(1) Write a javascript to design a simple Calculator to perform the following operations: sum, product, difference and quotient.

Program 1. html

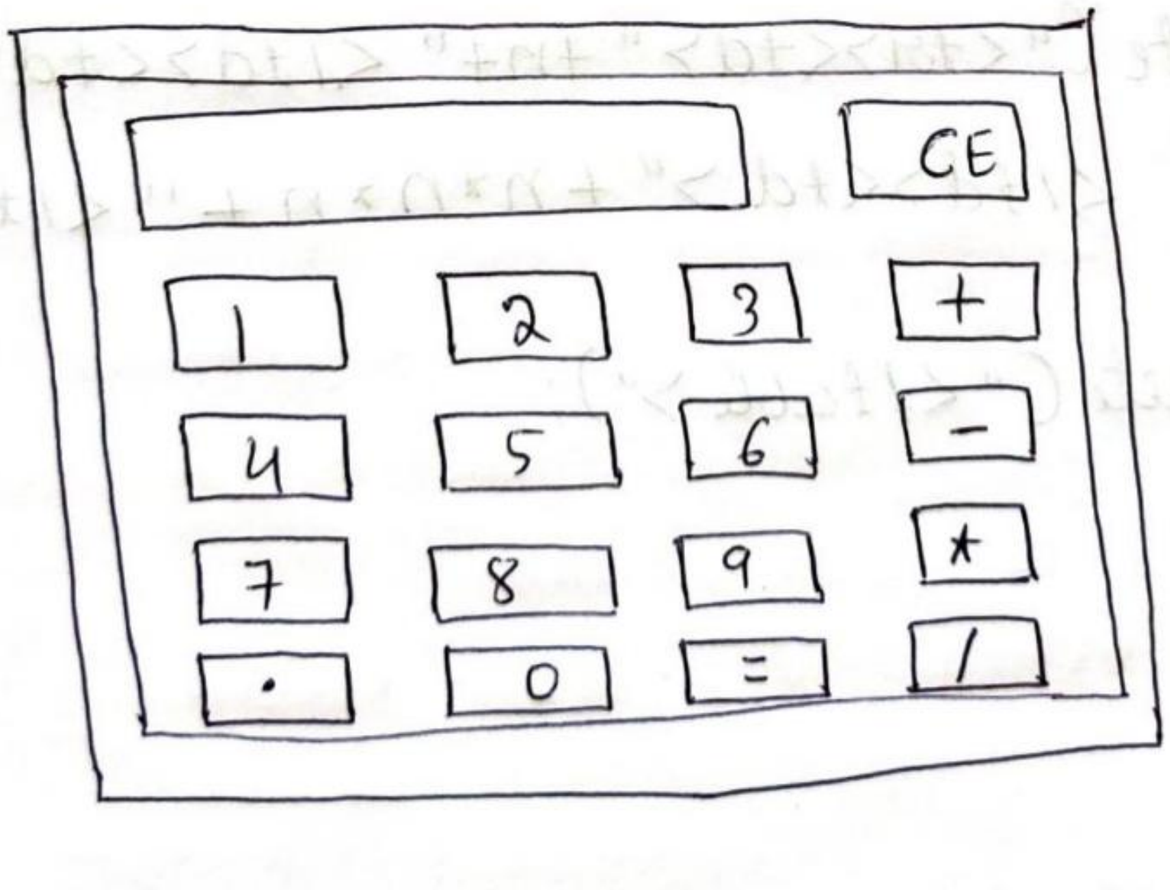
```
<!DOCTYPE>
<html>
<head>
<title> Web lab Program 1 </title>
<style>
    body{
        text-align : center;
        }
    .title{
        border-radius : 45px;
        margin-buttom : 30px;
        text-align : center;
        padding : 14px 13px;
        width : 1000px;
        color : red;
        background-color : red;
        border : solid black 2px;
    }
    input[type = "text"]{
        border-radius : 10px;
        text-align : right;
        background-color : gold;
        width : 94%;
    }
```

```
input [type = "button"] {
  border - radius : 20px;
  background - color : blue;
     color : white;
     border - color : white;
      width : auto;
   }
   .tit {
      border - radius : 45 Px;
   margin - bottom : 30px;
    text - align : center;
      width ; 150 px;
       color : red;
    background - color : pink;
    border: solid black 3px;
   }
</ style>
 < Script >
function disp(val){
    document.getElementById('SDM').value += val;
      }
 function clr(){
      document.getElementById('SDM').value = " ";
      }
  function solve(){
      let x = document.getElementById('SDM').value;
      let y = eval(x);
   document.getElementById('SDM').value = y;
    }
</ script >
</ head >
< body >
```

```
<div class = "title"> SDM JAVASCRIPT LABPROGRAMS </div>
  <center>
  <table border = "10">
      <tr>
      <td>
       <input type = "button" value = "CE " onclick = "clr()">
       </td>
       <td colspan = "4">
        <input type = "text"  id = "SDM">
       </td>
       </tr>
       <tr>
        <td>
       <input type = "button " value = "+" onclick = "disp('+')">
          </td>
          <td>
<input type = "button" value = "1" onclick = "disp('1')">
    </td>
   <td>
<input type = "button" value = "2" onclick = "disp('2')"></td>
  <input type = "button" value = "3" onclick = "disp('3')"></td>
</td><input type = "button" value = "_" onclick = "disp('_')"></td>
    </tr>
    <tr>
<td> <input type = "button" value = "4" onclick = "disp('4')"></td>
<td> <input type = "button" value = "5" onclick = "disp('5')"></td>
<td><input type = "button" value = "6" onclick = "disp('6')"></td>
 </tr>
 <tr>
  <td><input type = "button" value = "*" onclick = "disp('*')></td>
```

```
<td><input type="button" value="7" onclick="disp('7')"></td>
<td><input type="button" value="8" onclick="disp('8')"></td>
<td><input type="button" value="9" onclick="disp('9')"></td>
</tr>
<tr>
<td><input type="button" value="/" onclick="disp('/')"></td>
<td><input type="button" value="." onclick="disp('.')"></td>
<td><input type="button" value="0" onclick="disp('0')"></td>
<td><input type="button" value="=" onclick="disp('=')"></td>
</tr>
</table>
</center>
</body>
</html>
```

