TEST BANK

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FUNDAMENTALS OF
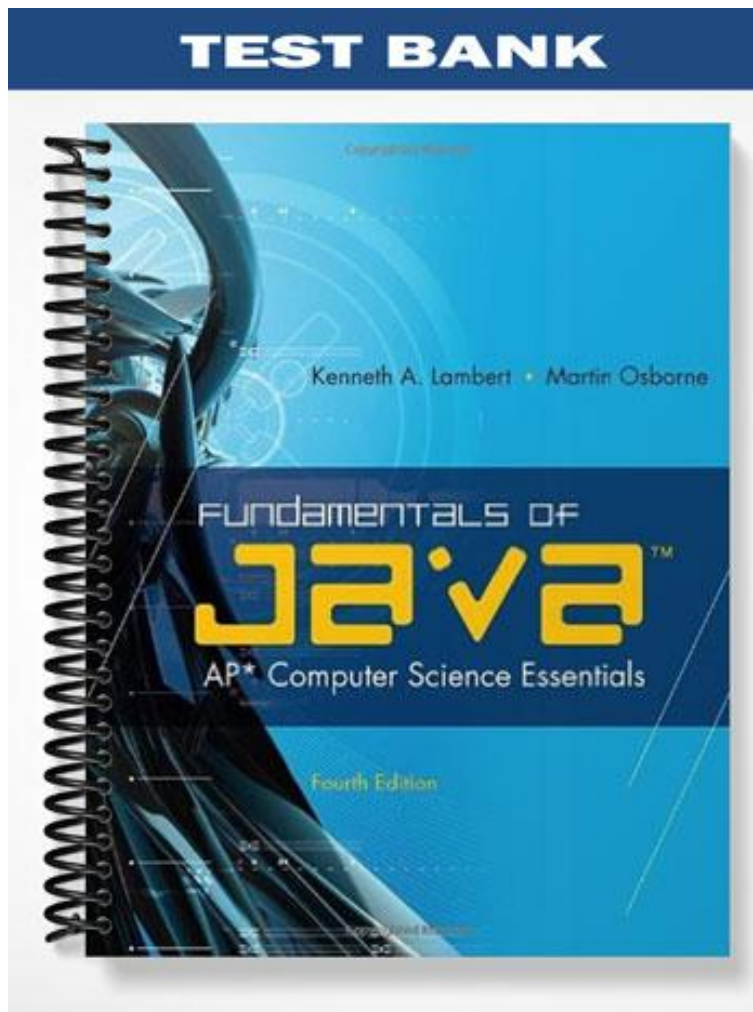
JAVA™

AP* Computer Science Essentials

Fourth Edition

Ch02

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

____ 1. Java bears a superficial resemblance to C++.

____ 2. Java is ideally suited to developing distributed, network-based applications.

____ 3. Java applets have little risk of infecting your computer with a virus.

____ 4. Source code is the bulk of the instructions of a program.

____ 5. UNIX is available on any Macintosh computer that runs MacOS X.

____ 6. A DOS development environment combines an editor, Java compiler, debugger, and a JVM.

____ 7. The main factor affecting a program's readability is misspelled words.

____ 8. In Java, as in algebra, addition and subtraction have a higher precedence than multiplication and division .

____ 9. Graphics and GUI programs in Java can run either as stand-alone applications or as applets.

____ 10. Java programs accomplish many tasks by sending messages to objects.

Modified True/False
Indicate whether the statement is true or false. If false, change the identified word or phrase to make the statement true.

____ 11. GUI is the machine language for an imaginary Java computer. _____

____ 12. The main advantage of a compiler is that any computer can run it. _____

____ 13. The terminal I/O user interface is familiar to all PC users. _____

____ 14. Syntax errors is another term for compile-time errors. _____

____ 15. Parameters are used to share information between objects. _____
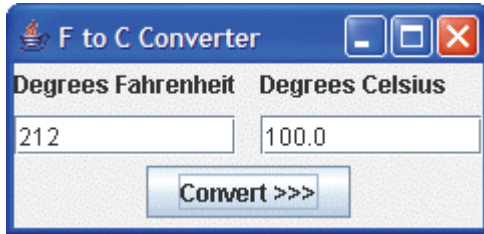
Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 16. Which of the following is NOT true about Java?
   a. Java is an object-based language.
   b. Java creates programs that are portable.
   c. The Java compiler translates into machine language.
   d. Java supports threads.

