BCA–13

Programming in JAVA

Bachelor of Computer Applications

(BCA–11/16/17)

Fourth Semester, Examination, 2017

Time : 3 Hours **Max. Marks : 80**

Note : This paper is of **eighty (80)** marks containing **three (03)** Sections A, B and C. Attempt the questions contained in these Sections according to the detailed instructions given therein.

Section–A

(Long Answer Type Questions)

Note : Section 'A' contains four (04) long answer type questions of nineteen (19) marks each. Learners are required to answer *two* (02) questions only.

1. What is JDBC ? Explain the various type of JDBC drivers. Also explain major design constraints with JDBC.

2. Explain the following terms using suitable example :

    (a) Polymorphism

    (b) Encapsulation

    (c) Exceptional Handling

    (d) Applet

3. What is the different type of loop in the Java programing language ? Briefly explain with their syntax.

4. (a) What is inheritance ? Explain the types of inheritance with an example.

   (b) What is recursive method ? Explain with an example.

Section–B

(Short Answer Type Questions)

Note : Section 'B' contains eight (08) short answer type questions of eight (8) marks each. Learners are required to answer *four* (04) questions only.

1. (a) Why Java is called a platform independent language ?

   (b) How Java is more secure than other programming language ?

2. Write short notes on the following :

   (a) Strings

   (b) Vectors

3. What is Java Applet ? Write a Java applet code to add two numbers.

4. What are the different types of constants in Java ? Explain with example.

5. Explain the JVM (Java Virtual Machine) ?

6. What is an interface ? Explain its significance using suitable example.

7. Differentiate between AWT and Swing component.

8. (a) What is a package ? What are its functions ?

    (b) How do we add a class or an interface to a package ?

Section–C

(Objective Type Questions)

Note : Section 'C' contains ten (10) objective type questions of one (01) mark each. All the questions of this Section are compulsory.

1. Which class cannot be subclassed (or extended) in Java ?

    (a) Abstract class

    (b) Parent class

    (c) Final class

    (d) None of the above

2. Which of these values can a Boolean variable contain ?

    (a) True and False

    (b) 0 and 1

    (c) Any integer value

    (d) True

3. Program which executive applet is known as :

    (a) applet engine

    (b) virtual machine

    (c) JVM

    (d) None of the above

4. Literal can be of which of these data types ?

   (a) integer

   (b) float

   (c) boolean

   (d) All of the mentioned

5. Arrays in Java are implemented as :

   (a) class

   (b) object

   (c) variable

   (d) None of the mentioned

6. Thread class is available in :

   (a) java.io package

   (b) java.lang package

   (c) java.awt package

   (d) java.utill package

7. JIT meaning :

   (a) java in time

   (b) just in time

   (c) join in time

   (d) None of these

8. A class member declared protected becomes member of subclass of which type ?

   (a) public member

   (b) private member

   (c) protected member

   (d) static member

9. After the compilation of the Java source code, which file is created by the JVM ?

    (a) .class

    (b) .java

    (c) cdr

    (d) doc

10. $x = x + 1$ is equivalent to :

    (a) $++x$

    (b) $x++$

    (c) $x = x - 1$

    (d) None of these

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