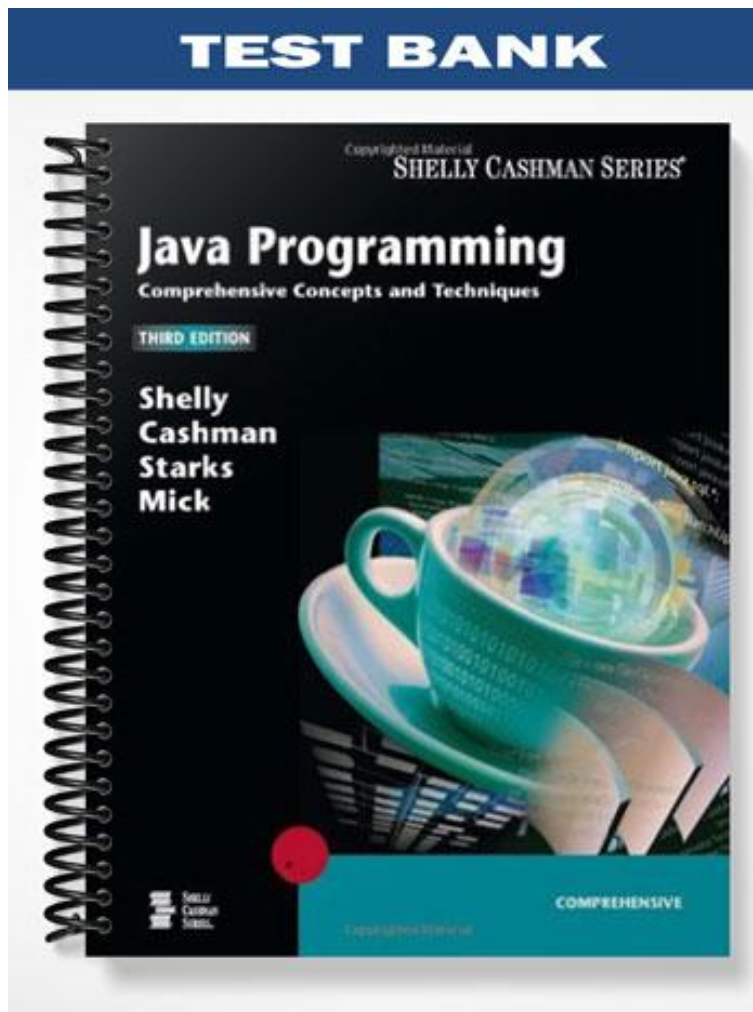


# TEST BANK



# Java Programming, Third Edition

## Test Bank

### CHAPTER TWO

#### CREATING A JAVA APPLICATION AND APPLET

- Test Bank Answers are on page 11.

#### Multiple Choice

1. \_\_\_\_ are useful for testing and system configuration.
  - a. Applets
  - b. Console applications
  - c. JavaBeans
  - d. Windowed applications
2. In TextPad, the \_\_\_\_ window displays a list of open TextPad files.
  - a. browser
  - b. Clip Library
  - c. coding
  - d. Selector
3. \_\_\_\_ comments are meant to provide a concise summary of the code.
  - a. Block
  - b. Doc
  - c. Header
  - d. Line
4. All of the following are access modifiers *except* \_\_\_\_.
  - a. private
  - b. protected
  - c. public
  - d. transient
5. The body of a class must be enclosed in \_\_\_\_.
  - a. asterisks
  - b. braces

- c. forward slashes
  - d. parentheses
6. A(n) \_\_\_\_ is a piece of data received by a method to help the method perform its operation.
- a. argument
  - b. identifier
  - c. parameter
  - d. variable
7. A(n) \_\_\_\_ is any word you choose to name an item in a Java program.
- a. argument
  - b. identifier
  - c. parameter
  - d. variable
8. A(n) \_\_\_\_ is a location in computer memory that can change values as the code executes.
- a. argument
  - b. identifier
  - c. parameter
  - d. variable
9. Which of the following is *not* a characteristic of the main() method?
- a. it is public
  - b. it is static
  - c. its return type is void
  - d. it has a parameter with an Integer data type
10. The System class extends methods from its superclass, which is the \_\_\_\_ class.
- a. Array
  - b. Exception
  - c. Object
  - d. JavaBean
11. A string of characters in quotation marks is called a string \_\_\_\_.
- a. array
  - b. literal
  - c. quote
  - d. object
12. All lines of Java code, other than headers and braces, must end with a \_\_\_\_.

