

**MCA (Revised)**  
**Term-End Examination**

**June, 2015**

**08243**

**MCS-051 : ADVANCED INTERNET TECHNOLOGIES**

*Time : 3 hours*

*Maximum Marks : 100*

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

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1. (a) What is the advantage of using an entity bean for database operations, over directly using JDBC API to do database operations ? When would you need to use one over the other ? 6
- (b) Explain any two types of XML entities in brief. 4
- (c) How do you invoke a Servlet ? What is the difference between doPost and doGet methods ? 5
- (d) Write servlet code to use a form to authenticate a client using the session information stored in the HTTP session object in the web server. 10
- (e) Create a database of employees who are working for ABC company and then write a program using JSP and JDBC to display their names, departments and salaries which they are drawing from the company ? 10

- (f) Explain JNDI Authentication with suitable example. 5
2. (a) Differentiate between the following : 5×3=15
- (i) GET and POST
  - (ii) Servlet engines and Servlet chaining
  - (iii) Session and Cookies
  - (iv) XML and SGML
  - (v) Session bean and Entity bean
- (b) Explain the different circumstances under which message driven bean can be used. 5
3. (a) Explain the different types of restrictions in EJB. 5
- (b) Explain the life cycle of Servlet. Write a code for a demo Servlet to explain all the three stages of Servlet life cycle. 10
- (c) Explain three different types of JDBC SQL statements. 5
4. (a) Explain different types of system vulnerabilities in detail. 8
- (b) Differentiate between validating and non-validating parser. 4
- (c) Draw a diagram to show security objects dependencies and explain each security object with the help of examples. 8

- 5. (a) Consider the following list of attributes :**
- Last name – mandatory**
  - Middle name – optional**
  - First name – mandatory**
  - Phone – optional**
  - e-mail – mandatory**
  - Nationality – “Indian” in all cases**
- Write an XML DTD for the above. 6**
- (b) Explain the four call back methods of entity beans. 8**
- (c) Discuss any three system recovery procedures in detail. 6**
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