

***Introduction to Information Systems, 5e (Wallace)***

**Chapter 1 Information Systems and People**

1) Information systems should meet compliance standards set by governments and other regulatory agencies, which may change from time to time and also vary by country or state.

Answer: TRUE

AACSB: Information Technology

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Easy

2) Commercially produced information systems are inept at handling back-office information needs.

Answer: FALSE

AACSB: Information Technology

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Easy

3) Information systems support data-driven decision making which draws on a large amount of data to reveal important trends and patterns.

Answer: TRUE

AACSB: Information Technology

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Easy

4) Business intelligence refers to all the information available to managers, including information from sources beyond the organization's own information systems.

Answer: TRUE

AACSB: Information Technology

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Easy

5) The development and application of innovative information systems improve the operations of an organization; however, they do not lead to any competitive advantage.

Answer: FALSE

AACSB: Information Technology

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Easy

6) Binary code for SOS is an example of knowledge.

Answer: FALSE

AACSB: Information Technology

Chapter LO: 1.2 Compare the terms data, information, and knowledge, and describe three characteristics that make information valuable.

Difficulty: Moderate

7) Social network usage has exploded in the number of users.

Answer: TRUE

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Easy

8) Social network sites are for personal use and are not used in organizations.

Answer: FALSE

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Easy

9) The binary code for SOS (01010011 01001111 01010011) can be considered data, while the code's meaning, interpreted as "HELP!" is knowledge.

Answer: TRUE

AACSB: Information Technology

Chapter LO: 1.2 Compare the terms data, information, and knowledge, and describe three characteristics that make information valuable.

Difficulty: Easy

10) A news agency requires an immediate account of the casualties in an airplane accident for a news alert. In this situation, a quick, approximate report is preferred rather than a detailed, accurate report that requires considerable time to prepare.

Answer: TRUE

AACSB: Information Technology; Analytical Thinking

Chapter LO: 1.2 Compare the terms data, information, and knowledge, and describe three characteristics that make information valuable.

Difficulty: Moderate

11) Timeliness adds value to information as a means of avoiding bias.

Answer: FALSE

AACSB: Information Technology; Analytical Thinking

Chapter LO: 1.2 Compare the terms data, information, and knowledge, and describe three characteristics that make information valuable.

Difficulty: Easy

12) Systems such as Wikipedia, eBay, Craigslist, YouTube, Facebook, and Twitter would not exist without extensive user-generated content from the community.

Answer: TRUE

AACSB: Information Technology

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Moderate

13) Organizations implement information systems to support and streamline business processes, but never to eliminate them.

Answer: FALSE

AACSB: Information Technology

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Moderate

14) If there is a pending legal case, businesses have a duty to destroy electronic files that might be relevant, including email.

Answer: FALSE

AACSB: Information Technology

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Moderate

15) Analysts can use software to simulate business processes and conduct "what if" experiments to assist with the analysis.

Answer: TRUE

AACSB: Information Technology; Analytical Thinking

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Easy

16) The study of information systems—how people, technology, processes, and data work together—is referred to as management information systems (MIS).

Answer: TRUE

AACSB: Information Technology

Chapter LO: 1.4 Identify several research areas in the discipline of management information systems (MIS).

Difficulty: Easy

17) The psychology of group dynamics invariably shifts positively when team members use online tools to communicate.

Answer: FALSE

AACSB: Information Technology

Chapter LO: 1.4 Identify several research areas in the discipline of management information systems (MIS).

Difficulty: Easy

18) In certain situations, such as fund-raising for an NGO, information systems are not useful.

Answer: FALSE

AACSB: Information Technology

Chapter LO: 1.5 Provide examples of how various organizations and their information technology departments depend on information systems knowledge.

Difficulty: Easy

19) The chief information officer (CIO) heads the IT department in most organizations.

Answer: TRUE

AACSB: Information Technology

Chapter LO: 1.5 Provide examples of how various organizations and their information technology departments depend on information systems knowledge.

Difficulty: Easy

20) Disconnects in communication between IT staff and others in the organization often arise because of the jargon barrier.

Answer: TRUE

AACSB: Information Technology

Chapter LO: 1.5 Provide examples of how various organizations and their information technology departments depend on information systems knowledge.

Difficulty: Easy

21) The close integration of information technology and strategy with every aspect of business means that every employee could be considered an "information officer."

Answer: TRUE

AACSB: Information Technology

Chapter LO: 1.5 Provide examples of how various organizations and their information technology departments depend on information systems knowledge.

Difficulty: Moderate

22) Compared to older information systems, privacy breaches in modern information systems involve less risk and affect fewer people.

Answer: FALSE

AACSB: Information Technology

Chapter LO: 1.6 Explain how information systems present both promises and perils, and also pose ethical questions.

Difficulty: Easy

23) Which of the following is a function of accounting information systems?

A) tracking accounts receivable

B) designing service delivery systems

C) developing induction processes for new hires

D) creating business diversification strategies

Answer: A

AACSB: Information Technology

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Easy

24) Which of the following events led to tighter standards for accounting practices and a demand for more transparency in reporting?

- A) the global financial crisis of 2009
- B) the decreasing popularity of net-banking
- C) the Great Depression
- D) the increasing nationalization of private assets

Answer: A

AACSB: Information Technology

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Easy

25) Which of the following is a function of operations management?

- A) building and maintaining customer relationships and supporting the processes that underlie them
- B) improvement of systems and processes which the organization uses to deliver its goods and services
- C) formulating a strategy for business diversification
- D) introducing a new product

Answer: B

AACSB: Information Technology

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Moderate

26) Which of the following statements is true of information systems?

- A) Information systems are involved in tracking employee payroll, taxes, benefits, and timesheets.
- B) Information systems are inadequate at tracking movable assets, off-site resources, and inventories.
- C) Most organizations don't require information systems to handle their back-office information needs.
- D) Organizations avoid moving information system functions to service providers or outsourcing them.

Answer: A

AACSB: Information Technology

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Moderate

27) The use of information systems in achieving excellence in operations can result in \_\_\_\_\_.

- A) higher cost savings
- B) improved organizational justice
- C) increased brand dilution
- D) increased employee turnover

Answer: A

AACSB: Information Technology

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Easy

28) Customer relationship management systems \_\_\_\_\_.

- A) build customer relationships, enhance loyalty, and manage interactions with customers.
- B) need a sales system that identifies each product in the shopper's basket, tallies the total, feeds the data to the inventory system, and accepts various kinds of payment
- C) focus mainly on supply chain issues.
- D) offer an alternative to brick-and-mortar retail stores

Answer: A

AACSB: Information Technology; Analytical Thinking

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Easy

29) The success of web-based shopping hinges on \_\_\_\_\_.

- A) building stronger customer relationships and identifying the unique needs of each customer
- B) building a reputation for exclusivity by offering a limited number and smaller variety of goods
- C) denying customers the opportunity to return goods.
- D) reducing security and identification checks and increasing the modes of payment available

Answer: A

AACSB: Information Technology

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Moderate

30) How do web-based online self-service applications transform an organization's relationships with its customers?