____ 17. Java is all of the following EXCEPT ____.
a. fast   c. robust
b. secure   d. portable

____ 18. A(n) ____ is a process that can run concurrently with other processes.
a. applet   c. interpreter
b. thread   d. parameter

____ 19. To run Java byte code, you must install a(n) ____.
a. GUI   c. IDE
b. JIT   d. JVM

____ 20. A(n) ____ is a program that behaves like a computer.
a. interpreter   c. terminal I/O
b. compiler   d. applet

____ 21. Some JVMs translate byte code instructions into machine language when they are first encountered, using the ____ technique.
a. IDE   c. variable
b. JIT   d. interpreter

____ 22. A(n) ____ is a small Java program that runs on Web pages.
a. JIT   c. JVM
b. parameter   d. applet

____ 23. All of the following are benefits of using a terminal I/O interface EXCEPT ____.
a. In Java, it is easier to implement than GUI.
b. It is more common and familiar.
c. Some programming situations require a terminal I/O interface.
d. Terminal-oriented programs are similar to programs that process files of sequentially organized data.

____ 24. A ____ is used to mark the end of each statement in a program.
a. comma (,)   c. period (.)
b. slash (/)   d. semicolon (;)

____ 25. The string of characters that appears between the parentheses following the message in Java code is called a(n) ____.
a. parameter   c. variable
b. statement   d. thread

____ 26. The three steps to writing and running a program, in order, are ____.
a. enter, edit, compile   c. edit, compile, execute
b. edit, execute, compile   d. enter, interpret, compile

____ 27. ____ is an editor available with Microsoft Windows.
a. Linux   c. BlueJ
b. UNIX   d. Notepad

____ 28. All of the following are examples of integrated development environments, EXCEPT ____.
a. BlueJ   c. JFrame
b. Eclipse   d. JGrasp

____ 29. The main factor affecting a program's readability is its ____.
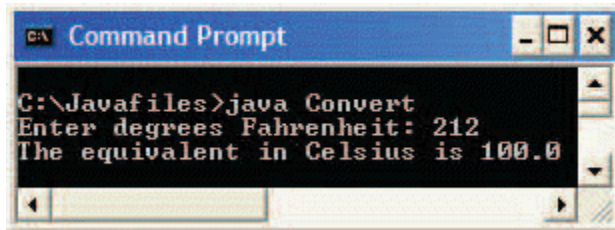
a. layout   c. language
b. spelling   d. development environment

____ 30. SomeClass someObject = new SomeClass (some parameters); is an example of _____.
a. assignment   c. byte code
b. instantiation   d. interpretation

____ 31. _____ is an assignment operator.
a. +   c. =
b. *   d. All of the above.

____ 32. A(n) _____ has a container or pane that can be filled with other objects.
a. JFrame   c. window
b. panel   d. IDE

____ 33. Colors in most computer systems use the _____ scheme.
a. color class   c. CMYK
b. RGB   d. GUI

FIGURE 2-1

____ 34. Figure 2-1 above represents a(n) _____ user interface.
a. GUI   c. terminal I/O
b. JVM   d. variable

FIGURE 2-2

____ 35. Figure 2-2 above represents a(n) _____ user interface.
a. GUI   c. terminal I/O
b. JVM   d. variable

Case 2-1
Jeremiah is a C++ programmer who has been asked by a client to create a program using Java.

____ 36. Jeremiah knows that Java is _____.
a. better suited to the Internet than C++
b. more error-prone than C++
c. the world's most popular industrial-strength programming language

d. superficially very different from C++

____ 37. Jeremiah will incorporate ____ into his Java program in order to allow multiple processes to occur at once, such as an image being transferred from one machine to another across a network, while another process simultaneously interacts with the user.
    a. variables   c. panels
    b. threads   d. applets

Case 2-2
Lucia is editing a program using Java. She has to install a development environment on her computer before she can get started.

____ 38. Lucia considers using the ____ development environment, which has the most widespread use.
    a. JGrasp   c. DOS
    b. Notepad   d. UNIX

____ 39. Lucia decides to use the ____ development environment so that she can increase her productivity.
    a. JGrasp   c. DOS
    b. Notepad   d. UNIX

Completion
Complete each statement.

40. _____ is the fastest growing programming language in the world.

