# Randomly Selected Questions - Set 1

**Question 1 (ID: 4.3.7):** Short Answer: What transformation does the browser perform if a user enters a string with reserved characters like `&`, `?`, and `=` into a form?

**Question 2 (ID: 1.10.9):** Fill in the Blank: The hexadecimal entity for the happy face emoji is \_\_\_\_\_\_\_.  
- Answer: &#x1F600;

**Question 3 (ID: 2.2.7):** Fill in the blank: The CSS rule to make all <em> elements inside an <h2> element blue would be: \_\_\_\_\_\_\_\_\_\_\_\_.

**Question 4 (ID: 3.8.5):** Multiple Choice: What is the difference between `indexOf()` and `lastIndexOf()` methods in arrays?  
- (A) `indexOf()` searches from the end of the array to the beginning  
- (B) `indexOf()` and `lastIndexOf()` do the same operation  
- (C) `indexOf()` searches from the beginning of the array to the end, while `lastIndexOf()` searches from the end to the beginning  
- (D) `lastIndexOf()` and `indexOf()` return different data types

**Question 5 (ID: 4.4.6):** Multiple Choice: In a password input field, which attribute limits the number of characters the user can type?  
- (A) size  
- (B) width  
- (C) maxlength  
- (D) minlength

**Question 6 (ID: 2.7.8):** Fill in the Blank: The shorthand CSS property `flex` combines \_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ properties.

**Question 7 (ID: 3.7.10):** Multiple Choice: What does assigning a value to 'location' in the global object potentially affect?  
- (A) Browser's loading URL  
- (B) Browser's page title  
- (C) Browser's cookie storage  
- (D) Browser's navigation history

**Question 8 (ID: 2.4.4):** Short Answer: List two generic font families mentioned in the content.

**Question 9 (ID: 1.7.10):** Short Answer: How does a URL create a section link to a specific part of a webpage?

**Question 10 (ID: 4.11.8):** Short Answer: Explain how CSS pseudo-classes like :valid and :invalid can be useful in form validation.

**Question 11 (ID: 1.1.4):** Short Answer: How many unique addresses can IPv4 represent?

**Question 12 (ID: 3.2.10):** Multiple Choice: What is the difference in result between the following JavaScript expressions: `2 + "3"` and `2 + 3`?  
- (A) Both result in the number 5  
- (B) The first results in the string "23" and the second results in the number 5  
- (C) Both result in the string "5"  
- (D) The first results in the number 5 and the second results in the string "23"

**Question 13 (ID: 2.5.6):** Multiple Answers: Which of the following are CSS properties related to the box model? (Select all that apply)  
- [ ] background-color  
- [ ] padding  
- [ ] display  
- [ ] margin

**Question 14 (ID: 2.2.9):** Multiple Choice: Which CSS pseudo-class would you use to change the style of an element when a mouse pointer is over it?  
- (A) :active  
- (B) :hover  
- (C) :focus  
- (D) :visited

**Question 15 (ID: 1.1.10):** Multiple Choice: What organization manages the assignment of top-level domains?  
- (A) IANA  
- (B) WHO  
- (C) IEEE  
- (D) W3C

**Question 16 (ID: 3.5.8):** Fill in the Blank: To avoid an infinite loop, developers need to ensure that the loop's \_\_\_\_\_\_\_ will eventually evaluate to false.

**Question 17 (ID: 3.4.6):** Multiple Choice: In a switch statement, what purpose does the `break` statement serve?   
- (A) Stops the entire program.   
- (B) Exits the current loop.   
- (C) Prevents fall-through to additional cases.   
- (D) Compares variable types.

**Question 18 (ID: 1.10.1):** Multiple Choice: What is an HTML entity used for in a webpage?  
- (A) To create new HTML elements  
- (B) To define CSS styles  
- (C) To represent special characters or symbols  
- (D) To embed JavaScript code

**Question 19 (ID: 1.4.2):** Multiple Choice: What is a common error when using HTML comments?  
- (A) Forgetting to end the comment  
- (B) Trying to put a comment inside of another comment  
- (C) Using uppercase letters in comments  
- (D) Placing comments at the end of the document

**Question 20 (ID: 3.3.7):** Multiple Choice: Which comparison operator checks for strict equality including type?   
- (A) ==   
- (B) !=   
- (C) ===   
- (D) \*=

**Question 21 (ID: 2.7.3):** Multiple Choice: Which of the following CSS properties is used to set the alignment of flex items within the container, distributing them evenly?  
- (A) `align-items`  
- (B) `justify-content`  
- (C) `flex-wrap`  
- (D) `align-content`

**Question 22 (ID: 1.7.5):** Multiple Choice: Which of the following options is NOT a valid relative URL?  
- (A) `test.html`  
- (B) `../images/photo.png`  
- (C) `http://example.com/page.html`  
- (D) `files/report.pdf`

