PART-A

A1: Create form having no of elements. Write JS code to count no of elements in form

<!DOCTYPE html>

<html>

<head>

  <title> Count form Elements </title>

      <script type="text/javascript">

          function count(){

                  alert("the numbers of forms elements are:"+document.myForm.length);

          }

      </script>

</head>

<body>

  <form name="myForm">

    Name: <input type="text"/>

    Password: <input type="password"/>

    Adress: <textarea id="emailBody" cols="50" rows="10"> </textarea>
 </br>

    Sex<input type="radio" name="gender"/> male <input type="radio" name="gender"> Female

    Newsletter<input type="checkbox" checked="checked"/>

    <input type="button" value="send message" onclick="count()"/>

  </form>

</body>

</html>

A2: Validate textboxes

```html
<!DOCTYPE html>

<html>

 <head>

    <title> Validate text Boxes</title>

    <script type="text/javascript">

        function validate(){

           var myArray=new Array();

            for(var i=0;i<document.myForm.length;i++)

          {

                if(document.myForm.elements[i].value.length==0)

                {

                    myArray.push(document.myForm.elements[i].name);

                }

          }

          if(myArray.length!=0)

          {

                alert("the following text boxes are empty: \n" +myArray);

          }

             else

             {

                    alert("Data entered successfully");

             }

        }

    </script>

 </head>

 <body>

    <form name="myForm" onsubmit="validate()">

       Name: <input type="text" name="Name"/> <br/> <br/>

       Class: <input type="text" name="Class"/> <br/> <br/>
```

Age: <input type="text" name="Age"/>

<input type="submit" value="send message"/>

</form>

</body>

</html>

A3: Mathematical Expression

```html
<html>
<head>
<title>Mathematical Expression</title>
<script type = "text/javascript">
   function math_exp()
   {
      var x = document.form1.exptext.value;
      var result = eval(x);
      document.form1.resulttext.value = result;
   }
</script>
</head>
<body >
   <form name = "form1">
      <table>
         <tr>
            <td>Expression</td>
            <td><input type = "text" name = "exptext" /></td>
         </tr>
         <tr>
            <td>Result</td>
            <td><input type = "text" name = "resulttext" /></td>
```

```
        </tr>
        <tr>
          <td><input type = "button" value = "calculate" onclick = "math_exp()" /></td>
        </tr>
      </table>
    </form>
</body>
</html>
```

A4: Animation

```
<html>
<head>
<style>
  .moveable{
    position: absolute;
  }
</style>
<script type = "text/javascript">
  var x = 5;
  var y = 5;
  var dest_x = 300;
  var dest_y = 300;
  var interval = 10;
  function moveImage()
  {
    if(x < dest_x)
      x = x + interval;
    if(y < dest_y)
      y = y + interval;
    document.getElementById("ufo").style.top = y + "px";
```

```
        document.getElementById("ufo").style.left = x + "px";

        if((x + interval < dest_x) && (y + interval < dest_y))

        {

            window.setTimeout("moveImage()", 100);

        }

    }

</script>

</head>

<body onload = "moveImage()">

    <div id = "ufo" class = "moveable">

        <img src = "C:\Users\Prajwal\Desktop\ball.jpg" alt = "please link to a valid image"
width = 100px height =100px/>

    </div>

</body>

</html>
```

A5: Sum of 'n' Natural numbers

```
<html>

<head>

<script type="text/javascript" >

    var num = window.prompt("Enter the number:");

    var n = parseInt(num);

    result = sumnaturalno(n);

    window.alert("The sum of  " + n + "natural number is" + result);

    function sumnaturalno(n)

    {

        var i;

        var sum = 0;

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

            sum = sum + i;}
```

```
        return (sum);

    }

</script>

</head>

</html>
```