- a. colon
  - b. comma
  - c. period
  - d. semicolon
13. A \_\_\_\_ occurs when a system command is not set properly, software is installed incorrectly, or the location of stored files has changed.
- a. run-time error
  - b. semantic error
  - c. syntax error
  - d. system error
14. A missing semicolon at the end of a Java statement is an example of a \_\_\_\_ error.
- a. logic
  - b. run-time
  - c. syntax
  - d. semantic
15. A \_\_\_\_ error is an error that changes the meaning of the code.
- a. logic
  - b. semantic
  - c. syntax
  - d. system
16. A \_\_\_\_ error can surface during execution due to an unanticipated action of the user.
- a. logic
  - b. semantic
  - c. syntax
  - d. system
17. Typing a(n) \_\_\_\_ after the package name in an import statement tells the program to load all the classes within a package.
- a. asterisk
  - b. comma
  - c. forward slash
  - d. semicolon
18. A(n) \_\_\_\_, identified by the = new notation, declares the type of data or object to be stored and assigns it a variable name in the computer's memory.
- a. constructor

- b. destructor
  - c. declarer
  - d. initializer
19. The \_\_\_\_ is a wildcard symbol to tell a program to import all necessary classes from a package.
- a. asterisk
  - b. comma
  - c. period
  - d. semicolon
20. When a method refers to an instance of an object with a variable, the variable is called a(n) \_\_\_\_.
- a. data variable
  - b. instance variable
  - c. object variable
  - d. reference variable
21. The drawString () method accepts all of the following arguments *except* a \_\_\_\_.
- a. Graphics object
  - b. horizontal coordinate
  - c. String
  - d. vertical coordinate
22. The \_\_\_\_ method is polymorphic.
- a. drawImage()
  - b. drawString()
  - c. getDocumentBase()
  - d. toString()
23. The \_\_\_\_ method accepts horizontal and vertical coordinates as parameters that identify where to draw the graphic.
- a. drawImage()
  - b. getDocumentBase()
  - c. getImage()
  - d. setBackground()
24. The keyword, \_\_\_\_, is required by the drawImage() method to hold the location of the image while it is being loaded from disk.
- a. catch

- b. extends
  - c. this
  - d. var
25. Which of the following is *not* an advantage of using Applet Viewer rather than a browser?
- a. Applet Viewer ignores irrelevant HTML code
  - b. Applet Viewer does not have to be Java-enabled
  - c. Applet Viewer uses less memory than a browser
  - d. Applet Viewer catches incorrect references to an applet

### True/False

- T F** 1. A splash screen is a screen that is displayed before the main program is displayed.
- T F** 2. When developing a program, programmers can assume the Close, Minimize, and Maximize button objects and their corresponding events will work as intended.
- T F** 3. Any text-editing program capable of creating a text file can be used to write Java programs.
- T F** 4. By default, TextPad displays line numbers automatically in the coding window.
- T F** 5. In TextPad, the Save button is enabled only when changes have been made to the document.
- T F** 6. Comments are executed before the program runs.
- T F** 7. Block comments begin with two forward slashes (//).
- T F** 8. TextPad displays comments in the color red.
- T F** 9. The Java compiler accepts keywords for class names.
- T F** 10. The Java compiler does not accept keywords for method names.
- T F** 11. A class name cannot contain spaces and must not begin with a number.
- T F** 12. All code entered after the class header is considered to be the body of the class and must be enclosed in parentheses.
- T F** 13. Java programmers conventionally use underlines to distinguish words in class names.
- T F** 14. The filename of a Java source code file must match exactly the class name assigned at the beginning of your program.

