

Appendix B - Information Systems Software

1) _____ consists of programs, or sets of instructions, that tell the computer to perform certain processing functions.

- A) GUIs
- B) Hardware
- C) Software
- D) Firmware

Answer: C

Page Ref: 369

Skill: R

2) A common form of computer system software is a(n) _____.

- A) command based system
- B) operating system
- C) application software
- D) system architecture

Answer: B

Page Ref: 369

Skill: R

3) _____ software is the collection of software that controls the basic functions of the computer. That is, it coordinates the interaction between hardware devices, peripherals, application software, and users.

- A) Integration
- B) System
- C) Applications
- D) Command

Answer: B

Page Ref: 369

Skill: A

4) Operating systems are often written in _____, a very low-level programming language that allows the computer to operate quickly and efficiently.

- A) assembly language
- B) COBOL
- C) C
- D) Visual Basic

Answer: A

Page Ref: 369

Skill: A

5) Windows and Macintosh operating systems have:

- A) graphic user interfaces.
- B) Internet-activated interfaces.
- C) command-based interfaces.
- D) voice-activated interfaces.

Answer: A

Page Ref: 371

Skill: R

- 6) _____ is/are designed to manage computer resources and files.
- A) Applications
 - B) Utility programs
 - C) Backup software
 - D) System software

Answer: B

Page Ref: 371

Skill: A

- 7) Desktop computers use all of the following operating systems EXCEPT:
- A) UNIX.
 - B) Microsoft CE.
 - C) Microsoft XP.
 - D) Linux.

Answer: B

Page Ref: 370-371

Skill: R

- 8) This operating system is a highly reliable system used on large IBM mainframe computers.
- A) Linux
 - B) MS-DOS
 - C) MVS/ESA
 - D) UNIX

Answer: C

Page Ref: 371

Skill: R

- 9) This command-based operating system is used on IBM-compatible PCs and was first introduced in 1981.
- A) MS-DOS
 - B) UNIX
 - C) Linux
 - D) MVS/ESA

Answer: A

Page Ref: 371

Skill: R

- 10) This operating system was developed in 1988 by IBM for powerful PCs and can run applications written for OS/2, MS-DOS, Java, or Windows.
- A) Mac OS
 - B) Linux
 - C) MS-DOS
 - D) OS/2

Answer: D

Page Ref: 371

Skill: R

11) This operating system, the first popular graphical-based operating system, debuted in 1984 and runs on Apple Macintosh personal computers.

- A) OS/2
- B) MS-DOS
- C) Linux
- D) Mac OS

Answer: D

Page Ref: 371

Skill: R

12) This operating system, especially popular for use on Web servers, was designed in 1991 by a Finnish university student and is known for its security, low price, and adaptability.

- A) MVS/ESA
- B) UNIX
- C) Linux
- D) MS-DOS

Answer: C

Page Ref: 371

Skill: R

13) _____ software lets a user perform a specific task, such as writing a letter, processing payroll, and managing a stock portfolio.

- A) Application
- B) Security
- C) Custom
- D) System

Answer: A

Page Ref: 371

Skill: A

14) _____ software is developed to meet specific organizational needs. It may be developed in-house by the company's own IS staff or it may be contracted or outsourced.

- A) Customized application
- B) Security
- C) System
- D) Utility program

Answer: A

Page Ref: 371-372

Skill: A

15) A _____ archives or saves a copy of selected files from the hard disk to a diskette or to tapes.

- A) conversion
- B) backup
- C) defragmentation
- D) device driver

Answer: B

Page Ref: 372

Skill: A

- 16) _____ software is typically used to support common business processes that do not require any specific tailoring.
- A) Security
 - B) Utility
 - C) Off-the-shelf
 - D) Custom

Answer: C

Page Ref: 372

Skill: R

- 17) _____ converts a fragmented file stored on a hard disk into a contiguously stored file which loads and can be manipulated more rapidly when referenced by the computer.
- A) Data recovery
 - B) File defragmentation
 - C) File conversion
 - D) Data compression

Answer: B

Page Ref: 372

Skill: A

- 18) _____ allows the recovery of damaged or erased information from hard disks or floppy disks.
- A) Defragmentation
 - B) Data compression
 - C) Data recovery
 - D) Backup

