# Randomly Selected Questions - Set 3

**Question 1 (ID: 2.2.4):** Multiple Choice: How would you select an HTML element with the ID 'banner'?  
 - (A) .banner  
 - (B) #banner  
 - (C) banner  
 - (D) &banner

**Question 2 (ID: 1.7.8):** True/False: Using `target="\_blank"` in an `<a>` tag ensures that the linked document will open in a new tab, but not a new window.

**Question 3 (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 4 (ID: 3.7.7):** Multi-Select: Which of the following are characteristics of global variables in JavaScript? (Select all that apply)  
  
(A) Accessible throughout the entire program  
(B) Can be declared inside a function with let  
(C) Can be declared without var, let, or const  
(D) Are properties of the global object in a browser environment

**Question 5 (ID: 4.2.8):** Multiple Choice: What will the regex `/^ab/` match?  
  
- (A) Any string containing "ab".  
- (B) A string starting with "ab".  
- (C) A string ending with "ab".  
- (D) A string where "ab" appears anywhere.

**Question 6 (ID: 3.3.2):** Multiple Choice: What is the final value of `fee` in the following code?  
let fee = 30; let age = 12; if (age < 18) { fee -= 5; } if (age < 5) { fee = 0; } console.log(fee);  
- (A) 30  
- (B) 25  
- (C) 0  
- (D) 5

**Question 7 (ID: 4.4.4):** Multiple Choice: What does the `for` attribute in a `<label>` tag do?  
  
- (A) Associates the label with a specific form element using the element's `id`.  
- (B) Makes the label clickable.  
- (C) Specifies the form's action URL.  
- (D) Makes the label submit the form when clicked.

**Question 8 (ID: 1.8.5):** True/False: The `<div>` element can contain both block-level and inline elements.

**Question 9 (ID: 3.8.2):** Multiple Choice: What is the correct way to add a new element to the end of an array?  
  
(A) array.unshift(value)  
(B) array.push(value)  
(C) array.shift(value)  
(D) array.pop(value)

**Question 10 (ID: 1.2.1):** True/False: The <body> tag can contain any number of <head> tags to structure the document metadata repeatedly.

**Question 11 (ID: 4.8.1):** Multiple Choice: What does the `parentNode` property do in the DOM?  
  
- (A) It returns the parent node of the current node.  
- (B) It adds a new parent node to the current node.  
- (C) It removes the parent node of the current node.  
- (D) It replaces the parent node of the current node.

