# Randomly Selected Questions - Set 1

**Question 1 (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 2 (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 3 (ID: 2.2.3):** Multi-Select: Which of the following are true about class selectors? (Select all that apply)  
 - (A) They can be used to style multiple elements simultaneously.  
 - (B) They must be unique within a page.  
 - (C) They are represented by a period (.) prefix.  
 - (D) They have higher specificity than element selectors.

**Question 4 (ID: 2.2.7):** Multiple Choice: If an element has multiple classes, which class's styles are applied?  
 - (A) The first class listed in the class attribute  
 - (B) The last class listed in the class attribute  
 - (C) All applicable styles are combined  
 - (D) Only the class with the highest specificity

**Question 5 (ID: 3.4.9):** Multiple Choice: In a switch statement, what happens if a case block does not include a `break` statement?  
- (A) The code execution stops and no further cases are evaluated  
- (B) The next case's block is executed, even if it does not match  
- (C) The default case is automatically executed  
- (D) The code throws an error

**Question 6 (ID: 2.1.7):** Multiple Choice: What does the 'style' attribute represent in an HTML tag?  
 - (A) A way to add a unique identifier to an element  
 - (B) A method to apply CSS rules directly to the element  
 - (C) A link to an external stylesheet  
 - (D) An indication of the element's importance in the document

**Question 7 (ID: 3.4.8):** Multiple Choice: In the following switch statement, what will be the value of `coin`?  
let change = 10;   
switch (change) {   
 case 1: coin = "penny";   
 break;   
 case 5: coin = "nickel";   
 break;   
 case 10: coin = "dime";   
 break;  
 case 25: coin = "quarter";   
 break;   
 default: coin = "unknown"; }   
 console.log(coin);  
  
- (A) "penny"  
- (B) "nickel"  
- (C) "dime"  
- (D) "unknown"

**Question 8 (ID: 3.11.7):** Multiple Choice: Which of the following methods converts a string to lowercase?  
  
- (A) `toUpperCase()`  
- (B) `toLowerCase()`  
- (C) `split()`  
- (D) `concat()`

**Question 9 (ID: 4.2.9):** Multiple Choice: What does the `exec()` method return when there is no match in JavaScript?  
  
- (A) undefined  
- (B) false  
- (C) null  
- (D) an empty string

**Question 10 (ID: 3.7.2):** Multiple Choice: In JavaScript, what type of scope does a variable declared with `var` inside a function have?  
  
- (A) Global scope  
- (B) Block scope  
- (C) Function scope  
- (D) Lexical scope

**Question 11 (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 12 (ID: 3.9.8):** Multi-Select: Which of the following statements about object methods is true? (Select all that apply)  
  
(A) Methods can access other properties using this.  
(B) Methods can be added to an object after the object is created.  
(C) Methods must be declared inside the object literal.  
(D) Methods can return values.

**Question 13 (ID: 3.3.7):** Multiple Choice: What is the result of the following code?  
let score = 2;   
if (score === "2") {   
 score = 10; } console.log(score);  
- (A) 2  
- (B) 10  
- (C) "2"  
- (D) Error

**Question 14 (ID: 2.4.1):** Multiple Choice: What does the `font-family` property specify in CSS?  
 - (A) The line height of text  
 - (B) The decoration of the text  
 - (C) The font type used for text rendering  
 - (D) The color of the text

**Question 15 (ID: 3.4.1):** Multiple Choice: Which of the following is considered a falsy value in JavaScript?  
 - (A) "0"  
 - (B) 1  
 - (C) 0  
 - (D) "false"

**Question 16 (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 17 (ID: 1.3.8):** Multiple Choice: What is the effect of multiple whitespace characters between words in HTML?  
 - (A) They add multiple spaces in the rendered document.  
 - (B) They are collapsed into a single space.  
 - (C) They create a new paragraph.  
 - (D) They are ignored by web browsers.

**Question 18 (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 19 (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 20 (ID: 1.5.6):** True/False: The <img> tag can be used to embed a video file into a webpage.

**Question 21 (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 22 (ID: 2.4.6):** Multiple Choice: Which CSS property changes the text style to italic?  
 - (A) font-weight  
 - (B) font-style  
 - (C) text-decoration  
 - (D) text-align

**Question 23 (ID: 4.7.8):** Multiple Choice: What does the `appendChild()` method do in the DOM?  
  
- (A) It replaces an existing child node.  
- (B) It removes a child node.  
- (C) It adds a new child node to an element.  
- (D) It moves a node to the beginning of the parent element.