Answer: C

Page Ref: 372

Skill: A

- 19) _____ allows more data to be stored on a disk.
- A) Backup
 - B) File conversion
 - C) Disk recovery
 - D) Data compression

Answer: D

Page Ref: 372

Skill: A

- 20) _____ allow(s) new hardware added to your system to function with the operating system.
- A) Device drivers
 - B) Defragmentation
 - C) File conversion
 - D) Data compression

Answer: A

Page Ref: 372

Skill: A

- 21) _____ software accomplishes a wide range of tasks from word processing to graphics to e-mail.
- A) System
 - B) Custom
 - C) Security
 - D) Office automation

Answer: D

Page Ref: 373

Skill: A

- 22) Computer programs created using programming languages must be translated into code called _____.

- A) machine language
- B) compiler language
- C) interpreted language
- D) automation language

Answer: A

Page Ref: 375

Skill: R

- 23) A program that translates an entire program (written in a particular programming language) into machine language is called a(n) _____.

- A) compressor
- B) integrated
- C) compiler
- D) detailer

Answer: C

Page Ref: 375

Skill: R

- 24) Borland Paradox, Microsoft Access, Borland dBase, and Microsoft FoxPro are examples of what type of software?

- A) Spreadsheets
- B) PC-based e-mail
- C) Presentation software
- D) Database management system software

Answer: D

Page Ref: 374

Skill: R

- 25) A program that translates a programming language into machine language one line at a time is called a(n):

- A) compiler.
- B) detailer.
- C) compressor.
- D) interpreter.

Answer: D

Page Ref: 376

Skill: R

26) Which computer language, developed in 1960, was the first language designed for business software and is frequently used for transaction processing applications on mainframes?

- A) Pascal
- B) COBOL
- C) Basic
- D) FORTRAN

Answer: B

Page Ref: 375

Skill: R

27) Which computer language, developed by IBM in the 1950s, was designed for mathematical, science, and engineering applications?

- A) COBOL
- B) FORTRAN
- C) Pascal
- D) Basic

Answer: B

Page Ref: 375

Skill: R

28) Which object-oriented computer language, developed by Sun Microsystems in the early 1990s, is a popular Internet programming language because it is highly portable from one make of computer to another?

- A) HTML
- B) LISP
- C) C++
- D) Java

Answer: D

Page Ref: 375

Skill: R

29) Natural language, which uses true English sentences, to communicate with the computer is an example of a _____-generation language.

- A) third
- B) fifth
- C) fourth
- D) second

Answer: B

Page Ref: 376

Skill: R

30) _____ languages allow programmers to group data and program instructions together into modules that can be manipulated by the programmer.

- A) Second generation
- B) Artificial intelligence
- C) Object-oriented
- D) Compiled

Answer: C

Page Ref: 377

Skill: R

31) The process of grouping pieces of data together is called _____.

- A) merging
- B) inheritance
- C) encapsulation
- D) grouping

Answer: C

Page Ref: 377

Skill: A

32) A characteristic of object-oriented programming is _____, which refers to the fact that when one class of objects is defined, all other objects with the same characteristics are automatically defined by the same terms.

- A) ownership
- B) object-connectivity
- C) inheritance
- D) encapsulation

Answer: C

Page Ref: 377

Skill: R

33) A text-based language with codes or tags used for developing Web pages is called _____.

- A) HTML
- B) C++
- C) SQL
- D) Visual Basic

Answer: A

Page Ref: 378

Skill: R

34) _____ is a powerful Web development language that enables users to create their own markup tags and to build database queries.

- A) XML
- B) C++
- C) HTML
- D) Java

Answer: A

Page Ref: 378

Skill: R

35) A small Java program that runs when a Web pages is accessed is called a(n) _____.

