



- Notes :
1. All questions are compulsory and carry equal marks.
 2. Draw neat and labelled diagrams wherever necessary.
 3. Avoid vague answers and write answers relevant and specific to questions only.

Either:

1. a) Define JVM? Explain Garbage collection in detail. Explain different types of Database Models. 8
- b) Write a program to test whether the entered number is positive or negative. 8

OR

- c) What are the standard flowchart symbol and its meaning? Write a flowchart for Addition of three number. 8
- d) Write a Java program to check whether seller made a profit or loss, if sales price and purchase price is inputted through keyboard. 8

Either:

2. a) Discuss in detail about various data types in Java. 8
- b) Explain for loop with its syntax & example in detail. 8

OR

- c) Write about Java - lang*; package in detail. 8
- d) Write a program to create a simple class to find out the Area and perimeter of rectangle and box using super and this keyword. 8

Either:

3. a) Explain any five predefined packages in Java. 8
- b) Describe Exception classes in detail. 8

OR

- c) Write a program to demonstrate the Runnable interface. 8
- d) What is inheritance? Explain how we can implement single and multilevel inheritance in Java with example. 8

Either:

4. a) Draw and explain the Architecture of Applet. 8
- b) Write a program to demonstrate window Adapter class. 8

OR

- c) Explain in detail about frames and panel used in AWT. 8
- d) Write a short notes on: 8
 - i) Border layout
 - ii) Grid Layout

5. Attempt all the questions.
 - a) Why coding convention is necessary? Explain. 4
 - b) Write about Finalize() method. 4
 - c) Write a short note on multithreading. 4
 - d) Write about components. 4
