

## **Chapter 2**

### **Information Technology and AISs**

#### **True-False Questions**

1. Data transcription in AISs is labour intensive and is prone to introduce errors into accounting data.
2. A printer is an example of an input device.
3. A computer mouse is an example of an input device.
4. Equipment that surrounds a computer and assists it with input and output tasks is called “peripheral equipment.”
5. An example of a source document is an employee payroll cheque.
6. An example of a source document is an employee time card.
7. “Data transcription” is the same as “data communications.”
8. Plastic cards with magnetic strips are an example of bar code input.
9. MICR is an acronym for “multi-international character recognition.”
10. Equipment that gathers accounting data at the point at which a sale is made are sometimes called POS devices.
11. The acronym OCR stands for “optical character recognition.”
12. A Kindle device is an example of a computer tablet.
13. The processing power of a computer is often measured by the power of its CPU.
14. CPU is an acronym for “computerized peripheral unit.”
15. The processing power of the CPU in a mainframe computer is greater than in a minicomputer.
16. RAM is an acronym for “record access machine.”
17. RAM is an acronym that stands for “read and manipulate.”
18. RAM is usually measured in megahertz.
19. A gigabyte of computer storage is equal to one million bytes.
20. The two components of a microprocessor are the arithmetic-logic unit and the control unit.

21. Processor speeds are very important to AIS applications because faster processors automatically lead to greater throughput.
22. Laser printers and dot-matrix printers produce equal quality output.
23. In online, real-time systems, hard-copy output may be less desirable than soft-copy video screen display output.
24. For fast printing, most AIS systems use ink jet printers rather than laser printers.
25. The opposite of “primary storage” is “secondary storage.”
26. Magnetic disks and USB flash disks are examples of secondary storage media.
27. CD-ROM disks and hard disks have about the same capacities.
28. Accounting data are typically stored on hard disks in groupings called “computer records.”
29. Each computer record on a hard disk is composed of sub-elements called “data fields.”
30. The term “ROM” (as in CD-ROM) means “read-only memory.”
31. The acronym “worm” means that some types of CD-ROMs can be rewritten repeatedly.
32. A “DVD” disk is read magnetically.
33. A DVD typically has a greater storage capacity than a CD-ROM medium.
34. Blu-ray disks can store more than CD-ROM disks.
35. The term “data communications” primarily refers to the transfer of data from primary memory to hard disks.
36. The mechanism for transferring data between components of the CPU is called a TRIN (Transfer Random Accessed Instructions Now).
37. The term DSL stands for “digital subscriber line.”
38. The term “enrollment” refers to the initial reading in a biometric authentication.
39. An example of a “communications channel” is microwave transmission.
40. LAN is an acronym for “local area network.”
41. The central computer of a LAN is called a “file server.”

42. An advantage of using a LAN is the ability to distribute information among the employees in the same building.
43. An advantage of using a LAN is the ability to share computer files and equipment.
44. A computer network spanning a small area such as a single building is a LAN.
45. A computer network spanning a regional or national area is called a WAN.
46. Client/Server computing enables businesses to distribute the computer processing of the system between the client computer and the server computer.
47. The “application-logic” component of a client/server system refers to where the processing logic of the system takes place.
48. Wireless data communications refers to the ability to transmit data over fiber optic cables instead of twisted pair wires.
49. Bluetooth is a wireless data communications standard that allows unlike communications devices to communicate with one another.
50. An operating system is a set of computer programs that helps a computer run itself.
51. Programs such as Windows Vista and Unix are examples of *application programs*.
52. Fortran, COBOL, and RPG are examples of computer operating systems.
53. NFC is an example of cloud computing.
54. A legacy system is an example of an older computer system, typically running on a mainframe computer.
55. The terms *kilobyte*, *megabyte*, *terabyte*, and *gigabyte* are correctly ordered by size or capacity.
56. The term RFID is an acronym for “registered for information or data.”
57. The term *cloud* computing refers to services that organizations can access on the Internet.
58. The ability to use a tax-preparation program via the Internet for a fee is an example of SaaS.
59. The acronym *ERP* stands for “enterprise read-only program.”
60. A “mom-and-pop” convenience store would be an example of a business that would best utilize an ERP system.

## Multiple-Choice Questions

61. All of the following are reasons why information technology is important to accountants *except*:
- a) IT supports AIS functions such as communications and record keeping
  - b) Accountants must often evaluate AISs for themselves or for clients
  - c) It is important to keep up; if your competitors buy new computers, you should too
  - d) IT is likely to affect the way accountants work in the future
62. The CICA regularly conducts a voluntary survey to identify a list of important IT trends or factors called:
- a) The Top Ten Information Technologies and Issues
  - b) The Top Twenty Information Technologies
  - c) IT Information Trends for Tomorrow
  - d) The CICA IT Information List
63. The hardware of a computer system includes the computer itself and other devices that help the computer perform its tasks. These “other devices” are commonly also called:
- a) Helper equipment
  - b) IT devices
  - c) Peripheral equipment
  - d) Secondary equipment
  - e) Accessory equipment
64. All of the following are examples of peripheral equipment *except*:
- a) Input equipment
  - b) Output equipment
  - c) Communications equipment
  - d) Primary memory equipment
  - e) Secondary storage equipment
65. Which of these is one of the five interacting components of an accounting information system?
- a) Fuzzy logic
  - b) Testing
  - c) Certification
  - d) Procedures
  - e) Internet
66. Time cards, airline reservation screens, and bank deposit screens best describe which of the following?
- a) Data transcription
  - b) Point-of-sale devices
  - c) Source documents
  - d) Turnaround documents
  - e) Data transaction documents

