

10021

**MCA (Revised)**  
**Term-End Examination**  
**December, 2011**

**MCS-051 : ADVANCED INTERNET  
TECHNOLOGIES**

*Time : 3 hours*

*Maximum Marks : 100*

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**Note :** *Question number 1 is compulsory. Attempt any three questions from the rest.*

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1. (a) What are the advantages of using Java's multiple layer security implementation. 10
- (b) Explain the different phases of servlet lifecycle in brief. 8
- (c) What is an XML parser ? Differentiate between validating and non-validating parser. 6
- (d) Assume that there is table named Employee in MS-access with fields (EMP\_ID, EMP\_NAME, EMP\_DOB, EMP\_MOBILE, EMP\_ADDRESS, EMP\_SALARY). Write a code in Java (using JDBC) which will retrieve and display the employees with maximum and minimum salary in the tabular format. 10

- (e) What criteria should a developer keep in mind while choosing between a session bean and entity bean ? 6
2. (a) Write a message Driven Bean that accepts resumes of candidates from a website that gives data in an XML format with the following structure. 10
- Name
- Qualifications
- Age
- Rest-of-resume
- The program should ignore resumes of candidates whose age does not fall between user specified values and the remaining resumes should be written to a database.
- (b) Explain the difference between : 10
- (i) External Entity and Internal XML entities with example.
- (ii) Java Bean and Enterprise Java bean.
3. (a) Explain various scripting elements used in JSP with example. 10
- (b) Explain the following concepts of Java Bean in brief : 10
- (i) Low level Introspection
- (ii) High level Introspection

4. (a) Where do we use Session Bean ? 10  
Differentiate between stateless session bean and stateful session bean ?
- (b) What is SSL Authentication ? Explain the 10  
role of Digital Certificate and Digital Signature in SSL authentication.
5. (a) What are the different types of restrictions 8  
on EJB ?
- (b) There is a student database with fields 12  
name, address, roll number, subject and grade. Write a JSP program to insert records into this database, to retrieve existing records based on the roll number and to delete an existing record given the roll number.
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