- A) They reduce customer-service facilities available to a customer but increase the quality of available facilities.
- B) They help educate customers on the business processes of the company.
- C) They ensure that no customers ever have to phone the company.
- D) They free customers from many time-consuming phone calls.

Answer: D

AACSB: Information Technology

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Moderate

31) The information managers use to make decisions, which can come from many sources beyond the organization's own information systems, is called \_\_\_\_\_.

- A) intuitive decision making
- B) social networking
- C) data-driven decision making
- D) business intelligence

Answer: D

AACSB: Information Technology

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Easy

32) Decision making that draws on billions of pieces of aggregated information to reveal important trends and patterns is called \_\_\_\_\_.

- A) intuitive decision making
- B) uninformed decision making
- C) unstructured decision making
- D) data-driven decision making

Answer: D

AACSB: Information Technology

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Easy

33) Walking Together, an NGO, uses historical trends to determine in which month the amount given as donations is the highest, and then sets the dates for its donation drives based on the trends. This is an example of \_\_\_\_\_.

- A) data-driven decision making
- B) intuitive decision making
- C) customer relationship management
- D) business process reengineering

Answer: A

AACSB: Information Technology; Analytical Thinking

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Difficult

34) \_\_\_\_\_ refers to the information that managers draw from both the company's own information systems and external sources to make decisions.

- A) Business intelligence
- B) Entrepreneurship
- C) Corporate governance
- D) Artificial intelligence

Answer: A

AACSB: Information Technology

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Easy

35) Play-e-ball, a company that creates games for gaming consoles, gathers data from the information systems of its partners, suppliers, and distributors. It uses this data along with internal data to develop different games for different consumer demographics, and it targets the most profitable segments. Which of the following is illustrated in this scenario?

- A) user-generated content
- B) business intelligence
- C) inventory management
- D) virtual collaboration

Answer: B

AACSB: Information Technology; Analytical Thinking

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Difficult

36) Which of the following reasons led to the popularity of social networking sites?

- A) These sites could be used without the internet or WiFi connections.
- B) These sites only supported asynchronous communication.
- C) These sites did not require any security.
- D) These sites enabled the sharing of news, photos, videos, and tidbits easily.

Answer: D

AACSB: Information Technology

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Moderate

37) Which of the following is a concern regarding information systems that support virtual teamwork?

- A) the lack of social networking capabilities
- B) the restriction of simultaneous users
- C) the relative stage of infancy of such systems
- D) the inability to use video conferencing

Answer: C

AACSB: Information Technology

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Moderate

38) Which of the following statements is true of information systems that support collaborative human activities?

- A) These information systems do not yet have tools for document management, project updates, issue tracking, and shared calendars.
- B) These systems, besides being complex and difficult to implement, offer minimal returns on investment.
- C) These systems, being in their early stages, offer a framework for more improvements and features to be included.
- D) These systems are equipped with enough sophisticated technology to replace mature and complex systems such as decision support systems.

Answer: C

AACSB: Information Technology

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Moderate

39) Cadmia University is planning to start an online course called "Cultural diversities." The university wants to develop an information system to support virtual, collaborative education. Which of the following factors should be taken into account when developing the new system?

- A) the way students interact in an actual classroom setting
- B) the average time spent online by students
- C) the negative impact of social networking sites
- D) the religious sentiments of the students

Answer: A

AACSB: Information Technology; Analytical Thinking

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Difficult



40) Anything that gives a firm a lead over its rivals is called \_\_\_\_\_.

- A) economies of scale
- B) business growth
- C) break-even
- D) competitive advantage

Answer: D

AACSB: Analytic Thinking

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Easy

41) Which of the following statements is true of information systems (IS)?

- A) Despite the success of social networking, information systems have failed at improving virtual collaboration.
- B) The ability to provide companies with a competitive advantage makes IS a core feature of a company's strategic vision.
- C) IS, although versatile, is not beneficial for government agencies or voluntary organizations.
- D) Information systems are not a fundamental part of a company's strategic vision.

Answer: B

AACSB: Information Technology

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Moderate

42) Navi-devices Inc., a manufacturer of portable navigation devices, provides free traffic updates and identifies the nearest parking spaces available with its latest device. It accomplishes this unique innovation by using GPS coordinates of subscribers and traffic data from radio stations. Which of the following is the most likely impact of this strategy?

- A) It will improve the company's operations management.
- B) It will improve their customer relationship management.
- C) It will lower their total revenue.
- D) It will provide the company with a competitive advantage.

Answer: D

AACSB: Information Technology; Analytical Thinking

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Difficult

43) In Kansas, an athletics association is partnered with a university to identify talented youth across the state. They use an online test to ensure easy accessibility to students across the state. This is an illustration of \_\_\_\_\_.

- A) data-driven decision making
- B) strategic use of information systems
- C) use of business intelligence
- D) use of information systems for revenue generation

Answer: B

AACSB: Information Technology; Analytical Thinking

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Difficult

44) Many students automate their email inboxes such that incoming emails are filtered with all junk emails sent directly to the spam folder. This saves time because they do not have to sort through the emails to find work-related emails. They also create a group mailing list for teams that makes it easier to send emails to the entire team instead of including their email addresses individually. In this scenario, the students are using information systems tools to \_\_\_\_\_.

- A) improve individual productivity
- B) keep his information secure
- C) transform his information
- D) make data-driven decisions

Answer: A

AACSB: Information Technology; Analytical Thinking

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Difficult

45) Which of the following refers to individual facts or pieces of information?

- A) data
- B) bytes
- C) insights
- D) knowledge

Answer: A

AACSB: Information Technology

Chapter LO: 1.2 Compare the terms data, information, and knowledge, and describe three characteristics that make information valuable.

Difficulty: Easy

46) Which of the following refers to facts that are assembled and analyzed to add meaning and usefulness?

- A) insights
- B) information
- C) content
- D) systems

Answer: B

AACSB: Information Technology

Chapter LO: 1.2 Compare the terms data, information, and knowledge, and describe three characteristics that make information valuable.

Difficulty: Easy

47) On the continuum from data to information to knowledge, a single high-temperature reading of a patient at Patient First, a 24-hour walk-in clinic in Florida, is a piece of \_\_\_\_\_.

- A) knowledge
- B) intuition
- C) evidence
- D) data

Answer: D

AACSB: Information Technology

Chapter LO: 1.2 Compare the terms data, information, and knowledge, and describe three characteristics that make information valuable.

Difficulty: Moderate

48) Mark, a 22-year-old with a viral infection, is admitted to a hospital. On the second day post-admission, a nurse takes a single high-temperature reading and enters it into the patient records information system. This single reading, when combined with Mark's other symptoms and previous medical records, becomes \_\_\_\_\_.

- A) business intelligence
- B) data
- C) information
- D) analysis

Answer: C

AACSB: Information Technology; Analytical Thinking

Chapter LO: 1.2 Compare the terms data, information, and knowledge, and describe three characteristics that make information valuable.