o/p:



(2) Write a javaScript that Calculates the squares and Cubes of the numbers from 0 to 10 and outputs HTML text that displays the resulting values in an HTML table format.

program2.html

```
<!DOCTYPE html>
<html>
<head>
<script>
document.write('<h1 align="right"> Squares and Cubes of the
                numbers from 0 to 10 </h1>');
document.write('<center><table width="30%" border="1"
                bgcolor="white">');
document.write("<tr><th>Number</th><th>Square</th>
                <th>Cube</th></tr>");
  for (var n=0; n<=10; n++)
  {
document.write("<tr><td>"+n+"</td><td>" + n*n +"
                </td><td>" + n*n*n +"</td></tr>");
  }
document.write("</table>");
  </script>
</head>
</html>
```

O/P:

Numbers FROM 0 TO 10 with their SQUARES AND CUBES		
Number	Squares	Cube
0	0	0
1	1	1
2	4	8
3	9	27
4	16	64
5	25	125
6	36	216
7	49	343
8	64	512
9	81	729
10	100	1000

(3) Write a javascript code that displays text "TEXT-GROWING" with increasing font size in the interval of 100ms in RED COLOR, then the font size reaches 50pt it displays "TEXT-SHRINKING" in BLUE color. Then the font size decreases to 5pt.

program 3. html

```
<!DOCTYPE html>
<html>
<head>
<title> JS TEXT PROGAM </title>
</head>
<body>
  <div style = "margin-top: 200px;" align = "center">
     <p></p>
    </div>
  <script>
   var text = document.queryselector('p')
   var font = 5;
   var flag = 0;
  function inc(){
      font ++;
      text.style.fontsize = font + "pt";
      text.style.color = "red";
  text.textcontent = "Text- GROWING;" + font + "pt";
   if (font == 50){
        flag = 1;
    }
}
```

```
function dec(){
    font--;
    text.style.fontsize = font + "pt";
    text.style.color = "blue";
text.textcontent = "TEXT-SHRINKING:" + font + "pt";
 if (font==5){
     flag=0;
  }
}
var time = setInterval(function(){
    if(flag==1){
      dec();
    }
    if(flag==0){
      inc();
    }
},100);
</script>
</body>
</html>
```

o/p:

TEXT-GROWING

TEXT SHRINKING

(4) Develop and demonstrate a HTML5 file that includes Javascript script that uses functions for the following problems:

(a) parameter ; A String

(b) output ; The position in the String of the left-most vowel

(c) parameter ; A number

(d) output ; The number with its digits in the reverse order.

