

V/BCA/501 (R)

Student's Copy

Professional Course Examination, November 2018
(5th Semester)

BACHELOR OF COMPUTER APPLICATIONS

Course : BCA-501

(Introduction to Java Programming)

(Revised)

Full Marks : 75

Time : 3 hours

(PART : A—OBJECTIVE)

(Marks : 25)

The figures in the margin indicate full marks for the questions

SECTION—A

(Marks : 15)

Tick (✓) the correct answer in the brackets provided :

1×10=10

1. Variables declared and used inside methods are called

- (a) class variables ()
- (b) local variables ()
- (c) instance variables ()
- (d) global variables ()

2. _____ provides all the tools, executables and binaries required to compile, debug and execute a Java program.

(a) JVM ()

(b) Applet ()

(c) JDK ()

(d) JRE ()

3. Which one is not included in Java API package?

(a) awt ()

(b) orl ()

(c) applet ()

(d) io ()

4. The string method "**s1.concat(s2)**"

(a) concatenates s1 and s2 ()

(b) copies s1 to s2 ()

(c) replaces s1 with s2 ()

(d) moves s1 to s2 ()

5. Run-time error occurs when

(a) missing semicolon ()

(b) using undeclared variables ()

(c) there is bad reference to object ()

(d) dividing an integer by zero ()

6. An exception is a condition that is caused by

(a) compile error ()

(b) run-time error ()

(c) logical error ()

(d) OS error ()

7. Read()

(a) reads a byte from the output stream ()

(b) reads a byte from the input stream ()

(c) reads file data ()

(d) writes data to output stream ()

8. All classes and interfaces for Java collection framework are contained in

- (a) java.awt ()
- (b) java.io ()
- (c) java.util ()
- (d) java.net ()

9. A Java program that can be embedded into Web page is

- (a) applet ()
- (b) iterator ()
- (c) AWT ()
- (d) thread ()

10. Button, text field and label are contained in

- (a) .GUI component classes ()
- (b) .GUI container classes ()
- (c) .Layout manager ()
- (d) .Custom graphics classes ()

Indicate whether the following statements are *True (T)* or *False (F)* by putting a Tick (✓) mark in the brackets provided : 1×5=5

1. Instance and class variables are declared inside a class. (T / F)
2. Interfaces are used as superclasses. (T / F)
3. Most run-time errors occur due to typing mistakes. (T / F)
4. Java.io provides system input and output through data streams. (T / F)
5. AWT is not platform dependent. (T / F)

SECTION—B

(Marks : 10)

Answer the following questions : 2×5=10

1. What do you mean by tokens?
2. Explain wrapper classes.
3. What is multithreaded programming?
4. Explain output stream.
5. Explain applet tag.

(PART : B—DESCRIPTIVE)

(Marks : 50)

The figures in the margin indicate full marks for the questions

1. (a) What is JVM? Is it platform independent? Explain. 4

(b) Explain the different OOPS concepts in Java. 6

OR

(c) Explain the different features of Java. 4

(d) What is nesting of methods in Java? Write a Java program to show nesting of methods. 6

2. (a) Explain the different steps involved in creating arrays. 4

(b) Explain the concept of packages in Java. What are the different Java API packages? 6

OR

(c) What do you mean by string array? Write a Java statement to create and use arrays that contain strings. 4

(d) What is the function of interfaces in Java? Explain with a simple program to show the use of interfaces in Java. 6

3. (a) What do you mean by errors? Explain the different types of errors in Java. 4

(b) What is exception? Write down the difference between errors and exceptions. 6

OR

(c) What is thread? Explain the steps involved in extending the thread class. 4

(d) Briefly discuss the life cycle of a thread. 6

4. (a) Explain the concept of stream in Java. What are the two types of byte stream classes? 4

(b) Explain file class. Write down the different operations of file class. 6

OR

4 (c) Write down the main difference between set and list implementation in Java. 4

6 (d) Explain in brief the concept of iterator in Java. 6

4 5. (a) What is applet? Explain the benefits of using applets. 4

6 (b) Discuss the life cycle of applet. 6

OR

4 (c) What are the different types of control supported by Java AWT? 4

6 (d) What is Java AWT? Write down the Java AWT hierarchy. 6
