# Randomly Selected Questions - Set 6

**Question 1 (ID: 1.5.10):** True/False: The <img> tag supports both width and height attributes to control image sizing without CSS.

**Question 2 (ID: 2.6.10):** Multi-Select: Which of the following are common use cases for `position: absolute;`? (Select all that apply)  
 - (A) Creating tooltips or dropdown menus  
 - (B) Centering elements within a container  
 - (C) Creating elements that remain in place when the page is scrolled  
 - (D) Layering elements on top of each other with z-index

**Question 3 (ID: 3.8.10):** Multiple Choice: What is the result of the following code?  
  
javascript  
Copy code  
let groceries = ["bread", "milk", "peanut butter"];  
groceries.push("eggs");  
console.log(groceries.length);  
(A) 2  
(B) 3  
(C) 4  
(D) 5

**Question 4 (ID: 3.9.9):** Multiple Choice: What is an accessor property in JavaScript?  
  
(A) A property that has both getter and setter functions  
(B) A property that is accessible only inside the object  
(C) A property that is inherited from another object  
(D) A property that is read-only

**Question 5 (ID: 4.6.3):** Multiple Choice: What does the following code do?  
  
let para = document.createElement('p');  
document.body.appendChild(para);  
  
- (A) It creates a new paragraph and appends it to the document body.  
- (B) It removes the first paragraph in the body.  
- (C) It replaces the first paragraph in the body with a new one.  
- (D) It adds a new CSS style to all paragraphs.

**Question 6 (ID: 3.5.1):** Multiple Choice: What is the key difference between a `while` loop and a `do-while` loop in JavaScript?  
  
- (A) The `while` loop always runs at least once, while the `do-while` loop might not run at all.  
- (B) The `do-while` loop checks the condition before running the loop body.  
- (C) The `while` loop checks the condition before running the loop body, while the `do-while` loop checks the condition after.  
- (D) There is no difference between `while` and `do-while`.

**Question 7 (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 8 (ID: 2.2.5):** Multiple Choice: Which selector would you use to style all <p> elements within a <div>?  
 - (A) div p  
 - (B) div + p  
 - (C) div > p  
 - (D) p div

**Question 9 (ID: 4.1.6):** Multiple Choice: Which of the following methods gets the full year from a `Date` object?  
  
- (A) `getYear()`  
- (B) `getFullYear()`  
- (C) `getDate()`  
- (D) `getMonth()`

**Question 10 (ID: 1.4.8):** Multiple Choice: What happens if an HTML comment is incorrectly formatted?  
 - (A) The comment is still hidden from the user.  
 - (B) The content inside the comment may be displayed as text.  
 - (C) The entire webpage fails to render.  
 - (D) The comment turns into a functional HTML element.

**Question 11 (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 12 (ID: 1.9.5):** True/False: The `<tbody>` element is optional in HTML tables.

**Question 13 (ID: 1.9.8):** Multiple Choice: How do you define a table row that should appear at the bottom of a table, but is not a footer?  
 - (A) Use the `<tfoot>` tag.  
 - (B) Use the `<lastrow>` tag.  
 - (C) Use the `<bottom>` tag.  
 - (D) Simply place it at the end of the `<tbody>` section.

**Question 14 (ID: 3.1.1):** Multiple Choice: Who created JavaScript and in what year?  
 - (A) Tim Berners-Lee, 1991  
 - (B) Brendan Eich, 1995  
 - (C) Mark Zuckerberg, 1997  
 - (D) James Gosling, 1995

**Question 15 (ID: 3.1.5):** Multiple Choice: What happens when a variable is declared with `const` in JavaScript?  
 - (A) The variable's value can change  
 - (B) The variable's value cannot be reassigned  
 - (C) The variable is block-scoped and can be modified  
 - (D) The variable becomes global by default

**Question 16 (ID: 1.1.8):** Multiple Choice: Which version of IP is used to create a private network?  
 - (A) IPv3  
 - (B) IPv4  
 - (C) IPv6  
 - (D) IPv8

**Question 17 (ID: 3.3.1):** Multiple Choice: Which of the following best describes the purpose of an if statement in JavaScript?  
 - (A) It repeats a block of code as long as a condition is true  
 - (B) It executes a block of code if a specified condition is true  
 - (C) It randomly chooses whether to execute a block of code  
 - (D) It declares a variable with a default value

**Question 18 (ID: 4.3.9):** Multi-Select: Which of the following input types are valid in an HTML form? (Select all that apply)  
  
- (A) text  
- (B) password  
- (C) file  
- (D) hyperlink

**Question 19 (ID: 4.1.1):** Multiple Choice: What is the purpose of the JavaScript `Date` object?  
  
- (A) To represent a date as a string  
- (B) To represent a specific moment in time, measured in milliseconds since January 1, 1970 (Unix Epoch)  
- (C) To convert a date to a number  
- (D) To store multiple dates in an array

**Question 20 (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 21 (ID: 2.1.5):** Multiple Choice: What is the default behavior when multiple styles are applied to an element?  
 - (A) The first style in the HTML file is applied.  
 - (B) All styles are combined and applied.  
 - (C) The most specific style according to CSS specificity rules is applied.  
 - (D) The last style in the CSS file is applied.

