MCA (Revised)

Term-End Examination

June, 2021

MCS-051 : ADVANCED INTERNET TECHNOLOGIES

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) Write a web application using JSP and JDBC that takes a bank account number as input and displays the account balance. Assume that the balance after every transaction is available in the database. *7*

  (b) Write code to use a form to authenticate a client using the session information stored in the HTTP session object in the web server. *10*

  (c) Explain the goals of Java Enterprise Beans. *5*

  (d) Briefly explain different types of system vulnerabilities. *5*

(e) What is an XML Parser ? Explain the difference between a well-formed and valid document. *3*

(f) Explain what is meant by integrity, availability and confidentiality. How would you rank them in order of importance from a security perspective ? *10*

2. (a) Write a program using Servlet and JDBC to develop online registration for 'Health Checkup'. You need to create a database consisting of the following : *10*

    (i) Name

    (ii) Sex

    (iii) Age

    (iv) Address

    (v) Mobile No.

(b) Differentiate between the following : $4 \times 2\frac{1}{2} = 10$

    (i) GET and POST

    (ii) Session and Cookies

    (iii) XML and HTML

    (iv) Session Beans and Entity Beans

3. (a) What is EJB ? Explain working of EJB with the help of an example. Explain any four advantages of EJB architecture. *10*

(b) Explain Servlet Life Cycle with the help of code to explain all the stages. *10*

4. (a) Explain three different types of JDBC SQL statements. *6*

(b) Explain how Servlet and JSP can be integrated with the help of an example program. *8*

(c) Briefly explain SSL Authentication. *6*

5. (a) Explain the four call back methods of entity beans. *8*

(b) Explain use of java.security.acl package in developing secure application. *5*

(c) Explain the methods required to implement the message driven beans. Also list any four uses of message driven beans. *7*

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