**Question 23 (ID: 1.6.5):** Fill in the blank: The CSS property \_\_\_\_\_ is used to modify the bullet or numbering style in lists.   
- list-style-type

**Question 24 (ID: 1.10.3):** Fill in the Blank: The decimal format for the HTML umbrella symbol is \_\_\_\_\_\_\_.  
- Answer: 9730

**Question 25 (ID: 1.1.8):** Short Answer: What is the hostname in the URL "https://www.cdc.gov/alcohol"?

**Question 26 (ID: 4.8.9):** Multiple Choice: Which method should be used to insert a DOM node before an existing child node?  
- (A) appendChild()  
- (B) insertBefore()  
- (C) cloneNode()  
- (D) createElement()

**Question 27 (ID: 4.10.1):** Multiple Choice: Which JavaScript method is used to get the value of a CSS property of an element?  
- (A) getStyleProperty()  
- (B) getPropertyValue()  
- (C) fetchStyle()  
- (D) getCSSProperty()

**Question 28 (ID: 4.3.5):** Multiple Choice: What is the significance of the `enctype` attribute with the value "multipart/form-data" in a form?  
- (A) It encrypts the form data  
- (B) It splits form data into multiple parts for each input field  
- (C) It compresses the form data  
- (D) It makes the form submission faster

**Question 29 (ID: 2.5.3):** Fill in the blank: The \_\_\_\_ property specifies the thickness, style, and color of the border.  
- Answer: border

**Question 30 (ID: 3.4.4):** Short Answer: What is the output of the following switch statement if `change` is set to 25?  
  
```javascript  
let change = 25;  
let coin;  
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);  
```

**Question 31 (ID: 3.1.7):** Multiple Choice: Which of the following data types is not explicitly supported by JavaScript?   
- (A) number   
- (B) boolean   
- (C) integer   
- (D) array

**Question 32 (ID: 4.10.4):** Multiple Answer: Which of the following methods allow accessing, modifying, and removing CSS properties?  
- [ ] getPropertyValue()  
- [ ] addClass()  
- [ ] setProperty()  
- [ ] removeProperty()

**Question 33 (ID: 2.1.6):** Fill in the Blank: An embedded stylesheet places CSS rules in an HTML document's head using a \_\_\_\_\_\_\_\_\_\_ element.

**Question 34 (ID: 2.3.9):** Short Answer: Provide an example of how you would modify the RGB values to change a text color to green.

**Question 35 (ID: 1.7.9):** Multiple Choice: What is incorrect about the following hyperlink? `<a href="caleb@gmail.com">email me</a>`  
- (A) The `href` attribute doesn't start with "mailto:"  
- (B) "email me" is not a valid link text  
- (C) The email is missing a subject line  
- (D) The link should use "http"

**Question 36 (ID: 3.7.7):** Multiple Choice: In a web browser, global variables are usually assigned as properties to which object?  
- (A) document  
- (B) window  
- (C) navigator  
- (D) global

**Question 37 (ID: 4.8.6):** Multiple Choice: Which method is used to remove a node from the DOM?  
- (A) appendChild()  
- (B) cloneNode()  
- (C) removeChild()  
- (D) insertBefore()

**Question 38 (ID: 1.2.10):** Multiple Choice: Which tag is incorrectly paired with its function?  
- (A) `<meta>` - Specifies metadata  
- (B) `<body>` - Contains content to be rendered  
- (C) `<html>` - Renders images  
- (D) `<head>` - Contains the document title

**Question 39 (ID: 2.5.4):** Multiple Choice: What type of border style does the declaration "border: 5px groove orange;" produce?  
- (A) Dotted  
- (B) Groove  
- (C) Double  
- (D) Inset

**Question 40 (ID: 2.6.5):** Multiple Choice: How would you change the background color of `em` elements that are direct children of `p` elements to green?  
- (A) em > p { background-color: green; }  
- (B) p em { background-color: green; }  
- (C) p > em { background-color: green; }  
- (D) em + p { background-color: green; }

**Question 41 (ID: 3.11.4):** Short Answer: What value does the property `length` return when called on the string "Hello, World!"?

**Question 42 (ID: 4.6.3):** Short Answer: What method is used in JavaScript to output HTML into the document and alter the DOM?

**Question 43 (ID: 4.1.8):** Fill in the Blank: In JavaScript's Date object, the method `getMilliseconds()` returns the milliseconds, which can range from 0 to \_\_\_\_\_\_\_.

