ACE Computer Apps Ch 1 Review

True/False
Indicate whether the statement is true or false.

____ 1. Understanding computers and digital technologies can help you achieve your personal and professional goals.
____ 2. Employers expect graduating college students to be as fluent with computers and digital technology as they are with the English language.
____ 3. The only two possible values for binary digits are a 1 or a 2.
____ 4. Hardware comprises the electronic instructions that govern the computer system’s functioning.
____ 5. Netbooks are small, inexpensive, ultra-portable notebooks designed primarily for Web applications and lightweight productivity applications.
____ 6. A computer’s type, processor, and operating system define its operating system.
____ 7. In most cases, servers run 20 hours a day, with 4 hours set aside to let the servers cool down.
____ 8. A Web server is responsible for serving up Web pages over the Internet.
____ 9. The largest area of growth in technology has been in desktop computers.
____ 10. An area of AI called computer vision uses video cameras as eyes for a computer system that can tirelessly “watch” objects or areas and accurately interpret what it is “seeing.”
____ 11. “Smart machines” is a branch of AI that empowers computers to control mechanical devices to perform tasks that require a high degree of precision or are otherwise tedious, monotonous, or hazardous for humans.
____ 12. Information avalanche is the common term used to describe a state in which the amount of information available overpowers one’s ability to manage and use it.
____ 13. A computer-based information system (CBIS) makes use of computer hardware and software, databases, telecommunications, people, and procedures to manage and distribute digital information.
____ 14. The expression “computer portal” is typically used to describe multiple computers working together over a network toward a common goal.
____ 15. Computer scientists conduct research into computing topics such as artificial intelligence, robotics, computer networks, and operating systems.
____ 16. In factories, computers are being used to design and manufacture products, using computer-assisted design (CAD) and computer-assisted manufacturing (CAM).
____ 17. Computers have been widely used for producing music using Musical Instrument Digital Interface (MIDI).
____ 18. Society is entering the age of invasive computing.
____ 19. Mark Weiser, who coined the expression ubiquitous computing, refers to this as the age of “invisible technology,” when technology “recedes into the background of our lives.”
____ 20. The digital divide is an issue between developed countries and third-world countries.
Modified True/False
Indicate whether the statement is true or false. If false, change the identified word or phrase to make the statement true.

____ 21. A(n) **computer** is a digital electronics device that combines hardware and software to accept the input of data, process and store the data, and produce some useful output.

____ 22. When bits and bytes are processed to a format that is useful to people, the result is called **data**.

____ 23. The type of digital device that most people associate with the word computer is called a(n) **tower** computer.

____ 24. **Notebook** PCs are portable personal computers that provide a touch-sensitive display on which you can write and draw.

____ 25. Text messaging, also known as **Short Message Service** (SMS) and texting, involves using a cell phone to send short text messages to other cell phone users.

____ 26. The telecommunications industry, often called the **telecom** industry, focuses on electronic **graphics** and data communications.

____ 27. **Expert** systems, a branch of AI, automates tasks that are carried out by human experts—tasks that can be well defined and are typically tedious, monotonous, or hazardous to the human expert.

____ 28. **Digital** language processing is a branch of AI that empowers computers with the ability to understand spoken words and provides more convenient ways for people to interact with computers.

____ 29. Systems **programming** is the activity of creating new systems or modifying existing ones.

____ 30. **Engineer** analysts are information professionals responsible for designing information systems.

____ 31. Transaction **Transfer** System is an information system used to support and record transactions such as a customer purchasing a product or a business paying an employee.

____ 32. Software **engineers** design and develop new software applications to meet a wide variety of needs.

____ 33. In banking, computers are used to instantly move billions of dollars from one institution to another, using electronic **value** transfer.

____ 34. Scientific **robotics** uses computers to produce 2D and 3D images and video of scientific phenomena which cannot otherwise be witnessed.

____ 35. Information **security** refers to the protection of information systems and the information they manage against unauthorized access, use, manipulation, or destruction, and against the denial of service to authorized users.
Multiple Choice
Identify the choice that best completes the statement or answers the question.

