

- N.B: (1) All questions are compulsory.  
 (2) Figures to the right indicate marks.  
 (3) Illustrations, in-depth answers and diagrams will be appreciated.  
 (4) Mixing of sub-questions is not allowed.

**Q1. Attempt the following (any THREE): (15)**

- (A) Explain JFrame and JInternalFrame. Give Example.
- (B) Explain with methods JOptionPane and give example.
- (C) What is the use of JRadioButton? How to create object of these classes?
- (D) Explain any three text entry components in swing.
- (E) Write a program in java which takes name and age from the user on click of the button and display a message, user is eligible to vote or not.
- (F) Write a java program that creates a list Containing Ice-cream flavors. On Selection of any flavor price should be displayed in text field.

**Q2. Attempt the following (any THREE): (15)**

- (A) Explain JMenu class with any one method. Give Example.
- (B) What is JToolBar ? Explain with example.
- (C) What are the steps for creation of thread?
- (D) How to create JTable in swing. Give example.
- (E) What is Thread safe variable?
- (F) Write a java program to implements JTabbedPane.

**Q3. Attempt the following (any THREE): (15)**

- (A) Explain Type 3 and Type 4 Drivers in JDBC.
- (B) What is ResultSet ? Explain with example.
- (C) Explain any two SQL Exception in JDBC.
- (D) Write a short notes on CallableStatement in JDBC.
- (E) Write a JDBC program to create a table product (id number,name varchar,pricer varchar). And Insert a record in the table.
- (F) Write a JDBC program to accept empid . And Display the name of employee who is getting highest salary from employee table.

**Q4. Attempt the following (any THREE): (15)**

- (A) What is InetAddress class? Explain methods with parameter and return type.
- (B) Explain any five methods of URL class.
- (C) Explain architecture of RMI.
- (D) What is ServerSocket explain with example.
- (E) Write a program to read the content of URL. Using URLConnection class.
- (F) Define the interface and implementation class a RMI system with a method that accepts a number and return factorial of the number.

**Q5. Attempt the following (any THREE):** (15)

- (A) Write a program in java to divide a frame in two parts.
- (B) Write a swing program containing three text fields. First text field accepts Last Name and second text field accepts First Name. On click of button full name is displayed in third box.
- (C) Explain DriverManager and Connection interface.
- (D) What are the steps involved in creating RMI.
- (E) Explain with example JComboBox and its method.
- (F) Write a Server program to return factorial of a number to client using Socket.

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