

**ANURAG Engineering College****(An Autonomous Institution)****III B.Tech II Semester Regular/Supplementary Examinations, June/July-2024****WEB TECHNOLOGIES****(COMPUTER SCIENCE AND ENGINEERING)****Time: 3 Hours****Max.Marks:75****Section – A (Short Answer type questions)****(25 Marks)****Answer All Questions**

	<b>Course Outcome</b>	<b>B.T Level</b>	<b>Marks</b>
1. What is the significance of servers in the context of the internet?	CO1	L2	2M
2. How does the evolution of HTML lead to XHTML?	CO1	L2	3M
3. What is the relationship between JavaScript and object orientation?	CO2	L1	2M
4. Describe the process of screen output and keyboard input in JavaScript.	CO2	L1	3M
5. Differentiate between Document Type Definitions (DTD) and XML Schemas.	CO3	L2	2M
6. Describe the structure of an XML document and its components.	CO3	L1	3M
7. Describe the basic structure of a servlet	CO4	L1	2M
8. What is the importance of form data in client-server communication?	CO4	L1	3M
9. Explain the basic syntax of JSP pages.	CO5	L1	2M
10. What are the key differences between servlets and JSP pages?	CO5	L2	3M

**Section B (Essay Questions)****Answer all questions, each question carries equal marks.****(5 X 10M = 50M)**

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|---|-----|----|-----|
| 11. A) Explain how CSS can enhance the presentation of XHTML documents. Also demonstrate the use of images and hypertext links in XHTML   | CO1 | L3 | 10M |
| <b>OR</b>   |     |    |     |
| B) Compare and contrast the structure of HTML and XHTML. Also Analyze the advantages and disadvantages of using frames in web design  | CO1 | L2 | 10M |
| 12. A) Analyze the Java Script Execution Environment and its significance in web development. Also Compare and contrast the DOM tree traversal and modification techniques in JavaScript.                       | CO2 | L3 | 10M |
| <b>OR</b>   |     |    |     |
| B) Create a JavaScript function that changes the visibility, color, and font of webpage elements dynamically.   | CO2 | L2 | 10M |
| 13. A) Analyze the role of XML schemas in ensuring data integrity and interoperability in web services. Also Evaluate the effectiveness of using CSS vs. XSLT for displaying XML documents in web applications. | CO3 | L3 | 10M |
| <b>OR</b>   |     |    |     |
| B) Develop a dynamic web application using AJAX to retrieve XML data from a server and display it on the client side.   | CO3 | L3 | 10M |

14. A) Design a servlet that reads three parameters from a form submission and processes them accordingly. Also explain the classes and interfaces used. CO4 L3 10M
- OR**
- B) Explain the potential challenges in handling database transactions using JDBC and give the appropriate solutions. CO4 L3 10M
15. A) What are code reusability and maintainability, and how can they be implemented in JSP? Provide an example demonstrating the creation of a reusable library of JSP tag files for common UI components. CO5 L2 10M
- OR**
- B) Write a JSP page that includes Java code using scriptlet elements to display dynamic content. CO5 L3 10M