# Randomly Selected Questions - Set 2

**Question 1 (ID: 4.4.3):** Multi-Select: Which of the following are valid attributes for a checkbox input in HTML? (Select all that apply)  
  
- (A) `checked`  
- (B) `value`  
- (C) `name`  
- (D) `method`

**Question 2 (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

**Question 3 (ID: 2.7.4):** Multi-Select: Which of the following properties are used to control the wrapping of flex items? (Select all that apply)  
 - (A) `flex-wrap`  
 - (B) `flex-basis`  
 - (C) `flex-shrink`  
 - (D) `flex-direction`

**Question 4 (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 5 (ID: 1.3.1):** True/False: The <p> tag is used to create line breaks in HTML documents.

**Question 6 (ID: 2.6.2):** Multiple Choice: When using `position: absolute;`, what happens if no ancestor elements have a position other than `static`?  
 - (A) The element is positioned relative to the viewport  
 - (B) The element is positioned relative to its parent element  
 - (C) The element does not appear on the page  
 - (D) The element is positioned relative to the document's root element

**Question 7 (ID: 1.8.4):** Multiple Choice: Which HTML element is typically used as a generic container for styling purposes without any semantic meaning?  
 - (A) `<p>`  
 - (B) `<span>`  
 - (C) `<div>`  
 - (D) `<header>`

**Question 8 (ID: 2.2.6):** Multiple Choice: What does a descendant selector use to combine two selectors?  
 - (A) A comma (,)  
 - (B) A plus sign (+)  
 - (C) A greater than sign (>)  
 - (D) A space

**Question 9 (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 10 (ID: 2.3.4):** Multiple Choice: How do you specify a background image for an element in CSS?  
 - (A) background-image: url('image.jpg');  
 - (B) background: image('image.jpg');  
 - (C) background-url: 'image.jpg';  
 - (D) bg-image: url('image.jpg');

**Question 11 (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 12 (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 13 (ID: 3.4.10):** Multi-Select: Which of the following are valid switch statement structures? (Select all that apply)  
- (A) `switch (fruit) { case "apple": eat(); break; case "orange": peel(); break; }`  
- (B) `switch (num) { case 1: one(); case 2: two(); break; }`  
- (C) `switch (day) { case "Monday": rest(); break; default: work(); }`  
- (D) `switch (value) { case true: accept(); default: decline(); }`

**Question 14 (ID: 2.6.9):** Multiple Choice: When `position: fixed;` is applied, the element is positioned relative to:  
 - (A) The nearest positioned ancestor  
 - (B) The document’s root element  
 - (C) The viewport  
 - (D) The container's padding box

**Question 15 (ID: 3.9.4):** Multiple Choice: What does the following code output?  
  
javascript  
Copy code  
let book = {  
 title: "Outliers",  
 published: 2011,  
 author: { firstName: "Malcolm", lastName: "Gladwell" }  
};  
console.log(book.author.lastName);  
(A) Malcolm  
(B) Gladwell  
(C) Outliers  
(D) undefined

**Question 16 (ID: 3.5.7):** Multi-Select: Which of the following are valid uses of the `for` loop in JavaScript? (Select all that apply)  
  
- (A) `for (let i = 0; i < 10; i++) { console.log(i); }`  
- (B) `for (let x = 10; x > 0; x--) { console.log(x); }`  
- (C) `for (let i = 1; i <= 5; i++) { if (i === 3) break; }`  
- (D) `for (let i = 0; i++) { console.log(i); }`

**Question 17 (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 18 (ID: 3.3.4):** Multiple Choice: What is the purpose of an `if-else` statement in JavaScript?  
- (A) To execute one block of code if a condition is true and another if it is false  
- (B) To execute multiple blocks of code if multiple conditions are true  
- (C) To compare two variables and return a Boolean value  
- (D) To loop through an array of values

**Question 19 (ID: 1.5.10):** True/False: The <img> tag supports both width and height attributes to control image sizing without CSS.

**Question 20 (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 21 (ID: 1.8.2):** Multiple Choice: What is the primary purpose of a container element like `<div>`?  
 - (A) To create hyperlinks  
 - (B) To structure the document and group content  
 - (C) To display content as inline  
 - (D) To underline text

**Question 22 (ID: 3.3.9):** Multi-Select: Which of the following logical operators can be used to combine multiple conditions in JavaScript? (Select all that apply)  
- (A) `&&`  
- (B) `||`  
- (C) `!=`  
- (D) `!`

**Question 23 (ID: 2.2.9):** Multiple Choice: What is the result of applying multiple CSS rules with different selectors to the same element?  
 - (A) Only the first rule is applied.  
 - (B) Only the last rule is applied.  
 - (C) All rules are applied, but properties are combined based on specificity.  
 - (D) The browser randomly chooses which rule to apply.