36. You can use computers to ____.
   a. obtain and play the latest music
   b. keep track of your expenses
   c. obtain information about almost any topic
   d. all of the above

37. The boy in the accompanying figure is using a computer with a ____.
   a. keyboard screen
   b. touch screen
   c. braille screen
   d. tab screen

38. The white computer in the accompanying photo is an example of a ____ computer.
   a. netbook
   b. tablet
   c. desktop
   d. smart phone
39. The woman in the accompanying photo is using a ____.
   a. tablet PC  c. desktop PC
   b. netbook PC  d. laptop PC

40. The cell phone in the accompanying photo is a(n) ____ phone.
   a. intelligent  c. contemporary
   b. smart  d. cable

41. To synchronize the cell phone shown in the accompanying photo with your PC, you ____.
   a. place it in a cradle connected to the PC
   b. connect to the PC using wireless networking
   c. either a. or b.
   d. neither a. nor. b.

42. Technology refers to tools, materials, and processes that help solve ____ problems.
   a. system  c. human
   b. environment  d. cosmological
43. Digital refers to technologies and devices based on ____.
   a. letters      c. graphics
   b. numbers      d. music

44. A digital electronics device is any device that stores and processes ____ electronically.
   a. bits        c. information
   b. sound waves d. text strings

45. A group of ____ bits is called a byte.
   a. 4       c. 16
   b. 8       d. 32

46. Bytes can be grouped together to create an electronic ____ , a named collection of instructions or data stored in the computer or digital device.
   a. folder       c. file
   b. program      d. archive

47. Data refers to the items stored on a digital electronics device, including ____.
   a. numbers      c. sounds
   b. characters   d. all of the above

48. A microprocessor, sometimes called a ____ or just a processor, combines microscopic electronic components on a single integrated circuit that processes bits according to software instructions.
   a. motherboard c. chip
   b. drive       d. flash card

49. ____ refers to the tangible components of a computer system or digital device.
   a. Hardware      c. either a. or b.
   b. Software      d. neither a. nor b.

50. Computers designed for one particular function are called ____-purpose computers and are typically referred to by the type of computing they perform.
   a. one         c. integrated
   b. special     d. digital

51. Desktop computers, such as the Dell Dimension or Apple iMac, are designed to be ____.
   a. mobile      c. both a. and b.
   b. stationary   d. neither a. nor b.

52. ____ computers, also called laptop computers, are also considered personal computers and provide desktop or near-desktop power in a portable case.
   a. Notebook   c. Tablet
   b. Netbook    d. Smart phone

53. The ____ model tablet PC converts between notebook PC and tablet by allowing the display to be opened, rotated, and then closed so that the display is on the outside.
   a. switch       c. adjustable
   b. convertible  d. rotation

54. A ____ model tablet PC is lighter than convertible models and allows you to connect to a larger display, keyboard, and mouse through a docking station.
   a. slate       c. tablet
   b. gate        d. smart

55. Handheld computers, also called ____ , are personal computers that are only slightly larger than traditional cell phones.
   a. PDAs        c. PADs
   b. DPAs        d. ADPs
56. The two most popular personal computer platforms are IBM-compatible, commonly referred to as Windows, and ____.
   a. Dell  
   b. Apple 
   c. HP  
   d. Sony

57. ____ are powerful general-purpose computers that provide information services to numerous users over a computer network.
   a. Servers  
   b. Jump drives 
   c. Information systems  
   d. Terminals

58. Mainframe servers, often simply called mainframes, have been used in companies and organizations since the late ____.
   a. 1930s  
   b. 1940s 
   c. 1950s  
   d. 1960s

59. Prior to the introduction of PCs, employees used ____ desktop computers with a keyboard and display but little else, to connect to a mainframe and access data.
   a. monitors  
   b. terminals 
   c. screen boxes  
   d. visual units

60. The most powerful cell phones double as handheld computers and media players. ____ cell phones offer high-speed Internet access.
   a. 3G  
   b. 2G 
   c. Three-Degree  
   d. 3/gee

61. Through a process called ____ cell phone Internet subscriptions can be shared with notebook computers.
   a. looping  
   b. linking 
   c. tethering  
   d. roping

62. While portable MP3 players have been available for some time, it was the ____ slick design and marketing that brought it to the attention of the general public.
   a. iPod’s  
   b. Zune’s 
   c. SanDisk’s  
   d. Sony’s

63. Forms of ____ include telephone systems, radio, television, and computer networks.
   a. telecommunication  
   b. green communication 
   c. evergreen communication  
   d. tele-connection

64. Telecom companies maintain the large networks over which ____ communications travel.
   a. telephone  
   b. Internet 
   c. both a. and b.  
   d. neither a. nor b.

