# Randomly Selected Questions - Set 4

**Question 1 (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 2 (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 3 (ID: 4.1.7):** Multiple Choice: What is the output of this code?  
  
let theFuture = new Date(2035, 9, 21, 7, 28, 0);  
console.log(theFuture);  
  
- (A) Sun Oct 21 2035 07:28:00 GMT-0500  
- (B) Sun Nov 21 2035 07:28:00 GMT-0500  
- (C) Sun Oct 21 2035 00:00:00 UTC  
- (D) Undefined

**Question 4 (ID: 4.2.10):** Multiple Choice: Which of the following regex patterns would match "cat", "bat", and "mat"?  
  
- (A) /c|b|m/  
- (B) /cat|bat|mat/  
- (C) /c(b|m)at/  
- (D) /(c|b|m)at/

**Question 5 (ID: 1.9.9):** True/False: Table headers created with `<th>` are automatically bolded and centered by default in most browsers.

**Question 6 (ID: 3.9.2):** Multiple Choice: Which of the following is a valid way to add a new property to an existing object?  
  
(A) book.author = "Malcolm Gladwell";  
(B) book.addProperty("author", "Malcolm Gladwell");  
(C) book["author"] = "Malcolm Gladwell";  
(D) Both (A) and (C)

**Question 7 (ID: 4.4.1):** Multiple Choice: What does the `checked` attribute do in a checkbox input?  
  
- (A) It specifies the value of the checkbox.  
- (B) It sets the checkbox to be selected by default.  
- (C) It prevents the checkbox from being unselected.  
- (D) It submits the checkbox value as "on" to the server.

**Question 8 (ID: 2.1.10):** Multiple Choice: Which property is used to create space around elements, inside of any defined borders?  
 - (A) margin  
 - (B) padding  
 - (C) border  
 - (D) width

**Question 9 (ID: 1.10.5):** True/False: The `<label>` element is optional for `<input>` elements but recommended for accessibility.

**Question 10 (ID: 4.8.4):** Multiple Choice: What does the `nextElementSibling` property return?  
  
- (A) The next sibling node, regardless of type  
- (B) The next element node that shares the same parent  
- (C) The last child node in the current parent  
- (D) The first child node of the parent

**Question 11 (ID: 4.11.7):** Multi-Select: Which of the following are ways to ensure a user enters valid input in a form field? (Select all that apply)  
  
(A) Using the pattern attribute with a regular expression  
(B) Using JavaScript to validate input during the input event  
(C) Using the min and max attributes for numerical input  
(D) Using CSS to highlight invalid fields

**Question 12 (ID: 3.11.5):** Multiple Choice: What does the `replace()` method do in JavaScript?  
  
- (A) Removes the specified substring.  
- (B) Finds and replaces a substring in a string.  
- (C) Finds and appends a substring to a string.  
- (D) Duplicates a substring within a string.

**Question 13 (ID: 2.3.10):** Multiple Choice: What is the CSS `background-clip` property used for?  
 - (A) To define the painting area of the background  
 - (B) To clip the background to fit the content area only  
 - (C) To add animation effects to the background  
 - (D) To prevent the background from scrolling with the content

**Question 14 (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 15 (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

**Question 16 (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 17 (ID: 1.7.4):** Multiple Choice: Which URL scheme starts an email program to send an email?  
 - (A) http://  
 - (B) ftp://  
 - (C) mailto:  
 - (D) https://

**Question 18 (ID: 2.1.6):** Multiple Choice: Which CSS property controls the text size?  
 - (A) text-size  
 - (B) font-style  
 - (C) font-weight  
 - (D) font-size

**Question 19 (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 20 (ID: 2.4.9):** Multiple Choice: What unit is best used for defining font sizes that scale with device settings?  
 - (A) pixels (px)  
 - (B) points (pt)  
 - (C) viewport width (vw)  
 - (D) root em (rem)

**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: 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 23 (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 24 (ID: 1.2.3):** Multiple Choice: Which tag is used to define an independent, self-contained content that could be syndicated?  
 - (A) <div>  
 - (B) <section>  
 - (C) <article>  
 - (D) <span>

**Question 25 (ID: 4.6.2):** Multiple Choice: Which of the following methods is used to select an HTML element by its `id`?  
  
