Javascript Assignment

1. What is JavaScript?

- Javascript decides the behaviour of a website.

- Javascript is a scripting language that enables you to create dynamically updating content, control multimedia, animate images, and pretty much everything else.

- Javascript is written between start tag **<script>** and end tag **</script>** of Script. Javascript can be written in internal or external.

- It uses the concept of object-oriented programming approach.

- JS should always be placed just before where body tag ends.

- **Client-side:** It supplies objects to control a browser and its Document Object Model (DOM). Like if client-side extensions allow an application to place elements on an HTML form and respond to user events such as mouse clicks, form input, and page navigation.

- **Server-side:** Source code is not visible to the user because its output of server-side is an HTML page.

2. What is the use of isNaN function?

- The JavaScript isNaN() Function is used to check whether a given value is an illegal number or not. It returns true if the value is a NaN else returns false.

3. What is negative Infinity?

- The negative infinity in JavaScript is a constant value that is used to represent a value that is the lowest available. This means that no other number is lesser than this value. It can be generated using a self-made function or by an arithmetic operation.

4. Which company developed JavaScript?

- JavaScript was invented by Brendan Eich in 1995.
- It was developed for Netscape 2, and became the ECMA-262 standard in 1997.

5. What are undeclared and undefined variables?

- **Undefined** occurs when a variable has been declared but has not been assigned any value. Undefined is not a keyword.
- **Undeclared** occurs when we try to access any variable that is not initialized or declared earlier using the var, let or const keyword.

6. Write the code for adding new elements dynamically?

```
<!DOCTYPE html>
<html>
<body>

<div id="div1">
```

```
<p id="p1">This is a paragraph.</p>
<p id="p2">This is another paragraph.</p>
</div>

<script>
const para = document.createElement("p");
const node = document.createTextNode("This is new.");
para.appendChild(node);
const element = document.getElementById("div1");
element.appendChild(para);
</script>

</body>
</html>
```

7. What is the difference between ViewState and SessionState?

View State:
- State management concerned with the client-side uses View state. It stores the information in text fields, checkboxes, and radio buttons within a hidden field of a web page, not shared between the other web pages of the website.

- During a POST event, it'll retain this information only accessible by elements of the same web page; however, loss of this information occurs as soon as another page is loaded.

Session State:
- Server-side state management utilizes user sessions to maintain information and its flow shared between the website's web

pages. The web server stores the client session information and uses cookies to store keys associated with a particular client.

- Session expiration can clear a user's information. A timeout occurs due to a user's inactivity on a webpage, and the session expires to prevent data loss to non-authentic users.

View state	Session state
State management is on the client side.	State management is on the server side.
Data is accessible within the same web page.	Data is accessible from other web pages of the website.
Loss of information occurs when different web page is loaded.	Loss of information occurs due to timeout.
Data is stored in a hidden field of the same web page.	Data is stored in sessions and cookies.
It's less secure.	It's more secure.

8. What is === operator?

- === operator is called Strict equality operator.
- It compares the equality of two operands with type. If both value and type are equal then the condition is true otherwise false.

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

- We can change, add or remove any CSS property from an HTML element on the occurrence of any event with the help of JavaScript.

- **Syntax to add/change style:**
  ```
  document.getElementById("id").style.property = new_style;
  ```

  ```
  <script>
      document.getElementById("para").style.color = "blue";
  </script>
  ```

- **Syntax to add/change class:**
  ```
  document.getElementById("id").classList;
  ```

10. How to read and write a file using JavaScript?

- The fs.readFile() method is used to read files on the computer.

- The fs.writeFile() method replaces the specified file and content if it exists.

11. What are all the looping structures in JavaScript?

JavaScript supports different kinds of loops:

- **for** - loops through a block of code a number of times
- **for/in** - loops through the properties of an object

- **for/of** - loops through the values of an iterable object
- **while** - loops through a block of code while a specified condition is true
- **do/while** - also loops through a block of code while a specified condition is true.

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

- To convert a string to an integer parseInt(), Number(), and Unary operator(+) function is used in javascript.
- parseInt() function returns Nan(not a number) when the string doesn't contain number. If a string with a number is sent, then only that number will be returned as the output. This function won't accept spaces.

13. What is the function of the delete operator?

- The delete operator removes a property from an object. If the property's value is an object and there are no more references to the object, the object held by that property is eventually released automatically.

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

JavaScript has three kind of popup boxes:

- window.alert()
- window.confirm()
- window.prompt()

15. What is the use of Void (0)?

- void(0) means return undefined as a primitive value in javascript. It is often used when inserting an expression in a web page might produce some unwanted effect.

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

- In JavaScript, we can use window. location object to force a page to load another page. We can use the location object to set the URL of a new page.

17. What are the disadvantages of using innerHTML in JavaScript?

- It is very slow because as inner HTML already parses the content even we have to parse the content again so that's why it takes time.