- T F** 15. A method header can have several access modifiers and several parameters, or it can have none.
- T F** 16. In a method header, multiple parameters are separated by semicolons.
- T F** 17. A method header can have multiple return types.
- T F** 18. The access modifier, `public`, can be used for both methods and classes.
- T F** 19. Variable names have the same spelling restrictions as class names.
- T F** 20. Each parameter in a method header must be preceded by a data type declaration.
- T F** 21. A method name in Java is always followed by a set of parentheses.
- T F** 22. Java programmers typically use the identifier, `args`, to name the parameter for the `main()` method.
- T F** 23. The word, `static`, is an access modifier.
- T F** 24. One needs to specify the argument's data type when calling a method.
- T F** 25. In the `System.out.println()` method, `out` refers to the object representing the default display.
- T F** 26. Java source code must be compiled before it can be executed.
- T F** 27. The Java compilation command is `java.exe`.
- T F** 28. The compilation process creates a new file for each class in a program.
- T F** 29. During compilation, the compiler adds a new file to the disk containing bytecode and ending with a `.java` extension.
- T F** 30. Syntax and semantic errors are detected at run-time.
- T F** 31. Programs that compile successfully may display logic or run-time errors.
- T F** 32. When using the Run Java Application command in TextPad, TextPad automatically looks for the class file with the same name and then executes it.
- T F** 33. When running the application from the command prompt, type `java` followed by the name of the class file and its extension.
- T F** 34. When source code is edited, the source code file must be compiled again to update the executable file.
- T F** 35. A source code filename has the `.class` extension.

- T F** 36. The SDK includes class packages as part of the standard installation.
- T F** 37. The import statement is placed at the end of the Java source code.
- T F** 38. An applet can modify files stored on a user's system.
- T F** 39. Applets can run only within a browser or viewer.
- T F** 40. An applet does not contain a main() method.
- T F** 41. The programmer needs to code an init() method for an applet.
- T F** 42. The paint() method returns a Graphics object.
- T F** 43. An applet uses the println() method to display text.
- T F** 44. The drawString() method must use a String as its first argument.
- T F** 45. Java applet images must be GIF files.
- T F** 46. The logic of assigning a value to a variable in Java works from left to right.
- T F** 47. A period (.) after a reference variable separates an object and its method, or an object and its attributes.
- T F** 48. HTML supports user interaction to accept input and generate output.
- T F** 49. When an HTML host document is loaded in the browser, the Java applet is sent to the browser as a separate file.
- T F** 50. HTML and its tags are generally case-sensitive.

## Completion

1. The way in which a user enters data and instructions into a computer and receives feedback from the computer is called a(n) \_\_\_\_\_.
2. A(n) \_\_\_\_\_ is a screen that is displayed before the main program is displayed.
3. A(n) \_\_\_\_\_ is a functional working model of a proposed system, created to make sure it meets users' needs.
4. The current date and time generated by the operating system of a computer is called the \_\_\_\_\_.



5. The TextPad \_\_\_\_\_ is the area where you can enter and edit lines of Java code.
6. In TextPad, \_\_\_\_\_ provide a reference for possible errors when you compile Java source code.
7. The area of the TextPad window called the \_\_\_\_\_ displays a list of special codes and tags used by some scripting tools and languages such as HTML.
8. Unlike other comments in Java, \_\_\_\_\_ have no ending symbol.
9. The \_\_\_\_\_ identifies how the code will be accessed and specifies the class name.
10. A(n) \_\_\_\_\_ is also called a scope identifier.
11. The access modifier, \_\_\_\_\_, indicates that the code can be accessed by all objects in the program and can be extended, or used, as a basis for another class.
12. Java reserved words, also called \_\_\_\_\_, are not accepted by the Java compiler as class names.
13. Java is \_\_\_\_\_, which means that the Java compiler considers uppercase and lowercase as two different characters.
14. Every stand-alone Java application must contain a(n) \_\_\_\_\_, which is the starting point during execution.
15. To code a method in Java, you begin with a(n) \_\_\_\_\_, which notifies the Java compiler of the method's attributes and the name of the method, among other information.
16. The modifier, \_\_\_\_\_, is used to denote a unique method that can be invoked without creating a subclass or instance.
17. A(n) \_\_\_\_\_ is a word that describes the category of data the method uses.
18. A method that does not return data uses the keyword, \_\_\_\_\_, instead of a data type.
19. Data that is sent to a method during invocation are called \_\_\_\_\_.
20. Identifiers are used to name \_\_\_\_\_, which are locations in computer memory that can change values as the code executes.