**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: 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 26 (ID: 4.5.1):** Multiple Choice: What must be set to make the `label` element's width adjustable?  
  
- (A) display: inline  
- (B) display: block  
- (C) display: inline-block  
- (D) width: auto

**Question 27 (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 28 (ID: 4.7.1):** Multiple Choice: What is the root node in a DOM tree?  
  
- (A) The `<head>` element  
- (B) The `<body>` element  
- (C) The `<html>` element  
- (D) The first `<div>` element

**Question 29 (ID: 3.3.6):** Multi-Select: Which of the following are valid ways to compare equality in JavaScript? (Select all that apply)  
- (A) `x == y`  
- (B) `x === y`  
- (C) `x != y`  
- (D) `x <> y`

**Question 30 (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 31 (ID: 2.6.5):** Multiple Choice: What happens when `position: sticky;` is applied to an element?  
 - (A) The element remains static until it reaches a specified threshold, after which it becomes fixed.  
 - (B) The element is hidden until a scroll event occurs.  
 - (C) The element remains fixed in place once it is rendered.  
 - (D) The element behaves the same as an absolutely positioned element.

**Question 32 (ID: 1.6.8):** True/False: The <ol> element's numbering can be changed to alphabetical or Roman numerals using the "type" attribute.

**Question 33 (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 34 (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 35 (ID: 4.8.6):** Multiple Choice: What does the `cloneNode(true)` method do in JavaScript?  
  
- (A) It creates a copy of a node and its children.  
- (B) It creates a copy of a node without its children.  
- (C) It moves a node to another part of the DOM.  
- (D) It deletes a node from the DOM.

**Question 36 (ID: 2.7.6):** Multiple Choice: Which flexbox property allows items to grow to fill available space in the container?  
 - (A) `flex-grow`  
 - (B) `flex-shrink`  
 - (C) `flex-basis`  
 - (D) `align-self`

**Question 37 (ID: 3.2.5):** Multiple Choice: Which of the following is the modulus (remainder) operator in JavaScript?  
- (A) `\*\*`  
- (B) `//`  
- (C) `%`  
- (D) `++`

**Question 38 (ID: 4.5.4):** Multi-Select: Which of the following attributes can be used to style form inputs for better usability? (Select all that apply)  
  
- (A) padding  
- (B) border-radius  
- (C) color  
- (D) box-shadow

**Question 39 (ID: 4.11.3):** Multi-Select: Which of the following are common methods for performing form validation using JavaScript? (Select all that apply)  
  
- (A) Validating data while the user is typing  
- (B) Validating data immediately after the form is submitted  
- (C) Using regular expressions to validate patterns like ZIP codes  
- (D) Using server-side validation only

**Question 40 (ID: 3.10.4):** Multiple Choice: What is the purpose of the `delete` operator in JavaScript?  
  
- (A) To remove a property from an object  
- (B) To clear all properties from an object  
- (C) To reset a property to `undefined`  
- (D) To throw an error if the property does not exist

**Question 41 (ID: 4.1.3):** Multiple Choice: What is the result of the following code?  
  
let oneSecPastEpoch = new Date(1000);  
console.log(oneSecPastEpoch);  
  
- (A) Jan 1, 1970, 00:00:01 UTC  
- (B) Dec 31, 1969, 18:00:01 UTC  
- (C) Jan 1, 1970, 00:00:01 GMT-0500  
- (D) Undefined

**Question 42 (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 43 (ID: 1.7.5):** Multiple Choice: What does clicking a hyperlink with an `href` attribute containing `mailto:someone@example.com` do?  
 - (A) Opens a webpage at `example.com`  
 - (B) Starts an email program to send an email to `someone@example.com`  
 - (C) Downloads a file from `example.com`  
 - (D) Connects to a live chat with `someone@example.com`

**Question 44 (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 45 (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 46 (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 47 (ID: 4.10.2):** Multiple Choice: What happens when you use the `setProperty()` method in JavaScript?  
  