A6: JS code using Arrays to generate current day, month, year

```
<html>

<head>

<script type="text/javascript">

    var d = new Date();

    var weekday = new
Array("Sunday","Monday","Tuesday","Wednesday","Thursday","Friday","Saturday");

    var monthname = new
Array("Jan","Feb","Mar","Apr","May","Jun","Jul","Aug","Sep","Oct","Nov","Dec");

    document.write(weekday[d.getDay()] + " ");

    document.write(d.getDate() + ". ");

    document.write(monthname[d.getMonth()] + " ");

    document.write(d.getFullYear());;

</script>

</head>

<body>

</body>

</html>
```

A7: Form for student Info

```html
<!DOCTYPE html>
<html>
<head>
<title>Registration Form</title>
<script type="text/javascript">
 function calc()
  {
     var m1,m2,m3,avg = 0,total = 0, result = "",grade = "";
     m1 = parseInt(document.form1.wp.value);
     m2 = parseInt(document.form1.sp.value);
     m3 = parseInt(document.form1.cg.value);
     total = m1+m2+m3;
     avg = total/3;
     if( m1 < 35 || m2 < 35 || m3 < 35)
     {
        result = "fail";
        grade = "D";
     }
     else if(avg >= 75)
     {
        result = "Distinction";
        grade = "A+";
     }
     else if(avg >= 60 && avg < 75)
     {
        result = "First class";
```

```
         grade = "A";

      }

      else if(avg >= 50 && avg < 60)

      {

         result = "Second class";

         grade = "B";

      }

      else if(avg >=35 && avg < 50)

      {

         result = "Pass class";

         grade = "C";

}

      else  if (avg < 35)

      {

         result = "Fail";

         Grade = "D";

      }

      document.form1.result.value = result;

      document.form1.grade.value = grade;

      document.form1.total.value = total;

      document.form1.average.value = avg;

   }
</script>
</head>
<body>
   <form name = "form1">
      <table border = "1">
         <tr>
            <td> Student Name</td>
            <td><input type = "text"  /></td>
```

```html
      </tr>

      <tr>

        <td colspan = "2" align = "center">Subject Marks</td>

      </tr>

      <tr>

        <td>Web Programming</td>

        <td><input type = "text" name = "wp" /></td>

      </tr>

      <tr>

        <td>Computer Graphics</td>

        <td><input type = "text" name = "cg" /></td>

      </tr>

      <tr>

        <td>System Programming</td>

        <td><input type = "text" name = "sp" /></td>

      </tr>

      <tr>

        <td colspan = "2" align = "center"><input type = "button"   onclick = "calc()" value
= "calculate" /></td>

      </tr>

      <tr>

        <td>Total</td>

        <td><input type = "text" name = "total"/></td>

      </tr>

      <tr>

        <td>Average</td>

        <td><input type = "text" name = "average" /></td>

      </tr>

      <tr>

        <td>Result</td>

        <td><input type = "text" name = "result" /></td>
```

```
          </tr>

          <tr>

            <td>Grade</td>

            <td><input type = "text" name = "grade"/></td>

          </tr>

        </table>

      </form>

  </body>

</html>
```