21. A(n) \_\_\_\_\_ defines the instance and class variables and methods available for use in the class, as well as other information, such as the immediate superclass.
22. An applet inherits from the Applet class in the SDK by adding the \_\_\_\_\_ command in its class header.
23. The process of fixing errors is called \_\_\_\_\_.
24. A run-time error also is called a(n) \_\_\_\_\_.
25. The \_\_\_\_\_ tells the compiler where to access the classes, fields, and methods of an existing class in a package.
26. \_\_\_\_\_ are non-printing control codes.
27. A plus sign can be used to \_\_\_\_\_ or join two or more Strings.
28. The \_\_\_\_\_, or AWT, is a package included with the SDK to provide programs access to color, draw methods, and other GUI elements.
29. A(n) \_\_\_\_\_ is the basic unit of programmable color on a computer display or in a computer image.
30. The \_\_\_\_\_ is used to convert non-String data to a String.
31. The \_\_\_\_\_ is used to load images into an applet.
32. Like the drawString() method, the \_\_\_\_\_ accepts horizontal and vertical coordinates as parameters.
33. The \_\_\_\_\_ takes a Color object and its attribute to change the background of the applet window.
34. Applets are executed by a(n) \_\_\_\_\_, also called a reference program.
35. In HTML, a(n) \_\_\_\_\_ is a code specifying how Web page content should display or link to other documents.

## TEST BANK ANSWERS FOR CHAPTER 2

### Creating a Java Application and Applet

#### Multiple Choice

- |           |            |            |            |             |
|-----------|------------|------------|------------|-------------|
| 1. b [46] | 6. c [68]  | 11. b [71] | 16. a [77] | 21. a [96]  |
| 2. d [55] | 7. b [68]  | 12. d [71] | 17. a [81] | 22. d [98]  |
| 3. b [62] | 8. d [68]  | 13. d [74] | 18. a [82] | 23. a [98]  |
| 4. d [64] | 9. d [68]  | 14. c [75] | 19. a [92] | 24. c [98]  |
| 5. b [66] | 10. c [70] | 15. b [76] | 20. d [96] | 25. d [105] |

#### True/False

- |            |            |            |            |             |
|------------|------------|------------|------------|-------------|
| 1. T [46]  | 11. T [65] | 21. T [68] | 31. T [77] | 41. F [95]  |
| 2. T [50]  | 12. F [66] | 22. T [68] | 32. T [77] | 42. F [95]  |
| 3. T [52]  | 13. F [66] | 23. F [68] | 33. F [77] | 43. F [96]  |
| 4. F [56]  | 14. T [66] | 24. F [70] | 34. T [79] | 44. T [97]  |
| 5. T [60]  | 15. T [67] | 25. T [70] | 35. F [79] | 45. F [98]  |
| 6. F [61]  | 16. F [67] | 26. T [73] | 36. T [80] | 46. F [98]  |
| 7. F [62]  | 17. F [67] | 27. F [73] | 37. F [81] | 47. T [99]  |
| 8. F [64]  | 18. T [67] | 28. T [73] | 38. F [89] | 48. F [101] |
| 9. F [64]  | 19. T [68] | 29. F [74] | 39. T [89] | 49. T [102] |
| 10. T [64] | 20. T [68] | 30. F [76] | 40. T [95] | 50. F [104] |

#### Completion

- |                             |                           |                                  |
|-----------------------------|---------------------------|----------------------------------|
| 1. user interface [46]      | 12. keywords [64]         | 24. exception [77]               |
| 2. splash screen [46]       | 13. case-sensitive [66]   | 25. import statement [81]        |
| 3. prototype [48]           | 14. main() method [67]    | 26. Escape characters [84]       |
| 4. system date [48]         | 15. method header [67]    | 27. concatenate [86]             |
| 5. coding window [54]       | 16. static [68]           | 28. Abstract Window Toolkit [92] |
| 6. line numbers [55]        | 17. data type [68]        | 29. pixel [97]                   |
| 7. Clip Library window [55] | 18. void [68]             | 30. toString() method [97]       |
| 8. line comments [62]       | 19. arguments [68]        |                                  |
| 9. class header [64]        | 20. variables [68]        |                                  |
| 10. access modifier [64]    | 21. class definition [70] |                                  |
| 11. public [64]             | 22. extends [70]          |                                  |
|                             | 23. debugging [74]        |                                  |

- 31. `getImage()` method  
[98]
- 32. `drawImage()` [98]
- 33. `setBackground()`  
method [99]
- 34. `host` [101]
- 35. `tag` [101]