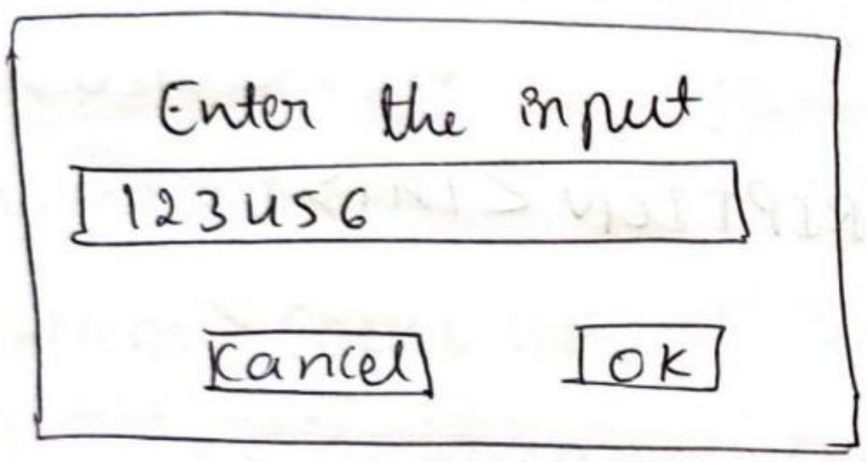
NOTE: (isNAN function return true if the argument is not a no.)

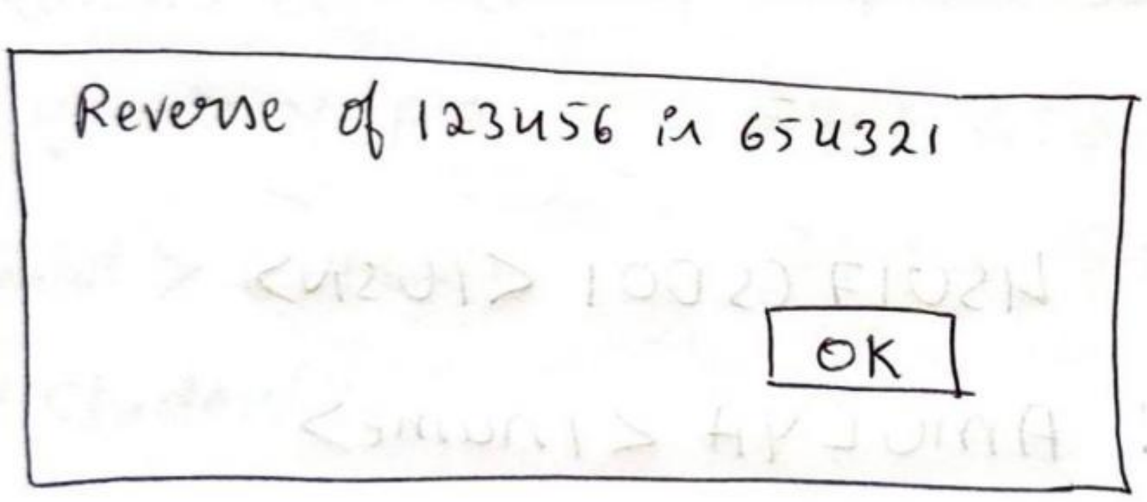
program 4.html

```
<!DOCTYPE html>
<html>
<body>
<script type="text/javascript">
var str = prompt("Enter the Input", " ");
if (!(isNaN(str)))
{
var num, rev=0, remainder;
num = parseInt(str);
while(num!=0){
remainder = num%10;
num = parseInt(num/10);
rev = rev*10+remainder;
}
alert("Reverse of "+str+" is "+rev);
}
else
{
str = str.toUpperCase();
for(var i=0; i<str.length; i++){
var chr = str.charAt(i);
if (chr=='A'||chr=='E'||chr=='I'||
chr=='O'||chr=='U') break;
```