41. A comical animated character on a Web page is likely run using a program called a(n) _____.

42. A(n) _____ is a programmer who breaks into computer systems in an unauthorized way.

43. In the _____ layout, the default layout manager for frames, you can arrange up to five objects.

44. In the _____ layout, objects are arranged in rows and columns.

Matching

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

    a. Applet
    b. GUI
    c. IDE
    d. Pane
    e. Byte code

____ 45. An example could be a continuous stream of stock quotes.

____ 46. Windows are often organized into many of these.

____ 47. To run this, you must install a JVM on the computer.

_____ 48. Eclipse is an example.

_____ 49. Familiar interface for PC users.

Essay

50. List at least three reasons why Java is used by companies such as Sun and IBM to develop their major applications. Why might a programmer choose another language?

Ch02
Answer Section

TRUE/FALSE

  1. ANS: T   PTS: 1   REF: 32
  2. ANS: T   PTS: 1   REF: 32
  3. ANS: T   PTS: 1   REF: 33
  4. ANS: T   PTS: 1   REF: 35
  5. ANS: T   PTS: 1   REF: 38
  6. ANS: F   PTS: 1   REF: 38
  7. ANS: F   PTS: 1   REF: 40 | 41
  8. ANS: F   PTS: 1   REF: 44
  9. ANS: T   PTS: 1   REF: 46
10. ANS: T   PTS: 1   REF: 52

MODIFIED TRUE/FALSE

11. ANS: F, Byte code

        PTS: 1   REF: 32
12. ANS: F, interpreter

        PTS: 1   REF: 33
13. ANS: F
GUI
graphical

        PTS: 1   REF: 33
14. ANS: T   PTS: 1   REF: 40
15. ANS: T   PTS: 1   REF: 43

MULTIPLE CHOICE

16. ANS: C   PTS: 1   REF: 32
17. ANS: A   PTS: 1   REF: 32
18. ANS: B   PTS: 1   REF: 32
19. ANS: D   PTS: 1   REF: 32
20. ANS: A   PTS: 1   REF: 32
21. ANS: B   PTS: 1   REF: 32 | 33
22. ANS: D   PTS: 1   REF: 33
23. ANS: B   PTS: 1   REF: 34
24. ANS: D   PTS: 1   REF: 35
25. ANS: A   PTS: 1   REF: 35
26. ANS: C   PTS: 1   REF: 37

27.	ANS: D	PTS: 1	REF: 38			
28.	ANS: C	PTS: 1	REF: 38			
29.	ANS: A	PTS: 1	REF: 41			
30.	ANS: B	PTS: 1	REF: 43			
31.	ANS: C	PTS: 1	REF: 44			
32.	ANS: A	PTS: 1	REF: 48			
33.	ANS: B	PTS: 1	REF: 48			
34.	ANS: A	PTS: 1	REF: 33			
35.	ANS: C	PTS: 1	REF: 33			
36.	ANS: A	PTS: 1	REF: 32	TOP: Critical Thinking
37.	ANS: B	PTS: 1	REF: 32	TOP: Critical Thinking
38.	ANS: C	PTS: 1	REF: 38	TOP: Critical Thinking
39.	ANS: A	PTS: 1	REF: 38	TOP: Critical Thinking

COMPLETION

40. ANS: Java

    PTS: 1   REF: 31

41. ANS: applet

    PTS: 1   REF: 33

42. ANS:
hacker
hack

    PTS: 1   REF: 41

43. ANS: border

    PTS: 1   REF: 49

44. ANS: grid

    PTS: 1   REF: 51

MATCHING

45.	ANS: A	PTS: 1	REF: 33
46.	ANS: D	PTS: 1	REF: 48
47.	ANS: E	PTS: 1	REF: 32
48.	ANS: C	PTS: 1	REF: 38
49.	ANS: B	PTS: 1	REF: 33

ESSAY

50. ANS:
Four possible reasons to use Java are:

1. It is a modern object-oriented programming language that uses the best features of languages such as C++ and Smalltalk.
2. Java is secure (tamper- and virus-free), robust (programs do not overwrite memory), and portable (programs can be run on different computer types).
3. Java uses advanced programming concepts, such as threads.
4. Java resembles C++, making it easy for C++ programmers to learn Java and vice versa.

Why a programmer might choose another lanugage:
Java runs more slowly than other modern programming languages because it must be interpreted using a JVM.

PTS: 1   REF: 32   TOP: Critical Thinking