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BCA/M-18   **1933**
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 *one* question from each Unit.

1.   Answer the following questions in brief :   8×2=16

   (i)   Explain the signature of main method in JAVA.

   (ii)   What is nested class ? What is its usage ?

   (iii) Explain the use of static keyword with an example.

   (iv)   What are Command Line Arguments ? Explain.

   (v)   Differentiate between interface and abstract class.

   (vi)   What is the purpose of the finally clause of a try-catch-finally statement ?

   (vii) What do you mean by polymorphism ? How is it achieved in JAVA ?

   (viii) What are Container classes ? Explain.

Unit I

2.   (a)   What is byte code ? How is it related to JVM ? How JAVA is platform independent ? Explain.   8

     (b)   Explain the concept of identifiers, literals and keywords in JAVA with examples.   8

3.   Explain the following :

     (a)   Hierarchy of Arithmetic and Logical Operators   8

     (b)   For and for........each statements.   8

Unit II

4.   (a)   Explain different ways of passing parameters to a method in JAVA programming.   8

     (b)   What do you mean by Constructor ? Differentiate between default constructor and parameterized constructor with an example.   8

5.   (a)   With the use of 2D array write a Java program to interchange the rows and columns of a given matrix.   8

     (b)   What is a Stringbuffer class and how does it differ from String class ? Explain any *three* methods of class string and string buffer.   8

Unit III

6. (a) How do you define and implement interface in JAVA ? How can you extend an interface ? Explain with an example. 8

   (b) What is Inheritance ? Explain the multilevel inheritance with a suitable example. 8

7. (a) What is a package ? What are the benefits of using packages ? Write down the steps in creating a package. 8

   (b) Explain different access protection which can be used in packages. 8

Unit IV

8. What are Exceptions ? Distinguish between checked and unchecked exceptions in JAVA. How can you create your own exception in JAVA ? Explain with an example. 8,8

9. (a) What is an applet ? Explain the methods used in applet with examples. 8

   (b) Draw and explain the inheritance hierarchy for the component class in AWT. 8