Difficulty: Difficult

49) An information system is used to centralize information related to voting behavior in Texas. One of the indicators measured by the system is the average waiting time to vote. The time people spend waiting in line to vote at each polling booth is aggregated for each region. This is then used to create a graph that depicts the average waiting times by location. According to this scenario, which of the following refers to information on the continuum of data to information to knowledge?

- A) the waiting time of each voter
- B) a single cell in the information system's database
- C) the waiting time of a specific polling booth
- D) the graph with average waiting times

Answer: D

AACSB: Information Technology; Analytical Thinking

Chapter LO: 1.2 Compare the terms data, information, and knowledge, and describe three characteristics that make information valuable.

Difficulty: Moderate

50) Robert, a stockbroker, recommends that his clients buy and hold stock of Andersonz Corp. for a minimum period of six months and then sell them. His recommendation is based on a graph of the firm's fluctuating performance for the past three quarters and an analysis of other information. The basis of Robert's recommendations can be termed as \_\_\_\_\_.

- A) instinct
- B) facts
- C) knowledge
- D) assumptions

Answer: C

AACSB: Information Technology; Analytical Thinking

Chapter LO: 1.2 Compare the terms data, information, and knowledge, and describe three characteristics that make information valuable.

Difficulty: Difficult

51) Which of the following statements is true of data, information, and knowledge?

- A) They blend together and form a continuum.
- B) They are mutually exclusive categories.
- C) They fail to help in understanding how information systems work.
- D) They are diverse terms and may not be used interchangeably.

Answer: A

AACSB: Information Technology

Chapter LO: 1.2 Compare the terms data, information, and knowledge, and describe three characteristics that make information valuable.

Difficulty: Moderate

52) People pay a monthly subscription fee to financial service companies to get current stock prices that are updated every second. Which of the following characteristics of information does this highlight?

- A) timeliness
- B) accuracy
- C) completeness
- D) relevance

Answer: A

AACSB: Information Technology

Chapter LO: 1.2 Compare the terms data, information, and knowledge, and describe three characteristics that make information valuable.

Difficulty: Easy

53) Chloe's, a chain of supermarkets, is conducting a customer survey in its largest store, which is in California. Customers are asked to fill out questionnaires as they enter the store. The questionnaire is divided into sections that poll customers on the store's products and the e-commerce website. Which of the following is a drawback of the data collected through this poll?

- A) It is not authentic.
- B) It is incomplete because it does not poll e-commerce customers.
- C) It is not timely.
- D) It is an unscientific method of collecting data.

Answer: B

AACSB: Information Technology; Analytical Thinking

Chapter LO: 1.2 Compare the terms data, information, and knowledge, and describe three characteristics that make information valuable.

Difficulty: Difficult

54) \_\_\_\_\_ adds considerable value to information, particularly to avoid bias or spin.

- A) Timeliness
- B) Accuracy
- C) Relevance
- D) Completeness

Answer: D

AACSB: Information Technology

Chapter LO: 1.2 Compare the terms data, information, and knowledge, and describe three characteristics that make information valuable.

Difficulty: Easy

55) Which of the following is a critical component of an information system?

- A) culture
- B) demographics
- C) processes
- D) ideas

Answer: C

AACSB: Information Technology

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Easy

56) In an organization that is open to ideas from all employees, \_\_\_\_\_.

- A) it becomes tougher to implement new information systems
- B) user-generated content is strictly restricted
- C) information systems based on ideas from employees will fail
- D) innovative concepts for information systems can come from any level

Answer: D

AACSB: Information Technology

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Moderate

57) Which of the following statements is true of a successful information technology team in an organization?

- A) It uses focus groups exclusively to generate ideas rather than relying on other employees.
- B) It works closely with the staff from other functional areas of the organization.
- C) It discourages contributions and feedback from the users.
- D) It uses specialized jargon in its communications with other employees.

Answer: B

AACSB: Information Technology

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Moderate

58) Purple Stones, an interior decorator, has an online store to enable the quicker purchase of its products. The website allows users to post reviews of products. This helps other customers evaluate the quality of a product before buying it. Which of the following is illustrated in this scenario?

- A) competitive advantage
- B) artificial intelligence
- C) user-generated content
- D) economies of scale

Answer: C

AACSB: Information Technology; Analytical Thinking

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Difficult

59) Which of the following websites predominantly features user-generated content?

- A) Flavors, an online shopping store that allows users to edit their profiles after registration
- B) WritingTips, a website that offers tips to amateur writers
- C) PlayPen, an online store that sells kids' toys
- D) Foodmania, a website that allows its users to post their own food recipes and upload photos

Answer: D

AACSB: Information Technology; Analytical Thinking

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Difficult

60) Which of the following statements is true about user-generated content?

- A) It is driven by people and technology and does not require processes and data.
- B) It powers the generation of content in what has come to be known as Web 1.0.
- C) It makes up most of the information in systems such as eBay, Craigslist, and Wikipedia.
- D) It is often produced by professionals with the expectation of profit or remuneration.

Answer: C

AACSB: Information Technology

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Moderate

61) Which of the following statements is true about information and communications technology?

- A) Increasingly, wireless transmission is favored because of its speed and flexibility although extra costs are incurred.
- B) Information and communications technology is a separate category and does not come under the IT component.
- C) Many developing countries that can't afford to install wireless transmissions are transforming their communications and expanding internet access by building copper-wired networks.
- D) The main role of the telecommunications component involves moving electronic signals from one place to another.

Answer: D

AACSB: Information Technology

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Moderate

62) Which of the following statements is true of information technology (IT)?

- A) Information technology includes hardware and software but excludes telecommunications.
- B) Anything capable of collecting, processing, storing, or displaying electronic data is potentially part of an information system.
- C) Telecommunications and networks should not be confused as a part of IT.
- D) The internet and the World Wide Web have hampered software creativity.

Answer: B

AACSB: Information Technology

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Moderate

63) The multitude of servers in Google's windowless data centers serves as an example that represents \_\_\_\_\_.

- A) business processes
- B) business intelligence
- C) information technology
- D) user-generated content

Answer: C

AACSB: Information Technology

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Easy

64) \_\_\_\_\_ is a set of activities designed to achieve a task.

- A) Information technology
- B) Competitive advantage
- C) User-generated content
- D) Business process

Answer: D

AACSB: Information Technology

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Easy

65) The function of which of the following components of an information system is to oversee if every data transaction made by an employee is logged in the information system?

- A) strategy
- B) technology
- C) process
- D) data

Answer: C

AACSB: Information Technology; Analytical Thinking

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Easy

66) Which of the following questions pertains to maintaining security in an information system?

- A) Should the information system require passwords to meet certain standards?
- B) Should the information system authenticate users?
- C) Should the information system authorize access rights for users?
- D) All of the above.

Answer: D

AACSB: Information Technology

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Moderate

67) How are policies enforced in information systems?

- A) Each user can select the policies to be enforced on the individual's account.
- B) Information systems come with built-in policies that are installed into the system.
- C) The operational-level employees decide the policies that need to be enforced in an information system.
- D) Managers develop policies that are enforced by the information systems.