- A) Javalet
- B) cotlet
- C) miniprogram
- D) applet

Answer: D

Page Ref: 378-380

Skill: R

- 36) _____ is Microsoft's technology to perform the same functions as Java, though it is designed only to work on Windows computers.
- A) MicroScript
 - B) JavaScript
 - C) C#
 - D) ActiveX

Answer: D

Page Ref: 380

Skill: R

- 37) _____ languages provide interactive components to a Web page. These languages let you build scripts directly into HTML code.
- A) Assembly
 - B) Interactive
 - C) Scripting
 - D) Visual

Answer: C

Page Ref: 380

Skill: R

- 38) CASE stands for:
- A) compressed archive system event.
 - B) comprehensive assessment software enterprise.
 - C) computer-aided software engineering.
 - D) computer architecture system event.

Answer: C

Page Ref: 381

Skill: R

- 39) An automated software tool used to design and implement information systems is:
- A) CASE
 - B) ERD
 - C) a repository tool
 - D) a code generator

Answer: A

Page Ref: 381

Skill: R

- 40) Diagramming tools, report generators, analysis tools, repositories, and code generators are all types of _____.
- A) systems design
 - B) system architecture
 - C) CASE tools
 - D) specifications

Answer: C

Page Ref: 381

Skill: A

41) Operating systems perform all of the following activities EXCEPT:

- A) Maintaining directory structure on disks
- B) Resolving addresses on the WWW
- C) Booting the computer
- D) Formatting disks

Answer: B

Page Ref: 370

Skill: R

42) Which of the following is a vendor of the UNIX operating system?

- A) Apple
- B) Hewlett-Packard
- C) COGNOS
- D) Microsoft

Answer: B

Page Ref: 371

Skill: R

43) Spam Blockers are a type of _____ utility:

- A) Data compression
- B) Antivirus
- C) File conversion
- D) Computer software

Answer: D

Page Ref: 372

Skill: R

44) Which of the following is NOT an advantage of off-the-shelf application software?

- A) High quality
- B) Low risk
- C) Complete customization
- D) Low cost

Answer: C

Page Ref: 373

Skill: A

45) The certification process for Open Source Software is called the:

- A) Open Source Initiative
- B) Object System Initiative
- C) Open Source Instantiation
- D) Open Systems Institute

Answer: A

Page Ref: 374

Skill: R

- 46) Word processors, spreadsheets, database management systems and web browsers are examples of:
- A) Software distribution mechanisms
 - B) Operating system utilities
 - C) Personal productivity tools
 - D) Enterprise management tools

Answer: C

Page Ref: 374

Skill: A

- 47) The FORTRAN programming language was designed for:
- A) Word processing applications
 - B) Artificial Intelligence applications
 - C) Scientific, mathematical and engineering applications
 - D) World Wide Web applications

Answer: C

Page Ref: 375

Skill: R

- 48) Fourth-generation Languages (4GLs) are also referred to as:
- A) Outcome-processing languages
 - B) Input processing languages
 - C) Input-oriented languages
 - D) Outcome-oriented languages

Answer: D

Page Ref: 376

Skill: A

- 49) SQL stands for:
- A) Structured Quartile Language
 - B) Standard Query Language
 - C) Standard Quartile Language
 - D) Structured Query Language

Answer: D

Page Ref: 376

Skill: R

- 50) In the context of Object-Oriented Programming, inheritance means:
- A) Current versions of software inherit the features of previous versions
 - B) Newer GUIs have features that were 'donated' by previous GUIs and not necessarily those of their own lineage
 - C) When a class of objects is defined, all other objects with the same characteristics are automatically defined by the same terms.
 - D) CASE tools use features that were not present in previous versions

Answer: C

Page Ref: 377

Skill: A

51) Software consists of programs, or sets of instructions, that tell the computer to perform certain processing functions.

Answer: True False

Page Ref: 369

Skill: A

52) Another name for a computers system software is application software.

Answer: True False

Page Ref: 369

Skill: R

53) System software is the collection of software that controls the basic functions of the computer.

Answer: True False

Page Ref: 369

Skill: R

54) Operating systems are often written in Visual Basic, a very low-level programming language that allows the computer to operate quickly and efficiently.

Answer: True False

Page Ref: 369

Skill: R

55) Windows and Macintosh operating systems have command-based interfaces.

Answer: True False

Page Ref: 370-371

Skill: R

56) UNIX is a highly reliable operating system that runs on large IBM mainframe computers.

Answer: True False

Page Ref: 371

Skill: R

57) Windows is a command-based operating system used on IBM-compatible PCs and was first introduced in 1981.

