**JavaScript**

**Date:** 2-08-2021

**Read about the following topics in javaScript**

1. Data types in javascript2.Loops, If statements, switch cases,3. Functions in javascripts  
4. Objects, Arrays  
5. map, filter, reduce operations on an array  
6. Arrow functions  
7. Usage of 'this', 'bind' keywords

**Question 1:**

Write a JavaScript conditional statement to find the sign of product of three numbers. Display an alert box with the specified sign.

var a=1;

var b=-2;

var c=2;

if (a>0 && b>0 && c>0)

{

       alert("The sign is +");

}

else if (a<0 && b<0 && c<0)

        {

          console.log("The sign is -");

        }

        else if (a>0 && b<0 && c<0)

        {

          console.log("The sign is +");

        }

        else if (a<0 && b>0 && c<0)

        {

          console.log("The sign is +");

        }

        else

        {

          console.log("The sign is -");

        }

// ouput:

//     The sign is -

**Question 2:**

Write a JavaScript for loop that will iterate from 0 to 15. For each iteration, it will check if the current number is odd or even, and display a message to the screen.

for (var i =0; i<=15; i++) {

    if (i === 0) {

            console.log(i +  " is even");

    }

    else if (i % 2 === 0) {

            console.log(i + " is even");

    }

    else {

            console.log(i + " is odd");

    }

}

// output:

// 0 is even

// 1 is odd

// 2 is even

// 3 is odd

// 4 is even

// 5 is odd

// 6 is even

// 7 is odd

// 8 is even

// 9 is odd

// 10 is even

// 11 is odd

// 12 is even

// 13 is odd

// 14 is even

// 15 is odd

**Question 3:**

Write a JavaScript program to construct the following pattern, using a nested for loop.

\*

\* \*

\* \* \*

\* \* \* \*

\* \* \* \* \*

let n = 5;

let string = "";

for (let i = 1; i <= n; i++) {

  for (let j = 0; j < i; j++) {

    string += "\*";

  }

  string += "\n";

}

console.log(string);

// output:

// \*

// \*\*

// \*\*\*

// \*\*\*\*

// \*\*\*\*\*

**Question 4:**

Write a JavaScript function to check whether an `input` is an array or not.

Test Data:  
 console.log(is\_array('w3resource'));  
 console.log(is\_array([1, 2, 4, 0]));  
 false  
 true

var is\_array = function(input) {

    if (toString.call(input) === "[object Array]")

      return true;

    return false;

      };

  console.log(is\_array('w3resource'));

  console.log(is\_array([1, 2, 4, 0]));

// output:

// false

// true

**Question 5:**

Write a simple JavaScript program to join all elements of the following array into a string.  
*Sample array*: myColor = ["Red", "Green", "White", "Black"];  
Expected Output:  
"Red,Green,White,Black"  
"Red,Green,White,Black"  
"Red+Green+White+Black"

myColor = ["Red", "Green", "White", "Black"];

console.log(myColor.toString());

console.log(myColor.join());

console.log(myColor.join('+'));

// output:

// Red,Green,White,Black

// Red,Green,White,Black

// Red+Green+White+Black

**Question 6:**

Write a JavaScript function to get the current date

Note : Pass a separator as an argument.  
Test Data:  
console.log(curday('/'));  
console.log(curday('-'));  
Output:  
"11/13/2014"  
"11-13-2014"

var currday = function(sep){

    today = new Date();

    var dd = today.getDate();

    var mm = today.getMonth()+1;

    var yyyy = today.getFullYear();

    if(dd<10) dd='0'+dd;

    if(mm<10) mm='0'+mm;

    return (mm+sep+dd+sep+yyyy);

    };

    console.log("the current date is:",currday('/'));

    console.log("the current date is:",currday('-'));

    // output:

    // the current date is: 12/29/2021

    // the current date is: 12-29-2021

Question 7:

Write a JavaScript function to get the month name from a particular date.

Test Data:  
console.log(month\_name(new Date("10/11/2009")));  
console.log(month\_name(new Date("11/13/2014")));  
Output:  
"October"  
"November"

var month = function(date){

    months = [ "January", "February", "March", "April", "May", "June", "July", "August", "September", "October", "November", "December" ];

      return months[date.getMonth()];

    };

    console.log(month(new Date("10/11/2009")));

    console.log(month(new Date("11/13/2014")));

// output:

// October

// November