Answer: D

AACSB: Information Technology

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Moderate



68) Which of the following is a function of the telecommunications component?

- A) protecting the anonymity of users
- B) routing traffic to different locations
- C) enabling client-side processing of data
- D) providing better systems to store electronic data

Answer: B

AACSB: Information Technology

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Moderate

69) Which of the following best describes a business process?

- A) It is a set of activities designed to achieve a task.
- B) It is an algorithm in an information system.
- C) It is a set of security policies that governs a business.
- D) It refers to an idea that guarantees a firm a lead over its rivals.

Answer: A

AACSB: Information Technology

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Easy

70) How does implementing information systems impact business processes?

- A) It eliminates the need for human intervention in a business process.
- B) It promotes a decentralized approach to information management.
- C) It helps streamline business processes or eliminate ones that aren't necessary.
- D) It eliminates the need for organizations to invest in data security.

Answer: C

AACSB: Information Technology

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Moderate

71) \_\_\_\_\_ focuses on designing, optimizing, and streamlining business processes throughout the organization, taking into account the human element.

- A) Business intelligence
- B) Business process management
- C) Database warehousing
- D) Enterprise resource management

Answer: B

AACSB: Information Technology

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Easy

72) In order to safeguard individuals' sensitive information, which of the following organizations would typically restrict its employees' internet usage?

- A) a hospital
- B) a start-up IT company
- C) a travel agency
- D) a child development NGO

Answer: A

AACSB: Information Technology; Analytical Thinking

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Moderate

73) A quantitative analyst working in an investment bank will likely be able to \_\_\_\_\_.

- A) share personal pictures and videos on the bank's servers
- B) access some information on the bank's servers
- C) use the internet freely and access any website
- D) take files home on portable USB flash drives

Answer: B

AACSB: Information Technology; Analytical Thinking

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Easy

74) Which of the following is a method employed by some organizations to prevent access to USB ports in order to keep employees from copying data?

- A) using epoxy glue
- B) using a captcha
- C) performing a warm boot
- D) upgrading middleware

Answer: A

AACSB: Information Technology

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Easy

75) Which of the following has led to strict laws about retaining electronic documents?

- A) increasing corporate scandals
- B) a need for elaborate reporting
- C) a need to improve brand image of products
- D) decreasing enterprise workforce effectiveness

Answer: A

AACSB: Information Technology

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Easy

76) Data from \_\_\_\_\_ will quickly outpace virtually every other source, introducing many novel applications that rely on networked sensors.

- A) social media
- B) the Internet of Things
- C) institutional databases
- D) raw facts

Answer: B

AACSB: Information Technology

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Easy

77) Letters, numbers, money, colors, the tiny dots on an X-ray, air pollution levels, musical notes, vocal frequencies, time intervals, and much more can all be represented in \_\_\_\_\_ which allows it to be integrated into information systems, read by computer programs, and shared across systems.

- A) tables and charts
- B) digital format
- C) insights
- D) raw facts

Answer: B

AACSB: Information Technology

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Easy

78) Raw facts that are available in different formats and sizes are called \_\_\_\_\_.

- A) information
- B) data
- C) insights
- D) knowledge

Answer: B

AACSB: Information Technology

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Easy

79) Which of the following factors is the most important reason why data can be shared across different systems?

- A) the ability to convert data into digital format
- B) the creation of wireless communication technologies
- C) the use of cloud storage to store off-site data
- D) the presence of different formats of data

Answer: A

AACSB: Information Technology

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Moderate

80) Sensors that pick up geographic location, temperature, motion, wind speed, heart rate, and much more are combining to form what?

- A) User-generated content
- B) Internet 2.0
- C) Cloud storage
- D) The Internet of Things

Answer: D

AACSB: Information Technology

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Moderate

81) The three social media sites with the highest user counts include \_\_\_\_\_.

- A) Facebook, WhatsApp, YouTube
- B) Instagram, TikTok, Facebook
- C) WeChat, YouTube, LinkedIn
- D) Slack, SnapChat, YouTube

Answer: A

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Easy

82) Management of Information systems areas of research include \_\_\_\_\_.

- A) IT and ethics
- B) Data analytics
- C) Internet of Things
- D) All of the above

Answer: D

Chapter LO: 1.4 Identify several research areas in the discipline of management information systems (MIS).

Difficulty: Easy

83) A question such as "How can we draw on the immense amount of data available to develop better health outcomes?" is an example of what area of MIS research?

- A) IT and ethics
- B) artificial intelligence and machine learning
- C) data analytics
- D) Internet of Things

Answer: C

Chapter LO: 1.4 Identify several research areas in the discipline of management information systems (MIS).

Difficulty: Moderate

84) What area is an example of MIS research in a distribution company such as UPS that would be more important to pursue?

- A) privacy and security
- B) Internet of Things
- C) artificial intelligence and machine learning
- D) none of the Above

Answer: B

Chapter LO: 1.4 Identify several research areas in the discipline of management information systems (MIS).

Difficulty: Moderate

85) Research in MIS in business and organizations strives to answer questions such as \_\_\_\_\_.

- A) How can information systems be protected against threats?
- B) How can information systems enhance ethical decision making?
- C) How do e-markets affect business competition?
- D) All of the above

Answer: D

Chapter LO: 1.4 Identify several research areas in the discipline of management information systems (MIS).

Difficulty: Moderate

86) The pandemic drove new information systems such as \_\_\_\_\_.

- A) restaurants launched online ordering and curbside pick up
- B) retailers such as grocery stores creating contactless payment through apps
- C) neither
- D) both

Answer: D

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Easy

87) Retailers creating apps and curbside pickup for groceries is an example of \_\_\_\_\_.

- A) information systems response to the pandemic
- B) normal business operations
- C) operations management
- D) customer relationship management system

Answer: A

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Moderate

88) An example of the web's growing decentralization would be the growth of \_\_\_\_\_.

- A) the Internet of Things
- B) cryptocurrencies
- C) customer relationship management systems
- D) supporting technology that improves collaboration for teams

Answer: B

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Easy

89) The sensors can pick up geographic location, temperature, motion, wind speed, pollution indicators, heart rate, and much more are examples of \_\_\_\_\_.

- A) the web's decentralization
- B) information and communications technology
- C) The Internet of Things
- D) business process management

Answer: C

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Moderate

90) Which of the following statements is true of management information systems?

- A) This discipline draws interest from researchers and practitioners from the computer science field exclusively.
- B) This field has been in existence for the last fifty years.
- C) They seldom change and hence require no upgrades.
- D) They support tactical decision making at the managerial level.

Answer: D

AACSB: Information Technology

Chapter LO: 1.4 Identify several research areas in the discipline of management information systems (MIS).

Difficulty: Moderate

91) Which of the following statements is true of management information systems?

