

MCA (Revised)
Term-End Examination
June, 2022

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) What is session tracking ? Write a servlet program using session tracking to display the number of visitors of a web page. The web page should display your name and current date on the top and the number of visits at the bottom. 10
- (b) Write a JSP program to take date of birth as input and display age of the person. 6
- (c) Explain the use of request object and session object of JSP. 4
- (d) Why is JavaBean used ? Briefly explain the following categories of bean properties : 5
 - (i) Index Property
 - (ii) Bound Property

- (e) What is a session bean ? Briefly explain the lifecycle of stateless-session bean with the help of a diagram. 5
- (f) Explain HTTP basic authentication with the help of an example program. 10
- 2.** (a) What is JDBC ? What are the different types of JDBC drivers ? Briefly explain the advantages of JDBC. 10
- (b) What is the use of JSP in Internet programming ? Briefly explain scripting elements of JSP with the help of an example program. 10
- 3.** (a) Describe the use of the following implicit objects of JSP, with the help of an example code : 10
- (i) The out object
 - (ii) The pageContext object
 - (iii) The config object
 - (iv) The page object
 - (v) The exception object
- (b) What is XML ? Compare XML with HTML. 5
- (c) Explain external entity and internal entity of XML, with the help of an example of each. 5

4. (a) What is message-driven bean ? Briefly explain its uses. 5
- (b) Explain the different types of restrictions of EJB. 5
- (c) What is SSL authentication ? Briefly explain SSL client application components. 10
5. (a) What are different web security objects ? Explain web security object dependencies with the help of a diagram. 10
- (b) Explain with the help of a code, how records are inserted in database using JSP. 5
- (c) What is a Cookie ? Explain setMaxAge and getDomain method of Cookie class. 5
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