MCA (Revised)

Term-End Examination

June, 2018

04425

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 servlet pseudocode that tracks the assignments of a student at IGNOU. The fields of the entities are

Student	Assignment	Subject	Result
Roll Number	Subject code	Subject code	Student roll no
Name	Assignment code	Subject name	Subject code
	Date of receipt		Assignment code
	Date of submission		Marks obtained
	Last date of submission		
	Maximum marks		

Generate a report that gives

    Student name

    Roll no

    Subject

    Assignments submitted on time

    Marks obtained out of

    Total

All the data in tables is in an RDBMS. Late submissions result in 0. You need to mention the different actions that a servlet takes, for that assignment real executable code is not expected. *15*

(b) Explain briefly, the different types of system vulnerabilities. *5*

(c) Write the XML DTD for the entities in question 1(a) above. Make and state any needed assumptions. *7*

(d) Explain two mechanisms that would allow inclusion of external pieces into a JSP document. *8*

(e) What is SSL ? Describe briefly, the two-way SSL authentication mechanism. *5*

2. (a) What is JNDI authentication ? Explain with the help of an example. *10*

(b) Draw the layered architecture of EJB and explain its components briefly. *10*

3. (a) Explain the different types of JDBC drivers. Also list their advantages and disadvantages. **10**

   (b) Briefly explain the different types of restrictions on EJB. **5**

   (c) What is session tracking ? Explain any one mechanism of session tracking briefly. **5**

4. (a) Explain the five basic scripting elements used in JSP. **10**

   (b) Explain how an applet is included in a JSP program with the help of small code. **5**

   (c) What is Message-Driven Bean ? List any four uses of message-driven bean. **5**

5. (a) Describe the following in XML with relevant examples : **10**
      (i) External Entity
      (ii) Internal Entity
      (iii) Parameter Entity

   (b) What is Java Bean ? Briefly explain the four categories of bean property. **10**