

MCA (Revised)

Term-End Examination

December, 2016

00525

MCS-051 : ADVANCED INTERNET TECHNOLOGIES

Time : 3 hours

Maximum Marks : 100

Note : Question no. 1 is compulsory. Attempt any three questions from the rest.

1. (a) What is a Scriptlet in JSP ? Show the use of JSP scriptlets with the help of an example. 10
- (b) How are business logic and presentation layers separated using server pages ? Explain the relationship between Applet, Servlet and JSP. 10
- (c) What are the advantages of using an Entity Bean for database operations over directly using JDBC API to do database operations ? When would one need to be used over the other ? 10
- (d) Explain any five different types of tags or scripting elements used in JSP. 10

- 2. (a) Explain the differences between the following :**
- (i) External Entity and Internal XML Entities 5
 - (ii) Java Beans and Enterprise Java Beans 5
- (b) Describe the constituents of a Digital Certificate. Also explain the importance of deployment descriptor in a servlet. 10**
- 3. (a) Create an HTML Reader JSP tag that reads the HTML page from a link and will display the content on the JSP. Do not use "include" directive. 10**
- (b) Explain the following :**
- (i) Two-way SSL-authentication with JNDI 5
 - (ii) Two-way SSL-authentication with servlets 5
- 4. (a) Explain the life cycle of stateless and stateful session beans. 10**
- (b) Write a program using JSP to retrieve the name, roll number and grades in each subject of a student from a database wherever the grade is 'A', 'B' or 'C'. 10**

5. (a) Describe the issues related to form-based authentication and HTTPS client authentication. 10
- (b) Write the DTD of an XML document that contains student information. A student may be enrolled for more than one subject and has a grade in each of those subjects if any examination has been conducted in it. The fields middle-name and grade are optional, while subject can occur many times. All other fields are required. 10
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