- A) The management information systems discipline had been in existence prior to the invention of the first generation computer.
- B) Management information systems lack the ability to support tactical decision making at the managerial level.
- C) The management information systems discipline draws interest from researchers and practitioners only from the computer science field.
- D) The study of information systems that includes how people, technology, processes, and data work together is called management information systems.

Answer: D

AACSB: Information Technology

Chapter LO: 1.4 Identify several research areas in the discipline of management information systems (MIS).

Difficulty: Moderate

92) Which of the following is an example of volunteering with the help of an information system?

- A) A volunteer uses his cell phone to translate books into Spanish while commuting by train.
- B) A volunteer visits a branch of the CRY organization in his city to donate money.
- C) A volunteer spends every summer teaching English in schools in Africa.
- D) A volunteer donates his old clothes to an orphanage in his neighborhood.

Answer: A

AACSB: Information Technology; Analytical Thinking

Chapter LO: 1.5 Provide examples of how various organizations and their information technology departments depend on information systems knowledge.

Difficulty: Moderate

93) Which of the following poses a hindrance to the adoption of information systems in nonprofit organizations and government?

- A) the complexity of information systems
- B) the absence of tech-savvy employees in the market
- C) the lack of sufficient funding
- D) the weak security of information systems

Answer: C

AACSB: Information Technology

Chapter LO: 1.5 Provide examples of how various organizations and their information technology departments depend on information systems knowledge.

Difficulty: Easy

94) A \_\_\_\_\_ is the person who heads the department responsible for managing and maintaining information systems, and ensuring they support the organization's strategic goals.

- A) Chief Information Officer
- B) Chief Finance Officer
- C) Chief Knowledge Officer
- D) Chief Privacy Officer

Answer: A

AACSB: Information Technology

Chapter LO: 1.5 Provide examples of how various organizations and their information technology departments depend on information systems knowledge.

Difficulty: Easy

95) Which of the following statements is true of the IT department areas?

- A) The help desk department maintains the environmentally controlled areas in which servers and communications equipment are located.
- B) The systems administration department installs, manages, and updates servers.
- C) The enterprise systems and applications department handle backups and archiving.
- D) The data center operations department provides services to internal and external customers on technology issues.

Answer: B

AACSB: Information Technology

Chapter LO: 1.5 Provide examples of how various organizations and their information technology departments depend on information systems knowledge.

Difficulty: Moderate

96) Harry, an employee of Bennett-Techno Inc., is responsible for ensuring that the technological setup in the organization supports the organization goals. Which of the following positions does Harry hold in the organization?

- A) Human Resource Director
- B) Chief Executive Officer
- C) Vice President of Sales
- D) Chief Information Officer

Answer: D

AACSB: Information Technology

Chapter LO: 1.5 Provide examples of how various organizations and their information technology departments depend on information systems knowledge.

Difficulty: Difficult



97) Which of the following is a common source of misunderstanding between IT and other departments?

- A) different levels of organization goals
- B) bad infrastructure
- C) different levels of communication skills
- D) technical jargon

Answer: D

AACSB: Information Technology

Chapter LO: 1.5 Provide examples of how various organizations and their information technology departments depend on information systems knowledge.

Difficulty: Easy

98) Marsha, a sales executive, faces issues while copying data from one spreadsheet to another. The formatting of the copied data is not the same as that of the data that is pasted. She started facing this problem only after her older spreadsheet application was upgraded to a newer version. She raises a ticket stating "Request older system. New system not working as desired." The IT technician misconstrues this as a request to replace the computer with an older version. When Marsha returns the next morning, she finds that her computer has been replaced with an older version. Which of the following is the reason why her request had been misunderstood?

- A) absence of a proper IT-support structure
- B) the lack of a dedicated help desk
- C) different levels of communication skills
- D) the jargon barrier

Answer: D

AACSB: Information Technology; Analytical Thinking

Chapter LO: 1.5 Provide examples of how various organizations and their information technology departments depend on information systems knowledge.

Difficulty: Difficult

99) Which of the following functional areas in an information systems department maintains the location of servers and communications equipment?

- A) data center operations
- B) end-user support
- C) services administration
- D) systems

Answer: A

AACSB: Information Technology

Chapter LO: 1.5 Provide examples of how various organizations and their information technology departments depend on information systems knowledge.

Difficulty: Easy

100) In an information systems department, the enterprise systems and applications subunit is responsible for \_\_\_\_\_.

- A) installing, managing, and updating servers
- B) providing services to internal and external customers on technology issues
- C) developing, installing, maintaining, and overseeing the organization's mission-critical software applications
- D) maintaining the environmentally controlled areas in which servers and communications equipment are located

Answer: C

AACSB: Information Technology

Chapter LO: 1.5 Provide examples of how various organizations and their information technology departments depend on information systems knowledge.

Difficulty: Easy

101) In an information system department, the data center operations department is responsible for \_\_\_\_\_.

- A) installing and managing communications technologies and networks
- B) providing services to internal and external customers on technology issues
- C) installing and updating servers
- D) handling backups and archiving

Answer: D

AACSB: Information Technology

Chapter LO: 1.5 Provide examples of how various organizations and their information technology departments depend on information systems knowledge.

Difficulty: Easy

102) Which of the following individuals is responsible for ensuring that a company's confidential information is well-protected?

- A) the Chief Information Security Officer
- B) the Chief Executive Officer
- C) the Chief Technology Officer
- D) the Chief Knowledge Officer

Answer: A

AACSB: Information Technology

Chapter LO: 1.5 Provide examples of how various organizations and their information technology departments depend on information systems knowledge.

Difficulty: Easy

103) \_\_\_\_\_ plays a leading role in managing efforts to improve an organization's ability to capture, nurture, and disseminate expertise.

- A) Chief Technology Officer
- B) Chief Knowledge Officer
- C) Chief Privacy Officer
- D) Chief Information Security Officer

Answer: B

AACSB: Information Technology

Chapter LO: 1.5 Provide examples of how various organizations and their information technology departments depend on information systems knowledge.

Difficulty: Easy

104) A patient lodges a complaint with the management of a hospital because he is unsatisfied with their policies on safeguarding patient information. In this situation, which of the following individuals is most responsible for ensuring that the hospital policies safeguard the information of the patients?

- A) the Chief Wisdom Officer
- B) the Chief Technology Officer
- C) the Chief Knowledge Officer
- D) the Chief Privacy Officer

Answer: D

AACSB: Information Technology; Analytical Thinking

Chapter LO: 1.5 Provide examples of how various organizations and their information technology departments depend on information systems knowledge.

Difficulty: Moderate

105) Unknown hackers hack into the network security of a bank and steal the personal identification information of approximately 200,000 clients. Which of the following persons will be responsible for handling this situation?

- A) the Chief Technology Officer
- B) the Chief Knowledge Officer
- C) the Chief Procurement Officer
- D) the Chief Information Security Officer

Answer: D

AACSB: Information Technology; Analytical Thinking

Chapter LO: 1.5 Provide examples of how various organizations and their information technology departments depend on information systems knowledge.

Difficulty: Moderate

106) Which of the following techniques helps IT staff collaborate with people in other functional areas?