67. MICR is most closely associated with:
- a) The airline industry
  - b) The data communications industry
  - c) Manufacturing
  - d) The banking industry
68. The UPC code is an example of a(n):
- a) POS
  - b) MICR
  - c) Bar code
  - d) Biometric input
69. Which of the following best describes documents initially prepared by a company, then sent to individuals, and finally returned to the organization for data processing?
- a) Mark-sense media
  - b) Source documents
  - c) Turnaround documents
  - d) MICR documents
70. A POS device is usually attached to a:
- a) Printer
  - b) Bank cheque
  - c) Cash register
  - d) Keyboard
  - e) Computer mouse
71. POS devices, bar code readers, and OCR devices are examples of:
- a) Input devices
  - b) Output devices
  - c) Processing devices
  - d) Transaction devices
72. Minicomputers, mainframe computers, supercomputers, and laptops are examples of:
- a) Input devices
  - b) Output devices
  - c) Central processing units
  - d) Display devices
73. Printers and video monitors are examples of:
- a) Output devices
  - b) Input devices
  - c) Processing devices
  - d) Storage devices

74. Which of these is a portable computing device that enables users to have and maintain personal and/or business information and data anywhere at any time?
- a) iPad
  - b) Minicomputer
  - c) Personal computer
  - d) CPU
75. A secondary storage device that protects against disk failures and increases storage capacities by using stacks of hard disks best describes which of the following?
- a) Magnetic disk
  - b) CD-ROM disk
  - c) Flash memory
  - d) WORM (Write-once, Read-many) Disks
  - e) RAID (Redundant Array of Independent Disks)
76. A 5-inch plastic disk used to store information up to 17 gigabytes describes which of the following?
- a) CD-ROM
  - b) Flash memory
  - c) Zip disk
  - d) DVD disk
77. A bar code reader is most likely to be used by which type of system?
- a) POS system
  - b) MICR system
  - c) Printer/scanner system
  - d) Fax machine system
78. Which type of company is most likely to use MICR?
- a) Grocery store
  - b) Bank
  - c) Phone company
  - d) Web site seller
79. The term "mark sense media" is most-closely related to which of the following?
- a) POS system
  - b) OCR system
  - c) MICR system
  - d) EDRM system
80. Which of the following is the most important reason to use POS systems, OCR systems, or MICR systems?
- a) To use the latest information technology
  - b) To avoid data transcription
  - c) To create an extra layer of IT infrastructure
  - d) To decrease dependency on foreign oil

81. The term “enrollment” is most closely associated with which of the following?
- a) EDRM system
  - b) Biometric system
  - c) POS system
  - d) Joystick
  - e) OCR system
82. Which of the following is correct?
- a) A laptop computer is an example of a minicomputer
  - b) Minicomputers are more powerful than microcomputers
  - c) Minicomputers are examples of tablets
  - d) A mainframe computer is an example of a supercomputer
83. An older computer system, typically using a mainframe, centralized data processing, and COBOL software, is often called a:
- a) Supercomputer system
  - b) Primary system
  - c) Legacy system
  - d) Traditional system
84. The reason why processor speeds are *not* important to AISs is because:
- a) Most AIS processing is performed on weekends anyway
  - b) There are so many of them in the world today
  - c) Microcomputers are so inexpensive these days
  - d) Most computers are I/O bound
85. Which of these is another common name for a printed document?
- a) A foldable document
  - b) A hard-copy document
  - c) A soft-copy document
  - d) A POS document
86. Which of these is *not* an example of a type of printer?
- a) Dot-matrix printer
  - b) Inkjet printer
  - c) Laser printer
  - d) VGA printer
87. The speed of a printer is commonly measured in:
- a) ppm
  - b) crt
  - c) lcd
  - d) Pixels
88. Within the context of the chapter on IT, which of these is *not* an acronym?
- a) ppm
  - b) byte
  - c) pixel
  - d) CD-ROM
  - e) all of these are acronyms

