USN ☐☐☐☐☐☐☐☐☐☐

Fourth Semester MCA Degree Examination, Dec.2015/Jan.2016
Advanced Java Programming

Time: 3 hrs.

Max. Marks:100

Note: *Answer any FIVE full questions.*

1 a. Explain about servlet life cycle. (05 Marks)
   b. Write a servlet program that handles form data. (10 Marks)
   c. Explain about Session Tracking using session object. (05 Marks)

2 a. Explain the need, benefits and advantages of JSP. (06 Marks)
   b. Write a JSP code that adds two numbers entered through form (html form). (08 Marks)
   c. Explain about JSP directives. (06 Marks)

3 a. Explain the following page directive attributes
      i)   import
      ii) session
      iii) errorPage
      iv) isErrorPage. (12 Marks)
   b. Explain in detail about using beans in JSP. (08 Marks)

4 a. Explain about JARs in detail. (07 Marks)
   b. What are Annotations? Explain built in Annotations. (07 Marks)
   c. Explain about java API package. (06 Marks)

5 a. Define Java Bean and explain the terms interspection and customers. Write a sample code for Java Bean. (12 Marks)
   b. Explain Java Beans API. (08 Marks)

6 a. Explain the steps in writing JDBC program with sample code. (12 Marks)
   b. Explain about JDBC Prepared statement. (08 Marks)

7 a. Explain about
      i)   Session Beans
      ii) Message Driven Bean
      iii) Entity Bean (12 Marks)
   b. Explain the following terms
      i)   Dependency injection
      ii) Interceptors
      iii) Instance pooling
      iv) Naming and object stores (08 Marks)

8 a. Explain the life cycle of stateless Session Bean. (10 Marks)
   b. Explain the life cycle message driven Bean. (10 Marks)

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