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MCS-051

**MASTER OF COMPUTER
APPLICATIONS (MCA) (Revised)**

Term-End Examination

December, 2019

MCS-051 : ADVANCED INTERNET TECH.

Time : 3 Hours

Maximum Marks : 100

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

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1. (a) (i) What is the function of an XML parser ? 2
- (ii) What is the difference between a well formed and valid XML document ? 2
- (iii) How does an XML parser process each of them ? 2
- (iv) What is the output of an XML parser and what kind of program uses it ? 2
- (b) Consider a relational database table customer. The fields of the table are name,

name, mobile_number, address and email_id.

Write a servlet program to connect to this database and insert 5 records in the table. You are required to connect the database using JDBC driver. 10

(c) Describe *four* properties that can be configured for JMS based message driven beans. 7

(d) What is SSL ? Describe the two-way SSL authentication mechanism. 5

(e) Briefly describe the components that make up the EJB architecture. What are the advantages of using EJB, for an application ? 10

2. (a) Explain the different types of JDBC drivers along with their advantages and disadvantages. 10

(b) What are the cookies and why are they used ? Explain the mechanism of how cookies work. 5

(c) Explain the two-ways used for servlet collaboration. 5

3. (a) What is jsp scriptlet ? Write a jsp program using scriptlets which take your name as input and display its length. 10
- (b) What is Web Security ? Explain the following in context of web security : 10
- (i) Integrity
 - (ii) Confidentiality
 - (iii) Authentication
 - (iv) Authorisation
4. (a) What is a Servlet ? How is it initialised ? Explain servlets doPost and doGet methods. 8
- (b) Explain JNDI authentication with code snippet. 5
- (c) What are the steps involved in using custom JSP tags ? 7
5. (a) Consider the following list of attributes : 5
- Boo_Title max 100 characters
 - Author_Name (Last, middle, first)
 - Publisher_Name
 - Price (Different for Hardcover, Paperback, Online)
 - Edition_DNo
 - Addition_Date
- } can be repeated
- Write an XML DTD for the above.

(b) Explain the different kinds of recovery procedures that can be used after the failure of a trusted system. 5

(c) What is an entity bean ? Write and describe any *four* required methods of entity beans. 10