Dezyne École College

Bachelor of Computer Applications (BCA)

Second Year – 3rd Semester Web Programming

Probable Question for Web Programming

Unit -1

1. Define Hypertext and explain its concept.
2. List any four versions of HTML with their release years.
3. What is the difference between Head and Body sections in HTML?
4. Write the HTML syntax to insert an image with alt text.
5. What are HTML frames? Write the basic syntax.
6. Differentiate between ordered and unordered lists.
7. Write HTML code to create a hyperlink that opens in a new window.
8. What is the purpose of bgcolor attribute in HTML?
9. List any four HTML form input types.
10. Explain the complete structure of an HTML document with all essential elements. Write a sample HTML code that includes head section with meta tags, title, and body section with at least 5 different HTML elements.
11. Describe the process of building a complete HTML web page that includes:
    1. Proper document structure
    2. Text formatting with different font sizes and attributes
    3. Images with proper attributes
    4. Hyperlinks (internal and external)
    5. Background and color controls
    6. At least one table with proper layout
12. Create a comprehensive HTML form that demonstrates:
    1. Different input types (text, password, email, radio, checkbox, select)
    2. Explain the purpose of each form element used
13. Explain HTML tables in detail.
14. Discuss HTML frames and their implementation:
    1. Types of frames (frameset, frame, iframe)
    2. Advantages and disadvantages of using frames
    3. Frame attributes and properties
    4. Write code examples for creating a frameset with navigation and content frames
15. What are Cascading Style Sheets (CSS)?
16. Name the three levels of style sheets.
17. What is the CSS box model?

18. Differentiate between class and id selectors in CSS.
19. Write CSS syntax to set font family and font size.
20. What are the different ways to specify colors in CSS?
21. Explain inline, internal, and external CSS.
22. What is the purpose of background-image property in CSS?
23. How does CSS conflict resolution work?
24. Write CSS code to center align text.
25. Describe CSS selectors and properties comprehensively:
    1. Different types of selectors (element, class, id, attribute, pseudo)
    2. Selector forms and their usage
    3. Property value forms
    4. CSS specificity and inheritance
    5. Provide practical examples for each type
26. Explain the CSS Box Model in detail with:
    1. Components of box model (margin, border, padding, content)
    2. Box model calculations
    3. Different box-sizing properties
    4. Practical examples showing how box model affects layout
    5. Visual representation with code examples
27. Explain CSS conflict resolution:
    1. Specificity calculation rules
    2. Inheritance in CSS
    3. !important declaration
    4. Methods to resolve CSS conflicts with practical examples
28. What happens when you nest a <form> tag inside another <form> tag? Is it valid HTML?
29. If you have both bgcolor attribute in HTML and background-color property in CSS applied to the same element, which one takes precedence and why?
30. What is the difference between and tags, and why would you choose one over the other?
31. Can you use percentage values for table cell width and height simultaneously? What issues might arise?
32. What happens if you don't close a <p> tag in HTML? Does it affect other elements?

Unit - 2

33. What is JavaScript and how does it differ from Java?
34. List any four characteristics of JavaScript as a programming language.
35. What are the different ways to include JavaScript in an HTML document?
36. Define object-oriented programming in the context of JavaScript.
37. What are JavaScript primitives? Name all primitive data types.
38. What is the difference between var, let, and const keywords?
39. Write the syntax for single-line and multi-line comments in JavaScript.
40. What are JavaScript operators? Name any four types.
41. How do you display output on screen in JavaScript?
42. What is the purpose of prompt() function in JavaScript?
43. What is the difference between function declaration and function expression?
44. What are arrays? Name any four built-in array methods in JavaScript.
45. What are JavaScript objects? Write syntax to create an object.
46. What is a constructor function in JavaScript?
47. What are regular expressions used for in JavaScript?
48. Describe JavaScript input/output mechanisms:
    1. Screen output methods (document.write, console.log, alert, innerHTML)
    2. Keyboard input methods (prompt, confirm, form inputs) 49. DOM manipulation for

I/O operations. Event-driven input handling

50. Discuss JavaScript functions in detail:
    1. Return statements and return values
    2. Local vs global scope and variable hoisting
    3. Anonymous functions and arrow functions
51. Explain Array methods (push, pop, shift, unshift, slice, splice, concat)
52. Explain Array iteration methods (forEach, map, filter, reduce)
53. Explain constructor functions and object creation patterns:
54. Pattern Matching & Error Handling
55. Discuss regular expressions in JavaScript:
56. Introduction to pattern matching, RegExp methods (test, exec) and String methods (match, search, replace, split) and Write Common patterns for validation (email, phone, date)
57. Explain error handling in JavaScript with suitable example
58. What happens when you compare null == undefined and null === undefined in JavaScript? Explain the difference.
59. If you declare a variable with var inside a for loop, what is its scope? How does it differ from let?
60. What is the output of console.log(typeof NaN) and why is this considered confusing?
61. What happens when you call a constructor function without the new keyword?