65. In general, a computer ____ connects two or more computers for the purpose of sharing data, hardware, and software resources.
   a. portal  
   b. grouping 
   c. substation  
   d. network

66. The ____ short for World Wide Web, is an Internet service that provides convenient access to information through hyperlinks.
   a. Web  
   b. Net 
   c. Spider  
   d. Wide “W”

67. A hyperlink is a(n) ____ in a Web document that can be clicked to access related information.
   a. object  
   b. method 
   c. property  
   d. attribute
68. Wireless networking uses ____ to connect computers and digital devices to computer networks and often through those networks to the Internet.
   a. radio signals  
   b. cables  
   c. both a. and b.  
   d. neither a. nor b.

69. ____ short for wireless fidelity, is a popular wireless networking standard that connects computers to other computers, computer networks, and the Internet.
   a. W. F.  
   b. Wi-Fi  
   c. Why Fi  
   d. Wire-Fire

70. While the word compute can be interpreted in different ways, it is used in relation to computers to mean calculating a solution to a(n) ____ problem.
   a. mathematical  
   b. physical  
   c. psychological  
   d. intangible

71. Automation involves utilizing computers to control otherwise ____ actions and activities.
   a. robotic  
   b. human  
   c. both a. and b.  
   d. neither a. nor b.

72. New ____ homes allow residents to open and close curtains, turn on sprinkler systems, control media throughout the house, and adjust environmental controls from any Internet-connected computer or wall-mounted display.
   a. Web  
   b. smart  
   c. savvy  
   d. secure

73. Web logs are more commonly known as ____.
   a. blogs  
   b. logs  
   c. vlogs  
   d. w-logs

74. An online ____ network provides Web-based tools for users to share information about themselves and to find, meet, and converse with others.
   a. group  
   b. social  
   c. computer  
   d. local

75. ____ Protocol is a popular technology that allows phone conversations to travel over the Internet or other data networks.
   a. VoiceWeb  
   b. Voice over Internet  
   c. Internet Talk  
   d. Voice Highway

76. The expression information technology (IT) can be defined as issues related to the components of a(n) ____ information system.
   a. human-based  
   b. computer-based  
   c. Internet-based  
   d. automation-based

77. A(n) ____ Information System is an information system used to provide useful information to decision makers, usually in the form of a report such as a quarterly report of investment earnings or a grade report for your classes this semester.
   a. Management  
   b. Administrative  
   c. Corporate  
   d. Profit

78. A ____ Support System is an information system used to support problem-specific decision making, such as an online dating service’s list of compatible partners or an investment firm’s supercomputer system for analyzing stock performance.
   a. Problem  
   b. Solution  
   c. Decision  
   d. Process
79. A(n) ____ System is an information system that can make suggestions and draw conclusions in one particular area of expertise much the same way that a human expert can.
   a. Professional  b. Expert  c. Ace  d. Educated

80. Products usually have ____ Product Codes (UPCs) on them that can be read by scanners.
   a. Unlimited  b. Universal  c. Unit  d. United

81. Scientists are using computers to forecast weather, hunt for hurricanes, analyze the environmental impact of forest fires, and make detailed maps using ____ information systems (GISs).
   a. geographic  b. geological  c. grounded  d. guided

82. Today, according to popular media usage, a(n) ____ is an individual who subverts computer security without authorization.
   a. spammer  b. hacker  c. villain  d. infection agent

83. ____ computing implies that computing and information technologies are diffused throughout every part of the environment.
   a. Pervasive  b. Invasive  c. Integrated  d. Synergistic

84. Ubiquitous computing suggests that technology is becoming so much a part of the environment that people ____.
   a. don’t notice it  b. don’t want it  c. don’t need it  d. don’t use it

85. The ____ divide is a title used for the social and economic gap between those who have access to computers and information technologies and those who do not.
   a. computer  b. digital  c. data  d. distant

86. Much of the information about you is collected and stored without your knowledge. This ____ information gathering makes some people nervous and concerned about their rights to privacy.
   a. invisible  b. illegal  c. obvious  d. permission-based

87. Viruses can turn your computer into a “____” computer that spreads viruses, spyware, and spam to others over the Internet without you suspecting a thing.
   a. robot  b. human  c. zombie  d. monster

88. PIM software provides users with the ability to keep a(n) ____ handy on their PDA.
   a. personal calendar  b. alarm  c. personal to-do list  d. all of the above

89. ____ instruction can deliver course content and measure student performance.

