

## HTML Questions

### 1. Do all HTML tags have an end tag?

**Answer :** No. There are some HTML tags that don't need a closing tag. For example:

`<img>` tag, `<br>` tag

### 2. What is the difference between the `<figure>` tag and the `<image>` tag?

**Answer :** `<figure>` tags specify self-contained content, such as diagrams, images, code snippets, etc. It is used to semantically organize the contents of an image like image, image caption, etc., while the `<img>` tag is used to embed the picture in the HTML document.

### 3. What are Semantic Elements ?

**Answer :** Semantic elements describe the particular meaning to the browser and the developer. `<form>`, `<table>`, `<article>`, `<figure>`, etc., are some examples of semantic elements.

### 4. What's the difference between a link tag `<link>` and an anchor tag `<a>` ?

**Answer :** Anchor tags `<a>` are used to enclose clickable hyperlinks to another webpage or section of the webpage. In contrast, link tags `<link>` denote a link between a document and external resources, not clickable.

### 5. Are `<b>` and `<strong>` tags same? If not, then why ?

**Answer :** The main difference between the `<bold>` tag & `<strong>` tag is that the strong tag semantically emphasizes the important word or section of words while the bold tag is just offset text conventionally styled in bold. `<bold>` is just a tag to make words bold. But `<strong>` is a semantic html tag.

## CSS Questions

### 1. What is the Box model in CSS? Which CSS properties are a part of it?

**Answer :** A rectangle box is wrapped around every HTML element. The box model is used to determine the height and width of the rectangular box. The CSS Box consists of Width and height (or in the absence of that, default values and the content inside), padding, borders, margin.

### 2. How to include CSS in the webpage?

**Answer :** There are different ways to include a CSS in a webpage :

1. External Style Sheet: An external file linked to your HTML document: Using link tag, we can link the style sheet to the HTML page.

```
<link rel="stylesheet" type="text/css" href="mystyles.css" />
```

2. Embed CSS with a style tag: A set of CSS styles included within your HTML page.

```
<style type="text/css">
  /*Add style rules here*/
</style>
```

Add your CSS rules between the opening and closing style tags and write your CSS exactly the same way as you do in stand-alone stylesheet files. 3. Add inline styles to HTML elements(CSS rules applied directly within an HTML tag.): Style can be added directly to the HTML element using a style tag.

```
<h2 style="color:red;background:black">Inline Style</h2>
```

4. Import a stylesheet file (An external file imported into another CSS file): Another way to add CSS is by using the @import rule. This is to add a new CSS file within CSS itself.

```
@import "path/to/style.css";
```

### 3. What are the different types of Selectors in CSS?

**Answer :** There are several different types of Selectors in CSS. These are -

- Universal Selector (\*)
- Type or Element Selector
- Class Selector (.)
- ID Selector (#)
- Descendant Selector (whitespace)
- Child Selector (>)
- Adjacent Sibling Selector (+)
- Attribute Selector ([])
- Pseudo-class Selector (:)
- Pseudo-element Selector (::)

### 4. How can we hide an element in CSS ?

**Answer :** This can be done two different ways : To hide an element from HTML DOM, set the style display property to "none".

```
display: "none";
```

or to turn off visibility of an element

```
visibility: "hidden";
```

### 5. What are pseudo-classes in CSS ?

**Answer :** A Pseudo class in CSS is used to define the special state of an element. It can be combined with a CSS selector to add an effect to existing elements based on their states. For example :

```
selector: pseudo-class {
  property: value;
}
```

### 6. What is a CSS framework?

**Answer :** CSS frameworks are pre-planned libraries that make for more convenient web page styling which is also compliant with standards.

### **7. How can the background color of an element be changed?**

**Answer :** The background color of an image can be changed using the background-color property.

```
body {  
    background-color: coral;  
}
```

### **8. What are the media types allowed by CSS?**

**Answer :** CSS allows different media types, including speech, audio, visual and tactile media, paged or continuous media, bitmap or grid media, and even interactive media.

### **9. Comment on the Case-sensitivity of CSS ?**

**Answer :** Although, there are no case-sensitivity of CSS, nevertheless font families, URL's of images, etc is. Only when XML declarations along with XHTML DOCTYPE are being used on the page, CSS is case -sensitive.

### **10. How does Z index function?**

**Answer :** Overlapping may occur while using CSS for positioning HTML elements. Z index helps in specifying the overlapping element. It is a number which can be positive or negative, the default value being zero.

### **11. How comments can be added in CSS?**

**Answer :** The comments in CSS can be added with /\* and \*/.

### **12. What is the full form of CSS ?**

**Answer :** Cascading Style Sheets

### **13. What are some CSS units for measuring length ?**

**Answer :** Here are the units :

- cm
- em
- in
- mm
- pc
- pt
- px

### **14. How many heading tags are there in CSS ?**

**Answer :** Six. They are from h1 to h6

### **15. What do you understand by the universal selector?**

**Answer :** A universal selector is a selector that matches any element type's name instead of selecting elements of a particular type. Example:

```
<style>
  * {
    color: blue;

    font-size: 10px;
  }
</style>
```

## JavaScript Questions

### 1. What is JavaScript?

**Answer :** JavaScript is a scripting language mainly used in browsers and some browser-less runtimes like nodejs and bun.

