# Randomly Selected Questions - Set 7

**Question 1 (ID: 4.6.2):** Multiple Choice: Which of the following methods is used to select an HTML element by its `id`?  
  
- (A) document.querySelector()  
- (B) document.getElementById()  
- (C) document.getElementsByClassName()  
- (D) document.selectById()

**Question 2 (ID: 4.6.9):** Multiple Choice: What is the purpose of the console.log() method in JavaScript?  
  
- (A) To display content in an alert box.  
- (B) To log information or errors to the browser's console for debugging.  
- (C) To change the content of a webpage.  
- (D) To modify the style of an HTML element.

**Question 3 (ID: 4.8.8):** Multiple Choice: What is the difference between `childNodes` and `children` properties?  
  
- (A) `childNodes` includes text nodes, while `children` includes only element nodes.  
- (B) `children` includes all node types, while `childNodes` includes only element nodes.  
- (C) `childNodes` includes only the first child, while `children` includes all children.  
- (D) `children` includes only the first child, while `childNodes` includes all children.

**Question 4 (ID: 2.6.7):** Multi-Select: Which CSS properties can be used to control the position of an element when `position: absolute;` or `position: relative;` is set? (Select all that apply)  
 - (A) top  
 - (B) left  
 - (C) bottom  
 - (D) right

**Question 5 (ID: 1.3.4):** Multiple Choice: How do browsers typically display paragraphs?  
 - (A) With no spacing between paragraphs  
 - (B) With extra spacing above and below paragraphs  
 - (C) By indenting the first line of each paragraph  
 - (D) By making the text bold

**Question 6 (ID: 4.6.10):** Multiple Choice: How can you check if a webpage is using HTTPS or HTTP using JavaScript?  
  
- (A) window.protocol  
- (B) window.location.protocol  
- (C) document.protocol  
- (D) window.getProtocol()

**Question 7 (ID: 1.8.6):** Multiple Choice: What does it mean if an element is described as an "inline" element?  
 - (A) It occupies the full width of its parent container.  
 - (B) It does not start on a new line and only takes up as much width as necessary.  
 - (C) It cannot contain other elements.  
 - (D) It is always hidden from view.

**Question 8 (ID: 4.6.8):** Multiple Choice: Which property of the window object can be used to get the current URL of a webpage?  
  
- (A) window.location.href  
- (B) window.url  
- (C) window.currentURL  
- (D) window.pageURL

**Question 9 (ID: 4.11.7):** Multi-Select: Which of the following are ways to ensure a user enters valid input in a form field? (Select all that apply)  
  
(A) Using the pattern attribute with a regular expression  
(B) Using JavaScript to validate input during the input event  
(C) Using the min and max attributes for numerical input  
(D) Using CSS to highlight invalid fields

**Question 10 (ID: 4.1.7):** Multiple Choice: What is the output of this code?  
  
let theFuture = new Date(2035, 9, 21, 7, 28, 0);  
console.log(theFuture);  
  
- (A) Sun Oct 21 2035 07:28:00 GMT-0500  
- (B) Sun Nov 21 2035 07:28:00 GMT-0500  
- (C) Sun Oct 21 2035 00:00:00 UTC  
- (D) Undefined

**Question 11 (ID: 4.10.8):** Multiple Choice: Which CSS property is modified in the following code?  
  
document.getElementById("box").style.backgroundColor = "blue";  
  
- (A) `background-color`  
- (B) `color`  
- (C) `border-color`  
- (D) `width`

**Question 12 (ID: 1.8.10):** Multiple Choice: What type of HTML element is `<header>`, and what is its typical use?  
 - (A) Inline; used for short text links  
 - (B) Block; used for introductory content or navigational links  
 - (C) Inline; used to group navigation links  
 - (D) Block; used only for bottom page content

**Question 13 (ID: 3.1.7):** Multi-Select: Which of the following are valid data types in JavaScript? (Select all that apply)  
 - (A) string  
 - (B) boolean  
 - (C) number  
 - (D) char

**Question 14 (ID: 2.5.4):** Multiple Choice: How is the 'border' property of a box typically defined in CSS?  
 - (A) Using the border-color property only  
 - (B) Through separate properties for width, style, and color  
 - (C) As a shorthand that combines padding, border, and margin settings  
 - (D) It is not a standalone property but a subset of the padding property

