: input

   PTS: 1 REF: p. 11

10. Predicting future events to avoid problems is called _____.

    ANS: forecasting

    PTS: 1 REF: p. 12

11. _____ refers to hardware, software, databases, and telecommunications.

    ANS: Information technology

    PTS: 1 REF: p. 12

12. CBIS stands for _____.

    ANS: computer-based information system

    PTS: 1 REF: p. 12

13. A(n) _____ is an organized collection of facts and information, typically consisting of two or more related files.

    ANS: database

    PTS: 1 REF: p. 13

14. The _____ is the world's largest computer network, consisting of thousands of interconnected networks, all freely exchanging information.

    ANS: Internet

    PTS: 1 REF: p. 13

15. _____ allows people to get the information they need from the Internet instead of from desktop or corporate computers.

ANS: Cloud computing

PTS: 1 REF: p. 13

16. _____ include the strategies, policies, methods, and rules for using the CBIS.

ANS: Procedures

PTS: 1 REF: p. 13

17. Although most software can be installed from CDs, many of today's software packages can be downloaded from the _____.

ANS: Internet

PTS: 1 REF: p. 14

18. The _____ is a network of links on the Internet to documents containing text, graphics, video, and sound.

ANS: World Wide Web, or Web

PTS: 1 REF: p. 14

19. The technology used to create the Internet is also being applied within companies and organizations to create _____, which allow people in an organization to exchange information and work on projects.

ANS: intranets

PTS: 1 REF: p. 14

20. _____ involves any business transactions executed electronically between companies.

ANS: E-commerce

PTS: 1 REF: p. 16

21. An organized collection of people, procedures, software, databases, and devices used to record completed business transactions is called a(n) _____.

ANS: transaction processing system

PTS: 1 REF: p. 16

22. A(n) _____ is a set of integrated programs that manages the vital business operations for an entire multi-site, global organization.

ANS: enterprise resource planning system

PTS: 1 REF: p. 16

23. Customers, suppliers, managers, shareholders, and employees are all examples of _____ of the organization.

ANS: stakeholders

PTS: 1 REF: p. 16

24. The focus of a DSS is on making effective _____ and helping a manager do the right thing.

ANS: decisions

PTS: 1 REF: p. 17

25. A system to create, store, share, and use the organization's knowledge and experience is called a(n) _____.

ANS: knowledge management system

PTS: 1 REF: p. 17

26. The IS organization has three primary responsibilities including operations, systems development, and _____.

ANS: support

PTS: 1 REF: p. 18

27. _____ is an area of artificial intelligence in which machines take over complex, dangerous, routine, or boring tasks.

ANS: Robotics

PTS: 1 REF: p. 18

28. Combining a value chain with _____ inventory means companies can deliver materials or parts when they are needed.

ANS: just-in-time

PTS: 1 REF: p. 19

29. Two key elements of managing the value chain include managing the supply chain and _____.

ANS: customer relationships

PTS: 1 REF: p. 19

30. _____, a German software company, is one of the leading suppliers of ERP software.

ANS: SAP

PTS: 1 REF: p. 21

31. _____ is a set of major understandings and assumptions shared by a group, such as within an ethic group or country.

ANS: Culture

PTS: 1 REF: p. 25

32. Organizational _____ deals with how organizations plan for, implement, and handle change.

ANS: change

PTS: 1 REF: p. 26

33. The _____ model specifies the factors that can lead to better understanding of the information system, along with higher acceptance and usage of the system in an organization.

ANS: technology acceptance

PTS: 1 REF: p. 28

34. The design department of an architectural firm that uses computers in all aspects of its design work would be said to have a high level of _____.

ANS: infusion

PTS: 1 REF: p. 29

35. How appropriate and useful the information system is to the tasks or activities being performed is called the _____ and can lead to greater performance and profitability.

ANS: Task-Technology Fit

PTS: 1 REF: p. 30

36. A(n) _____ is a significant and (ideally) long-term benefit to a company over its competition.

ANS: competitive advantage

PTS: 1 REF: p. 31

37. Porter's _____ model is a widely accepted model that identifies the key factors that can lead to attainment of competitive advantage.

ANS: five-forces

PTS: 1 REF: p. 33

38. When the bargaining power of suppliers is strong, companies need to increase their competitive _____ to retain their customers.

ANS: advantage

PTS: 1 REF: p. 33

39. To be competitive, an organization must also _____ its IS strategy with general business strategies and objectives.

ANS: align

PTS: 1 REF: p. 33

40. The _____ strategy for competitive advantage involves producing a variety of products, giving customers more choices, or delivering higher quality products and services.

ANS: differentiation

PTS: 1 REF: p. 34

41. A(n) _____, also called a strategic partnership, is an agreement between two or more companies that involves the joint production and distribution of goods and services.

ANS: strategic alliance

PTS: 1 REF: p. 35

42. _____ = (output / input) x 100%

ANS: Productivity

PTS: 1 REF: p. 37

43. _____ is the sum of all costs over the life of the information system.

ANS: Total cost of ownership

PTS: 1 REF: p. 38

44. During the _____ phase of the systems development process, the project team determines how the new system should be developed to meet the business needs defined during systems analysis.