Unit – 3

62. What is the JavaScript execution environment in web browsers?
63. Define the Document Object Model (DOM). What is its purpose?
64. What is the difference between DOM and BOM (Browser Object Model)?
65. Name any four methods to access HTML elements in JavaScript.
66. What is the difference between getElementById() and getElementsByClassName()?
67. What does document.querySelector() method do?
68. What is an event in JavaScript? Give four examples of events.
69. What is event handling? Write syntax for adding an event listener.
70. What is the difference between onclick attribute and addEventListener()?
71. What is event bubbling in JavaScript?
72. What is the Navigator object? Name any four of its properties.
73. How do you traverse the DOM tree? Name any four traversal properties.
74. What is the difference between innerHTML and textContent?
75. How do you create and append a new element to the DOM?
76. What are the CSS positioning properties used in JavaScript?
77. How do you hide and show an element using JavaScript?
78. What is the style property in JavaScript? Give an example.
79. What is dynamic content? How is it created using JavaScript?
80. What is z-index and how is it used for stacking elements?
81. How do you detect mouse cursor position in JavaScript?
82. What is DOM nodes and its types
83. Explain Traversal properties (parentNode, childNodes, firstChild, lastChild, nextSibling, previousSibling)
84. Creating new elements (createElement(), createTextNode()) And Adding elements (appendChild(), insertBefore(), append(), prepend())
85. Removing elements (removeChild(), remove())
86. Explain Types of events (mouse, keyboard, form, window events)
87. Explain Event propagation (capturing, target, bubbling phases)
88. Explain event handling for different HTML elements:
    1. Body element events (onload, onunload, onresize, onscroll)
    2. Form element events (onsubmit, onreset, onchange, onfocus, onblur)
    3. Text box and password field events (oninput, onkeyup, onkeydown, onkeypress)
    4. Button and link events (onclick, ondblclick, onmousedown, onmouseup)
89. Explain Event capturing and bubbling in DOM2?
90. What are the Navigator object properties (userAgent, platform, language, cookieEnabled)
91. Explain element positioning and movement in JavaScript
92. Discuss element visibility, styling, and dynamic content creation
93. Explain Z-index and element stacking context
94. Describe mouse interactions and drag-and-drop functionality
95. Mouse event types (click, dblclick, mousedown, mouseup, mousemove, mouseover, mouseout)
96. Locating mouse cursor position (clientX, clientY, pageX, pageY, screenX, screenY)

Total No. of Pages: 02 **[Total No. of Questions: 20]**

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B.C.A. (Part-II) (Semester-III) Examination 2024 (Held in 2025) DCC- BCA - 304 (Web Programming)

Duration of Examination: 3 Hours *Max. Marks: 70*
परीक्षा की अवधि: 3 घण्टा *पूर्णांक: 70*

Instructions to the Candidates:
परीक्षार्थी के लिए निर्देश:-

Note:- The question paper is divided into 02 Parts: Part - A & Part-B.

Part-A

Will consist of 10 compulsory questions. Answer to each question shall be limited up to 50 words. Each question will carry 02 marks. Total 20 Marks. *(Marks-10×2=20)*

Part-B

Will consist of 10 questions. Student will have to answer 05 questions, selecting At least one questions from each unit. The answer to each question shall be limited upto 400 words. Each question carries 10 marks. Total 50 Marks.
(Marks-5×10=50)

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Part-A

1. What is Hypertext in HTML, and how does it work?
2. List any four HTML tags used for formatting text and explain their purpose.
3. Define the box model in CSS with its components.
4. Explain the role of functions in JavaScript.
5. What are regular expressions in JavaScript? Provide a small example.
6. What is the difference between JavaScript primitives and objects?
7. What is the Document Object Model (DOM)?
8. Explain any two mouse events in JavaScript with examples.
9. How can you change the visibility of an element using JavaScript?
10. What is event handling in JavaScript? Mention an example of handling events from a text box.

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Part-B

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Unit-I

11. Describe the structure of an HTML document. Explain the purpose of the <head> and <body> sections with an example

12. What are frames in HTML? How can you use forms and frames in a webpage? Provide an example.

13. Explain the concept of Cascading Style Sheets (CSS). What are the different levels of style sheets?

Unit-II

14. Write a program in JavaScript to demonstrate the use of arrays and functions.

15. Explain control statements in JavaScript with suitable examples.

16. What are errors in scripts? How can you debug errors in JavaScript?

17. Write a JavaScript program to demonstrate how to locate the mouse cursor and respond to a mouse click event on a webpage.

Unit-III

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18. Explain the event handling mechanism in JavaScript. How do you handle events for text box and password elements?

19. Write a JavaScript program to implement dragging and dropping elements in a web page.

20. How can you use JavaScript to move elements slowly on a webpage? Explain with an example.

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