**Module (JAVASCRIPT BASIC & DOM) – 4**

1. **What is JavaScript?**

**Ans:-**

* JavaScript is a high-level, dynamic programming language primarily used to create interactive and dynamic content on web pages. It is widely used for client-side scripting but can also be used on the server-side with environments like Node.js.

1. **What is the use of isNaN function?**

**Ans:-**

* The isNaN function checks whether a value is Not a Number. It returns:
* true if the value cannot be converted to a number.
* false if the value is numeric.

1. **What is negative Infinity?**

**Ans:-**

* Negative Infinity is a special value in JavaScript that represents a number smaller than any other number. It results when a negative number is divided by zero or an operation exceeds the lower limit of representable numbers.

1. **Which company developed JavaScript?**

**Ans:-**

* JavaScript was developed by Netscape Communications Corporation, specifically by Brendan Eich in 1995.

1. **What are undeclared and undefined variables?**

**Ans:-**

* **Undeclared Variable:** A variable used without being declared in the program.
* **Undefined Variable:** A variable declared but not assigned a value.

1. **Write the code for adding new elements dynamically?**

**Ans:-**

* let newElement = document.createElement("div");

newElement.textContent = "This is a new element!";

document.body.appendChild(newElement);

1. **What is the difference between ViewState and SessionState?**

**Ans:-**

* **ViewState:**
* Stores data on the client side (browser).
* Specific to a single page.
* **SessionState:**
* Stores data on the server.
* Accessible across multiple pages in a session.

1. **What is === operator?**

**Ans:-**

* The === operator is a strict equality operator. It checks for equality without type conversion.

1. **How can the style/class of an element be changed?**

**Ans:-**

* **Change Style:**
* document.getElementById("myElement").style.color = "blue";
* **Change Class:**
* document.getElementById("myElement").className = "newClass";

1. **How to read and write a file using JavaScript?**

**Ans:-**

* JavaScript on the browser cannot directly read/write files due to security reasons. However, on Node.js, you can use the fs module:
* **Reading:**

const fs = require('fs');

fs.readFile('file.txt', 'utf8', (err, data) => {

if (err) throw err;

console.log(data);

});

* **Writing:**

fs.writeFile('file.txt', 'Hello World!', (err) => {

if (err) throw err;

console.log('File written successfully!');

});

1. **What are all the looping structures in JavaScript?**

**Ans:-**

* for loop
* while loop
* do...while loop
* for...in loop (iterates over object properties)
* for...of loop (iterates over iterable objects like arrays)

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

**Ans:-**

* **Use the parseInt function with a radix parameter:**

let number = parseInt("1010", 2); // Converts binary to decimal (10)

console.log(number);

1. **What is the function of the delete operator?**

**Ans:-**

* **The delete operator removes a property from an object:**

let obj = { name: "Alice", age: 25 };

delete obj.age; // Removes the 'age' property

console.log(obj); // { name: "Alice" }

1. **What are all the types of Pop up boxes available in JavaScript?**

**Ans:-**

* alert() - Displays a message.
* confirm() - Asks for confirmation (returns true or false).
* prompt() - Accepts user input.

1. **What is the use of Void (0)?**

**Ans:-**

* void(0) is often used in hyperlinks to prevent the default action while allowing JavaScript execution.

1. **How can a page be forced to load another page in JavaScript?**

**Ans:-**

* Using **window.location** or **window.location.href**

1. **What are the disadvantages of using innerHTML in JavaScript?**

**Ans:-**

* **Security Risk:** Susceptible to cross-site scripting (XSS) attacks.
* **Overwrites Content:** Replaces all existing child elements.
* **Performance:** Re-renders the entire DOM structure inside the element.
* **No Event Handlers:** Events attached to replaced elements are removed.