- (A) document.querySelector()  
- (B) document.getElementById()  
- (C) document.getElementsByClassName()  
- (D) document.selectById()

**Question 26 (ID: 4.6.6):** Multiple Choice: Which of the following methods adds an event listener to an HTML element?  
  
- (A) addEventListener()  
- (B) attachListener()  
- (C) setEvent()  
- (D) createListener()

**Question 27 (ID: 3.2.4):** Multiple Choice: What does the following compound assignment operation do?  
x += 2;  
- (A) Adds 2 to x and stores the result in x  
- (B) Subtracts 2 from x and stores the result in x  
- (C) Multiplies x by 2 and stores the result in x  
- (D) Divides x by 2 and stores the result in x

**Question 28 (ID: 1.1.2):** Multiple Choice: What is the maximum number in any single part of an IPv4 address?  
 - (A) 100  
 - (B) 255  
 - (C) 500  
 - (D) 1024

**Question 29 (ID: 2.5.4):** Multiple Choice: How is the 'border' property of a box typically defined in CSS?  
 - (A) Using the border-color property only  
 - (B) Through separate properties for width, style, and color  
 - (C) As a shorthand that combines padding, border, and margin settings  
 - (D) It is not a standalone property but a subset of the padding property

**Question 30 (ID: 1.9.7):** True/False: You can use the `<th>` element within `<tbody>` to emphasize certain rows.

**Question 31 (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 32 (ID: 4.7.6):** Multiple Choice: What happens when you modify the `textContent` property of a DOM element?  
  
- (A) It replaces the element with a new element.  
- (B) It updates the text inside the element.  
- (C) It changes the element's CSS styling.  
- (D) It removes the element from the DOM.

**Question 33 (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;`

**Question 34 (ID: 1.3.10):** Multiple Choice: How should line breaks be managed in HTML for content such as addresses or poetry?  
 - (A) Using <p> tags at the end of each line  
 - (B) Using CSS to manage spacing  
 - (C) Using <br> tags at the end of each line  
 - (D) Using <div> tags for each new line

**Question 35 (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 36 (ID: 2.5.2):** Multiple Choice: Which property directly affects the spacing between the content of a box and its border?  
 - (A) margin  
 - (B) border  
 - (C) padding  
 - (D) width

**Question 37 (ID: 1.2.7):** Multiple Choice: Which statement is true about the <footer> element?  
 - (A) It should only appear once at the bottom of the document.  
 - (B) It can be used multiple times within sections or articles.  
 - (C) It is deprecated in HTML5.  
 - (D) It is reserved for bottom page copyrights only.

**Question 38 (ID: 4.3.3):** Multiple Choice: What happens when a form with the `GET` method is submitted?  
  
- (A) The form data is added to the URL as query parameters.  
- (B) The form data is hidden and sent in the request body.  
- (C) The form data is saved in local storage.  
- (D) The form submission is cancelled if the data is invalid.

**Question 39 (ID: 4.2.4):** Multiple Choice: What does the following regular expression match?  
  
/[aeiou]/g  
  
- (A) Matches a single vowel in a string.  
- (B) Matches all vowels in a string.  
- (C) Matches all consonants in a string.  
- (D) Matches numbers in a string.

**Question 40 (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 41 (ID: 1.1.3):** Matching: Match the following domain types to their description:  
 - (A) .com  
 - (B) .edu  
 - (C) .gov  
 - \_\_\_ Commercial  
 - \_\_\_ Educational  
 - \_\_\_ Government

**Question 42 (ID: 1.10.2):** Multiple Choice: What attribute of the `<input>` element specifies the kind of data expected to be entered by the user?  
 - (A) type  
 - (B) name  
 - (C) value  
 - (D) placeholder

**Question 43 (ID: 1.9.10):** Multiple Choice: What is the purpose of the `<tfoot>` element in an HTML table?  
 - (A) To provide a summary or total row at the bottom of the table sections  
 - (B) To define the main content of the table  
 - (C) To add a header to the table  
 - (D) To decorate the table with additional styling

**Question 44 (ID: 4.8.10):** Multiple Choice: What does the `previousElementSibling` property return in the DOM?  
  
- (A) The previous sibling node of any type  
- (B) The previous element node that shares the same parent  
- (C) The last sibling of the parent node  
- (D) The first sibling of the parent node

