67056-N

MCA 2nd Semester 2yr. Course
(w. e. f. 2020-21)

Examination – July, 2022

ADVANCE OBJECT TECHNOLOGY

Paper : 20MCA22C1

Time : Three hours]　　　　[Maximum Marks : 80

Note : Attempt five questions in all, Question Number 1 is compulsory. In addition to compulsory question, student has to attempt four more questions selecting one question from each Unit.

1. (a) What is an Empty tag in XML ? Write its format.

　　　　　　　　　　　　　　　2 × 8 = 16

(b) How is CDATA related to XML ?

(c) Can you create a Deadlock condition on a servlet ? How ?

(d) How Print Writer is different from Servlet Output Stream ?

(b) What is MVC ? Why is this concept used in web applications development. What were the security issues related to servlets that led to the introduction to JSP ?

　　　　　　　　　　　　　　　10

UNIT – IV

8. (a) Explain various scripting elements used in JSP. 10

(b) Write short notes on the following :　　3 × 2 = 6

　　(i) RMI

　　(ii) CGI

9. (a) What is a custom tags. in JSP ? What are the components that make up a tag library in JSP ? 10

(b) What are implicit objects in JSP page ? List and explain the role of each of such objects.　　6

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(e) What do you mean by entity reference?

(f) What is the role of HTTP-tunneling in RMI?

(g) List two disadvantages of struts framework.

(h) Name different methods that can be used to track information about a particular client while using stateless connection protocols?

UNIT – I

2. (a) What are entities in XML documents? Why are these required? Give details of different types of entities with the help of suitable examples.   10

(b) Can we validate email in JavaScript? If yes, how? If no, why? Explain by taking suitable example(s) of your choice.   6

3. (a) What is event handling? Discuss its role in interactive application design.   10

(b) How can we declare global variables in Javasript? Write a function code that modifies the value of a global variable.   6

UNIT – II

4. (a) What is JMenu component in Swing? Explain subcomponents, popular constructors and methods used in it by taking an example.   10

(b) What is Javabean? How are session beans different from entity bean?   6

5. (a) What are JMenu used in Swing? Write a short code of creating two Menus and some menuitems to implement a notepad.   10

(b) Differentiate between JLabel and JTextBox.   6

UNIT – III

6. What is a servlet program? How does it use HttpRequest and HttpResponse objects? Write code for a servlet that shows a "User Registration Form". Apply some basic validations on the username and password chosen for registration.

Restrictions on username: username should comprise of {a-z}, {A-Z}, {0-9} only. It cannot start with digit however.

Restrictions on password: length of password should be greater than 8.

It may contain {a-z}, {A-Z}, {0-9} and special characters {!,@,#,$,%,^,*,(,)}.   16

7. (a) What is Servlet chaining? How can we achieve it? Give example.   6