Q.P. Code : 515300

(3 Hours)   Total Marks : 80

Note :(1) Question No. 1 is compulsory.
(2) Attempt **any four** questions out of the **remaining Q. 2 to Q. 7**

1. Attempt **any four**:-
   a) Wrapper Classes   20
   b) JSP Architecture
   c) Cascading style sheets
   d) Abstract class
   e) Object Serialization and Deserialization

2. a) What is Inheritance? Explain hybrid inheritance with suitable example.   8
   b) Write a program to sort following city names in ascending order - Kolkata,   7
      Delhi, Pune, Mumbai, Surat, Indore, Bengalaru, Hyderabad.

3. a) What is Object Oriented Programming? Explain OOP's Concepts in java with   8
      suitable examples.
   b) What are differences between Generic Servlet and Http Servlet.   7

4. a) Describe java program steps in order to get connectivity to database along   8
      with example.
   b) Explain Request Dispatching in Servlet. What are differences between Request   7
      Dispatching and send redirecting?

5. a) Explain Event Delegation Model in java with Suitable example.   8
   b) What is Exception? Explain Handling process for any two java's unchecked   7
      runtime exception subclasses.

6. a) What is Data Race Condition? Explain how you will eliminate data race   8
      condition in multithreaded application in java. Give an Example?
   b) What is EJB? Explain different types of EJB.   7

7. a) What is JSP? Explain JSP Life cycle with suitable example.   8
   b) What is struct? Explain features of structs.   7