

MCA (Revised)

Term-End Examination

June, 2017

05042

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 the purpose of message-driven beans ? Explain the various circumstances under which a message-driven bean should be used. 5
- (b) Assume there is a table named Student in "University" database with the following fields :
s_id, name, semester, email_id
Write a servlet code to insert and display records of the Student table using JDBC. Assume ORACLE as RDBMS. 10
- (c) What are the limitations of JSP ? How can the integration of JSP and servlet overcome these limitations ? 5

- (d) What is the advantage of using Entity beans over directly using JDBC APIs for database connectivity? 5
- (e) Write an XML document to represent Term End Examination (TEE) grade card of MCA students which will contain name, assignment marks, TEE marks and enrollment number. 10
- (f) How does EJB container assist in transaction management and persistence? 5
2. (a) What are the main functions of HTTP ServletRequest interface? Explain the methods which are used to add cookies to response and send an error response. 5
- (b) Write a code in JSP to stop caching of a page by a browser. 5
- (c) What is DTD? Why do we use it with XML documents? 5
- (d) Explain the different types of restrictions on EJB. 5
3. (a) What is custom tag in JSP? What are the components that make up a tag library in JSP? 10
- (b) How does SSL work? Discuss several security measures provided by SSL. 10

4. (a) What are the advantages of using Java's multiple layer security mechanism ? 10
- (b) Write a code fragment showing how to use JDBC to query and modify a database. 5
- (c) Describe the five benefits of EJB architecture for an application developer. 5
5. (a) What is the difference between stateless and stateful session beans ? 5
- (b) Explain all five basic types of implicit objects of JSP. 5
- (c) Differentiate between session and cookies. 5
- (d) What are the advantages of XML over HTML ? 5
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