**Question 12 (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 13 (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 14 (ID: 3.7.5):** Multiple Choice: What will be the output of the following code?  
  
```javascript  
function testVar() {  
 if (true) {  
 var x = 10;  
 }  
 console.log(x);  
}  
testVar();  
(A) 10  
(B) undefined  
(C) ReferenceError  
(D) null

**Question 15 (ID: 3.3.3):** Multi-Select: Which of the following are valid comparison operators in JavaScript? (Select all that apply)  
- (A) `===`  
- (B) `!=`  
- (C) `><`  
- (D) `<=`

**Question 16 (ID: 3.11.8):** Multiple Choice: What will the following code output?  
  
let phrase = "Spaces here";  
console.log(phrase.length);  
  
- (A) 10  
- (B) 11  
- (C) 12  
- (D) undefined

**Question 17 (ID: 4.5.7):** Multiple Choice: What is the effect of adding `background-color: lightblue;` to an input's `:focus` state?  
  
- (A) The input field turns blue when clicked.  
- (B) The input field turns light blue when it gains focus.  
- (C) The input field loses focus after being clicked.  
- (D) The input text changes to light blue.

**Question 18 (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 19 (ID: 4.2.1):** Multiple Choice: What does the `test()` method do in JavaScript regular expressions?  
  
- (A) It searches for a match in a string and returns the matched substring.  
- (B) It tests if a string matches a pattern and returns true or false.  
- (C) It replaces a substring that matches a pattern.  
- (D) It splits a string into an array of substrings.

**Question 20 (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 21 (ID: 1.2.5):** Multiple Choice: How is document type declaration (<DOCTYPE>) incorrectly described?  
 - (A) It defines the HTML version being used.  
 - (B) It is necessary for ensuring modern standards compliance.  
 - (C) It activates the browser's quirks mode when omitted.  
 - (D) It is an HTML element that contains metadata.

**Question 22 (ID: 1.8.9):** True/False: A `<footer>` element can only contain text and no other HTML elements.

**Question 23 (ID: 1.4.2):** Multiple Choice: What is the correct syntax for an HTML comment?  
 - (A) <comment>This is a comment</comment>  
 - (B) <!-- This is a comment -->  
 - (C) // This is a comment  
 - (D) # This is a comment

**Question 24 (ID: 4.6.4):** Multi-Select: Which of the following are common methods used to interact with the DOM in JavaScript? (Select all that apply)  
  
- (A) document.getElementById()  
- (B) document.createElement()  
- (C) document.addEventListener()  
- (D) document.removeAttribute()

**Question 25 (ID: 4.7.4):** Multiple Choice: What is the purpose of the `document.createElement()` method in the DOM?  
  
- (A) To create a new text node  
- (B) To remove an existing element  
- (C) To create a new element node  
- (D) To modify an existing element's content

**Question 26 (ID: 4.8.3):** Multi-Select: Which of the following are valid methods for modifying the DOM structure? (Select all that apply)  
  
- (A) `appendChild()`  
- (B) `insertBefore()`  
- (C) `removeChild()`  
- (D) `createTextNode()`

**Question 27 (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 28 (ID: 2.1.3):** Multiple Choice: What does the 'Cascading' in Cascading Style Sheets (CSS) primarily describe?  
 - (A) The priority scheme that determines which style rules apply to an element  
 - (B) The method by which styles are passed from parent to child elements  
 - (C) The flow of styles as they appear from top to bottom in a stylesheet  
 - (D) Both (A) and (B)

**Question 29 (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 30 (ID: 2.7.9):** Multiple Choice: What is the purpose of `flex-basis` in CSS?  
 - (A) To specify the maximum size of a flex item  
 - (B) To specify the initial size of a flex item before any space distribution  
 - (C) To shrink items based on container size  
 - (D) To control the flex direction of the container

**Question 31 (ID: 2.4.10):** Multiple Choice: Which of the following is a generic family name in CSS?  
 - (A) Arial  
 - (B) sans-serif  
 - (C) Georgia  
 - (D) Garamond

**Question 32 (ID: 4.1.2):** Multiple Choice: What is the output of the following code?  
  
let currDateTime = new Date();  
console.log(currDateTime);  
  
- (A) The current time in UTC  
- (B) The current time in the local time zone  
- (C) Jan 1, 1970, 00:00:00 UTC  
- (D) An error

**Question 33 (ID: 3.4.5):** Multiple Choice: What will be the value of `result` after the following code executes?  
let age = 25; let result = age >= 18 ? "Adult" : "Minor";  
- (A) "Adult"  
- (B) "Minor"  
- (C) undefined  
- (D) NaN

**Question 34 (ID: 2.1.9):** Multi-Select: What are the effects of using the '!important' declaration in a CSS rule? (Select all that apply)  
 - (A) It increases the priority of the CSS rule.  
 - (B) It makes the CSS file larger.  
 - (C) It overrides other declarations even if they have higher specificity.  
 - (D) It can make debugging and maintenance of CSS more difficult.

**Question 35 (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 36 (ID: 3.1.10):** Multiple Choice: What is dynamic typing in JavaScript?  
- (A) Variables must be declared with a specific data type  
- (B) Variables can change type depending on the assigned value  
- (C) JavaScript automatically converts variables into strings  
- (D) Variables cannot be reassigned once declared

**Question 37 (ID: 4.6.5):** Multiple Choice: What will be the output of this JavaScript code?  
  
<div id="myDiv">Hello</div>  
<script>  
document.getElementById("myDiv").innerHTML = "Goodbye";  
</script>  
  
- (A) "Hello" will be replaced with "Goodbye"  
- (B) "Hello" will remain unchanged  
- (C) The div will be removed from the DOM  
- (D) The code will cause an error

**Question 38 (ID: 3.2.1):** Multiple Choice: Which arithmetic operator in JavaScript is used for exponentiation?  
 - (A) `^`  
 - (B) `\*\*`  
 - (C) `exp()`  
 - (D) `++`

**Question 39 (ID: 1.5.2):** True/False: The 'src' attribute in an <img> tag is optional.

**Question 40 (ID: 2.4.8):** Multiple Choice: If a specific font in a font-family list is not available, what happens?  
 - (A) The browser hides the text  
 - (B) The browser chooses the next available font in the list  
