

[Time: 3 Hours]

[ Marks:80]

Please check whether you have got the right question paper.

- N.B:**
1. **Question No.1 is compulsory**
  2. **Attempt any four questions out of the remaining Q,2 to Q.7**

- Q.1) Write short notes on any four of the following 20
- a) Session Management in servlet.
  - b) JSP implicit object.
  - c) JDBC Architecture.
  - d) Interface in JAVA.
  - e) Java features.
- Q.2
- a) Explain with Example the term throw and throws in exception handling? Write a program to create a user defined exception in java? 08
  - b) Compare servlets and JSP? Write a program to count the Hits(No. of times websites is visited) done the websites using servlet? 07
- Q.3
- a) Write a program to demonstrate the use of thread synchronization in a multithread application? 08
  - b) What is EJB? Explain different types of EJB? 07
- Q.4
- a) What is struts? Explain its features and its architecture? 08
  - b) What are database driver? Explain different type of database driver? List the steps for JDBC connection? 07
- Q.5
- a) Explain Event Delegation model with example? List various Event class and Event Listener interface of swing components? 08
  - b) Explain the difference between the following keywords final, finally and finalize? Also list the different ways of using the super keywords? 07
- Q.6
- a) What is object serialization and deserialization and how is it achieved in java? 08
  - b) What are directive? Explain different types of directives in JSP? 07
- Q.7 Write short note on: 15
- a. Wrapper class
  - b. Packages in Java
  - c. Layout Manager in java.
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