89. When associated with CD-ROMs, the letters “rw” mean:
- a) Raw
  - b) Rewind
  - c) Rewriteable
  - d) Regular width
90. A USB drive that uses flash memory is an example of a(n):
- a) Input device
  - b) Output device
  - c) Secondary storage device
  - d) Web device
91. The term “EDRM” is mostly-closely associated with:
- a) Records management
  - b) Points-of-sale processing
  - c) Banking
  - d) Electronic data recording and merchandising
92. Which of the following is *not* an example of a communication channel?
- a) Twisted-Pair wires
  - b) Coaxial Cables
  - c) Optical Fibers
  - d) Modem
93. Data communication speeds are typically measured in:
- a) ppm
  - b) bps
  - c) Pixels
  - d) LANS
  - e) WANS
94. A computer network spanning regional, national, or global areas best describes which of the following?
- a) LAN
  - b) WAN
  - c) ESPN
  - d) DSL
  - e) ISDN
95. Hardware or software that guards organizational information from external sources best describes which of the following?
- a) Intranets
  - b) Extranets
  - c) Firewalls
  - d) ISDN servers

96. Which of the following is a component of a client/server system?
- a) User component
  - b) Satellite component
  - c) Data-management component
  - d) Output component
97. The user's view of a client/server system best describes which component of a client/server system?
- a) Application-logic component
  - b) Data-management component
  - c) Presentation component
  - d) Data-transmission component
98. Which of these measures how close a biometric reading is to a prerecorded template?
- a) OCR reading
  - b) Hamming distance
  - c) Match percentage
  - d) Legacy amount
99. One advantage of this technology is that data processing can be performed by any computer on the network, so that servers can focus on dedicated tasks.
- a) Data-management computing
  - b) Application-logic computing
  - c) Client/Server computing
  - d) Presentation computing
100. The special cards that users can store in their cars to gain access to parking lots and breeze through collection booths on toll roads are examples of:
- a) RFID systems
  - b) NFC systems
  - c) POS systems
  - d) MICR systems
101. This is an example of an RFID system with a very limited range (less than 8 inches):
- a) LAN system
  - b) NFC system
  - c) WAN system
  - d) MICR system
102. Menus, icons, and other graphical elements are an example of which of the following?
- a) Utility programs
  - b) Personal productivity software
  - c) Virtual storage
  - d) Graphical user interface (GUI)

103. Programs that help users perform such tasks as copying files, converting files from one format to another, compressing files, performing system diagnostics, and building disk directories best describes which of the following?
- a) Antivirus software
  - b) Utility programs
  - c) Application software
  - d) Operating system software
104. Application software that enables businesses and government agencies to maintain, transmit and manipulate financial data on an organization-wide basis best describes:
- a) Communication software
  - b) CAD software
  - c) Enterprise resource planning (ERP) software
  - d) Programming software
105. Software used for preparing payrolls, maintaining accounts receivable files, or controlling inventory best describes:
- a) Communication software
  - b) Personal productivity software
  - c) Project management software
  - d) Accounting software
106. All of the following are programming languages *except*:
- a) Java
  - b) HTML
  - c) C++
  - d) COBOL
  - e) ERP
107. The translation process of converting source code into machine language (object code) is performed by which of the following?
- a) Utility program
  - b) System software
  - c) ERP (Enterprise Resource Management) software
  - d) Compiler
108. This is the process of recording the biometric readings of a legitimate user for the first time:
- a) Authorization
  - b) Biometric recording
  - c) Compiling
  - d) Digital assisting
  - e) Enrollment
109. The term *DSL* is mostly closely associated with:
- a) Computer tablets
  - b) Biometrics
  - c) Compiling computer programs
  - d) Digital data transmission
110. The term *cloud computing* refers to:

- a) Fuzzy computing logic
- b) Hidden computer data, which are obscured in some way
- c) Purchasing computing services on the Internet
- d) Undetected errors in data processing

111. Which of these is *not* an example of application software?

- a) Operating systems
- b) Spreadsheet packages
- c) Accounting packages
- d) Database management systems
- e) all of these are examples of application software

## Matching Questions

For the following terms find the correct definition below and place the letter of that response in the blank space next to the term. Each definition is used only once – there are two definitions that are not used.

- 112. \_\_\_\_\_ Input-processing-output
- 113. \_\_\_\_\_ POS system
- 114. \_\_\_\_\_ data transcription
- 115. \_\_\_\_\_ MICR coding
- 116. \_\_\_\_\_ biometric verification
- 117. \_\_\_\_\_ legacy system
- 118. \_\_\_\_\_ gigabyte
- 119. \_\_\_\_\_ terabyte
- 120. \_\_\_\_\_ worm
- 121. \_\_\_\_\_ RFID

### Definitions:

- A. Automated data recording for input
- B. Potential bottleneck for processing accounting data
- C. An older AIS, typically using a mainframe computer
- D. 1 billion bytes
- E. The data processing cycle for processing most accounting transactions
- F. A type of CD encoding
- G. 1 trillion bytes
- H. Threshold hamming distance
- I. Data communications using radio waves
- J. Used by banks for automated data input
- K. 1 thousand bytes
- L. 1 million bytes

## Short Answer Questions

- 122. What components make up an AIS system?
- 123. Why are microprocessor speeds rarely important to an AIS?
- 124. What is the difference between mainframe/host computing and microcomputer client/server computing?