# Randomly Selected Questions - Set 6

**Question 1 (ID: 4.3.4):** Multi-Select: Which of the following elements are typically used to create a form? (Select all that apply)  
  
- (A) `<input>`  
- (B) `<form>`  
- (C) `<label>`  
- (D) `<span>`

**Question 2 (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 3 (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 4 (ID: 1.5.4):** True/False: The 'alt' attribute is required in <img> tags to pass HTML validation.

**Question 5 (ID: 3.8.8):** Multi-Select: Which of the following methods can be used to add elements to an array? (Select all that apply)  
  
(A) push()  
(B) unshift()  
(C) splice()  
(D) pop()  
[3.8.9] Multiple Choice: What does the splice() method do in an array?  
  
(A) It adds an element to the beginning of the array.  
(B) It removes an element from the end of the array.  
(C) It removes or adds elements from/to the array at a specific index.  
(D) It sorts the array.

**Question 6 (ID: 1.9.5):** True/False: The `<tbody>` element is optional in HTML tables.

**Question 7 (ID: 1.4.5):** True/False: Placing a comment inside an HTML tag will prevent the tag from being rendered.

**Question 8 (ID: 2.4.3):** Multi-Select: Which properties are set by the shorthand `font` property? (Select all that apply)  
 - (A) font-family  
 - (B) font-size  
 - (C) font-weight  
 - (D) line-height

**Question 9 (ID: 2.7.7):** Multi-Select: Which values can the `align-items` property accept? (Select all that apply)  
 - (A) `flex-start`  
 - (B) `center`  
 - (C) `space-between`  
 - (D) `flex-end`

**Question 10 (ID: 1.1.6):** Multiple Choice: What protocol is used by a browser to retrieve the IP address of a domain name?  
 - (A) HTTPS  
 - (B) SMTP  
 - (C) DNS  
 - (D) TCP

**Question 11 (ID: 1.6.3):** True/False: List items within an unordered list are automatically numbered by the browser.

**Question 12 (ID: 4.11.4):** Multiple Choice: What is the purpose of the `required` attribute in HTML form input elements?  
  
- (A) To ensure that the field has a value before the form can be submitted.  
- (B) To prevent the user from modifying the input field.  
- (C) To provide a default value for the input field.  
- (D) To limit the length of the input field.

**Question 13 (ID: 4.11.8):** Multiple Choice: What happens when isNaN() is used in form validation?  
  
(A) It checks if the value entered is not a number.  
(B) It checks if the value entered is a string.  
(C) It replaces the current value with a number.  
(D) It submits the form only if the value is a number.

**Question 14 (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 15 (ID: 1.8.1):** True/False: Containers in HTML are always block-level elements.

**Question 16 (ID: 1.2.10):** Multiple Choice: Which tag is specifically designed to programmatically access the content?  
 - (A) <script>  
 - (B) <output>  
 - (C) <template>  
 - (D) <object>

**Question 17 (ID: 3.1.9):** Multi-Select: Which of the following are common ways to obtain user input in JavaScript? (Select all that apply)  
- (A) console.log()  
- (B) prompt()  
- (C) alert()  
- (D) input()

**Question 18 (ID: 1.8.7):** True/False: An `<a>` tag can be used as a container for both text and images.

**Question 19 (ID: 3.8.6):** Multiple Choice: What is the purpose of the forEach() method in JavaScript?  
  
(A) To return a new array with modified values.  
(B) To loop through each element of an array and apply a function to each element.  
(C) To remove elements from an array.  
(D) To concatenate two arrays.

**Question 20 (ID: 1.2.2):** Multiple Choice: What does the <link> tag primarily use within an HTML document?  
 - (A) To link JavaScript files  
 - (B) To establish connections between different HTML pages  
 - (C) To connect the document to external stylesheets  
 - (D) To embed responsive meta tags

**Question 21 (ID: 1.9.2):** Multiple Choice: Which HTML element defines a single cell in a table header?  
 - (A) `<td>`  
 - (B) `<tr>`  
 - (C) `<th>`  
 - (D) `<caption>`

**Question 22 (ID: 3.5.5):** Multiple Choice: What is the purpose of the `break` statement in a loop?  
  
- (A) To skip to the next iteration of the loop  
- (B) To exit the loop immediately  
- (C) To stop the loop and re-enter after one iteration  
- (D) To continue the loop from the last point

**Question 23 (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 24 (ID: 3.6.7):** Multi-Select: Which of the following are valid function expressions in JavaScript? (Select all that apply)  
  
