**1. Variables & Data Types**

Q1. Write a Java program to declare two integer variables, assign values, and print their sum, difference, product, and quotient.

Q2. Declare a floating-point variable to store temperature in Celsius. Convert it to Fahrenheit and print the result. (Formula: F = (C \* 9/5) + 32)

**2. Operators & Expressions**

Q3. Write a Java program to take two numbers as input and swap their values without using a third variable.

Q4. Given a number, check whether it is even or odd using the modulus operator.

**4. Loops (for, while, do-while)**

Q7. Write a Java program to print all even numbers from 1 to 50 using a for loop.

Q8. Write a program to print the multiplication table of a number entered by the user.

**5. Arrays**

Q10. Write a Java program to take 5 integer inputs in an array and find the largest and smallest elements in the array.

Q11. Implement a program to calculate the sum of all elements in an integer array.

**6. Objects & Classes**

Q1. Create a class Book with attributes title, author, and price. Write a program to create and display multiple book objects.

Q2. Write a program to create a class Rectangle with attributes length and width. Implement a method to calculate and return the area of the rectangle. Create an object, assign values, and display the area.

**7. Constructor**

Q4. Create a class Laptop with attributes brand, processor, and price. Use a parameterized constructor to initialize values and display laptop details.

Q5. Define a class Person with attributes name and age. Implement two constructors: a default constructor and a parameterized constructor. Create objects using both and display their details.

**8. Encapsulation**

Q7. Create a class Student with private attributes name, rollNumber, and marks. Implement getter and setter methods to access and modify the values safely.

Q8. Implement a class BankAccount with private attributes accountNumber and balance. Use getter methods to display balance and setter methods to allow deposits but restrict direct modification of balance.

**9 Intermediate Level Questions**

**4. Inheritance**

Q10. Create a base class Vehicle with attributes brand and speed. Derive a class Car that adds an attribute fuelType. Implement methods to display details of both classes.

Q11. Define a class Animal with a method makeSound(). Create subclasses Dog and Cat that override this method to print specific sounds. Create objects and call the method.