 - (C) The text is displayed using the default browser font  
 - (D) The browser downloads the font from the internet

**Question 41 (ID: 2.2.8):** Multi-Select: Which statements are true about ID selectors? (Select all that apply)  
 - (A) They can be used on more than one element per page.  
 - (B) They are unique to a single element on a page.  
 - (C) They have higher specificity than class selectors.  
 - (D) They are denoted by a period (.)

**Question 42 (ID: 3.3.5):** Multiple Choice: Given the following code, what will be the output?  
let age = 6;   
if (age % 2 == 0) {   
 console.log("age is even");   
} else {   
 console.log("age is odd"); }   
   
if (age > 10) {   
 console.log("age is greater than 10");   
} else {   
 console.log("age is not greater than 10");   
 }  
  
- (A) "age is odd" and "age is greater than 10"  
- (B) "age is even" and "age is not greater than 10"  
- (C) "age is odd" and "age is not greater than 10"  
- (D) "age is even" and "age is greater than 10"

**Question 43 (ID: 2.7.10):** Multi-Select: Which of the following are valid values for the `flex-direction` property? (Select all that apply)  
 - (A) `row`  
 - (B) `row-reverse`  
 - (C) `column`  
 - (D) `column-reverse`

**Question 44 (ID: 1.6.6):** True/False: It is valid HTML to nest an unordered list within an ordered list.

**Question 45 (ID: 3.7.10):** Multiple Choice: What is the result of trying to log variables y and z outside of their respective functions in this code?  
  
javascript  
Copy code  
var x = 10;  
function scopeTest() {  
 var y = 20;  
 let z = 30;  
 console.log(y);  
 console.log(z);  
}  
scopeTest();  
console.log(x);  
console.log(y);  
console.log(z);  
(A) It logs 10, undefined, and undefined.  
(B) It logs 10, followed by ReferenceError for y and z.  
(C) It logs 10, 20, and 30.  
(D) It throws an error for x, y, and z.

**Question 46 (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 47 (ID: 1.1.10):** Multiple Choice: What does the '255.255.255.0' number represent in a network setting?  
 - (A) IP address  
 - (B) Network prefix  
 - (C) Subnet mask  
 - (D) Default gateway

**Question 48 (ID: 3.8.7):** Multiple Choice: What will be the output of the following code?  
  
javascript  
Copy code  
let nums = [5, 2, 9, 3];  
nums[0] = nums[1] + nums[2];  
console.log(nums[0]);  
(A) 7  
(B) 5  
(C) 11  
(D) undefined

**Question 49 (ID: 1.6.3):** True/False: List items within an unordered list are automatically numbered by the browser.

**Question 50 (ID: 3.8.5):** Multiple Choice: What happens when you try to access an element in an array at an index that doesn’t exist?  
  
(A) It throws an error.  
(B) It returns undefined.  
(C) It returns null.  
(D) It crashes the program.

# Answers

**Answer to Question 1:** (B) #banner

**Answer to Question 2:** False

**Answer to Question 3:** (B) 1, 2, 4, 5

**Answer to Question 4:** (A) Accessible throughout the entire program, (C) Can be declared without `var`, `let`, or `const`, (D) Are properties of the global object in a browser environment.

**Answer to Question 5:** (B) A string starting with "ab".

**Answer to Question 6:** (B) 25

**Answer to Question 7:** (A) Associates the label with a specific form element using the element's `id`.

**Answer to Question 8:** True

**Answer to Question 9:** (B) array.push(value)

**Answer to Question 10:** False

**Answer to Question 11:** (A) It returns the parent node of the current node.

**Answer to Question 12:** (A), (B), (C)

**Answer to Question 13:** (B) The alpha channel controls the transparency; 1 is fully opaque, 0 is fully transparent

**Answer to Question 14:** (A) 10

**Answer to Question 15:** (A) `===`, (B) `!=`, (D) `<=`

**Answer to Question 16:** (B) 11

**Answer to Question 17:** (B) The input field turns light blue when it gains focus.

**Answer to Question 18:** (A) list-style-type

**Answer to Question 19:** (B) It tests if a string matches a pattern and returns true or false.

**Answer to Question 20:** (C) function myFunc() {}

**Answer to Question 21:** (D) It is an HTML element that contains metadata.

**Answer to Question 22:** False

**Answer to Question 23:** (B) <!-- This is a comment -->

**Answer to Question 24:** (A) document.getElementById(), (B) document.createElement(), (C) document.addEventListener()

**Answer to Question 25:** (C) To create a new element node

**Answer to Question 26:** (A) `appendChild()`, (B) `insertBefore()`, (C) `removeChild()`

**Answer to Question 27:** (A) `element.style.width = "100px"`, (B) `element.style.setProperty("color", "blue")`, (C) `element.style.removeProperty("height")`

**Answer to Question 28:** (D) Both (A) and (B)

**Answer to Question 29:** (B) To log information or errors to the browser's console for debugging.

**Answer to Question 30:** (B) To specify the initial size of a flex item before any space distribution

**Answer to Question 31:** (B) sans-serif

**Answer to Question 32:** (B) The current time in the local time zone

**Answer to Question 33:** (A) "Adult"

**Answer to Question 34:** (A) It increases the priority of the CSS rule, (C) It overrides other declarations even if they have higher specificity, (D) It can make debugging and maintenance of CSS more difficult.

**Answer to Question 35:** (B) A data structure representing the content, structure, and style of a document

**Answer to Question 36:** (B) Variables can change type depending on the assigned value

**Answer to Question 37:** (A) "Hello" will be replaced with "Goodbye"

**Answer to Question 38:** (B) `\*\*`

**Answer to Question 39:** False

**Answer to Question 40:** (B) The browser chooses the next available font in the list

**Answer to Question 41:** (B) They are unique to a single element on a page, (C) They have higher specificity than class selectors

**Answer to Question 42:** (B) "age is even" and "age is not greater than 10"

**Answer to Question 43:** (A) `row`, (B) `row-reverse`, (C) `column`, (D) `column-reverse`

**Answer to Question 44:** True

**Answer to Question 45:** (B) It logs `10`, followed by ReferenceError for `y` and `z`.

**Answer to Question 46:** (B) window.location.protocol

**Answer to Question 47:** (C) Subnet mask

**Answer to Question 48:** (C) 11

**Answer to Question 49:** False

**Answer to Question 50:** (B) It returns undefined.