**Question 45 (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 46 (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 47 (ID: 3.1.2):** Multiple Choice: What is ECMAScript?  
 - (A) Another name for Java  
 - (B) A standardized version of JavaScript  
 - (C) A JavaScript framework for server-side development  
 - (D) A deprecated web programming language

**Question 48 (ID: 2.4.5):** Multiple Choice: What is the default size of the font-size property if not specified?  
 - (A) 16px  
 - (B) 12px  
 - (C) 10px  
 - (D) 14px

**Question 49 (ID: 4.9.7):** Multi-Select: Which of the following are valid ways to register an event handler in JavaScript? (Select all that apply)  
  
- (A) Embedding the event handler in the HTML as an attribute  
- (B) Using `addEventListener()`  
- (C) Overwriting the event property on a DOM node  
- (D) Using the CSS `event-handler` property

**Question 50 (ID: 4.9.2):** Multiple Choice: What is event-driven programming?  
  
- (A) Programming that responds only to events triggered by the user  
- (B) A programming style where code runs in response to events  
- (C) A method to organize JavaScript files  
- (D) A way to trigger events automatically without user interaction

# Answers

**Answer to Question 1:** (D) A space

**Answer to Question 2:** (A) To execute one block of code if a condition is true and another if it is false

**Answer to Question 3:** (A) Sun Oct 21 2035 07:28:00 GMT-0500

**Answer to Question 4:** (D) /(c|b|m)at/

**Answer to Question 5:** True

**Answer to Question 6:** (D) Both (A) and (C)

**Answer to Question 7:** (B) It sets the checkbox to be selected by default.

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

**Answer to Question 9:** True

**Answer to Question 10:** (B) The next element node that shares the same parent.

**Answer to Question 11:** (A) Using the `pattern` attribute with a regular expression, (B) Using JavaScript to validate input during the `input` event, (C) Using the `min` and `max` attributes for numerical input

**Answer to Question 12:** (B) Finds and replaces a substring in a string.

**Answer to Question 13:** (A) To define the painting area of the background

**Answer to Question 14:** (A) It adds descriptive text to a form field.

**Answer to Question 15:** (B) "on"

**Answer to Question 16:** (A) The element is positioned relative to the viewport

**Answer to Question 17:** (C) mailto:

**Answer to Question 18:** (D) font-size

**Answer to Question 19:** (A) `flex-grow`

**Answer to Question 20:** (D) root em (rem)

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

**Answer to Question 22:** (C) `<th>`

**Answer to Question 23:** (A) The element remains static until it reaches a specified threshold, after which it becomes fixed.

**Answer to Question 24:** (C) <article>

**Answer to Question 25:** (B) document.getElementById()

**Answer to Question 26:** (A) addEventListener()

**Answer to Question 27:** (A) Adds 2 to x and stores the result in x

**Answer to Question 28:** (B) 255

**Answer to Question 29:** (B) Through separate properties for width, style, and color

**Answer to Question 30:** True

**Answer to Question 31:** (B) object["key"] = "value";

**Answer to Question 32:** (B) It updates the text inside the element.

**Answer to Question 33:** (C) `display: flex;`

**Answer to Question 34:** (C) Using <br> tags at the end of each line

**Answer to Question 35:** (A) Switch uses strict equality (===) while if-else does not

**Answer to Question 36:** (C) padding

**Answer to Question 37:** (B) It can be used multiple times within sections or articles.

**Answer to Question 38:** (A) The form data is added to the URL as query parameters.

**Answer to Question 39:** (B) Matches all vowels in a string.

**Answer to Question 40:** (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 41:** (A) Commercial, (B) Educational, (C) Government

**Answer to Question 42:** (A) type

**Answer to Question 43:** (A) To provide a summary or total row at the bottom of the table sections

**Answer to Question 44:** (B) The previous element node that shares the same parent.

**Answer to Question 45:** (A) `<input>`, (B) `<form>`, (C) `<label>`

**Answer to Question 46:** (C) The viewport

**Answer to Question 47:** (B) A standardized version of JavaScript

**Answer to Question 48:** (A) 16px

**Answer to Question 49:** (A) Embedding the event handler in the HTML as an attribute, (B) Using `addEventListener()`, (C) Overwriting the event property on a DOM node

**Answer to Question 50:** (B) A programming style where code runs in response to events