- A) focusing on technical issues and ignoring the business goals
- B) avoiding the use of technical terms while speaking to employees in other areas
- C) learning human resource terminologies and strategies
- D) educating internal customers about technical jargon

Answer: B

AACSB: Information Technology

Chapter LO: 1.5 Provide examples of how various organizations and their information technology departments depend on information systems knowledge.

Difficulty: Moderate

107) The facilities manager at Symphony Systems, an IT services company, wants the information systems department to set up a virtual collaboration team. Which of the following ways would enable him to communicate more effectively with the IT staff?

- A) avoiding IT jargon
- B) emphasizing the returns on investment
- C) highlighting the value of IT
- D) describing his end goal and not the means to get there

Answer: D

AACSB: Information Technology; Analytical Thinking

Chapter LO: 1.5 Provide examples of how various organizations and their information technology departments depend on information systems knowledge.

Difficulty: Moderate

108) InfoTech Horizons, an IT company, is seeking to hire an experienced IT professional to assist the Chief Information Officer in his role. The new hire will be groomed to take on the role of the Chief Information Officer. Which of the following candidates, all of whom have good technical skills, will prove to be the best choice?

- A) a computer professional with good knowledge of business
- B) a computer professional who uses jargon very often while interacting with internal customers
- C) a computer professional who is of the opinion that people without technical knowledge should be laid-off
- D) a computer professional who discourages ideas from employees about changing the information systems

Answer: A

AACSB: Information Technology

Chapter LO: 1.5 Provide examples of how various organizations and their information technology departments depend on information systems knowledge.

Difficulty: Moderate

109) Which of the following is a key component of the role of a Chief Privacy Officer in an organization?

- A) overseeing the use of technology and innovation in the organization
- B) ensuring that private information of customers is protected from natural disasters
- C) helping shape the policies that govern the protection of confidential information
- D) improving the organization's ability to capture, nurture, and disseminate knowledge

Answer: C

AACSB: Information Technology

Chapter LO: 1.5 Provide examples of how various organizations and their information technology departments depend on information systems knowledge.

Difficulty: Moderate

110) Examples of business processes that span Departments include \_\_\_\_\_.

- A) online ordering and same day delivery
- B) student portals that include grades, student activities and organizations, and course registration
- C) both A and B
- D) neither A nor B

Answer: C

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Easy

111) What is NOT an example of normal information system business processes?

- A) emailing timesheets for approval monthly
- B) streamlining purchase approvals by auto-approving small dollar purchases
- C) automation of fast food ordering
- D) eliminating cash toll pay stations for toll roads

Answer: A

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Easy

112) When automating a process for mailing end of year newsletters to your stakeholders, what is a tradeoff you may encounter?

- A) Auto filled names may feel impersonal to stakeholders.
- B) Even if you type a bulk newsletter, you still must print it.
- C) Posting mail is less reliable than emailing.
- D) You may leave someone off the list who needs the information.

Answer: A

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Moderate

113) Business processes and policies should also be reviewed occasionally because business circumstances change at regular intervals.

Answer: FALSE

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Moderate

114) Business processes and policies must also be reviewed because they often span departments and limited communication between silos can hinder success.

Answer: TRUE

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Moderate

115) The field of Business Process Management is focused on \_\_\_\_\_.

A) connecting to customers through an effective information system

B) optimizing and streamlining processes in an organization

C) limiting errors in product production

D) organizing human capital

Answer: B

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Moderate

116) The risk of privacy breaches in information systems has increased because \_\_\_\_\_.

A) information systems have become more powerful and interconnected

B) information systems seldom need to be upgraded

C) there are no regulations and standards for developing information systems

D) information systems have become increasingly isolated

Answer: A

AACSB: Information Technology

Chapter LO: 1.6 Explain how information systems present both promises and perils, and also pose ethical questions.

Difficulty: Moderate

117) A key reason why it is important to appreciate the ethical issues involved in the development and use of information systems is because \_\_\_\_\_.

A) the data they contain is vast and personal

B) the revenue of organizations is closely tied to their use

C) they are not regulated by any governmental bodies

D) they can be mass-produced by organizations with limited technical expertise

Answer: A

AACSB: Information Technology

Chapter LO: 1.6 Explain how information systems present both promises and perils, and also pose ethical questions.

Difficulty: Moderate

118) \_\_\_\_\_ is responsible for identifying, assessing, and addressing threats to an organization from unforeseen circumstances.

- A) The crisis management team
- B) The customer relationship management team
- C) The supply chain management team
- D) The operations management team

Answer: A

AACSB: Information Technology

Chapter LO: 1.6 Explain how information systems present both promises and perils, and also pose ethical questions.

Difficulty: Easy

119) Which of the following is an example of an amplification effect related to information systems?

- A) Information stored on the internet can be hacked and stolen by anyone, irrespective of their geographic location.
- B) Data on email services can be hacked leading to privacy breaches and exposing of private communication.
- C) Information on a person's social networking account can easily be distributed to an extremely large and unintended audience.
- D) Data from email or photo uploads to the internet can be secured by choosing the appropriate privacy settings.

Answer: C

AACSB: Information Technology

Chapter LO: 1.6 Explain how information systems present both promises and perils, and also pose ethical questions.

Difficulty: Difficult

120) Which of the following statements is true about the ethical issues surrounding information systems?

- A) It is easy to determine who is responsible for the damage caused by accidental leaks of private information.
- B) People tend to judge the severity of ethical violations in information systems partly on the basis of the number of people affected.
- C) Information systems are powerful and contain vast amounts of personal data making the ethicality of its use a tertiary concern.
- D) The amplification effect of information systems minimizes the harm caused by ethical violations of information systems.

Answer: B

AACSB: Information Technology

Chapter LO: 1.6 Explain how information systems present both promises and perils, and also pose ethical questions.

Difficulty: Moderate

121) Which of the following is the reason why privacy breaches present major risks in this era of information system computing?

- A) The amount of information that is stored in information systems is vast and very private.
- B) It is not possible to identify the source of a security breach.
- C) The information systems are isolated from each other.
- D) Cheaper storage devices offer faster transport of confidential information from one geographical location to another.

Answer: A

AACSB: Information Technology

Chapter LO: 1.6 Explain how information systems present both promises and perils, and also pose ethical questions.

Difficulty: Moderate

122) Twitter, the microblogging service best known for trivial updates on everyday events and brutal political jibes, has a growing role in what organizational area?

- A) customer relationship management
- B) emergency response
- C) sports reporting
- D) war correspondence

Answer: B

Chapter LO: 1.5 Provide examples of how various organizations and their information technology departments depend on information systems knowledge.

Difficulty: Moderate

123) Which of the following is a constraint on crisis management teams?

- A) They lack backup systems.
- B) They have very little time to react and take action.
- C) They lack tools to identify the source of security breaches.
- D) They have limited organizational policies to guide them in such situations.

Answer: B

AACSB: Information Technology

Chapter LO: 1.6 Explain how information systems present both promises and perils, and also pose ethical questions.

