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44 (4) BCA 4-3

2023

PROGRAMMING IN JAVA

Paper : 4-3

Full Marks : 80

Time : Three hours

The figures in the margin indicate full marks for the questions.

1. Answer the following questions : $2 \times 10 = 20$
 - (a) What is the difference between JDK, JRE and JVM ?
 - (b) List the features of Java Programming Language.
 - (c) Define JAVA.
 - (d) Define method overriding.
 - (e) Define class and object with example.
 - (f) Give an example of method overloading.

Contd.

- (g) Give an example of string concatenation.
- (h) Define JAVA.
- (i) What is the constructor ?
- (j) Define Java virtual machine.
2. (a) Explain the different operators used in Java. 5
- (b) What is method overloading? Explain with proper programming example. 5
- (c) What is an operator? Explain the arithmetic, relational, bitwise, conditional and assignment operators. 10
3. Distinguish between the following : **(any five)**
2×5=10
- (a) Input stream and Reader class
- (b) Try and catch block
- (c) Class methods and constructor
- (d) Class and Interfaces
- (e) Thread and Multithreading
- (f) Output stream and writer class

4. Answer from the following :

- (a) Briefly discuss the exception handling mechanism in Java. 5
- (b) What is Java package? Write the advantages of Java packages. 5
- (c) What is protected members? Explain with example. 5
- (d) Write a Java program to input a string from the keyboard and count the number of upper case characters present in the string. 5

5. Write short notes on : *(any two)* 10

- (a) Inheritance
- (b) Primitive datatypes of Java
- (c) ODBC
- (d) Life cycle of an Applet
- (e) Event handling mechanisms used in Java