

08077

MCA (Revised)
Term-End Examination
December, 2010

**MCS-051 : ADVANCED INTERNET
TECHNOLOGIES**

Time : 3 hours

Maximum Marks : 100

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

1. (a) Explain different types of tags or scripting elements used in JSP. 5
- (b) What are the call back Methods of Entity Beans ? 5
- (c) Explain the various circumstances under which message - driven Bean can be used. 5
- (d) Explain the structure of an XML document. 5
- (e) Explain the Life cycle of an Entity Bean with diagram. 5

- (f) Write an online student registration application using JSP/servlet and JDBC. Use the following table to store student information. **15**

STUDENT_REG

ENR_ID	NAME	REG_YEAR	ADDRESS
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The application should have the search facility on all the fields to search the student records. Please add validations and make necessary assumptions.

2. (a) What is Java Servlet ? Explain the Life cycle of servlet. Write a code for demo servlet to explain all the three stages of servlet Life cycle. **10**
- (b) Explain main three capabilities of including files and Applets in JSP Documents. **10**
3. (a) Explain the working of Secure Socket Layer (SSL) and Transport Layer Security (TLS) with security measures. Explain how can we send a secure message on the network. **10**
- (b) What is a custom tag in JSP ? Create a custom tag that will accept a full name and convert into initials. For example Surendra Kumar Sharma should be displayed as S.K. Sharma. Please use proper error handling. **10**

4. (a) Why do we need XML ? Also list the advantages of XML over HTML and SGML. 10
- (b) What are the benefits of using Entity beans for database operations over directly using JDBC API to perform database operations. Please discuss which technology should be used in what conditions/scenario. 10
5. (a) What is Servlet Collaboration ? Explain two ways used for Servlet Collaboration through an example. 10
- (b) What is a MDB (Message Driven Bean) and why it has been used in enterprise application ? Also write a MDB for temperature conversion from Celsius to Fahrenheit. 10
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