### 2. Is JavaScript a compiled language ?

**Answer :** No JavaScript is not a compiled language. It is mainly a interpreted language.

### 3. Is JavaScript case sensitive language?

**Answer :** Yes, JavaScript is a case sensitive language.

### 4. What are the different data types present in JavaScript?

**Answer :** There are two types of data types in JavaScript:

- Primitive data types : string, number, boolean, BigInt, undefined, null, Symbol
- Non- Primitive data types : Object, Array

### 5. What is the difference between == and === ?

**Answer :** The == operator checks equality only whereas === checks equality, and data type, i.e., a value must be of the same type.

### 6. Is JavaScript a statically types language ?

**Answer :** No javascript is not a statically typed language. It is a dynamically typed language.

### 7. What is an arrow function ?

**Answer :** An arrow function is a concise way to define functions in javascript. The syntax is like this :

```
const function = () => {
  console.log("hello world");
  return null
}
```

### 8. Define anonymous function.

**Answer :** In JavaScript, an anonymous function is a function that does not have a name. It is typically used for short, one-off tasks where naming the function is not

essential. For example :

```
() => {  
  console.log("Hello world");  
};
```

### 9. What does `typeof` operator do in javascript ?

**Answer :** It returns the type of any variable.

### 10. What are some of the ways to declare variables in javascript ?

**Answer :** There are many ways to define variables in javascript. Each has its use. They are :

- `var`
- `let`
- `const`
- `using`

### 11. Explain Higher Order Functions in javascript.

**Answer :** Higher-order functions in JavaScript are functions that can take other functions as inputs or return functions as their outputs. They make it possible to use strong functional programming methods that make code more flexible, reused, and expressive. By treating functions as first-class citizens, they make it possible to abstract behavior and make flexible code structures.

### 12. What are `null` and `undefined` ?

**Answer :** `null` and `undefined` are two special kind of primitive data type in javascript. `null` type means the variable is initialized is empty and it does not hold any meaning full value. `undefined` means the variable is not defined or initialized.

### 13. What is the difference between undeclared & undefined?

**Answer :** Undeclared variables are those that do not exist in a program and are not declared. If the program tries to read the value of an undeclared variable, then a runtime error is encountered. Undefined variables are those that are declared in the program but have not been given any value. If the program tries to read the value of an undefined variable, an undefined value is returned.

### 14. What is NaN in JavaScript?

**Answer :** NaN is a short form of Not a Number. Since NaN always compares unequal to any number, including NaN, it is usually used to indicate an error condition for a function that should return a valid number. When a string or something else is being converted into a number and that cannot be done, then we get to see NaN.

### 15. How do JavaScript primitive/object types passed in functions and what is their difference ?

**Answer :** One of the differences between the two is that Primitive Data Types are passed By Value and Objects are passed By Reference. By Value means creating a COPY of the original. Picture it like twins: they are born exactly the same, but the first

twin doesn't lose a leg when the second twin loses his in the war. By Reference means creating an ALIAS to the original. When your Mom calls you "Pumpkin Pie" although your name is Margaret, this doesn't suddenly give birth to a clone of yourself: you are still one, but these two very different names can call you.

#### 16. What would be the result of 2+5+"3"?

**Answer :** The result would be 73. 2 and 5 are numbers but "3" is string. So the numbers get added first and then it get concatenated to the string "3"

#### 17. What is the use of the isNaN function?

**Answer :** The number isNaN function in JavaScript is used to determine whether the passed value is NaN (Not a number) and is of the type "Number". In JavaScript, the value NaN is considered a type of number. It returns true if the argument is not a number, else it returns false.

#### 18. What is 'this' keyword in JavaScript?

**Answer :** 'This' keyword refers to the object from where it was called.

#### 19. How can you convert the string of any base to an integer in JavaScript?

**Answer :** The parseInt() function is used to convert numbers between different bases. parseInt() takes the string to be converted to number or integer. Example :

```
parseInt("10");
```

#### 20. How to run a javascript file outside of browser ?

**Answer :** It can be done with runtimes like node.js or deno

#### 21. What is a first order function ?

**Answer :** A first-order function is a function that doesn't accept another function as an argument and doesn't return a function as its return value. Example :

```
const firstOrder = () => console.log("I am a first order function!");
```

#### 22. What is a higher order function ?

**Answer :** A higher-order function is a function that accepts another function as an argument or returns a function as a return value or both. For example :

```
const firstOrderFunc = () => console.log("Hello, I am a First order function");  
const higherOrder = (ReturnFirstOrderFunc) => ReturnFirstOrderFunc();  
higherOrder(firstOrderFunc);
```