**Question 15 (ID: 2.7.5):** Multiple Choice: What does `justify-content: space-between;` do in a flex container?  
 - (A) Aligns all items to the center  
 - (B) Adds equal spacing between all flex items, with no space at the edges  
 - (C) Adds equal spacing between all items and the container edges  
 - (D) Aligns all items to the start of the container

**Question 16 (ID: 3.2.9):** Multiple Choice: Which JavaScript function is used to convert a string to a number?  
- (A) `parseString()`  
- (B) `convertNum()`  
- (C) `parseInt()`  
- (D) `toNumber()`

**Question 17 (ID: 1.3.6):** Multiple Choice: What does the <br> tag accomplish in an HTML document?  
 - (A) It adds a background color to text.  
 - (B) It creates a new paragraph.  
 - (C) It inserts a line break within the text.  
 - (D) It changes the font size of the text.

**Question 18 (ID: 1.4.3):** True/False: Comments in HTML can be nested inside other comments.

**Question 19 (ID: 1.10.5):** True/False: The `<label>` element is optional for `<input>` elements but recommended for accessibility.

**Question 20 (ID: 1.2.6):** True/False: The <aside> tag is used to denote content that is tangentially related to the content around it.

**Question 21 (ID: 4.1.4):** Multi-Select: Which of the following are valid `Date` object constructors in JavaScript? (Select all that apply)  
  
- (A) `new Date()`  
- (B) `new Date("2024-01-01")`  
- (C) `new Date(2024, 0, 1)`  
- (D) `new Date(1000)`

**Question 22 (ID: 4.1.5):** Multiple Choice: What is the output of the following code?  
  
let georgeBirthday = new Date(1732, 1, 22);  
console.log(georgeBirthday);  
  
- (A) Jan 22, 1732  
- (B) Feb 22, 1732  
- (C) Mar 22, 1732  
- (D) Undefined

**Question 23 (ID: 2.5.3):** Multi-Select: Which layers are considered when calculating the total size of an element in the CSS box model? (Select all that apply)  
 - (A) Content  
 - (B) Padding  
 - (C) Border  
 - (D) Margin

**Question 24 (ID: 4.10.9):** Multiple Choice: What happens when `getPropertyValue("width")` is called on an element?  
  
- (A) It returns the current value of the element's width property.  
- (B) It sets the element's width to 100px.  
- (C) It removes the width property from the element.  
- (D) It adds a new width property to the element.

**Question 25 (ID: 2.3.5):** Multiple Choice: What does setting `background-color` to `transparent` do?  
 - (A) Makes the element's background fully opaque  
 - (B) Makes the element's background solid without transparency  
 - (C) Allows the background of underlying elements to be visible  
 - (D) Hides the element completely from view

**Question 26 (ID: 3.6.3):** Multi-Select: Which of the following are valid ways to call a function in JavaScript? (Select all that apply)  
  
- (A) myFunc()  
- (B) call myFunc()  
- (C) myFunc(3, 4)  
- (D) myFunc;

**Question 27 (ID: 1.8.9):** True/False: A `<footer>` element can only contain text and no other HTML elements.

**Question 28 (ID: 3.5.6):** Multiple Choice: What is the output of the following code?  
let count = 10; do {   
 console.log(count); count--;   
 } while (count > 5);  
  
- (A) 10, 9, 8, 7, 6  
- (B) 9, 8, 7, 6, 5  
- (C) 10, 9, 8, 7, 6, 5  
- (D) The code will not execute.

**Question 29 (ID: 2.1.1):** Multiple Choice: What is the primary function of CSS?  
 - (A) To structure web page content  
 - (B) To create interactive user interfaces  
 - (C) To define the visual presentation of web pages  
 - (D) To manage the server response to web requests

**Question 30 (ID: 4.10.4):** Multiple Choice: What is the output of the following code?  
  
let myDiv = document.getElementById("mydiv");  
myDiv.style.setProperty("width", "200px");  
myDiv.style.setProperty("background-color", "red");  
  
- (A) The div's width changes to 200px and the background color changes to red.  
- (B) The div's width changes to 100px and the background color stays green.  
- (C) The div is hidden.  
- (D) The code throws an error.

