BCA/M-23   **1881**

PROGRAMMING IN CORE JAVA
BCA-366

Time : Three Hours]   [Maximum Marks : 80

Note : Attempt *Five* questions in all. Q. No. **1** is compulsory. Attempt *four* more questions, selecting exactly *one* question from each Unit.

Compulsory Question

1. (a) State the purpose of JVM.

    (b) Name the various data types in Java.

    (c) How can you create an object from a class in Java ?

    (d) What is meant by an abstract class ?

    (e) State the purpose of super keyword.

    (f) What is CLASSPATH setting for packages ?

    (g) What are the differences between checked and unchecked exceptions ?

    (h) Enlist the various layout managers in Java.

                                                          8×2=16

Unit I

2. Explain various control structures in Java using suitable examples.   16

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3. (a) How is Java different from procedural and other object-oriented languages ? Explain. 8

(b) Explain the following terms w.r.t. Java : 8
    (i) Keywords
    (ii) Literals
    (iii) Command line arguments.

Unit II

4. Write a program in Java to create a class named as matrix. This program should be able to multiply and add two matrices. 16

5. Write a program in Java to perform the following operations on strings : 16
    (i) finding string length
    (ii) compare two strings
    (iii) concatenate two strings
    (iv) copy a string.

Unit III

6. What do you understand by inheritance ? Explain various types of inheritances using suitable examples in Java in detail. 16

7. Explain any four pre-defined packages along with their classes and methods in detail using suitable examples. 16

Unit IV

8. Explain the following keywords :

    (i)   try   (ii) catch

    (iii) throw   (iv) throws

    (v)   finally.

    Also write a program using all of the above keywords.

    16

9. What is an applet life-cycle ? Create an applet that receives a number as input from a text box and find the sum of the digits of the input number and displays it.   16

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