**Question 22 (ID: 3.1.8):** Multiple Choice: What is the result of the following JavaScript code?  
let x; console.log(typeof x);  
  
- (A) number  
- (B) string  
- (C) undefined  
- (D) null

**Question 23 (ID: 1.8.7):** True/False: An `<a>` tag can be used as a container for both text and images.

**Question 24 (ID: 3.7.1):** Multiple Choice: What is the primary difference between variables declared with `var` and `let`?  
  
- (A) `var` has function scope, while `let` has block scope.  
- (B) `var` has block scope, while `let` has function scope.  
- (C) `var` and `let` have the same scope.  
- (D) `let` is globally scoped, and `var` is block-scoped.

**Question 25 (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 26 (ID: 2.5.8):** Multi-Select: What are the possible values for the 'box-sizing' property in CSS? (Select all that apply)  
 - (A) content-box  
 - (B) padding-box  
 - (C) border-box  
 - (D) margin-box

**Question 27 (ID: 1.10.1):** True/False: The `<input>` element can only be used for text fields in HTML forms.

**Question 28 (ID: 2.3.7):** Multi-Select: What scenarios are appropriate for using the `clear` property in CSS? (Select all that apply)  
 - (A) To prevent text from wrapping around floated elements  
 - (B) To set which sides of an element floating elements cannot be next to  
 - (C) To increase the space around floating elements  
 - (D) To reset the floating behavior of elements

**Question 29 (ID: 4.9.8):** Multiple Choice: What does the `preventDefault()` method do in an event handler?  
  
- (A) It prevents the browser's default action for the event.  
- (B) It removes the event listener from the DOM.  
- (C) It triggers a default action for the event.  
- (D) It logs the event to the console.

**Question 30 (ID: 4.5.8):** Multiple Choice: What does the `border-radius` property do when applied to form elements?  
  
- (A) It removes the borders from the element.  
- (B) It makes the element's corners rounded.  
- (C) It increases the size of the borders.  
- (D) It changes the color of the borders.

**Question 31 (ID: 3.5.3):** Multi-Select: Which of the following loops always execute at least once? (Select all that apply)  
  
- (A) `while` loop  
- (B) `for` loop  
- (C) `do-while` loop  
- (D) Infinite loop

**Question 32 (ID: 3.6.6):** Multiple Choice: What is the default value returned by a function if there is no explicit return statement?  
  
- (A) 0  
- (B) null  
- (C) undefined  
- (D) An error is thrown

**Question 33 (ID: 4.11.2):** Multiple Choice: What does the `preventDefault()` method do in a form's submit handler?  
  
- (A) It prevents the form from being submitted to the server.  
- (B) It clears all the input fields in the form.  
- (C) It changes the form's action URL.  
- (D) It submits the form automatically without user input.

**Question 34 (ID: 3.10.10):** Multiple Choice: What will this code output?  
  
let students = {  
 123: { name: "Tiara", gpa: 3.3 },  
 444: { name: "Lee", gpa: 2.0 }  
};  
console.log(444 in students);  
  
- (A) true  
- (B) false  
- (C) undefined  
- (D) null

**Question 35 (ID: 4.2.6):** Multiple Choice: What does the regex `/ab\*c/` match?  
  
- (A) "ac"  
- (B) "abc"  
- (C) "abbbbbbc"  
- (D) All of the above

**Question 36 (ID: 3.11.1):** Multiple Choice: What does the `charAt()` method do in JavaScript?  
  
- (A) Returns the character at the specified index in a string.  
- (B) Returns the Unicode value of a character.  
- (C) Converts the character at the specified index to uppercase.  
- (D) Removes the character at the specified index.

**Question 37 (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 38 (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 39 (ID: 3.5.10):** Multiple Choice: What is the effect of an infinite loop in JavaScript?  
  
- (A) The program runs forever, causing the browser to crash.  
- (B) The program runs forever, but the browser continues to respond.  
- (C) The loop stops after a fixed number of iterations.  
- (D) The loop automatically terminates after 1000 iterations.

**Question 40 (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 41 (ID: 4.8.2):** Multiple Choice: Which of the following methods is used to add a new child node to the end of a parent node's child list?  
  
- (A) `removeChild()`  
- (B) `insertBefore()`  
- (C) `appendChild()`  
- (D) `cloneNode()`

**Question 42 (ID: 1.1.5):** True/False: The hostname in a URL must always include "www."

**Question 43 (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 44 (ID: 2.3.2):** Multiple Choice: Which function is used to specify colors in terms of hue, saturation, and lightness in CSS?  
 - (A) rgb()  
 - (B) rgba()  
 - (C) hsl()  
 - (D) hex()

**Question 45 (ID: 4.10.1):** Multiple Choice: Which JavaScript method is used to get the value of an element's CSS property?  
  
