**1) What is JavaScript?**

JavaScript is a text-based programming language used both on the client-side and server-side that allows you to make web pages interactive.

### 2) What is the difference between Java & JavaScript?

|  |  |
| --- | --- |
| **Java** | **JavaScript** |
| Java is an OOP programming language. | JavaScript is an OOP scripting language. |
| It creates applications that run  in a virtual machine or browser. | The code is run on a browser  only. |
| Java code needs to be compiled. | JavaScript code are all in the  form of text. |

### 3) ****What are the data types supported by JavaScript?****

### The data types supported by JavaScript are: Undefined, Null, Boolean, String, Symbol, Number, Object

### 4) ****What are the features of JavaScript?****

### **The primary features of Javascript are: it is Lightweight & it is an Interpreted programming language which is Good for the applications which are network-centric. On top of this as the language uses most of the keywords in JAVA it is complimentry to java language which most of the developers are familiar with. Javascript blends well with HTML as it uses the DOM tree to intrepret HTML for us to play around with elements.**

### 5) Is JavaScript a case-sensitive language?

### Yes, JavaScript is a case sensitive language. Here keywords, variable names, function names, and any other identifiers are to be used in the program consistentently and carefully.

### 6) List some advantages of javaScript?

### Few of the advantages in javascript are: In JS Server interaction is very less. The Feedback to the visitors is immediate. Interactivity is high as we can toggle the inputs inside browser developer tools and get an instant output.

### 7) Difference between “ == “ and “ === “ operators.

Both are comparison operators. The difference between both the operators is that “==” is used to compare values whereas, “ === “ is used to compare both values and types on LHS & RHS.

**8) Explain Hoisting in javascript.**

Hoisting is the default behaviour of javascript where all the variable and function declarations are moved on top.

Eg: function m1(){ var a; for(var i; i <=10; i++){ console.log(i); } console.log(i); //Variable access is permitted because it is hoisted }

**9) What is the purpose of ‘This’ operator in JavaScript?**

The JavaScript this keyword refers to the object it belongs to. This has different values depending on where it is used. In a method, this refers to the owner object and in a function, this refers to the global object.

**10) How to create an array in JavaScript?**

There are 3 ways to create an array in JavaScript.

* By using array literal.
* By creating an instance of Array
* By using an Array constructor

Let's see a simple code to create an array using object literal.

var emp=["Shyam","Vimal","Ratan"];

**11) Is javascript a statically typed or a dynamically typed language?**

JavaScript is a dynamically typed language. In a dynamically typed language, the type of a variable is checked during run-time in contrast to a statically typed language, where the type of a variable is checked during compile-time.

For example, a variable that is assigned a number type can be converted to a string type:

var a = 23;

var a = "Hello World!";

**12) What is NaN property in JavaScript?**

NaN property represents the “Not-a-Number” value. The typeof of NaN will return a Number.

To check if a value is NaN, we use the isNaN() function,Eg:

* isNaN("Hello") // Returns true
* isNaN(345) // Returns false
* isNaN('1') // Returns false, since '1' is converted to Number type which results in 0 ( a number)
* isNaN(true) // Returns false, since true converted to Number type results in 1 ( a number)
* isNaN(undefined) // Returns true

**13) Explain Higher Order Functions in javascript.**

Functions that operate on other functions, either by taking them as arguments or by returning them, are called higher-order functions.

Example:

function higherOrder(fn) {

fn();

}

higherOrder(function() { console.log("Hello world") });

**14) In JavaScript what is an argument object?**

The variables of JavaScript represent the arguments that are passed to a function.

**15)** **What is the difference between undeclared & undefined variables?** The difference between undeclared and undefined variables are: An undeclared variable has not been declared anywhere in the code, so said variable does not exist. If you try to read an undeclared variable, JavaScript throws an error. An undefined variable has been declared in the program, but no value has been assigned. This means the variable exists, but its value is yet to be defined.

**16) How to write HTML code dynamically using JavaScript?** The innerHTML property is used to write the HTML code using JavaScript dynamically.

Eg: document.getElementById('mylocation').innerHTML="<h2>This is heading using JavaScript</h2>";

**17) What are Constructors in JavaScript?**

Constructor in JS are the most powerful members of a class which will be used for object initialization. The special ability of a aconstructor is, it will be invoked only once during the creation of an object.

Eg: function User(name) {

this.name = name;

}

let firstUser = new User('John Doe');

**18) What is DOM ?**

The Document Object Model (DOM) is a platform and language-neutral interface that allows programs and scripts to dynamically access and update the content, structure, and style of a document.

**19) How Can You Return a Character From a Specified Index?**

Use the charAt() method. In the example below, we can retrieve the first char at index 0 to fetch J.

Eg: let userName = "John";

console.log(userName.charAt(0)); // "J"