Difficulty: Moderate



124) What role do information systems play in organizations? Illustrate your answer with examples.

Answer: Multinational firms, small businesses, nonprofits, governments, volunteer organizations, self-employed entrepreneurs, universities, and other organizations rely on information systems for a host of reasons, and they continue to adapt, expand, and interconnect them to achieve their strategic objectives. These systems play critical roles in several contexts: operations management, customer interactions, decision making, collaboration and teamwork, strategic initiatives and competitive advantage, and individual productivity. Depending on their missions, organizations also need information systems to manage industry-specific operations. For example, manufacturers need systems to manage assembly lines, product quality, production schedules, and just-in-time supply deliveries. Colleges and universities need systems to manage student academic records, class scheduling, faculty assignments, and student financial aid. Transportation companies rely on information systems equipped with GPS to track their fleets, optimize routes, and conserve gas. Companies that buy products from suppliers around the globe need real-time updates on their global supply chains to manage inventories and reduce costs.

AACSB: Information Technology

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Moderate

125) Explain how web-based shopping and online self-service improves customer relationships.

Answer: Web-based shopping and self-service transform relationships with customers, freeing them from time-consuming phone calls. These web-based processes often mimic the brick-and-mortar versions, with "shopping carts" and "checkouts" clearly labeled. A web application offers many opportunities to build stronger relationships and better understand the motives and desires of each person who visits.

AACSB: Information Technology

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Easy

126) Explain how information systems can contribute to gaining a competitive advantage.

Answer: Information systems play what could be their most valuable role when they are tied closely to strategy and to the major initiatives that will help achieve competitive advantage. Information systems are a fundamental part of a company's strategic vision. The vision itself is often shaped by what these systems can achieve today and what is possible for the future. Strategy is equally important to nonprofit organizations and government agencies, and their information systems break new ground by offering new services to the public, increasing access for all citizens, streamlining operations, reducing costs, and improving decision making.

AACSB: Information Technology

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Moderate

127) Explain how information systems can help in improving personal productivity.

Answer: There is a wide range of information system tools that help people improve their own productivity on the job and in life such as smartphones that combine voice calls with web browsing, contact databases, email, music, and games, as well as the many software applications that eliminate tedious work. Even word processing has transformed work in every organization, and many students aren't aware of all the ways that software can make them more productive. You can, for example, automatically create and properly format your term paper references by integrating a bibliographic manager such as Zotero, which captures the citation from a web page. To improve productivity at work, people can choose from a wide variety of computer software and electronic devices.

AACSB: Information Technology

Chapter LO: 1.1 Describe the main roles that information systems play in organizations.

Difficulty: Moderate

128) Explain, with an example, how data might be aggregated and analyzed to create information and knowledge.

Answer: The term data refers to individual facts or pieces of information and information refers to data or facts that are assembled and analyzed to add meaning and usefulness. For example, a single high-temperature reading of an incoming patient at Patient First, a 24-hour walk-in clinic in Laurel, Maryland, is one piece of data. But entered into the patient records information system and combined with the patient's other symptoms and previous medical records, it becomes far more valuable as a diagnostic tool. Even more value can be obtained from this one temperature reading by aggregating it with the data from other patients entering the clinic that week. Tables and charts constructed from these data, analyzed by geographic region, may indicate a flu epidemic or the first signs of a pandemic emergency. As information from many clinics, emergency rooms, and doctors' offices pours in and the public health staff at the Centers for Disease Control in Atlanta analyzes maps, patient diagnoses, and many other facts, a pattern may emerge that warrants swift action. Information can be further refined, analyzed, and combined to make it even more useful, and extremely valuable as knowledge. No clear dividing lines separate these categories, and people often use the terms interchangeably. They blend together and form a continuum as more meaning and usefulness are created through analysis and skillful combination of many sources of data and human insight.

AACSB: Information Technology

Chapter LO: 1.2 Compare the terms data, information, and knowledge, and describe three characteristics that make information valuable.

Difficulty: Moderate

129) Describe, with examples, the characteristics that make information valuable.

Answer: Three characteristics that contribute to making information valuable are: timeliness, accuracy, and completeness.

Timeliness matters a great deal in some settings, and near real-time information often costs more. For example, people pay monthly subscription fees to financial service companies to get up-to-the minute stock prices, rather than the delayed price reports shown on free stock tickers one can add to their browser.

Accuracy may seem like an obvious attribute for valuable information, but there actually are degrees of accuracy. The more accurate the information required, the longer it may take to obtain, making extreme accuracy a trade-off to timeliness. A CEO who wants to know how much competitors charge for a rival product, for example, would have to wait quite a while for staff to scour all the distribution channels and assemble the data. An approximate but timely answer is more valuable.

Completeness adds considerable value, particularly as a means to avoid bias or spin. A marketing survey that polls customers as they enter a store will completely miss those who shop online, for example. The survey results would be incomplete without taking greater care to assess the interests of all the customers. Striving for complete information, however, may also introduce delays that affect timeliness.

AACSB: Information Technology

Chapter LO: 1.2 Compare the terms data, information, and knowledge, and describe three characteristics that make information valuable.

Difficulty: Moderate

130) What role do people play as a component of an information system?

Answer: The design, development, launch, and maintenance of any information system involves teams of people. They play several different roles-as visionaries, developers, and managers of information systems, and also as analysts, liaisons, users, customers, contributors, and sometimes opponents or roadblocks.

Leaders may be first to propose a system that will accomplish an important strategic objective for the company. However, innovative ideas for such systems come from every level. Managers and staff from many departments participate on teams with technologists to design a new system or evaluate commercial systems that might be purchased. The information technology team usually works closely with staff in marketing, finance, human resources, and other functional areas to launch user-friendly, people-oriented systems.

AACSB: Information Technology

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Moderate

131) Why are wireless transmission systems favored over wired transmission systems?

Answer: The main role of the telecommunications component is to move electronic signals from one place to another, route traffic, and provide various services to improve transmission speeds, eliminate noise, increase security, or analyze traffic patterns. Increasingly, people favor wireless transmission because of its flexibility and reduced cost, and promising developments to increase speed and capacity are well underway. Many developing countries that can't afford to build wired networks are transforming their communications and expanding internet access through wireless transmission. In parts of sub-Saharan Africa, for example, copper wiring may never be deployed at all. Wireless is also more likely to stay up and running during storms that bring down utility poles and wires.

AACSB: Information Technology

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Moderate

132) How do information systems improve business processes?

Answer: Organizations implement information systems to support, streamline, and sometimes eliminate business processes. Countless decisions are made about how each process should operate, what rules it should follow, how information should be handled from input to output, and especially how the information system will support the process. Managers develop policies that affect information system processes and the systems can enforce those policies. A major policy category involves security. The steps in any process are affected by thousands of decisions people make, and these are influenced by the way people look at process improvements. Information systems help bring in these improvements.

AACSB: Information Technology

Chapter LO: 1.3 Describe the four main components of an information system and the role that each component plays.