Answer: True False

Page Ref: 371

Skill: R

58) The Mac OS operating system, the first popular graphical-based operating system, runs on Apple Macintosh personal computers.

Answer: True False

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Skill: R

59) Application software lets a user perform a specific task, such as writing a letter, processing payroll, and managing a stock portfolio.

Answer: True False

Page Ref: 371

Skill: A

60) Customized application software is developed to meet specific organizational needs.

Answer: True False

Page Ref: 371

Skill: A

61) Data recovery allows the recovery of damaged or erased information from hard disks or floppy disks.

Answer: True False

Page Ref: 372

Skill: A

62) Defragmentation allows the recovery of damaged or erased information from hard disks or floppy disks.

Answer: True False

Page Ref: 372

Skill: A

63) Computer programs created using programming languages must be translated into code called machine language.

Answer: True False

Page Ref: 375

Skill: R

64) A compiler takes an entire program written in a programming language, such as C, and converts it into a completely new program in machine language that can be read and executed directly by the computer.

Answer: True False

Page Ref: 375

Skill: R

65) The process of grouping pieces of data together is called inheritance.

Answer: True False

Page Ref: 377

Skill: R

66) Programs and programming languages can be event-driven.

Answer: True False

Page Ref: 377

Skill: R

67) Extensible markup language (XML) was designed both to be used as a WEb page construction tool, when users want to create their own markup tags, and to build database queries.

Answer: True False

Page Ref: 378

Skill: A

68) SQL is a programming language developed by Sun Microsystems in the 1990s that enables dynamic content and displays of moving graphics.

Answer: True False

Page Ref: 378

Skill: R

69) A small Java program that runs when a Web page is accessed is called a Javalet.

Answer: True False

Page Ref: 378

Skill: R

70) Diagramming tools, report generators, analysis tools, repositories, and code generators are all types of CASE tools.

Answer: True False

Page Ref: 381

Skill: R

71) Computer memory allocation is handled by application software.

Answer: True False

Page Ref: 370

Skill: R

72) Device drivers allow new hardware such as a game controller to be added to your system.

Answer: True False

Page Ref: 372

Skill: R

73) Microsoft Office is an example of Open Source Software.

Answer: True False

Page Ref: 374-375

Skill: A

74) FORTRAN stands for FORmal TRANsport.

Answer: True False

Page Ref: 375

Skill: R

75) SQL is a Fifth-generation Language (5GL).

Answer: True False

Page Ref: 376

Skill: R

76) _____ consists of programs, or sets of instructions, that tell the computer to perform certain processing functions.

Answer: Software

Page Ref: 369

Skill: R

77) Another name for a computers system software is the _____.

Answer: operating system

Page Ref: 369

Skill: R

- 78) The _____ interface requires that you type text commands into the computer to perform basic operations.
Answer: command-based
Page Ref: 370
Skill: R
- 79) _____ are designed to manage computer resources and files. Some are included in operating system software.
Answer: Utilities
Page Ref: 371
Skill: A
- 80) The _____ operating system, especially popular for use on Web servers, was designed in 1991 by a Finnish university student and is known for its security, low price, and adaptability.
Answer: Linux
Page Ref: 371
Skill: R
- 81) _____ software lets the user perform a specific task, such as writing a business letter or managing a stock portfolio.
Answer: Application
Page Ref: 371
Skill: A
- 82) File _____ converts a fragmented file stored on a hard disk into one that will load and can be manipulated more rapidly when referenced by the computer.
Answer: defragmentation
Page Ref: 372
Skill: A
- 83) _____ application software is typically used to support common business processes that do not require any specific tailoring.
Answer: Off-the-shelf
Page Ref: 372
Skill: R
- 84) Most programming languages are translated into machine languages through a program called a _____.
Answer: compiler
Page Ref: 375
Skill: R
- 85) The grouping of data and instructions into a single object in object oriented programming languages is called _____.
Answer: encapsulation
Page Ref: 377
Skill: R

86) Among other things, operating systems manage where programs and files are located in _____
_____.

Answer: secondary storage.

Page Ref: 370

Skill: R

87) If an email is rejected before it arrives in your inbox, the most likely utility involved is a _____
_____.