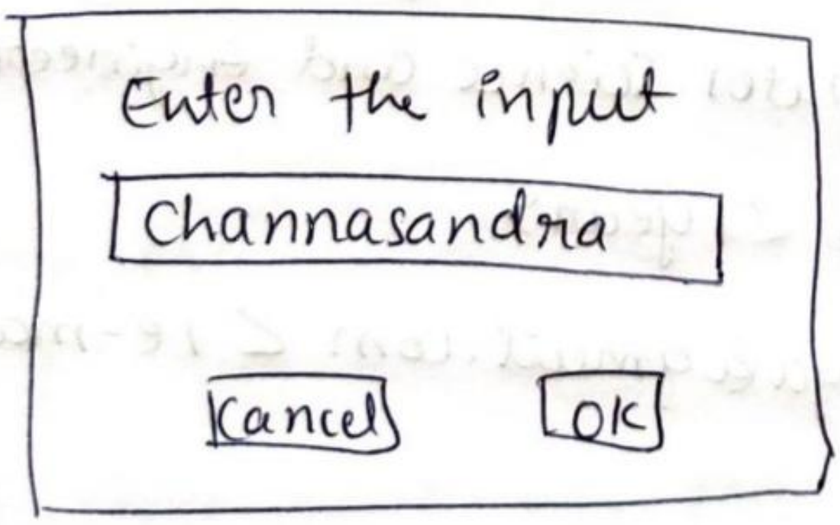
```
}
if (i< str.length)
    alert ("The position of the left most vowel is "+(i+1));
  else
    alert ("No vowel found in the entered String");
}
</script>
</body>
</html>
```

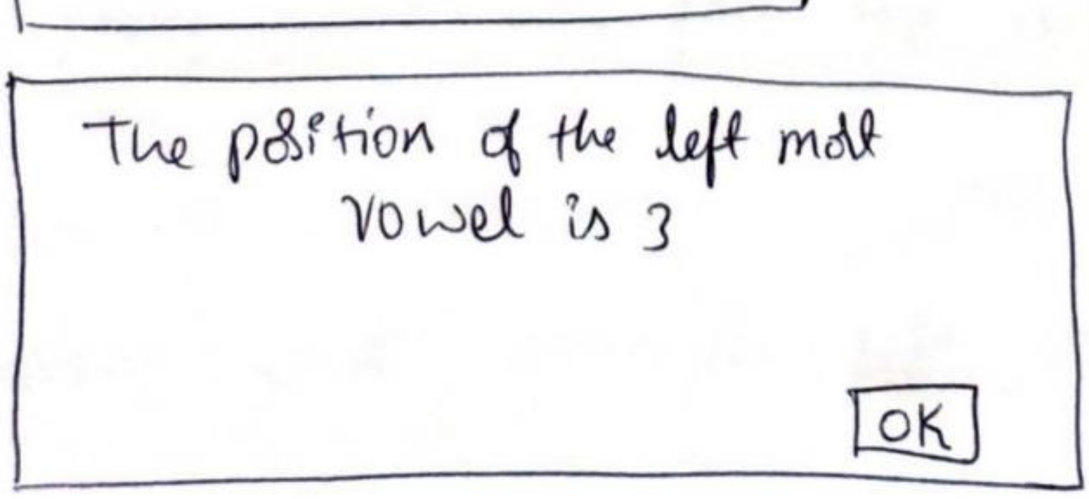
O/P:





O/P:





(5) Design an XML document to store information about a Student in an engineering college affiliated to VTU. The information must include USN, Name and Name of the college, Branch, year of joining, and email id. Make up sample data for 3 Students, Create a CSS Style Sheet and use it to display the document.

