MCA - Sem - IV (CBCS)
Core & Advanced Java
22/11/16   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