USN ☐☐☐☐☐☐☐☐☐☐ **13MCA42**

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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