- (A) let add = function(a, b) { return a + b; }  
- (B) let square = function(x) { return x \* x; }  
- (C) let greet = (name) => "Hello " + name;  
- (D) let divide = (a, b) => { return a / b };

**Question 25 (ID: 1.8.9):** True/False: A `<footer>` element can only contain text and no other HTML elements.

**Question 26 (ID: 3.6.1):** Multiple Choice: What is the correct syntax to declare a function in JavaScript?  
  
- (A) function myFunc {}  
- (B) func myFunc() {}  
- (C) function myFunc() {}  
- (D) declare function myFunc() {}

**Question 27 (ID: 1.8.3):** True/False: The `<span>` element is used for creating block containers.

**Question 28 (ID: 1.5.2):** True/False: The 'src' attribute in an <img> tag is optional.

**Question 29 (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 30 (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 31 (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 32 (ID: 1.2.1):** True/False: The <body> tag can contain any number of <head> tags to structure the document metadata repeatedly.

**Question 33 (ID: 4.4.5):** Multiple Choice: What is the difference between checkboxes and radio buttons?  
  
- (A) Only checkboxes can be used in forms.  
- (B) Checkboxes allow multiple selections, while radio buttons only allow one selection per group.  
- (C) Radio buttons are limited to numerical input.  
- (D) Radio buttons can be selected or deselected, while checkboxes cannot.

**Question 34 (ID: 4.6.1):** Multiple Choice: What is the Document Object Model (DOM) in relation to JavaScript?  
  
- (A) A model representing the visual design of a webpage  
- (B) A data structure representing the content, structure, and style of a document  
- (C) A method for storing variables in JavaScript  
- (D) A technique for minimizing JavaScript files

**Question 35 (ID: 3.8.3):** Multi-Select: Which of the following methods can be used to remove elements from an array? (Select all that apply)  
  
(A) pop()  
(B) shift()  
(C) splice()  
(D) push()

**Question 36 (ID: 2.5.10):** Multiple Choice: Which CSS property is used to hide elements without affecting the layout?  
 - (A) visibility: hidden;  
 - (B) display: none;  
 - (C) opacity: 0;  
 - (D) margin: 0;

**Question 37 (ID: 1.10.3):** True/False: The `value` attribute of an input element is visible to the user and can be modified.

**Question 38 (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 39 (ID: 4.4.7):** Multiple Choice: What happens if no radio button in a group is selected when the form is submitted?  
  
- (A) The browser sends a null value.  
- (B) The browser sends an empty string.  
- (C) The browser does not send the name or value of the radio button group.  
- (D) The browser sends the first radio button's value by default.

**Question 40 (ID: 3.4.6):** Multi-Select: Which of the following are valid ternary operator expressions in JavaScript? (Select all that apply)  
- (A) `let x = (a > b) ? "a is larger" : "b is larger";`  
- (B) `x ? "Yes" : "No";`  
- (C) `age > 18 ? console.log("Adult") : console.log("Minor");`  
- (D) `result ? "Valid" : "Invalid";`

**Question 41 (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 42 (ID: 3.6.10):** Multi-Select: Which of the following are advantages of using arrow functions in JavaScript? (Select all that apply)  
  
- (A) Shorter syntax compared to regular functions  
- (B) Implicit return when only one expression is present  
- (C) They automatically bind `this` to the current context  
- (D) Arrow functions are faster than regular functions

**Question 43 (ID: 4.9.3):** Multi-Select: Which of the following are common events in JavaScript? (Select all that apply)  
  
- (A) click  
- (B) keydown  
- (C) submit  
- (D) colorchange

**Question 44 (ID: 1.1.3):** Matching: Match the following domain types to their description:  
 - (A) .com  
 - (B) .edu  
 - (C) .gov  
 - \_\_\_ Commercial  
 - \_\_\_ Educational  
 - \_\_\_ Government

**Question 45 (ID: 2.3.9):** Multiple Choice: How does CSS handle the transparency of colors specified with the `hsla()` function?  
 - (A) The 'a' in `hsla()` stands for absolute, which prevents any transparency  
 - (B) The alpha channel controls the transparency; 1 is fully opaque, 0 is fully transparent  
 - (C) Transparency is not supported in `hsla()`, only in `rgba()`  
 - (D) Transparency effects are reversed in `hsla()` compared to `rgba()`

**Question 46 (ID: 1.6.1):** True/False: An unordered list in HTML is used when the order of the items is important.

**Question 47 (ID: 4.2.5):** Multiple Choice: What does the `replace()` method do when using regular expressions in JavaScript?  
  