**Question 31 (ID: 1.6.5):** Multiple Choice: Which attribute would you use to change the bullet style in an unordered list using CSS?  
 - (A) list-style-type  
 - (B) list-bullet-style  
 - (C) bullet-style  
 - (D) type-style

**Question 32 (ID: 3.5.9):** Multiple Choice: What is the output of the following code?  
for (let i = 1; i <= 5; i++) { if (i === 3) continue; console.log(i); }  
  
- (A) 1, 2, 3, 4, 5  
- (B) 1, 2, 4, 5  
- (C) 1, 2, 3  
- (D) 3, 4, 5

**Question 33 (ID: 3.2.10):** Multi-Select: Which arithmetic operations will automatically convert a string to a number if one operand is a string? (Select all that apply)  
- (A) `\*`  
- (B) `%`  
- (C) `/`  
- (D) `+`

**Question 34 (ID: 1.7.2):** Multiple Choice: What attribute of the `<a>` tag specifies the URL the link goes to?  
 - (A) src  
 - (B) href  
 - (C) rel  
 - (D) type

**Question 35 (ID: 1.2.4):** Multiple Choice: What is the function of the <nav> element?  
 - (A) To define a container for navigation links  
 - (B) To create a network of connected data  
 - (C) To mark the non-scrollable sections of a webpage  
 - (D) To navigate through the JavaScript functions in the code

**Question 36 (ID: 1.5.8):** True/False: The dimensions specified in the <img> tag always override the natural size of the image.

**Question 37 (ID: 4.7.9):** Multiple Choice: What is the difference between `innerHTML` and `textContent` in the DOM?  
  
- (A) `innerHTML` sets both HTML and text content, while `textContent` sets only the text content.  
- (B) `textContent` can be used to set HTML content, but `innerHTML` cannot.  
- (C) `textContent` preserves HTML formatting, while `innerHTML` does not.  
- (D) `innerHTML` and `textContent` are functionally identical.

**Question 38 (ID: 1.7.3):** True/False: The `mailto:` URL scheme in an `<a>` tag's href attribute is used to link to another webpage.

**Question 39 (ID: 1.5.4):** True/False: The 'alt' attribute is required in <img> tags to pass HTML validation.

**Question 40 (ID: 4.9.6):** Multiple Choice: What is the purpose of the `blur` event in JavaScript?  
  
- (A) It triggers when an element loses focus.  
- (B) It triggers when an element is clicked.  
- (C) It triggers when an element is hovered over.  
- (D) It cancels all ongoing events.

**Question 41 (ID: 4.2.10):** Multiple Choice: Which of the following regex patterns would match "cat", "bat", and "mat"?  
  
- (A) /c|b|m/  
- (B) /cat|bat|mat/  
- (C) /c(b|m)at/  
- (D) /(c|b|m)at/

**Question 42 (ID: 4.3.8):** Multiple Choice: What is the primary difference between the `GET` and `POST` methods when submitting form data?  
  
- (A) GET sends data as part of the URL, while POST sends data in the request body.  
- (B) GET is faster than POST.  
- (C) POST can only be used for file uploads.  
- (D) POST does not send data.

**Question 43 (ID: 4.10.7):** Multi-Select: Which of the following are valid ways to modify an element's style in JavaScript? (Select all that apply)  
  
- (A) `element.style.width = "100px"`  
- (B) `element.style.setProperty("color", "blue")`  
- (C) `element.style.removeProperty("height")`  
- (D) `element.style.getElementById("width")`