**Question 24 (ID: 3.11.4):** Multiple Choice: What will be the output of this code?  
  
let sentence = "I love programming!";  
console.log(sentence.indexOf("love"));  
  
- (A) 0  
- (B) 2  
- (C) 5  
- (D) -1

**Question 25 (ID: 3.5.4):** Multiple Choice: What happens if the condition in a `for` loop is initially false?  
  
- (A) The loop runs infinitely.  
- (B) The loop will execute once.  
- (C) The loop body will never execute.  
- (D) The condition will be ignored.

**Question 26 (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 27 (ID: 1.5.7):** Multiple Choice: Which attribute in an <img> tag defines the space an image occupies before it loads?  
 - (A) alt  
 - (B) width and height  
 - (C) src  
 - (D) style

**Question 28 (ID: 3.4.7):** Multiple Choice: What is the main difference between using a switch statement and an if-else chain?  
- (A) Switch uses strict equality (===) while if-else does not  
- (B) If-else can only evaluate strings while switch can evaluate numbers  
- (C) If-else is faster in execution than switch  
- (D) Switch allows for more flexible comparisons than if-else

**Question 29 (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 30 (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 31 (ID: 3.9.3):** Multi-Select: Which of the following methods can be used to access object properties? (Select all that apply)  
  
(A) Dot notation  
(B) Bracket notation  
(C) Object.keys()  
(D) Object.getOwnPropertyNames()

**Question 32 (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 33 (ID: 3.10.8):** Multiple Choice: What will the following code output?  
  
let courses = {  
 "101": "Math",  
 "102": "English",  
 "103": "History"  
};  
for (let course in courses) {  
 console.log(course + ": " + courses[course]);  
}  
  
- (A) "101: Math", "102: English", "103: History"  
- (B) "Math", "English", "History"  
- (C) "101: History", "102: English", "103: Math"  
- (D) undefined

**Question 34 (ID: 3.11.2):** Multiple Choice: What is the output of the following code?  
  
let str = "JavaScript";  
console.log(str.charAt(4));  
  
- (A) "J"  
- (B) "S"  
- (C) "v"  
- (D) "a"

**Question 35 (ID: 1.1.1):** True/False: An IP address can consist of any four numbers between 1 and 1000.

**Question 36 (ID: 4.7.7):** Multi-Select: Which of the following methods are used to search for nodes in the DOM? (Select all that apply)  
  
- (A) `document.getElementById()`  
- (B) `document.querySelector()`  
- (C) `document.createTextNode()`  
- (D) `document.getElementsByTagName()`

**Question 37 (ID: 4.3.7):** Multiple Choice: What does the `label` element do in a form?  
  
- (A) It adds descriptive text to a form field.  
- (B) It validates the input data.  
- (C) It adds styling to a form field.  
- (D) It hides the form field.

**Question 38 (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 39 (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 40 (ID: 3.10.2):** Multiple Choice: How can you add a new key/value pair to an existing object in JavaScript?  
  
- (A) object.add("key", "value");  
- (B) object["key"] = "value";  
- (C) object.insert("key", "value");  
- (D) object.key("value");

**Question 41 (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 42 (ID: 4.11.10):** Multiple Choice: How does the maxlength attribute help with form validation?  
  
(A) It limits the number of characters a user can enter into a field.  
(B) It prevents users from submitting the form.  
(C) It automatically corrects the length of input.  
(D) It replaces the entered text with a default value.)

**Question 43 (ID: 4.3.10):** Multiple Choice: What does the `placeholder` attribute do in an `<input>` element?  
  
- (A) It provides a hint to the user as to what value should be entered.  
- (B) It pre-populates the input field with a default value.  
- (C) It hides the input field until the form is submitted.  
- (D) It validates the input data before submission.

**Question 44 (ID: 1.9.6):** Multiple Choice: Which tag is used to group the body content in an HTML table?  
 - (A) `<thead>`  
 - (B) `<tfoot>`  
 - (C) `<tbody>`  
 - (D) `<tgroup>`

**Question 45 (ID: 3.2.8):** Multiple Choice: What happens when you try to add a number and a string in JavaScript?  
- (A) The number is converted to a string, and concatenation occurs  
- (B) The string is converted to a number, and addition occurs  
- (C) An error is thrown  
- (D) The result is always NaN (Not a Number)

**Question 46 (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 47 (ID: 4.4.6):** Multiple Choice: What is sent to the server when a radio button is selected?  
  
