| MCS-051 |

MCA (Revised)

Term-End Examination

03330 **December, 2017**

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)   Write a JSP program to display current date and time.   *5*

    (b)   Write a servlet program to fetch and display all the fields of an Account table with field name, account_no., address and balance.   *8*

    (c)   What is Message Driven Bean ? Explain its transaction capabilities.   *7*

    (d)   Briefly explain any seven JSP implicit objects.   *7*

(e) What are Cookies ? Briefly explain the following methods of Cookie class : 8

   (i)   setMaxAge

   (ii) setVersion

   (iii) setDomain

   (iv) setPath

(f) Briefly explain the life cycle of a stateless session bean with the help of a diagram. 5

2. (a) Explain the following interfaces : 5

   (i)   HttpServletRequest

   (ii) HttpServletResponse

(b) What is an Entity Bean ? Explain its uses. 5

(c) A bank account has the following attributes :

       Account number (mandatory)

       Customer_id (can be multiple)

       First name (mandatory)

       Middle name (optional)

       Last name (optional)

       Account type (mandatory)

       Balance (mandatory)

Write an XML DTD to describe the bank account. 5

(d) What is the need of web security ? Explain data integrity and system integrity in the context of web security. 5

3. (a) Explain HTTP basic authentication with the help of an example program. *10*

(b) What is SGML ? Differentiate between SGML and XML. *5*

(c) Differentiate between Java bean and Enterprise Java bean. *5*

4. (a) What is SSL handshake ? Explain its main features. *5*

(b) Explain form based authentication with the help of a program. *10*

(c) Differentiate between ServletContext and ServletConfig. *5*

5. (a) What is JDBC ? Explain the advantages of using JDBC with Java. *5*

(b) Write a code fragment to forward a request received by a servlet to different JSP pages depending on the data received. *5*

(c) Briefly describe the benefits of EJB architecture for developers and users. *10*

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