ANS: systems design

PTS: 1 REF: p. 39

ESSAY

1. Briefly distinguish between data, information, and knowledge.

ANS:

Data consists of raw facts, such as employee numbers or total hours worked in a week. Information is a collection of facts organized and processed so that they have additional value beyond the value of individual facts. Turning data into information is a process, a set of logically-related tasks performed to achieve a defined outcome. The process of defining relationships among data to create useful information requires knowledge. Knowledge is the awareness and understanding of a set of information and the ways that information can be made useful to support a specific task or reach a decision.

PTS: 1 REF: p. 6-7

2. Define the term information system and briefly identify its fundamental components.

ANS:

An information system is a set of interrelated elements or components that collect, manipulate, store, and disseminate data and provide for a corrective reaction to meet an objective. The fundamental components include input, processing, output, and feedback. Input is the activity of gathering and capturing raw data. Processing involves converting data into useful output. It can be done manually or by using a computer. Output involves producing useful information, often in the form of documents and reports. Feedback is information from the system that is used to make changes to input or processing activities.

PTS: 1 REF: p. 10-11

3. What is meant by an organization's technology infrastructure and what are its components?

ANS:

An organization's technology infrastructure is a set of shared IS resources that form the foundation of each of its computer-based information systems. It includes all the hardware, software, databases, telecommunications, people, and procedures that are configured to collect, manipulate, store, and process data into information.

PTS: 1 REF: p. 12

4. Distinguish between the Internet and the Web.

   ANS:

   The Internet is the world's largest network consisting of thousands of interconnected networks, all freely exchanging information. People use the Internet to research information, buy and sell products and services, make travel arrangements, conduct banking, download music and videos, read books, and listen to radio programs, among other activities. The Web is one of many services available over the Internet. It is a network of links on the Internet to documents containing text, graphics, video, and sound. Information about the documents and access to them are controlled and provided by tens of thousands of special computers called Web servers.

   PTS: 1 REF: p. 14

5. Distinguish between an MIS and DSS.

   ANS:

   An MIS provides routine information to managers and decision makers. The first MIS systems were developed in the 1960s and provide standard reports generated with data and information from a TPS or ERP system. DSS systems were first developed in the 1980s and used to support problem-specific decision making. The DSS employs a collection of models to support the decision maker, a collection of facts, and systems and procedures that help users interact with it.

   PTS: 1 REF: p. 16

6. Define the term value chain and briefly discuss the purpose of the supply chain component.

   ANS:

   The value chain is a series of activities that includes inbound logistics, warehouse and storage, production and manufacturing, finished product storage, outbound logistics, marketing and sales, and customer service. An analysis of each activity of the value chain of an organization reveals how to increase the value perceived by the customer. The supply chain component determines what supplies are required for the value chain, what quantities are needed to meet customer demand, how the supplies should be manufactured into finished goods and services, and how the shipment of supplies and products to customers should be scheduled, maintained, and controlled.

   PTS: 1 REF: p. 19

7. Explain the difference between sustaining and disruptive change.

   ANS:

   Sustaining change can help an organization improve its current operations, such as improving the supply of raw materials, the production process, and the products and services it offers. Disruptive change can completely transform an organization or industry or create new ones. Disruptive technologies may not originally have good performance, low cost, or even strong customer demand. Over time, however, they often replace existing technologies.

   PTS: 1 REF: p. 26

8. Briefly discuss the technology acceptance model and its importance.

   ANS:

   The technology acceptance model specifies the factors that can lead to better attitudes about an information system, along with higher acceptance and usage of the system. These factors include the perceived usefulness of the technology, the ease of its use, the quality of the information system, and the degree to which the organization supports its use.

   PTS: 1 REF: p. 28-29

9. What is competitive advantage? Identify five forces that cause firms to seek competitive advantage.

   ANS:

   Competitive advantage is a significant and long-term benefit to a company over its competition and can result in higher-quality products, better customer service, and lower costs. Michael Porter identified five forces. The more these forces combine in any instance, the more likely firms will seek competitive advantage and the more dramatic the results of such an advantage will be. These five forces include 1) rivalry among existing competitors, 2) the threat of new entrants, 3) the threat of substitute products and services, 4) the bargaining power of suppliers, and 5) the bargaining power of suppliers.

   PTS: 1 REF: p. 31-33

10. What are some of the resources and strategies that you can use to have a career in information systems?

    ANS:

    http://www.workopolis.com/
    This is a very powerful resource where one can find job postings as well as posting one's resume.

    http://www.monster.ca/
    This is also a popular site where one can search for jobs by company, location, and industry categories.

    http://www.allstarjobs.ca/
    This site provides another alternative to search for jobs across the country by province and territory.

    http://www.it-careers.ca/
    This site focuses on IT Jobs.

    STRATEGIES
    There is no magic formula to finding a career in IT. However, in Canada, we do have a lot of resources at the federal, provincial, and municipal levels. There are also government programs that are targeted towards the unemployed workforce. There are also placement opportunities where one can learn, as well as get Canadian experience. For those of you who are new immigrants and have previous training, you can be hired as Internationally Trained Individuals. This is a program that places those individuals for a period of six months in various public and private companies.

    www.careeredge.ca

    PTS: 1 REF: p. 70-71