Answer: Spam Blocker

Page Ref: 372

Skill: A

88) Low cost, faster procurement, high quality and low risk are all advantages of _____ - _____ -
_____ application software.

Answer: off-the-shelf

Page Ref: 373

Skill: R

89) Borland Paradox, Microsoft Access and Lotus Approach are all examples of _____
_____ systems.

Answer: database management

Page Ref: 374

Skill: R

90) _____ is an object-oriented programming language developed at Sun Microsystems in the early
1990s.

Answer: Java

Page Ref: 375

Skill: R

91) Explain the differences between command-based computer interfaces and graphical user interfaces (GUIs).

Answer: The earliest computer operating systems were command-driven, that is, they required one to type text commands into the computer to perform basic operations. MS-DOS, the first personal computer operating system for IBM-compatibles was command-driven. Graphical User Interfaces (GUI), where users point and click on small pictures called icons to initiate basic operations, began with the Apple Macintosh computer and later with the Microsoft Windows operating system.

Page Ref: 370-371

Skill: R

92) Describe the various operating systems used by computers.

Answer: Seven operating systems are described herein. MVS/ESA is a command-driven and highly-reliable operating system used on large IBM mainframes. UNIX is a multiuser, multitasking operating system that works on a variety of computers. MS-DOS, first introduced in 1981, was the command-based operating system for IBM PCs and compatibles. Windows, a GUI and the successor to MS-DOS, is the most popular operating system in the world. Mac OS was the first commercially popular GUI operating system, debuting in 1984. The Mac OS works on Apple Macintosh computers. Linux, developed by a Finnish university student, is an operating system based on UNIX known for its security, low price and adaptability.

Page Ref: 370-371

Skill: R

93) Describe the various popular programming languages.

Answer: There are eight programming languages described here. General-purpose languages include BASIC (beginners All-Purpose Symbolic Instruction Code) and C (including C++). BASIC was developed as an easy-to-learn language, but has evolved into a very sophisticated language which works well on most PCs. Visual Basic, for example, is used by more programmers than any other computer language. The C language and the expanded version C++ are complex languages often used for system and applications software development. COBOL (Common Business-Oriented Language) was developed in 1960 as a business transaction processing language. FORTRAN (FORmula-TRANslator) was designed in the 1950s for math, science, and engineering applications. Pascal (named after mathematician Blaise Pascal) is a very structured language which can be used for developing large programs. HTML (Hypertext Markup Language) is the most widely used language for developing web pages. Java is an object-oriented language which is a popular language for the internet because it is highly versatile. LISP is a useful language for developing artificial intelligence applications.

Page Ref: 375-377

Skill: R

94) Describe some Web development languages.

Answer: Four Web-based languages are described here, HTML, XML, Java, and ActiveX. HTML (Hypertext Markup Language) is a simple text-based language that uses a series of codes or tags to set up a document. The HTML code is interpreted by a Web browser and is displayed with a nicely formatted appearance within the browser. XML (extensible markup language) is more powerful than HTML in that it allows users to create their own markup tags and build database queries. Java is a programming language that allows the creation of dynamic displays and interactive content on Web pages. ActiveX, developed by Microsoft, is designed to function much like Java, except that it is designed to work on Windows computers.

Page Ref: 378-380

Skill: A

95) What is CASE, and why do programmers use it?

Answer: CASE (Computer-Aided Software Engineering) refers to automated software tools used by systems developers to design and implement information systems. Developers can use these tools to automate or support activities throughout the systems development process, with the objective of increasing productivity and improving the overall quality of systems. The capabilities of CASE tools are continually evolving and being integrated into a variety of development environments.

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Skill: R

96) Compare the advantages of customized application software versus those of off-the-shelf (OTS) application software. Which is better?

Answer: The advantages of customized are that the software can be tailored to meet unique user requirements. A related advantage is problem specificity. This advantage refers to the fact that a customer pays for only the features and requirements required by the particular application and not for other, more general or non-specific features. On the other hand, OTS applications are lower priced, can be obtained much more quickly (procurement) are of high quality and carry lower risk. There is no one, clear answer for which is better. It depends on the situation.

Page Ref: 371-373

Skill: A