

Sixth Semester B.E. Degree Examination, Dec.2024/Jan.2025
Programming in Java

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Explain any four features of OOP. (08 Marks)
- b. What is literal? Explain different types of literals in Java. (06 Marks)
- c. What is Scope of variable in Java? Explain with an example program. (06 Marks)

OR

- 2 a. Explain control statements in Java with example program. (08 Marks)
- b. What is an array? Explain how 1D and 2D arrays are declared in Java. Write a program to find sum of all the elements of a two dimensional array. (08 Marks)
- c. Write a Java Program to find area and perimeter of a circle. (04 Marks)

Module-2

- 3 a. Describe bitwise operators with example. (08 Marks)
- b. Explain different access modifiers in Java. (04 Marks)
- c. Write a program to implement simple calculator using,
 - (i) if-else
 - (ii) Switch statements
 (08 Marks)

OR

- 4 a. Explain iterative statements in Java with an example for each. (08 Marks)
- b. Write a Java program to search an element and find its position in an array by using linear search. (06 Marks)
- c. Write Java program to find largest of three numbers using, (i) nested if (ii) ternary operator. (06 Marks)

Module-3

- 5 a. What is constructor? Explain different types of constructors with example. (06 Marks)
- b. Explain the operation of stack with example program. (08 Marks)
- c. What is inheritance? Explain single inheritance with example. (06 Marks)

OR

- 6 a. What is overloading of methods? Explain with example program. (05 Marks)
- b. Distinguish between call by value and call by reference with example. (08 Marks)

- 6 c. Write an abstract class shape, which has an abstract method area (). Derive three classes Triangle, Rectangle and Circle from the shape class and to override area (). Implement run time polymorphism by creating array of references to super class. Compute area of different shapes and display the same. (07 Marks)

Module-4

- 7 a. What is Package in Java? Explain with an example. (06 Marks)
b. Distinguish between abstract classes and abstract methods. (06 Marks)
c. What is nested try statement? Write program to illustrate the same. (08 Marks)

OR

- 8 a. What is exception handling in Java? Explain with an example, the use of try and catch. (06 Marks)
b. Explain interface, with an example program illustrate the implementation of an interface. (08 Marks)
c. Explain the operation of throw with a program. (06 Marks)

Module-5

- 9 a. What is enumeration in Java? Explain with example program. (07 Marks)
b. Write a program to read data from file. (07 Marks)
c. Explain different type wrappers in Java. (06 Marks)

OR

- 10 a. What is Java applet? Explain program to display "Hello" using applet. (08 Marks)
b. Explain special string operations. (08 Marks)
c. What are transient and volatile modifiers? (04 Marks)

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