- (A) The name and value of the selected radio button.  
- (B) Only the name of the selected radio button.  
- (C) The name of the form element.  
- (D) A boolean value.

**Question 48 (ID: 2.3.1):** Multiple Choice: What is the purpose of the CSS `color` property?  
 - (A) To set the background color of an element  
 - (B) To define the text color of an element  
 - (C) To specify the border color of an element  
 - (D) To change the color of links within an element

**Question 49 (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 50 (ID: 4.4.10):** Multiple Choice: What is the default value sent to the server if a checkbox is selected and no `value` attribute is specified?  
  
- (A) "true"  
- (B) "on"  
- (C) "checked"  
- (D) An empty string

# Answers

**Answer to Question 1:** (A) It checks if the value entered is not a number.

**Answer to Question 2:** (D) It is an HTML element that contains metadata.

**Answer to Question 3:** (A) They can be used to style multiple elements simultaneously, (C) They are represented by a period (.) prefix, (D) They have higher specificity than element selectors.

**Answer to Question 4:** (C) All applicable styles are combined

**Answer to Question 5:** (B) The next case's block is executed, even if it does not match

**Answer to Question 6:** (B) A method to apply CSS rules directly to the element

**Answer to Question 7:** (C) "dime"

**Answer to Question 8:** (B) `toLowerCase()`

**Answer to Question 9:** (C) null

**Answer to Question 10:** (C) Function scope

**Answer to Question 11:** (A) Returns the character at the specified index in a string.

**Answer to Question 12:** (A) Methods can access other properties using `this`, (B) Methods can be added to an object after the object is created, (D) Methods can return values

**Answer to Question 13:** (A) 2

**Answer to Question 14:** (C) The font type used for text rendering

**Answer to Question 15:** (C) 0

**Answer to Question 16:** (B) To exit the loop immediately

**Answer to Question 17:** (B) They are collapsed into a single space.

**Answer to Question 18:** (B) array.push(value)

**Answer to Question 19:** (B) <!-- This is a comment -->

**Answer to Question 20:** False

**Answer to Question 21:** (B) It executes a block of code if a specified condition is true

**Answer to Question 22:** (B) font-style

**Answer to Question 23:** (C) It adds a new child node to an element.

**Answer to Question 24:** (B) 2

**Answer to Question 25:** (C) The loop body will never execute.

**Answer to Question 26:** (C) To connect the document to external stylesheets

**Answer to Question 27:** (B) width and height

**Answer to Question 28:** (A) Switch uses strict equality (===) while if-else does not

**Answer to Question 29:** (B) The content inside the comment may be displayed as text.

**Answer to Question 30:** (C) hsl()

**Answer to Question 31:** (A) Dot notation, (B) Bracket notation

**Answer to Question 32:** (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 33:** (A) "101: Math", "102: English", "103: History"

**Answer to Question 34:** (D) "a"

**Answer to Question 35:** False

**Answer to Question 36:** (A) `document.getElementById()`, (B) `document.querySelector()`, (D) `document.getElementsByTagName()`

**Answer to Question 37:** (A) It adds descriptive text to a form field.

**Answer to Question 38:** (B) Variables can change type depending on the assigned value

**Answer to Question 39:** (A) `var` has function scope, while `let` has block scope.

**Answer to Question 40:** (B) object["key"] = "value";

**Answer to Question 41:** (B) It tests if a string matches a pattern and returns true or false.

**Answer to Question 42:** (A) It limits the number of characters a user can enter into a field.

**Answer to Question 43:** (A) It provides a hint to the user as to what value should be entered.

**Answer to Question 44:** (C) `<tbody>`

**Answer to Question 45:** (A) The number is converted to a string, and concatenation occurs

**Answer to Question 46:** False

**Answer to Question 47:** (A) The name and value of the selected radio button.

**Answer to Question 48:** (B) To define the text color of an element

**Answer to Question 49:** (A) `flex-start`, (B) `center`, (D) `flex-end`

**Answer to Question 50:** (B) "on"