program 5. xml

```
<?xml-stylesheet type="text/css" href="5.css"?>
<!DOCTYPE HTML>
<html>
<head>
<h1> STUDENTS DESCRIPTION </h1>
</head>
<students>
<student>
<USN> USN : 4SU17CS001 </USN>
<name> NAME : AMULYA </name>
<college> COLLEGE : SDMIT </college>
<branch> BRANCH : Computer Science and Engineering </branch>
<year> YEAR : 2017 </year>
<e-mail> E-mail : amulya@gmail.com </e-mail>
</student>
```

```
<student>
<USN>USN : 4SU17CS002</USN>
<name>NAME : BINDU</name>
<college>COLLEGE : SDMIT</college>
<branch>BRANCH : Computer Science and Engineering</branch>
<year>YEAR : 2017</year>
<e-mail>E-Mail : bindu@gmail.com</e-mail>
</student>
<student>
<USN>USN : 4SU17CS003</USN>
<name>NAME : CHINMAY</name>
<college>COLLEGE : SDMIT</college>
<branch>BRANCH : Computer Science and Engineering</branch>
<year>YEAR : 2017</year>
<e-mail>E-Mail : chinmay@gmail.com</e-mail>
</student>
</students>
</html>
```

program5.css

```
Student {
    display: block; margin-top: 10px; color: Navy;
}
USN {
    display: block; margin-left: 10px; font-size: 14pt; color: Red;
}
```

```
name {
    display : block ; margin - left : 20px ; font - size : 14pt ; color : Blue ;
    }
college {
    display : block ; margin - left : 20px ; font - size : 12 pt ; color : Maroon ;
    }
branch {
    display : block ; margin - left : 20px ; font - size : 12pt ; color : purple ;
    }
year {
    display : block ; margin - left : 20px ; font - size : 14pt ; color : Green ;
    }
e-mail {
    display : block ; margin - left : 20px ; font - size : 12pt ; color : Blue ;
    }
```

o/p:

STUDENT DESCRIPTION

USN: 4SU17CS001

NAME: AMULYA

COLLEGE: SDMIT

BRANCH: Computer Science and Engineering

YEAR : 2017

E-mail : amulya@gmail.com

USN : 4SU17CS002

NAME : BINDU

COLLEGE: SDMIT

BRANCH: Computer Sciene and Engineering

YEAR : 2017

E-Mail : bindu@gmail.com.

USN: 4SU17CS003

NAME : CHINMAY

COLLEGE: SDMIT

BRANCH: computer science and Engineering

YEAR : 2017

E-mail : chinmay@gmail.com

?>

(6) Write a PHP program to keep track of the number of visitor visiting the web page and to display the count of visitors, with proper headings.

program6.php

```
<?php
    print "<h3>REFRESH PAGE</h3>";
$name = "counter.txt";
$file = fopen($name,"r");
$hits = fscanf($file,"%d");
fclose($file);

$hits[0]++;
$file = fopen($name,"w");
fprintf($file,"%d",$hits[0]);
fclose($file);
print "Total number of views : ". $hits[0];
?>
```

o/p:

REFRESH PAGE

Total number of views: 10

(9) Write a PHP program named .py that declares a variable states with value "Mississippi Alabama Texas Massachusetts Kansas". Write a PHP program that does the following

(a) search for a word in variable states that ends in xas. Store this word in element 0 of a list named statesList.

(b) Search for a word in states that begins with K and ends in s. perform a case-insensitive comparison. [note: passing re.Ias a second parameter to method compile performs a case-insensitive comparison.] Store this word in element1 of stateList.

(c) search for a word in states that begins with M and ends in s. Store this word in element 2 of the list.

(d) Search for a word in states that ends in a. Store this word in element 3 of the list.

programg.php

```
<?php
    $states = "Mississippi Alabama Texas Massachusetts
               Kansas";
    $statesArray = [];
    $states1 = explode(' ', $states);
    echo "Original Array :<br>";
    foreach ($states1 as $i => $value)
        print("STATES [$i] = $value <br>");
    foreach ($states1 as $state) {
        if (preg_match('/xas$/', ($state)))
        $statesArray[0] = ($state);
    }
    foreach ($states1 as $state) {
        if (preg_match('/^K.*s$/i', ($state)))
        $statesArray[1] = ($state);
}
```

```
foreach($states1 as $state){
    if(preg_match('/^M.*s$/', $state))
    $statesArray[2]=($state);
}
foreach($states1 as $state){
    if(preg_match('/a$/', $state))
    $statesArray[3]=($state);
}
echo "<br><br>Resultant Array:<br>";
foreach ($statesArray as $array=>$value)
    Print("STATES[$array]= $value <br>");
?>
```