- (A) It changes the value of an element's CSS property.  
- (B) It removes an element's CSS property.  
- (C) It adds a new CSS property to the element.  
- (D) It replaces the element with a new one.

**Question 48 (ID: 1.7.7):** Multiple Choice: What attribute would you use to open a hyperlink in a new browser tab?  
 - (A) target="\_self"  
 - (B) target="\_parent"  
 - (C) target="\_blank"  
 - (D) target="\_top"

**Question 49 (ID: 1.6.7):** Multiple Choice: How can you start an ordered list at a number other than one?  
 - (A) Using the "start" attribute with the desired number  
 - (B) Using the "begin" attribute with the desired number  
 - (C) Using the "first" attribute with the desired number  
 - (D) It is not possible to start at a number other than one

**Question 50 (ID: 2.7.1):** Multiple Choice: What CSS property turns an element into a flex container?  
 - (A) `display: block;`  
 - (B) `display: inline-block;`  
 - (C) `display: flex;`  
 - (D) `display: grid;`

# Answers

**Answer to Question 1:** (A) `checked`, (B) `value`, (C) `name`

**Answer to Question 2:** (B) border-color

**Answer to Question 3:** (A) `flex-wrap`, (D) `flex-direction`

**Answer to Question 4:** (D) "a"

**Answer to Question 5:** False

**Answer to Question 6:** (A) The element is positioned relative to the viewport

**Answer to Question 7:** (C) `<div>`

**Answer to Question 8:** (D) A space

**Answer to Question 9:** (B) Block; used for introductory content or navigational links

**Answer to Question 10:** (A) background-image: url('image.jpg');

**Answer to Question 11:** (A) `\*`, (B) `%`, (C) `/`

**Answer to Question 12:** (C) null

**Answer to Question 13:** (A), (C)

**Answer to Question 14:** (C) The viewport

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

**Answer to Question 16:** (A) `for (let i = 0; i < 10; i++) { console.log(i); }`, (B) `for (let x = 10; x > 0; x--) { console.log(x); }`, (C) `for (let i = 1; i <= 5; i++) { if (i === 3) break; }`

**Answer to Question 17:** (C) `appendChild()`

**Answer to Question 18:** (A) To execute one block of code if a condition is true and another if it is false

**Answer to Question 19:** True

**Answer to Question 20:** (B) width and height

**Answer to Question 21:** (B) To structure the document and group content

**Answer to Question 22:** (A) `&&`, (B) `||`, (D) `!`

**Answer to Question 23:** (C) All rules are applied, but properties are combined based on specificity.

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

**Answer to Question 25:** (A) A blue, rounded submit button with white text

**Answer to Question 26:** (C) display: inline-block

**Answer to Question 27:** (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 28:** (C) The `<html>` element

**Answer to Question 29:** (A) `x == y`, (B) `x === y`, (C) `x != y`

**Answer to Question 30:** (A) It creates a new paragraph and appends it to the document body.

**Answer to Question 31:** (A) The element remains static until it reaches a specified threshold, after which it becomes fixed.

**Answer to Question 32:** True

**Answer to Question 33:** (B) array.push(value)

**Answer to Question 34:** (B) To represent a specific moment in time, measured in milliseconds since January 1, 1970 (Unix Epoch)

**Answer to Question 35:** (A) It creates a copy of a node and its children.

**Answer to Question 36:** (A) `flex-grow`

**Answer to Question 37:** (C) `%`

**Answer to Question 38:** (A) padding, (B) border-radius, (C) color, (D) box-shadow

**Answer to Question 39:** (A) Validating data while the user is typing, (B) Validating data immediately after the form is submitted, (C) Using regular expressions to validate patterns like ZIP codes

**Answer to Question 40:** (A) To remove a property from an object

**Answer to Question 41:** (B) Dec 31, 1969, 18:00:01 UTC

**Answer to Question 42:** (B) The content inside the comment may be displayed as text.

**Answer to Question 43:** (B) Starts an email program to send an email to `someone@example.com`

**Answer to Question 44:** (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 45:** (C) All applicable styles are combined

**Answer to Question 46:** (A) The number is converted to a string, and concatenation occurs

**Answer to Question 47:** (A) It changes the value of an element's CSS property.

**Answer to Question 48:** (C) target="\_blank"

**Answer to Question 49:** (A) Using the "start" attribute with the desired number

**Answer to Question 50:** (C) `display: flex;`