- (A) `getPropertyValue()`  
- (B) `setProperty()`  
- (C) `removeProperty()`  
- (D) `querySelector()`

**Question 46 (ID: 3.2.6):** Multiple Choice: What is the result of the following expression?  
2 \*\* 3  
- (A) 6  
- (B) 8  
- (C) 9  
- (D) 12

**Question 47 (ID: 4.7.5):** Multiple Choice: Which of the following is true about the DOM?  
  
- (A) It is a representation of the HTML structure in the browser.  
- (B) It is only used for static web pages.  
- (C) It does not allow manipulation of HTML elements.  
- (D) It can only be modified using CSS.

**Question 48 (ID: 2.2.10):** Multiple Choice: How do you select all elements that are the direct children of a <div> element?  
 - (A) div > \*  
 - (B) div + \*  
 - (C) div \*  
 - (D) div ~ \*

**Question 49 (ID: 4.5.6):** Multiple Choice: What is the result of the following HTML code?  
  
<input type="submit" value="Register" style="background-color: #09f; color: white; padding: 10px; border-radius: 4px;">  
  
- (A) A blue, rounded submit button with white text  
- (B) A gray submit button with rounded corners  
- (C) A blue submit button with black text  
- (D) A gray button with no text

**Question 50 (ID: 2.5.6):** Multiple Choice: Which property is used to control the transparency level of a border?  
 - (A) border-opacity  
 - (B) border-color  
 - (C) opacity  
 - (D) border-style

# Answers

**Answer to Question 1:** True

**Answer to Question 2:** (A) Creating tooltips or dropdown menus, (B) Centering elements within a container, (D) Layering elements on top of each other with z-index

**Answer to Question 3:** (C) 4

**Answer to Question 4:** (A) A property that has both getter and setter functions

**Answer to Question 5:** (A) It creates a new paragraph and appends it to the document body.

**Answer to Question 6:** (C) The `while` loop checks the condition before running the loop body, while the `do-while` loop checks the condition after.

**Answer to Question 7:** (B) 15

**Answer to Question 8:** (A) div p

**Answer to Question 9:** (B) `getFullYear()`

**Answer to Question 10:** (B) The content inside the comment may be displayed as text.

**Answer to Question 11:** (C) `a`, `b`, and `c`

**Answer to Question 12:** True

**Answer to Question 13:** (D) Simply place it at the end of the `<tbody>` section.

**Answer to Question 14:** (B) Brendan Eich, 1995

**Answer to Question 15:** (B) The variable's value cannot be reassigned

**Answer to Question 16:** (B) IPv4

**Answer to Question 17:** (B) It executes a block of code if a specified condition is true

**Answer to Question 18:** (A) text, (B) password, (C) file

**Answer to Question 19:** (B) To represent a specific moment in time, measured in milliseconds since January 1, 1970 (Unix Epoch)

**Answer to Question 20:** (C) Allows the background of underlying elements to be visible

**Answer to Question 21:** (C) The most specific style according to CSS specificity rules is applied.

**Answer to Question 22:** (C) undefined

**Answer to Question 23:** True

**Answer to Question 24:** (A) `var` has function scope, while `let` has block scope.

**Answer to Question 25:** (C) `parseInt()`

**Answer to Question 26:** (A) content-box, (C) border-box

**Answer to Question 27:** False

**Answer to Question 28:** (A) To prevent text from wrapping around floated elements, (B) To set which sides of an element floating elements cannot be next to, (D) To reset the floating behavior of elements

**Answer to Question 29:** (A) It prevents the browser's default action for the event.

**Answer to Question 30:** (B) It makes the element's corners rounded.

**Answer to Question 31:** (C) `do-while` loop, (D) Infinite loop

**Answer to Question 32:** (C) undefined

**Answer to Question 33:** (A) It prevents the form from being submitted to the server.

**Answer to Question 34:** (A) true

**Answer to Question 35:** (D) All of the above

**Answer to Question 36:** (A) Returns the character at the specified index in a string.

**Answer to Question 37:** (A) `\*`, (B) `%`, (C) `/`

**Answer to Question 38:** (C) It inserts a line break within the text.

**Answer to Question 39:** (A) The program runs forever, causing the browser to crash.

**Answer to Question 40:** (A) `new Date()`, (B) `new Date("2024-01-01")`, (C) `new Date(2024, 0, 1)`, (D) `new Date(1000)`

**Answer to Question 41:** (C) `appendChild()`

**Answer to Question 42:** False

**Answer to Question 43:** (A) `innerHTML` sets both HTML and text content, while `textContent` sets only the text content.

**Answer to Question 44:** (C) hsl()

**Answer to Question 45:** (A) `getPropertyValue()`

**Answer to Question 46:** (B) 8

**Answer to Question 47:** (A) It is a representation of the HTML structure in the browser.

**Answer to Question 48:** (A) div > \*

**Answer to Question 49:** (A) A blue, rounded submit button with white text

**Answer to Question 50:** (B) border-color