Practice Set for Web Technology

1. What are the core Internet protocols used in web communication?
2. Explain the purpose and structure of HTML5.
3. List the key elements of an HTML5 document.
4. Which form elements are supported in HTML5?
5. Describe the components of a basic HTML5 document.
6. How does a web server function in the client-server model?
7. Define XHTML and explain its syntax rules.
8. Compare the syntax of HTML5 and XHTML.
9. What are the different types of CSS, and how are they used?
10. Explain the structure of XML, DTD, and namespaces.
11. Compare static and dynamic websites.
12. How would you convert a static website into a dynamic one?
13. Design a responsive webpage using Bootstrap’s grid system.
14. Build a static website for a restaurant using HTML5 and XHTML.
15. Develop a user registration form with HTML5 form elements.
16. Create a personal portfolio site using HTML5, CSS3, and Bootstrap.
17. Analyze a case study of an online blog built with HTML5, CSS3, and Bootstrap.
18. How do CSS3 animations enhance web interactivity?
19. What is the CSS box model, and what properties does it include?
20. How does the Bootstrap grid system support responsive design?
21. How do CSS3 selector strings and box models improve styling?
22. What are the differences between `id` and `class` selectors in CSS?
23. How do CSS3 3D transformations and animations improve user experience?
24. Compare the use of Canvas and SVG for graphics in HTML5.
25. How does the Bootstrap framework simplify responsive web design?
26. What are the advantages and limitations of using Bootstrap?
27. How do CSS properties influence webpage layout and appearance?
28. What is the role of namespaces in XML?
29. How do XML Schema, DOM, XSL, and XSLT transform XML data?
30. What challenges arise when combining DTD and namespaces in XML?
31. Create an XML document with DTD and namespaces.
32. How would you convert XML data into another format using XSLT?
33. Assess the impact of HTML5 media elements on user experience.
34. Evaluate the effectiveness of XML Schema and XSLT for data handling.
35. Justify the use of JavaScript operators in data manipulation.
36. Critique the use of CSS3 3D transformations in web design.
37. Defend the importance of JavaScript data types in development.
38. How have web technologies evolved over time?
39. Calculate the total width of a CSS box model given specific dimensions.
40. Determine the number of columns in Bootstrap’s grid system.
41. Style a webpage using CSS3 selectors and box models.
42. Write a JavaScript program to manipulate real-world data.
43. What are JavaScript’s data types, and how are they used?
44. How do JavaScript operators manipulate data?
45. Explain JavaScript’s `try-catch` error handling with an example.
46. How would you write a function to calculate the remainder using the modulus operator?
47. Predict the output of a JavaScript code snippet combining strings and numbers.
48. How do JavaScript event handlers work? Provide examples.
49. Create a simple calculator using JavaScript operators.
50. How do JavaScript data types affect web application functionality?