**MCS-051 ADVANCED INTERNET TECHNOLOGIES**

Time : 3 hours  
Maximum Marks : 100

Note: Question number 1 is compulsory. Attempt any three questions from the rest.

**June 2007**

1(a) How does Session Bean differ from the Entity Bean in terms of object sharing, object state and failure recovery ? (6)

(b) Differentiate between validating and non-validating parser. (4)

(c) Explain different types of system vulnerabilities. (6)

(d) Assume that there is a table named as PRODUCT in MS-Access with the following fields (PROD\_ID,PROD\_NAME, PRICE, VENDOR\_NAME). Write a Java program to insert and then display the records of this table using JDBC. (10)

(e) Explain the different development goals of XML document. 4

(f) What ls a well formed tag ? Name two HTML tags that are not well formed. (5)

(g) Write an XML DTD to represent the grade card of an IGNOU shdent whlch contains (5)  
(i) Name - last, Middle and First  
(ii) Subjects- Five subjects  
(iii) Assignment marks  
(iv) Total marks  
(v) Result (pass/fail)

2. (a) Explain different circumstances under which messagedriven bean can be used. (4)

(b) Explain six different types of services offered by EJB container. (6)

(c) Explain the life cycle of Servlet. Write a code for demo Servlet to explain all the three stages of Servlet life cycle. 10

3. (a) Explain all five basic types of implicit objects of JSP with syntax. (10)

(b) Explain dilferent types of restrictions on EJB. (5)

(c) What are the advantages of XML over HTML ? (5)

4. (a) Explain the need/use of entities of XML document. Describe all three types of entities with the help of an example. (10)

(b) Explain the differences between session and cookie. (4)

(c) Explain three different types of JDBC SQL statements. (6)

5. (a) Briefly explain ihe advantages,/disadvantages of different types of drivers of JDBC. (8)

(b) Explain four basic mechanisms through which a web client can authanticate a user to a web server during HTTP Authentlcation. (8)

(c) Explain briefly. the functionality provided by the home and remote interfaces of an EJB. (4)