90. ____ learning is used to deliver courses and instruction to and from remote locations; instructors and students can be located around the world.
   a. Close  b. Distance  c. Travel  d. Community
91. Instead of a polygraph, computers can be used to “read” a voice, to detect the stress produced by lying, and to produce a ____.
   a. voiceprint  
   b. voice sonar  
   c. voice diagram  
   d. voice heat map

92. Computers can be used to capture facial ____ (systems of blood vessels), which, like fingerprints, are unique in each individual, and can be read using an infrared camera, a computer, and a database.
   a. thermovessels  
   b. thermoagents  
   c. thermodynamics  
   d. thermograms

93. Advanced machines and computers have enabled medical research scientists to use protein ____ to map the entire human genome.
   a. sequencers  
   b. synthesizers  
   c. both a. and b.  
   d. neither a. nor b.

94. ____ theory attempts to explain both large-scale physics and the physics of subatomic particles, in which a particle’s location in space is not certain at any point in time, but is based on mathematical probability instead.
   a. Space  
   b. Script  
   c. String  
   d. Movement

95. In businesses, computer personnel typically work in a computer department that employs a ____, computer programmers, systems analysts, computer operators, and a number of other computer personnel.
   a. chief systems officer (CSO)  
   b. chief information officer (CIO)  
   c. chief administrative officer (CAO)  
   d. chief management officer (CMO)

96. The chief ____ officer typically works under a CIO and specializes in hardware and related equipment and technology.
   a. digital  
   b. technology  
   c. electronics  
   d. database

97. Books, magazines, and newspapers are gradually migrating from paper to bits and bytes on devices like ____ Kindle, smart phones, and of course, the Web.
   a. Amazon’s  
   b. Google’s  
   c. Yahoo’s  
   d. Microsoft’s

98. The ____ is a well-known robotic vacuum cleaner that finds its way around every square inch of floor, sucking up the dirt as it goes.
   a. Robo  
   b. Roomba  
   c. Roombot  
   d. Vac-u-bot

99. If the speed of the human brain were measured and represented as a processor speed, it has been estimated that it could carry out ____ operations (thoughts) per second.
   a. 100 thousand  
   b. 100 million  
   c. 100 billion  
   d. 100 trillion

100. Developed and released to the public in the early ____, the Web opened the Internet to the general public.
    a. 1970s  
    b. 1980s  
    c. 1990s  
    d. 2000s

101. People rely on the Internet for ____.
    a. news and information  
    b. communication  
    c. education  
    d. all of the above

102. Multiple computer networks joined together to form larger networks are called ____.
    a. hubs  
    b. portals  
    c. centers  
    d. internetworks
103. While media players, PDAs, digital cameras, handheld games, and GPS handsets still exist, they are gradually being replaced by multifunction ____ phones.
   a. structured       c. flash
   b. smart           d. slim

104. ____ computers can be found at the heart of systems used by security experts, such as airport screening devices, metal detectors, and bomb detection devices, as well as the radar guns used to catch speeders.
   a. External        c. Embedded
   b. Internal        d. Laser

105. The ATM where you can withdraw money from your bank account is a ____.
   a. personal computer c. laptop computer
   b. kiosk            d. netbook

Case-Based Critical Thinking Questions

Case 1-1
Peter has just joined a mid-sized toy company and is in charge of maintaining the company’s servers.

106. When Peter hears that people are having trouble sending and receiving e-mail messages, he looks into fixing the ____ server.
    a. Web            c. message
    b. file           d. e-mail

107. Peter also discovers that the company has a(n) ____ server that manages the printing requests for a printer shared by multiple users on a network.
    a. output         c. print
    b. input          d. printer

108. Peter also works with a ____ server, which is used by the company to store and deliver files to employees’ desktop computers over the company’s private network.
    a. file           c. path
    b. folder         d. Web

Case-Based Critical Thinking Questions

Case 1-2
Susan is writing a report on the evolution of mobile technologies and is establishing a timeline.

109. The first entry on Susan’s timeline is that the first personal digital assistant (PDA) was introduced by ____ in 1983.
    a. Sony            c. Apple
    b. Casio           d. Microsoft

110. Another entry on the timeline was when the first digital camera was introduced by Sony in ____.
    a. 1984            c. 1988
    b. 1986            d. 1990

111. Susan notes that SMS texting on cell phones arrived first in ____ in 1993.
    a. United States   c. Japan
    b. Germany         d. Finland
112. As Susan’s timeline moves into the 21st century, she notes that the Nintendo DS portable gaming device was released in ____.

