MIS5

End of Chapter Solutions

Chapter 2

Reviews and Discussions

1. Define a "computer."

Answer—

A computer is defined as a machine that accepts data as input, processes data without human intervention by using stored instructions, and outputs information. The instructions, also called a program, are step-by-step directions for performing a specific task, written in a language the computer can understand. Remember that a computer only processes data (raw facts); it cannot change or correct the data that is entered.

2. What are the distinguishing features of third-generation computers?

Answer—

Third-generation computers operated on integrated circuits, which enabled computers to be even smaller, faster, more reliable, and more sophisticated. Remote data entry and telecommunications were introduced during this generation.

3. How was IBM Watson able to beat two former champions of the television game show "Jeopardy"?

Answer—

Thousands of algorithms and computer programs allowed it to break down human language into pieces so it could search for answers in its massive database. It answered questions without exactly understanding them, but it answered them with a high degree of confidence!

4. What are two classes of software? What is an example of each?

Answer—

It can be classified broadly as system software and application software. For example, Microsoft Windows is the OS for most PCs and belongs to the system software group. This type of software works in the background and takes care of housekeeping tasks, such as deleting files that are no longer needed. Application software is used to perform specialized tasks. Microsoft Excel, for example, is used for spreadsheet analyses and number-crunching tasks.

5. What are three factors that define the power of computers?

Answer—

Speed, accuracy, and storage and retrieval capabilities.

6. What are some of the advantages of touchless computing?

Answer—

Touchless computing enables you to control what is on the screen with the movements of your finger. The goal of touchless computing is to provide an environment similar to the real world, in which you are able to manipulate objects using only your fingers.

7. Which languages are mostly used in a Web-development environment?

Answer—

The most important Web development languages are Hypertext Markup Language (HTML) and Extensible Markup Language (XML). Both languages are markup languages, not full-featured programming languages.

8. What are server farms?

Answer—

Large corporations and enterprises that need a lot of storage space use a server farm or server cluster. This is a collection of hundreds or thousands of computers that require a large amount of power to run and keep cool.

Projects

1. A local law firm needs your advice. It currently has 20 PCs being used by its attorneys and staff, and it is debating whether to use Google Apps or Office 365 as its productivity tools. Write a two-page paper that summarizes your recommendation. What are two advantages and two disadvantages of each choice? Which alternative is more suitable for a law firm with 20 PCs? Which alternative is less expensive?

Answer—

Answers will vary.

2. After reading the information presented in this chapter and other sources, write a one-page paper that describes two advantages and two disadvantages of SAN and NAS. Name two vendors of each technology. Which one is less expensive?

Answer—

Answers will vary.

3. A classmate of yours is not sure whether to buy a PC or a tablet. He needs the device for schoolwork (mostly Microsoft Office), for Web access, and as an e-reader. After reading the information presented in this chapter and other sources, write a one-page paper that summarizes your recommendation to this fellow student. Also mention two choices that you consider as top of the line for each alternative.

Answer—

Answers will vary.

4. IBM Watson has created a lot of excitement in the computing field. After reading the information presented in this chapter and other sources, write a one-page paper that

summarizes three commercial applications of this platform. What are two advantages of using Watson compared to using humans in the medical field? What are two disadvantages?

Answer—

Answers will vary.

5. Android and iOS are two major operating systems for smartphones and other mobile devices. After reading the information presented in this chapter and other sources, write a two-page paper that summarizes the key features of each OS. What are two advantages and two disadvantages of each?

Answer—

Answers will vary.

6. Dragon NaturallySpeaking Solutions is an example of an NLP. After reading the information presented in this chapter and other sources, write a two-page paper that describes eight commercial applications for this platform. Which businesses will benefit the most from this platform? What are a couple of drawbacks of using this platform?

Answer—

Answers will vary.

Are You Ready to Move On?

1. RAM is volatile. True or False?

   Answer—

   True.

2. SANs are used only in large enterprises because of their cost and installation complexity. True or False?

   Answer—

   True.

3. Microsoft Excel is an example of system software. True or False?

   Answer—

   False

4. Fourth-generation computers are indentified by all of the following technologies except:
   a. Miniaturization
   b. Vacuum tubes
   c. Optical discs
   d. VLSI

   Answer—

B

5. Which of the following is not an example of a secondary memory device?
   a. EPROM
   b. Magnetic tape
   c. Magnetic disk
   d. Optical discs

   Answer—

   A

6. All of the following are examples of application software except:
   a. MS Word
   b. MS Excel
   c. Autodesk AutoCAD
   d. Android

   Answer—

   D

Case Study 2-1

1. Using your smartphone and a financial app, how do you deposit a check into your checking account?

Answer—

To deposit a check into your banking account, you can simply take a photograph of the front and back of the check, after which the app will ask you for the amount you want to deposit. Then you type the account number and then press "OK" to complete the deposit.

2. Name some financial apps introduced in this case.

Answer—

Mint app (mint.com) from Intuit, HelloWallet from HelloWallet.com, and QuickShot.

3. What are some examples of analytics that can be done using financial apps?

Answer—

For example, you can establish a budget and keep track of the expenses in various categories, such as food, gas, and groceries.

4. What are some other examples of financial apps? What are their applications?

Answer—

Answers will vary. Moneywiz (Silverwiz), iBank (IGG Software), and Money (Jumsoft) are three examples.

Case Study 2-2

1. What should you do before deciding between a laptop or a tablet?

Answer—
Before deciding which way to go, you must clearly define your needs.

2.   What are some of the key features of each device?

Answer—

Tablet computers work best as media players or e-book readers.

Laptops are used more as productivity tools for business functions.

3.   What are three important characteristics of each device that might influence your decision?

Answer—

Size, battery life, availability of productivity tools, hardware/software support, and connectivity

4.   What are three examples of tablets on the market?

Answer—

Apple iPad, Galaxy Tab (Samsung), Optimus Pad (LG), Kindle Fire (Amazon), and Fusion Tables (Google)