Que 1. Explore & explain various methods in console function.

assert()

Writes an error message to the console if the assertion is false

clear()

Clears the console

count()

Logs the number of times that this particular call to count() has been called

error()

Outputs an error message to the console

group()

Creates a new inline group in the console. This indents following console messages by an additional level, until console.groupEnd() is called

groupCollapsed()

Creates a new inline group in the console. However, the new group is created collapsed. The user will need to use the disclosure button to expand it

groupEnd()

Exits the current inline group in the console

info()

Outputs an informational message to the console

log()

Outputs a message to the console

table()

Displays tabular data as a table

time()

Starts a timer (can track how long an operation takes)

timeEnd()

Stops a timer that was previously started by console.time()

trace()

Outputs a stack trace to the console

warn()

Outputs a warning message to the console

Que 2. Write difference between var, let & const. with code examples.

Var: - The JavaScript variables statement is used to declare a variable and, optionally, we can initialize the value of that variable.

Example: var a =10;

Code:

```
Var a=10;

console.log(a);  //Output=10
```

Let: The **let** statement declares a local variable in a block scope. It is similar to **var**, in that we can optionally initialize the variable.

Example: let a =10;

Code:

```
let a =10;

console.log(a);  // output 10

if(true){

let a=20;

console.log(a); // output 20

}

console.log(a);  // output 10
```

Const:- const statement values can be assigned once and they cannot be reassigned. The scope of const statement works similar to let statements.

Example: const a =10;

```
function nodeSimplified(){
  const MY_VARIABLE =10;
 console.log(MY_VARIABLE);  //output 10
}
```

Que 3. Write a brief intro on available datatypes in JavaScript.

Boolean type:-

Boolean represents a logical entity and can have two values: true and false. See Boolean and Boolean for more details

Example

```
var x = 5;
var y = 5;
var z = 6;
(x == y)       // Returns true
(x == z)       // Returns false
```

JavaScript Strings

A string (or a text string) is a series of characters like "John Doe". Strings are written with quotes. You can use single or double quotes:

Example

```
var carName1 = "Volvo XC60";   // Using double quotes
var carName2 = 'Volvo XC60';   // Using single quotes
```

JavaScript has only one type of **numbers.**

Numbers can be written with, or without decimals:

Example:-

```
var x1 = 34.00;     // Written with decimals
var x2 = 34;        // Written without decimals
```

JavaScript Arrays

JavaScript arrays are written with square brackets. Array items are separated by commas.

The following code declares (creates) an array called cars, containing three items (car names):

Example

```
var cars = ["Saab", "Volvo", "BMW"];
```

JavaScript Objects

JavaScript objects are written with curly braces {}. Object properties are written as name: value pairs, separated by commas.

Example

```
var person = {firstName:"John", lastName:"Doe", age:50, eyeColor:"blue"};
```

Null

In JavaScript null is "nothing". It is supposed to be something that doesn't exist. Unfortunately, in JavaScript, the data type of null is an object. You can consider it a bug in JavaScript that type of null is an object. It should be null. You can empty an object by setting it to null:

Example

```
var person = {firstName:"John", lastName:"Doe", age:50, eyeColor:"blue"};

person = null;    // Now value is null, but type is still an object
```