- (A) Finds a string and deletes it.  
- (B) Replaces one or more matches of a pattern with a specified replacement.  
- (C) Tests if a string matches a pattern.  
- (D) Returns an array of matched substrings.

**Question 48 (ID: 2.5.7):** Multiple Choice: When does margin collapsing occur?  
 - (A) When adjacent margins of floated elements combine  
 - (B) When vertical margins of block elements touch each other  
 - (C) Only when horizontal margins of inline elements combine  
 - (D) It never occurs in modern CSS

**Question 49 (ID: 3.3.10):** Multiple Choice: What is the final value of `numItems` in the following code?  
let bonus = 15;   
let numItems = 44;   
if (bonus < 12) {   
 numItems += 3;   
} else {   
 numItems += 6;   
} numItems++;  
  
- (A) 44  
- (B) 50  
- (C) 51  
- (D) 53

**Question 50 (ID: 3.10.7):** Multi-Select: Which of the following statements are true about for-in loops in JavaScript? (Select all that apply)  
  
- (A) They loop over all enumerable properties of an object.  
- (B) They loop over both the keys and values of an object.  
- (C) They can be used to iterate over arrays.  
- (D) They loop through an object’s keys in insertion order.

# Answers

**Answer to Question 1:** (A) `<input>`, (B) `<form>`, (C) `<label>`

**Answer to Question 2:** (C) 4

**Answer to Question 3:** (A) GET sends data as part of the URL, while POST sends data in the request body.

**Answer to Question 4:** True

**Answer to Question 5:** (A) push(), (B) unshift(), (C) splice()

**Answer to Question 6:** True

**Answer to Question 7:** False

**Answer to Question 8:** (A) font-family, (B) font-size, (C) font-weight

**Answer to Question 9:** (A) `flex-start`, (B) `center`, (D) `flex-end`

**Answer to Question 10:** (C) DNS

**Answer to Question 11:** False

**Answer to Question 12:** (A) To ensure that the field has a value before the form can be submitted.

**Answer to Question 13:** (A) It checks if the value entered is not a number.

**Answer to Question 14:** (B) To log information or errors to the browser's console for debugging.

**Answer to Question 15:** False

**Answer to Question 16:** (A) <script>

**Answer to Question 17:** (B) prompt(), (C) alert()

**Answer to Question 18:** True

**Answer to Question 19:** (B) To loop through each element of an array and apply a function to each element.

**Answer to Question 20:** (C) To connect the document to external stylesheets

**Answer to Question 21:** (C) `<th>`

**Answer to Question 22:** (B) To exit the loop immediately

**Answer to Question 23:** (A) It triggers when an element loses focus.

**Answer to Question 24:** (A) let add = function(a, b) { return a + b; }, (B) let square = function(x) { return x \* x; }, (C) let greet = (name) => "Hello " + name;, (D) let divide = (a, b) => { return a / b; }

**Answer to Question 25:** False

**Answer to Question 26:** (C) function myFunc() {}

**Answer to Question 27:** False

**Answer to Question 28:** False

**Answer to Question 29:** (A) It prevents the form from being submitted to the server.

**Answer to Question 30:** (B) 1, 2, 4, 5

**Answer to Question 31:** (A) content-box, (C) border-box

**Answer to Question 32:** False

**Answer to Question 33:** (B) Checkboxes allow multiple selections, while radio buttons only allow one selection per group.

**Answer to Question 34:** (B) A data structure representing the content, structure, and style of a document

**Answer to Question 35:** (A) pop(), (B) shift(), (C) splice()

**Answer to Question 36:** (A) visibility: hidden;

**Answer to Question 37:** True

**Answer to Question 38:** (A) The div's width changes to 200px and the background color changes to red.

**Answer to Question 39:** (C) The browser does not send the name or value of the radio button group.

**Answer to Question 40:** (A), (B), (C)

**Answer to Question 41:** (C) hsl()

**Answer to Question 42:** (A) Shorter syntax compared to regular functions, (B) Implicit return when only one expression is present, (C) They automatically bind `this` to the current context

**Answer to Question 43:** (A) click, (B) keydown, (C) submit

**Answer to Question 44:** (A) Commercial, (B) Educational, (C) Government

**Answer to Question 45:** (B) The alpha channel controls the transparency; 1 is fully opaque, 0 is fully transparent

**Answer to Question 46:** False

**Answer to Question 47:** (B) Replaces one or more matches of a pattern with a specified replacement.

**Answer to Question 48:** (B) When vertical margins of block elements touch each other

**Answer to Question 49:** (C) 51

**Answer to Question 50:** (A) They loop over all enumerable properties of an object., (C) They can be used to iterate over arrays.