**Question 44 (ID: 3.8.1):** Multiple Choice: What is the result of the following code?  
  
```javascript  
let scores = [6, 15, 8];  
console.log(scores[1]);  
(A) 6  
(B) 15  
(C) 8  
(D) undefined

**Question 45 (ID: 3.9.7):** Multiple Choice: What does the this keyword refer to inside a method?  
  
(A) The global object  
(B) The object that owns the method  
(C) The function scope  
(D) The nearest variable in scope

**Question 46 (ID: 3.1.3):** Multiple Choice: JavaScript uses an interpreter to execute code. What is an interpreter's main role?  
 - (A) To compile code into machine language before execution  
 - (B) To execute code without compiling it into machine language first  
 - (C) To optimize JavaScript code for web browsers  
 - (D) To compile JavaScript into assembly code

**Question 47 (ID: 3.7.9):** Multiple Choice: In the following code, which variables are in scope inside the if block?  
  
javascript  
let a = 10;  
function checkScope() {  
 var b = 20;  
 if (true) {  
 let c = 30;  
 console.log(a);  
 console.log(b);  
 console.log(c);  
 }  
}  
checkScope();  
(A) Only a  
(B) Only c  
(C) a, b, and c  
(D) Only a and b

**Question 48 (ID: 4.5.2):** Multiple Choice: What CSS property is used to control the spacing between labels and form inputs?  
  
- (A) padding  
- (B) margin  
- (C) border  
- (D) line-height

**Question 49 (ID: 1.4.6):** Multiple Choice: How should HTML comments be used in a document?  
 - (A) To improve the page's SEO by including keywords  
 - (B) To temporarily disable code without deleting it  
 - (C) To create secure sections of code that cannot be viewed by the user  
 - (D) To automatically update content on a webpage

**Question 50 (ID: 4.4.9):** Multiple Choice: What does the `value` attribute in a checkbox represent?  
  
- (A) The text shown next to the checkbox.  
- (B) The value sent to the server if the checkbox is selected.  
- (C) The default state of the checkbox.  
- (D) The color of the checkbox.

# Answers

**Answer to Question 1:** (B) document.getElementById()

**Answer to Question 2:** (B) To log information or errors to the browser's console for debugging.

**Answer to Question 3:** (A) `childNodes` includes text nodes, while `children` includes only element nodes.

**Answer to Question 4:** (A) top, (B) left, (C) bottom, (D) right

**Answer to Question 5:** (B) With extra spacing above and below paragraphs

**Answer to Question 6:** (B) window.location.protocol

**Answer to Question 7:** (B) It does not start on a new line and only takes up as much width as necessary.

**Answer to Question 8:** (A) window.location.href

**Answer to Question 9:** (A) Using the `pattern` attribute with a regular expression, (B) Using JavaScript to validate input during the `input` event, (C) Using the `min` and `max` attributes for numerical input

**Answer to Question 10:** (A) Sun Oct 21 2035 07:28:00 GMT-0500

**Answer to Question 11:** (A) `background-color`

**Answer to Question 12:** (B) Block; used for introductory content or navigational links

**Answer to Question 13:** (A) string, (B) boolean, (C) number

**Answer to Question 14:** (B) Through separate properties for width, style, and color

**Answer to Question 15:** (B) Adds equal spacing between all flex items, with no space at the edges

**Answer to Question 16:** (C) `parseInt()`

**Answer to Question 17:** (C) It inserts a line break within the text.

**Answer to Question 18:** False

**Answer to Question 19:** True

**Answer to Question 20:** True

**Answer to Question 21:** (A) `new Date()`, (B) `new Date("2024-01-01")`, (C) `new Date(2024, 0, 1)`, (D) `new Date(1000)`

**Answer to Question 22:** (B) Feb 22, 1732

**Answer to Question 23:** (A) Content, (B) Padding, (C) Border

**Answer to Question 24:** (A) It returns the current value of the element's width property.

**Answer to Question 25:** (C) Allows the background of underlying elements to be visible

**Answer to Question 26:** (A) myFunc(), (C) myFunc(3, 4)

**Answer to Question 27:** False

**Answer to Question 28:** (A) 10, 9, 8, 7, 6

**Answer to Question 29:** (C) To define the visual presentation of web pages

**Answer to Question 30:** (A) The div's width changes to 200px and the background color changes to red.

**Answer to Question 31:** (A) list-style-type

**Answer to Question 32:** (B) 1, 2, 4, 5

**Answer to Question 33:** (A) `\*`, (B) `%`, (C) `/`

**Answer to Question 34:** (B) href

**Answer to Question 35:** (A) To define a container for navigation links

**Answer to Question 36:** False

**Answer to Question 37:** (A) `innerHTML` sets both HTML and text content, while `textContent` sets only the text content.

**Answer to Question 38:** False

**Answer to Question 39:** True

**Answer to Question 40:** (A) It triggers when an element loses focus.

**Answer to Question 41:** (D) /(c|b|m)at/

**Answer to Question 42:** (A) GET sends data as part of the URL, while POST sends data in the request body.

**Answer to Question 43:** (A) `element.style.width = "100px"`, (B) `element.style.setProperty("color", "blue")`, (C) `element.style.removeProperty("height")`

**Answer to Question 44:** (B) 15

**Answer to Question 45:** (B) The object that owns the method

**Answer to Question 46:** (B) To execute code without compiling it into machine language first

**Answer to Question 47:** (C) `a`, `b`, and `c`

**Answer to Question 48:** (B) margin

**Answer to Question 49:** (B) To temporarily disable code without deleting it

**Answer to Question 50:** (B) The value sent to the server if the checkbox is selected.