Case-Based Critical Thinking Questions

Case 1-3
Mrs. Sweeney is teaching her Media Today class about the different types of computer systems. She decides that providing an example of each type will have the biggest impact on her class.

113. The first example Mrs. Sweeney gives the class is that of a business paying their employees. To accomplish this task the business would use a(n) ____.
   a. decision support system  b. expert system  c. transaction processing system  d. management information system

114. The second example Mrs. Sweeney gives the class is that of a computer system making recommendations based on a patient’s symptoms. This is an example of a(n) ____.
   a. decision support system  b. expert system  c. transaction processing system  d. management information system

115. The final example Mrs. Sweeney gives the class is that of an online dating service compiling a list of compatible partners. To accomplish this task the dating service would use a(n) ____.
   a. decision support system  b. expert system  c. transaction processing system  d. management information system

Completion

Complete each statement.

116. A(n) ____________________ worker is a professional who makes use of information and knowledge.

117. Computer ____________________ is a working understanding of the fundamentals of computers and their uses.

118. A bit (short for ____________________ digit) represents data using technologies that can be set to one of two states, such as on or off, charged or not charged.

119. The process of transforming nondigital information such as things you experience with your senses to 1s and 0s is called ____________________.

120. A(n) ____________________ computer is a general-purpose computer designed to accommodate the many needs of an individual.

121. Smart phones combine PC, ____________________, media, and cell phone capabilities in a single handset.

122. When you ____________________ two digital devices, you update the files shared between the devices so that both copies are up-to-date and identical.

123. A smart phone typically connects to a PC through a(n) ____________________ station or cradle, a small stand for a handheld device that is used to recharge its battery and to connect to a PC.

124. ____________________, the most powerful computers manufactured, harness the strength of hundreds or even thousands of processors simultaneously to accomplish very difficult tasks.
125. A(n) ________________ is a computer station that provides the public with specific and useful information and services.

126. Embedded computers, sometimes called ________________, are special-purpose computers (typically an entire computer on one chip) that are embedded in electrical and mechanical devices in order to control them.

127. ________________ are communications that take place electronically over a distance.

128. ________________ are rules that allow two or more computers to communicate over a network.

129. The ________________ is the world’s largest public computer network: a network of networks that provides a vast array of services to individuals, businesses, and organizations around the world.

130. ________________ science is an area of computer science that applies the combined power of computer hardware and software to solving difficult problems in various scientific disciplines.

131. ________________ is an area of computer science that deals with simulating human thought and behavior in computers.

132. Residential VoIP services, sometimes referred to as ________________ phones, are becoming popular with home users who are interested in low phone bills and added features such as receiving voice mail alerts via e-mail.

133. Digital ________________ refers to music, video, photographs, graphic art, animation, and 3D graphics stored and processed in a digital format.

134. A(n) ________________ is a collection of data stored on a computer, organized to meet users’ needs.

135. ________________ information systems support online transactions, such as a customer purchasing music at eMusic.com or a bank transferring funds between accounts.

Matching

Identify the letter of the choice that best matches the phrase or definition.

a. digital  

b. database  

c. digital divide  

d. data  

e. information  

f. computer  

g. digital electronics device  

h. computer network  

i. digitization  

j. computer literacy  

k. information security  

l. information technology

____ 136. Refers to technologies and devices based on numbers  

____ 137. Social and economic gap between those who have access to computers and those who do not  

____ 138. Device that stores and processes bits electronically  

____ 139. Process of transforming nondigital information to 1s and 0s  

____ 140. Data organized and presented in a manner that adds value to the data itself  

____ 141. Issues related to the protection of the components of an information system  

____ 142. Issues related to the components of a computer-based information system  

____ 143. Digital electronics device that combines hardware and software to accept the input of data, process and store the data, and produce some useful output  

____ 144. Working understanding of the fundamentals of computers and their uses
145. Telecommunications network that connects two or more computers for the purpose of sharing data, hardware, and software resources

146. Items stored on a digital electronics device, including numbers, characters, sounds, music, or graphics

147. Collection of data stored on a computer, organized to meet users’ needs

Essay

148. Name the six components of a computer-based information system. Give a short example of how the corporation Facebook would use each of the components.