**JavaScript**

**Date:** 30-07-2021

**Solve the following javascript exercises.**

**Question 1:**

Write a JavaScript program to display the current day and time in the following format.   
 Sample Output : Today is : Tuesday.  
 Current time is : 10 PM : 30 : 38

const date = new Date();

const n = date.toDateString();

// get the time as a string

const time = date.toLocaleTimeString();

// display date

console.log('Date: ' + n);

// display time

console.log('Time: ' + time);

// output:

// Date: Mon Dec 27 2021

// Time: 7:28:44 PM

**Question 2:**

Write a JavaScript program to print the contents of the current window.

function display() {

    window.print();

 }

display();

**Question 3:**

Write a JavaScript program to get the current date.   
*Expected Output*:  
mm-dd-yyyy, mm/dd/yyyy or dd-mm-yyyy, dd/mm/yyyy

var 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;

}

today = mm+'-'+dd+'-'+yyyy;

console.log(today);

today = mm+'/'+dd+'/'+yyyy;

console.log(today);

today = dd+'-'+mm+'-'+yyyy;

console.log(today);

today = dd+'/'+mm+'/'+yyyy;

console.log(today);

// output:

// 12-27-2021

// 12/27/2021

// 27-12-2021

// 27/12/2021

**Question 4:**

Write a JavaScript program to find the area of a triangle where lengths of the three of its sides are 5, 6, 7.

var side1 = 5;

var side2 = 6;

var side3 = 7;

var s = (side1 + side2 + side3)/2;

var area =  Math.sqrt(s\*((s-side1)\*(s-side2)\*(s-side3)));

console.log(area);

 // output:

// 14.696938456699069

**Question 5:**

Write a JavaScript program to rotate the string 'Programming' in right direction by periodically removing one letter from the end of the string and attaching it to the front.

var today = new Date();

var day = today.getDay();

var days = ["Sunday","Monday","Tuesday","Wednesday ","Thursday","Friday","Saturday"];

console.log("Today is : " + days[day] + ".");

var hour = today.getHours();

var minute = today.getMinutes();

var second = today.getSeconds();

var timing = (hour >= 12)? " PM ":" AM ";

hour = (hour >= 12)? hour - 12: hour;

if (hour===0 && timing===' PM ')

{

if (minute===0 && second===0)

{

hour=12;

timing=' Noon';

}

else

{

hour=12;

timing=' PM';

}

}

if (hour===0 && timing===' AM ')

{

if (minute===0 && second===0)

{

hour=12;

timing=' Midnight';

}

else

{

hour=12;

timing=' AM';

}

}

console.log("Current Time : "+hour + timing + " : " + minute + " : " + second);

// output:

// Today is : Monday.

// Current Time : 6 PM  : 57 : 48

**Question 6:**

Write a JavaScript program to determine whether a given year is a leap year in the Gregorian calendar.

function isLeapYear(year) {

    if (year % 400 === 0) return true;

    if (year % 100 === 0) return false;

    return year % 4 === 0;

  }

  console.log("Is the given year is leap year:",isLeapYear(2021));

  //output:

  //Is the given year is leap year: false

**Question 7:**

Write a JavaScript program to find 1st January is being a Sunday between 2014 and 2050.

let start = 2014;

let end = 2050;

for(let current = start; current <= end; current++){

    if(new Date(current, 0, 1).getDay() === 0){

        console.log("years with January 1st as sunday:",current);

    }

}

// output:

// years with January 1st as sunday: 2017

// years with January 1st as sunday: 2023

// years with January 1st as sunday: 2034

// years with January 1st as sunday: 2040

// years with January 1st as sunday: 2045

**Question 8:**

Write a JavaScript program where the program takes a random integer between 1 to 10, the user is then prompted to input a guess number. If the user input matches with guess number, the program will display a message "Good Work" otherwise display a message "Not matched".

const num = Math.ceil(Math.random() \* 10);

console.log(num);

const gnum = prompt('Guess the number between 1 and 10 ');

if (gnum == num)

   console.log('Good Work');

else

   console.log('Not matched ' + gnum);

//    output:

//  3

//  Not matched 7

// undefined

**Question 9:**

Write a JavaScript program to calculate days left until next Christmas.

today=new Date();

var daysLeft=new Date(today.getFullYear(), 11, 25);

if (today.getMonth()==11 && today.getDate()>25)

{

daysLeft.setFullYear(daysLeft.getFullYear()+1);

}

var one\_day=1000\*60\*60\*24;

console.log(Math.ceil((daysLeft.getTime()-today.getTime())/(one\_day))+

" days left until Christmas");

// output:

// 363 days left until Christmas

**Question 10:**

Write a JavaScript program to get the website URL (loading page).

function getURL() {

    alert("The URL of this page is: " + window.location.href);

}

getURL();

// OUTPUT:

// The URL of this page is: https://github.com/Sangeetsaturam/Task-4