**Question 44 (ID: 4.2.1):** Multiple Choice: What can regular expressions be defined with in JavaScript, as demonstrated in the text?  
- (A) RegExp object only  
- (B) Between two forward slashes only  
- (C) RegExp object or between two forward slashes  
- (D) As part of a string by enclosing in single quotes

**Question 45 (ID: 4.3.1):** Multiple Choice: What is the primary purpose of the `<form>` element in HTML?  
- (A) To display images  
- (B) To define text styles  
- (C) To submit user information to a server  
- (D) To create hyperlinks

**Question 46 (ID: 1.4.9):** Multiple Choice: How should you modify the existing HTML to prevent the second line from being visible: `<p>Roses are <!--purple--> red. Violets are<!-turquoise. <!--green.--> black.-->blue.</p>`  
  
- (A) Wrap with `/\* \*/`  
- (B) Use single line comments //  
- (C) Wrap in `<!-- -->`  
- (D) Use parentheses ()

**Question 47 (ID: 3.7.4):** Multiple Choice: What is the scope of a variable declared with 'var' inside a function?  
- (A) Block scope  
- (B) Global scope  
- (C) Function scope  
- (D) Thread scope

**Question 48 (ID: 3.7.9):** Multiple Choice: What is the output of the following code?  
```javascript  
function addNumber(x) {  
 sum += x;  
}  
let sum = 0;  
addNumber(2);  
addNumber(5);  
console.log(sum);  
```  
- (A) 0  
- (B) 2  
- (C) 5  
- (D) 7

**Question 49 (ID: 4.5.3):** Multiple Choice: Which CSS property and value set is used to make the border of input fields look softer?  
- (A) border: 2px solid #000;  
- (B) border: 1px dashed #aaa;  
- (C) border: 1px solid #aaa; border-radius: 4px;  
- (D) border: 3px double #ccc;

**Question 50 (ID: 1.3.4):** Multiple Choice: The <br> element in HTML is used to:   
- (A) Create a new paragraph   
- (B) Create a line break   
- (C) Bold the text   
- (D) Italicize the text

# Answers

**Answer to Question 1:** The browser escapes the reserved characters by transforming them into a different representation, usually by URL encoding them.

**Answer to Question 2:** &#x1F600;

**Answer to Question 3:** h2 em { color: blue; }

**Answer to Question 4:** (C) `indexOf()` searches from the beginning of the array to the end, while `lastIndexOf()` searches from the end to the beginning

**Answer to Question 5:** (C) maxlength

**Answer to Question 6:** The shorthand CSS property `flex` combines `flex-grow`, `flex-shrink`, and `flex-basis` properties.

**Answer to Question 7:** (A) Browser's loading URL

**Answer to Question 8:** serif, sans-serif

**Answer to Question 9:** By appending a hash `#` followed by a fragment identifier to the URL.

**Answer to Question 10:** CSS pseudo-classes like :valid and :invalid indicate whether an input field meets the validation requirements, allowing for visual feedback without JavaScript.

**Answer to Question 11:** 4 billion

**Answer to Question 12:** (B) The first results in the string "23" and the second results in the number 5

**Answer to Question 13:** padding, margin

**Answer to Question 14:** (B) :hover

**Answer to Question 15:** (A) IANA

**Answer to Question 16:** condition

**Answer to Question 17:** (C) Prevents fall-through to additional cases.

**Answer to Question 18:** (C) To represent special characters or symbols

**Answer to Question 19:** (B) Trying to put a comment inside of another comment

**Answer to Question 20:** (C) ===

**Answer to Question 21:** (B) `justify-content`

**Answer to Question 22:** (C) `http://example.com/page.html`

**Answer to Question 23:** list-style-type

**Answer to Question 24:** 9730

**Answer to Question 25:** www.cdc.gov

**Answer to Question 26:** (B) insertBefore()

**Answer to Question 27:** (B) getPropertyValue()

**Answer to Question 28:** (B) It splits form data into multiple parts for each input field

**Answer to Question 29:** border

**Answer to Question 30:** "quarter"

**Answer to Question 31:** (C) integer

**Answer to Question 32:** getPropertyValue(), setProperty(), removeProperty()

**Answer to Question 33:** <style>

**Answer to Question 34:** rgb(0, 255, 0)

**Answer to Question 35:** (A) The `href` attribute doesn't start with "mailto:"

**Answer to Question 36:** (B) window

**Answer to Question 37:** (C) removeChild()

**Answer to Question 38:** (C) `<html>` - Renders images

**Answer to Question 39:** (B) Groove

**Answer to Question 40:** (C) p > em { background-color: green; }

**Answer to Question 41:** 13

**Answer to Question 42:** document.writeln()

**Answer to Question 43:** 999

**Answer to Question 44:** (C) RegExp object or between two forward slashes

**Answer to Question 45:** (C) To submit user information to a server

**Answer to Question 46:** (C) Wrap in `<!-- -->`

**Answer to Question 47:** (C) Function scope

**Answer to Question 48:** (D) 7

**Answer to Question 49:** (C) border: 1px solid #aaa; border-radius: 4px;

**Answer to Question 50:** (B) Create a line break