

Time: 3 Hours

Marks: 100

- N.B. 1) All questions are compulsory.
 2) Figures to the right indicate marks.
 3) Draw suitable diagrams wherever necessary.
 4) Mixing of sub-questions is not allowed.

Q1. Write short notes on: (any FOUR):

- Cookies.
- ResultSet.
- Thread Priority.
- JTable.
- RMI Architecture.
- GenericServlet class.

(20)

Q2. Attempt the following (any FOUR):

- How to create tree in swing.
- Explain any three text entry components.
- State the role of JFrame class and explain it with code snippet.
- Write a note on Prepared Statement interface.
- Write a swing program for Login GUI containing label, text field and button.
- Write a JDBC program that insert record into the Employee table.
(Assume: Emp: ename,salary,designation)

(20)

Q3. Attempt the following (any FOUR):

- Write a short note on Life Cycle of thread.
- Explain URL and URLConnection classes.
- List and explain steps to run RMI with example.
- Give the significance of Socket and ServerSocket.
- What are different ways to achieve multithreading in Java. Explain any one.
- Write a server program to send welcome note to client which connects to it.

(20)

Q4. Attempt the following (any FOUR):

- Explain life-cycle of servlet.
- State and explain various methods of HttpServletRequest class.
- What are implicit objects? Explain any 4 implicit objects of jsp.
- Explain page directive along with its attributes.
- Write a servlet that accepts an integer value from html file and calculates the factorial of that value.
- Write a JSP program that prints the sum of natural number series up to 'N'.
(N should be accepted from user).

(20)

Q5. Attempt the following (any FOUR):

- Explain the lifecycle of Stateful session bean.
- List and explain different types of EJB Beans.
- Difference between Statefull and stateless session bean.
- Explain SOAP, UDDI and WSDL.
- Write a note on JAX-WS technology.
- Write a web service method that returns the length of input string.

(20)