

[Time:2.30 Hrs]

[ Marks:75 ]

Please check whether you have got the right question paper.

- N.B:
1. All question are compulsory.
  2. Figures to the right indicate full marks.
  3. Students answering in the regional language should refer in case of doubt to the main text of the paper in English.

Q.1 Attempt **any three** of the following: 15

- a. State the features of Java programming.
- b. Describe the architecture of JVM with its components.
- c. Explain Data types in Java.
- d. What are Strings? List String Methods in Java.
- e. Explain Relational & Logical Operator in Java.
- f. Write a program to calculate the area of a rectangle & a circle.

Q.2 Attempt **any three** of the following: 15

- a. Write a Java program to find the largest of three numbers.
- b. Explain Static Variable in Java with suitable example.
- c. What are Constructors? Explain Parameterized Constructor with Example.
- d. Write a Java program for bank account to perform Simple operations using Switch Case Statement.
- e. Write a program to demonstrate the concept of method Overloading.
- f. Differentiate between while and do-while loop.

Q.3 Attempt **any three** of the following: 15

- a. Define Inheritance. Explain its terms and list its types.
- b. Write a Java program to implement multi-level inheritance.
- c. Explain the concept of Abstract classes & method with example.
- d. Write a short note on Interfaces in Java.
- e. Differentiate between Abstract classes and Interface.
- f. Write a program to implement packages in java.

Q.4 Attempt **any three** of the following: 15

- a. What are Arrays? Explain Single Dimensional array with example.
- b. What are Threads? Describe thread life cycle.
- c. Explain the Try-Catch block in java.
- d. List various methods of java vector Class.
- e. Explain the Java input and output stream class.
- f. List and Explain Various Methods of Thread class.

Q.5

Attempt **any three** of the following:

15

- a. What are events? Explain delegation event model.
- b. List and explain Mouse Listener Key events and interfaces.
- c. Explain the CheckBox class with its Constructors & methods.
- d. Write a short note on grid Layout.
- e. Develop a Code that has three radio buttons Red, Green, Blue. On Click of any one of them background color of the frame should change accordingly.
- f. What is the use of adapter class in Java? Explain any one of the adapter classes defined in Java.