O/P:

Original Array:
STATES[0] = Mississippi
STATES[1] = Alabama
STATES[2] = Texas
STATES[3] = Massachusetts
STATES[4] = Kansas

Resultant Array:
STATES[0] = Texas
STATES[1] = Kansas
STATES[2] = Massachusetts
STATES[3] = Alabama

(10) Write a PHP program to sort the student records which are stored in the database using selection sort.

Goto Mysql and then type

```
Create database weblab;
use weblab;
Create table student(usn varchar(10), name varchar(20),
                    address varchar(20));
```

Program 10.php

```
<!DOCTYPE. html>
<html>
    <body>
        <style>
            table, td, th
            {
                border: 1px solid black;
                width: 33%;
                text.align : center;
                border-collapse: collapse;
                background-color: lightblue;
            }
            table & margin : auto; }
</style>
<? php
    $servername = "localhost";
    $username = "root";
    $password = "root";
    $dbname = "weblab";
    $a = [];
// Create Connection
```

```
// opens a new connection to the MySQL server
$conn = mysqli_connect($servername, $username,
                       $password, $dbname);

// check connection and return an error description
// from the last connection error, if any
    if ($conn->connect_error)
        die("Connection failed: ". $conn->connect_error);
$sql = 'SELECT * FROM Student";

// performs a query against the database
    $result = $conn->query($sql);
     echo "<br>";
     echo "<center> BEFORE SORTING <\center>";
     echo "<table border='2'>";
     echo "<tr>";
     echo "<th> USN<\th> <th> NAME <\th>
          <th> Address <\th> <\tr>";
      if ($result->num_rows > 0)
     {
// output data of each row and fetches a result row
// as an associative array
     while ($row = $result->fetch_assoc()){
          echo "<tr>";
          echo "<td>". $row["usn"]. "<\td>";
          echo "<td>". $row["name"]. "<\td>";
          echo "<td>". $row["addr"]." <\td><\tr>";
        array_push($a, $row["usn"]);
    }
}
```

```
else
    echo "Table is Empty";
    echo "</table>";
    $n=count($a);
    $b=$a;
for($i=0; $i<($n-1); $i++)
  {
  $pos=$i;
for ($j=$i+1; $j<$n; $j++){
      if ($a[$pos] > $a[$j])
            $pos=$j;
    }
  if($pos!=$i){
      $temp=$a[$i];
      $a[$i]=$a[$pos];
      $a[$pos]=$temp;
    }
}
    $c=[];
    $d=[];
  $result=$conn->query($sql);
if($result->num_rows>0) // output data of each
                                    row
{
  while($row=$result->fetch_assoc()){
          for($i=0; $i<$n; $i++){
              if($row["usn"]==$a[$i]){
              $c[$i]=$row["name"];
              $d[$i]=$row["addr"];
}}}}}
```

```
echo "<br>";
echo "<center>AFTER SORTING <center>";
echo "<table border='2'>";
echo "<tr>";
echo "<th>USN </th><th> NAME </th>
      <th> Address </th></tr>";
for ($i=0; $i < $n; $i++) {
        echo "<tr>";
        echo "<td>". $a[$i]. "</td>";
        echo "<td>". $c[$i]. "</td>";
        echo "<td>". $d[$i]."</td></tr>";
    }
  echo "</table>";
  $conn->close();
 ?>
</body>
</html>
```

O/P:

Before Sorting

USN	NAME	Address
4SU17CS011	Amulya	Bengaluru
4SU17CS003	Bindu	Mysuru
4SU17CS005	chandana	Ujire
4SU17CS015	Deeksha	Kundapura

After sorting

USN	NAME	Address
4SU17CS003	Bindu	Mysuru
4SU17CS005	chandana	Ujire
4SU17CS011	Amulya	Bengaluru
4SU17CS015	Deeksha	Kundapura