Time: 2½ hrs.

Marks: 75

Note:
1. All questions are compulsory with internal choice.
2. Draw neat diagrams wherever necessary.
3. Figures to the right indicate full marks.

Q.1 Answer the following (any Four) (20)
(a) Explain the concept of inner class in java.
(b) Explain Method Overriding. Define this keyword and give example.
(c) Write a note on Life Cycle of Thread in java.
(d) Difference between Abstract class and Interface.
(e) What is predefined package? What are its advantages?
(f) Write a program using interface to calculate the area of Rectangle and method is getArea().

Q.2 Answer the following (any Four) (20)
(a) Name and explain features of java foundation classes.
(b) Which are the types of Statements in JDBC? Explain
(c) What is java List?
(d) What are Swing – JButton?
(e) Name and explain swing API components.
(f) Write a program to add country names using swing JList on the frame.
(Countries are : India, Australia, England, US, New Zeland)

Q.3 Answer the following (any Four) (20)
(a) What are the Methods of GenericServlet class?
(b) Explain Model – 2 MVC Architecture.
(c) What are the different types of Servlets?
(d) Explain the life cycle of Servlet.
(e) Write a program to accept two numbers from client and perform their addition using Servlet.
(f) Explain the life cycle of JSP.

Q.4 Answer the following (any Five) (15)
(a) Write difference between Method Overloading and Method Overriding in java.
(b) What are Servlets?
(c) Which are different types of Inheritance? Explain Hybrid Inheritance.
(d) What is JDBC?
(e) Which are special symbols in java used?
(f) Explain the terms: i) Event Handling   ii) Polymorphism   iii) Key Adapter

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