

MCA (Revised)

Term-End Examination

June, 2016

07016

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) Explain the underlying software architecture of EJB with the help of a diagram. 10

- (b) Consider a relational database with data on students. The fields are roll_no, last_name, first_name, subject and grade. Write a Java program to connect to this database and insert the data of a student with 5 subjects into it. You are required to connect to the database using a JDBC driver. 10

- (c) What is meant by XML parsing ? Describe the parsers involved with XML. 10

- (d) Explain different phases of life cycle of a servlet with the help of a diagram. 10

2. (a) Explain any two capabilities of including files and applets in JSP documents. 10
- (b) How can two servlets share information using the system property list ? In an inventory application, one servlet stores the stock of an item in a system property. Another servlet uses this property to find whether an order quantity can be fulfilled or must be declined. Show how this can be done through a Java program. 10
3. Differentiate between the following : 4×5=20
- (a) Generic Servlet and HTTP Servlet
- (b) XML and SGML
- (c) Covert Storage Channel and Covert Timing Channel
- (d) Stateful session bean and Entity bean
4. (a) What are the advantages of using Java's multiple layer security implementation ? Explain with the help of an example program. 10
- (b) Explain any two basic mechanisms through which a web client can authenticate a user to a web server using *http authentication*. 10

5. (a) Explain SSL authentication with encryption and handshake. 10
- (b) What is JNDI authentication ? Explain with the help of a suitable example. 10
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