

**ADVANCE JAVA & WEB TECHNOLOGY
(INFO 3203)**

Time Allotted : 3 hrs

Full Marks : 70

Figures out of the right margin indicate full marks.

***Candidates are required to answer Group A and
any 5 (five) from Group B to E, taking at least one from each group.***

Candidates are required to give answer in their own words as far as practicable.

**Group – A
(Multiple Choice Type Questions)**

1. Choose the correct alternative for the following: **10 × 1 = 10**
- (i) Markup tags tell the web browser
 - (a) how to organise the page
 - (b) how to display the page
 - (c) how to display message box on page
 - (d) none of these.
 - (ii) What are Empty elements and is it valid?
 - (a) No, there is no such terms as Empty Element
 - (b) Empty elements are element with no data
 - (c) No, it is not valid to use Empty Element
 - (d) None of these.
 - (iii) Why JavaScript is called as Lightweight Programming Language?
 - (a) Because JS can provide programming functionality inside but up to certain extend
 - (b) Because JS is client side scripting
 - (c) Because we can add programming functionality inside JS
 - (d) Because JS is available free of cost.
 - (iv) JavaScript Code can be called by using _____.
 - (a) RMI
 - (b) triggering event
 - (c) pre-processor
 - (d) function/method
 - (v) When destroy() method is called in Servlet?
 - (a) The destroy() method is called only once at the end of the life cycle
 - (b) The destroy() method is called after execution of doFilter method
 - (c) The destroy() method is called only once at the begining of the life cycle
 - (d) None.
 - (vi) Which one is the correct order of phases in JSP life cycle?
 - (a) Initialization, Cleanup, Compilation, Execution
 - (b) Initialization, Compilation, Cleanup, Execution
 - (c) Compilation, Initialization, Execution, Cleanup
 - (d) Cleanup, Compilation, Initialization, Execution.

- (vii) Which of the following attribute is used to include External JS code inside your HTML Document
(a) ext (b) script (c) link (d) src.
- (viii) Which of the below is not a session tracking method?
(a) URL rewriting (b) History (c) Cookies (d) SSL sessions.
- (ix) "request" is instance of which one of the following classes?
(a) Request (b) HttpRequest
(c) HttpServletRequest (d) ServletRequest.
- (x) Which is not a directive?
(a) Include (b) Page (c) Export (d) useBean.

Group- B

2. (a) Differentiate between active web page and dynamic web page. [(CO1)(Analyze/IOCQ)]
(b) Why HTML is called mark up-Justify your answer. [(CO1)(Evaluate/HOCQ)]
(c) Design an external CSS file to style a table so that the rows have a blue background and a header row has pink text with a green background colour. Set the font size to 15 point Sans Serif. [(CO1)(Create/HOCQ)]
(3 + 2) + 7 = 12
3. (a) HTTP is called stateless, connectionless, media independent protocol-Explain. [(CO1)(Remember/LOCQ)]
(b) With the help of an example explain HTML frame. [(CO1)(Understand/LOCQ)]
(c) Draw applet life cycle and explain every stages of it. [(CO1)(Understand/LOCQ)]
2 + 5 + 5 = 12

Group - C

4. (a) Draw and explain Servlet life cycle model. [(CO2)(Understand /LOCQ)]
(b) Differentiate between Get and Post method. When to use GET method and when POST method? [(CO2)(Analyze/IOCQ)]
(3 + 3) + (3 + 3) = 12
5. (a) Write a java script code which will check whether an email id is valid or not. Consider all possible cases. [(CO2)(Apply/IOCQ)]
(b) Discuss how a session can be created? Explain with example. [(CO2)(Understand/LOCQ)]
(c) With the help of an example describe how a function can be called using EventListner. [(CO2)(Understand/LOCQ)]
4 + 4 + 4 = 12

Group - D

6. (a) Draw and explain JSP life cycle. [(CO2)(Understand /LOCQ)]
 (b) Design a JSP page which is used to read the value of text boxes from an HTML page and display the value. Write all necessary assumptions. [(CO2)(Create/HOCQ)]
(2 + 4) + 6 = 12
7. (a) Using JSP and JDBC technology create a form that is submitted along with roll number, department, and semester. Result will be shown if the submitted details are correct. Write all necessary assumptions. [(CO2)(Create/HOCQ)]
 (b) Write a JSP scriptlet to display the prime numbers from a given range. [(CO2)(Apply/IOCQ)]
 (c) Define preparedStatement in java. [(CO2)(Remember/LOCQ)]
7 + 3 + 2 = 12

Group - E

8. (a) What are the five elements provided by Java RMI? [(CO3)(Remember/LOCQ)]
 (b) Describe the tasks performed by stub in RMI application. [(CO3)(Understand/LOCQ)]
 (c) Explain 3-tier architecture of J2EE. State the advantages of 3-tier architecture over 2-tier architecture. [(CO3)(Understand/LOCQ)]
3 + 4 + 5 = 12
9. (a) Create an XML document that describes your details CV. [(CO3)(Understand/HOCQ)].
 (b) What is the difference between EJB and Java Bean? [(CO1)(Remember/LOCQ)]
 (c) What are the advantages of element over an attribute of an XML document? [(CO1)(Remember/LOCQ)]
6 + 3 + 3 = 12

Cognition Level	LOCQ	IOCQ	HOCQ
Percentage distribution	48.12	18.86	33.02

Course Outcome (CO):

After the completion of the course students will be able to

1. Analyze and apply several kind of client side scripting (e.g: HTML, CSS and JavaScript).
2. Analyze and apply server side scripting using JSP..
3. Practice EJB, RMI and XML to implement J2EE at application level.

*LOCQ: Lower Order Cognitive Question; IOCQ: Intermediate Order Cognitive Question;
 HOCQ: Higher Order Cognitive Question