Difficulty: Moderate

133) Describe the field of management information systems. List some of the areas that attract much of the interest in this field.

Answer: The study of information systems, how people, technology, processes, and data work together, is a lively discipline involving university faculty, private-sector analysts, government agencies, and more. Many refer to the field as management information systems (MIS), and academic departments in colleges and universities often bear that name.

The field draws researchers and practitioners from business, computer science, psychology, sociology, public administration, and many other subjects, all of whom have an interest in learning more about how the systems that can be created to help organizations do more with less, make companies more competitive, increase productivity, and improve the lot of people around the world.

AACSB: Information Technology

Chapter LO: 1.4 Identify several research areas in the discipline of management information systems (MIS).

Difficulty: Easy

134) Describe the trends in research in the field of management information systems.

Answer: MIS is a young discipline, and researchers strive to keep up with the rapid changes. The Internet of Things, for example, offers tremendous opportunities, as do the analytical tools that enable organizations to capitalize on the big data that those things generate. Another important trend involves the study of e-marketplaces, the kind that are transforming entire industries and threatening traditional players. For instance, Airbnb is a global e-marketplace in which travelers can book a room offered by private individuals, competing fiercely with hotels and motels. The internet offers remarkable opportunities to invent e-marketplaces for stocks, real estate, music, vacation rentals, used books, rare antiques, and even future spouses. How organizations build trust and make a profit in these worldwide e-markets are very hot topics. Research on group collaboration, especially when team members are dispersed around the world, is far more important now because of virtual teams and globalization. The psychology of group dynamics subtly changes when team members use online tools, and the shifts are not always positive. Investigations of successful and unsuccessful teams shed light on strategies people can use to make virtual teams more successful. Most students engage in some virtual teamwork, especially those who take some or all their courses online. Virtual teamwork and collaboration skills are critical.

AACSB: Information Technology

Chapter LO: 1.4 Identify several research areas in the discipline of management information systems (MIS).

Difficulty: Difficult

135) Explain, with an example, how information systems can make an enormous contribution to nonprofit organizations.

Answer: Knowledge of information systems can make an enormous contribution to a nonprofit organization. For example, relief workers who know how to create inexpensive podcasts and videos can relay the plight of children from war or disasters in troubled parts of the world. Rather than spending money on radio or TV broadcasts, they can freely distribute the short, timely, and compelling video messages worldwide through the net. Because they can contribute significant value, nonprofit organizations can benefit by thoughtful use of information systems.

AACSB: Information Technology

Chapter LO: 1.5 Provide examples of how various organizations and their information technology departments depend on information systems knowledge.

Difficulty: Easy

136) Who are the individuals involved in information systems that take on leadership roles? List some of the common functional areas in an information system.

Answer: The functional business unit responsible for planning, managing, and supporting information systems is often called "Information Technology." Heading the department is the chief information officer (CIO). The CIO might report directly to the CEO or to another vice president, often the one responsible for finance and administration. Working with the CIO, especially in larger organizations and major companies, are more staff positions with "chief" in their titles, such as Chief Information Security Officer, Chief Technology Officer, and Chief Knowledge Officer. The common functional areas in an information systems department include end-user support and help desk, systems administration, data center operations, enterprise systems, and telecommunications and network services.

AACSB: Information Technology

Chapter LO: 1.5 Provide examples of how various organizations and their information technology departments depend on information systems knowledge.

Difficulty: Moderate

137) Why is the IT department often perceived as impenetrable to people from other areas of an organization?

Answer: Disconnects in communication between IT staff and others in the organization often arise due to the jargon barrier. People often get frustrated when IT doesn't respond immediately to their ideas or suggestions. Like all functional business units, IT has a full plate of ongoing projects, prioritized by the CIO working with the CEO and other top executives to ensure that resources are wisely spent with a solid return on investment. Because of this, technicians are forced to move onto the next trouble ticket, and are unable to spend a long time on each ticket. Communication barriers, often due to the use of technical jargon, make the IT department seem impenetrable.

AACSB: Information Technology

Chapter LO: 1.5 Provide examples of how various organizations and their information technology departments depend on information systems knowledge.

Difficulty: Easy

138) Explain, with examples, how modern information systems can easily amplify any communication.

Answer: Modern information systems are very powerful and interconnected. Also, the data they contain is vast and personal. Modern information systems can easily amplify any communication, putting people's reputations and livelihoods at risk. For example, any email one sends or photo one uploads can be forwarded or posted online for millions to view. Text, photos, and videos uploaded to a person's social networking site can easily be distributed to a far wider audience beyond his or her own network.

AACSB: Information Technology

Chapter LO: 1.6 Explain how information systems present both promises and perils, and also pose ethical questions.

Difficulty: Easy

139) What are the benefits of using Twitter in emergencies? What are potential hurdles these groups face during emergencies?

Answer: The service empowers people with the ability to gather and disseminate information about emergencies and disasters, and this information can be far timelier than anything government authorities or organizations such as the Red Cross can provide. In an earthquake situation, people can report whether they feel the jolt or shaking and how strong it is. The short messages offer on-the-ground observations of conditions, along with the worry and fear for missing family members. One important advantage of Twitter messages during natural disasters is that they can provide first-hand accounts and real-time updates about conditions in each neighborhood, often calling for immediate rescue for individuals in peril. Researchers are also working on strategies to deploy machine learning and artificial intelligence to sift through millions of tweets in a way that will uncover detailed information about people in need or collapsing buildings during disasters.

Restructured tweets, however, require Twitter users to know more than most users do and to use that knowledge when they are under considerable stress. More than a quarter of the respondents said they would send a direct Twitter message to emergency responders, not realizing that aid organizations are still not well prepared to monitor Twitter and other social media services. It is hard for organizations to assess the value of information received in this way. It may be timely, but is it accurate?

Chapter LO: 1.6 Explain how information systems present both promises and perils, and also pose ethical questions.

Difficulty: Difficult

140) Explain how having information systems impacted the Nasdaq in competing with the New York Stock Exchange.

Answer: Speed matters, and Nasdaq technology can handle one million messages per second. It matters so much that some heavy traders—Goldman Sachs, for example—paid Nasdaq for the privilege of locating their own server in Nasdaq's data center, just to avoid the tiny communication delay from Goldman offices. As Nasdaq moves its servers to the cloud, traders like Goldman Sachs can move their servers to the cloud provider's data center. This new technology allows each computer to add a timestamp to each order as it is placed, so even if orders arrive out of sequence due to distance, they can be reorganized into the correct sequence. Another looming issue for Nasdaq is computer trading based on algorithms, or "algo-trading," a trend that may only grow with ever-faster trading. Since the "flash crash," Nasdaq and the other exchanges have strengthened the guardrails to better safeguard against such events affecting stocks. For instance, in addition to the "circuit breakers" that stop trading then prices fall below a certain level, exchanges prevent high-frequency traders from moving stock shares too quickly if prices go outside previously set "bands."

Chapter LO: 1.5 Provide examples of how various organizations and their information technology departments depend on information systems knowledge.

Difficulty: Difficult