USN

Fourth Semester MCA Degree Examination, June/July 2013 Topics in Enterprise Architecture – I

Time: 3 hrs. Max. Marks: 100

Note: Answer any FIVE full questions.

- 1 a. Describe in detail JDBC architecture and function of each component. (10 Marks)
 - b. Describe in detail all JDBC driver types along with their advantages and disadvantages.

(10 Marks)

- 2 a. Briefly describe the situations where you should use prepared statement. (04 Marks)
 - b. Explain with the help of a simple program, how to use a prepared statement to process the result of "Select" SQL query. (06 Marks)
 - c. Write a stored procedure to transfer money from one bank account to another. The stored procedure must take the following parameters as input:
 - * First bank account no.
 - * Second bank account no.
 - **★** The amount of money to be transferred from the first account to the second.

Also write a simple Java program to invoke the stored procedure using callable statement interface. (10 Marks)

- 3 a. Discuss the life cycle of servlets with appropriate method implementations. (10 Marks)
 - b. Differentiate the following with the help of an example:
 - i) GET and POST methods.
 - ii) Servlet context and servlet config.

(10 Marks)

- 4 a. Write a java servlet program for implementing the following:
 - * Accept user name and password from HTML page.
 - * Login verification against the database.
 - * Appropriate message to be displayed using the request dispatcher method. (10 Marks)
 - b. Briefly explain the purpose of using filters in conjunction with servlets.
 - c. Write a servlet method to keep track of the users using cookies. (06 Marks)
- 5 a. Briefly explain the three types of directives used in JSP with illustration. (09 Marks)
 - b. Outline the steps involved in creating custom tags in JSP.

(07 Marks) (04 Marks)

(04 Marks)

a. Write the code segment to add an icon to a bean.

c. Explain < jsp:plugin > action tag with an example.

- (05 Marks)
- b. Briefly explain the following variations with respect to standard properties supported by JavaBeans model:
 - **★** Bound properties
 - * Constrained properties.

(05 Marks)

- c. Write a Java JSP program to accept employee information through a HTML. Also create a Javabean class, populate the bean and display the same information through JSP. (10 Marks)
- a. Discuss the life cycle and implementation of stateful session bean in EJB. (10 Marks)
 - b. Write a message driven bean program which implements publisher / sub scriber model.

(10 Marks)

- **8** Write short notes on the following:
 - a. Life cycle of java server pages.
 - b. Deployment descriptor in servlets.
 - c. Advantages of JSP over servlets.
 - d. Benefits of using Java beans. (20 Marks)

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