NOTE: (1) All questions are **compulsory**.
   (2) **All questions** carry **equal marks**.
   (3) Answers to the **same question** must be **written together**.
   (4) Numbers to the **right** indicate **marks**.
   (5) Draw **neat labeled diagrams** wherever **necessary**.

Q.1. Attempt any Three of the following.   [15]
   a) Explain simple java program structure.
   b) What is variable? How it is declared and initialized?
   c) Write a short note on Java Virtual Machine (JVM) and its components.
   d) Explain different operators in java.
   e) Explain different features of Java.
   f) Explain Keywords and Identifiers in java.

Q. 2. Attempt any Three of the following.   [15]
   a) Explain constructor overloading with an example.
   b) Explain in brief 1. break statement 2. continue statement.
   c) Explain method overloading and its two ways to overload method.
   d) Explain if-else-if ladder with an example.
   e) How to declared constants in java. Explain with suitable example.
   f) Write short note on variable arguments (varargs) in java.

Q. 3. Attempt any Three of the following.   [15]
   a) How an interface is different from an abstract class?
   b) How multiple inheritance is implemented in java?
   c) Explain different steps to create user defined package with an example.
   d) Explain hierarchical inheritance with an example.
   e) Explain how to achieve data abstraction using abstract class.
   f) Explain 'this' keyword and different usage of 'this' keyword.

Q. 4. Attempt any Three of the following.   [15]
   a) Write short note on FileInputStream class.
   b) Explain different thread control methods in java.
   c) Explain multidimensional array with an example.
   d) Explain keywords: 1)try 2)catch 3)throw 4) throws 5) finally.
   e) Explain vectors and enlist any five methods of it.
   f) Explain FileWriter class with suitable example.

Q. 5. Attempt any Three of the following.   [15]
   a) Explain event delegation model and its advantage.
   b) Explain constructors and methods of event classes : 1)ActionEvent 2)WindowEvent.
   c) Explain AWT components with example: 1.Textfield 2.Checkbox.
   d) Explain FlowLayout and GridLayout manager with suitable example.
   e) Explain the use of adapter classes with any one example.
   f) Explain MouseListener interface with an example.

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