A8: Employee Info

```
<html>
<head>
<title>Registration Form</title>
<script type = "text/javascript">
    function calc()
    {
      var bp,DA,HRA,GP,PF,Tax,Deduction,NetPay,name,id,desg;
      name = document.form1.firstname.value;
      id = document.form1.userid.value;
      desg = document.form1.designation.value;
      bp = parseInt(document.form1.bp.value);

      DA = bp * 0.5;
      HRA = bp * 0.5;
      GP = bp + DA + HRA;
      PF = GP * 0.02;
      Tax = GP * 0.01;
      Deduction = Tax + PF;
      NetPay = GP - Deduction;

      document.form1.da.value = DA;
      document.form1.hra.value = HRA;
      document.form1.gp.value = GP;
      document.form1.pf.value = PF;
      document.form1.tax.value = Tax;
      document.form1.deduction.value = Deduction;
      document.form1.netpay.value = NetPay
    }
</script>
</head>
<body >
    <form name = "form1">
```

```html
<table border = "1">
  <tr>
    <td>Name</td>
    <td><input type = "text" name = "firstname" /></td>
  </tr>
  <tr>
    <td>User ID</td>
    <td><input type = "text" name = "userid" /></td>
  </tr>
  <tr>
    <td>Designation</td>
    <td><input type = "text" name = "designation" /></td>
  </tr>
  <tr>
    <td>Basic Pay</td>
    <td><input type = "text" name = "bp"></td>
  </tr>
  <tr>
    <td colspan = "2" align = "center">
    <input type = "button" name = "calculate" value = "Click Here To
Calculate"onclick ="calc()"></td>
  </tr>
  <tr>
    <td>Dearness Allowance </td>
    <td><input type = "text" name = "da"/></td>
  </tr>
  <tr>
    <td>House Rent Allowance </td>
    <td><input type = "text" name = "hra"></td>
  </tr>
  <tr>
    <td>GP</td>
    <td><input type = "text" name = "gp"></td>
  </tr>
  <tr>
    <td>Provident Fund</td>
    <td><input type = "text" name = "pf" /></td>
  </tr>
  <tr>
    <td>Tax</td>
    <td><input type = "text" name = "tax" /></td>
  </tr>
  <tr>
    <td>Deduction</td>
    <td><input type = "text" name = "deduction" /></td>
  </tr>
  <tr>
    <td>NetPay</td>
    <td><input type = "text" name = "netpay" /></td>
  </tr>
```

```
        </table>
    </form>
</body>
</html>
```

A9: form consists of 2 multiple choice lists & 1 single choice list

```html
<html>
<head>
    <script type = "text/javascript">
        function findcost()
        {
            var major = document.getElementById("major");
            var Starters = document.getElementById("starters");
            var soft = document.getElementById("soft");
            var s = "Item \t \t \t Price \n-----------------------------\n";
            var totalcost = 0;
            for( var i = 0; i < major.options.length; i++)
            {
                var option = major.options[i];
                if(option.selected == true)
                {
                    var price = parseInt(option.value);
                    totalcost = totalcost + price;
                    s = s+ option.text + "\t \t" + price + "\n";
                }
            }
            for( var i = 0; i < starters.options.length; i++)
            {
                var option = starters.options[i];
                if(option.selected == true)
                {
                    var price = parseInt(option.value);
                    totalcost = totalcost + price;
                    s = s + option.text + "\t \t" + price + "\n";
                }
            }
            var softdrinkindex = soft.selectedIndex;
            if(softdrinkindex != null)
            {
                var selectedsoftdrink = soft.options[soft.selectedIndex].text;
                var price = parseInt(soft.options[soft.selectedIndex].value);
                totalcost = totalcost + price;
                s = s + selectedsoftdrink + "\t \t" + price + "\n";
            }
            s = s + "\n\n Total Cost \t \t" + totalcost;
            document.getElementById("ordereditems").value = s;
        }
    </script>
</head>
```

```html
<body>
  <form name = "menuForm">
    <table border = "1" >
      <tr>
        <td colspan = "2" align = "center">
          <h2>Restaurant Menu Details</h2>
        </td>
      </tr>
      <tr>
        <td> Major Dishes:</td>
        <td>
          <select id = "major" size = "3" multiple = "multiple">
            <option value = "100"> Vegetable Pulav</option>
            <option value = "150"> Hyderabadi Biriyani</option>
            <option value = "50"> Roti with Curry </option>
          </select>
        </td>
      </tr>
      <tr>
        <td> Starters </td>
        <td> <select id = "starters" size = "3" multiple = "multiple">
          <option value = "80"> Gobi Manchurian </option>
          <option value = "40"> Veg Clear Soup </option>
          <option value = "30"> Masala Papad </option>
        </td>
      </tr>
      <tr>
        <td>Soft Drinks</td>
        <td>
          <select id = "soft" size = "3" multiple = "multiple">
            <option value = "20"> Pepsi</option>
            <option value = "25"> Coke </option>
            <option value = "30"> Lime Soda </option>
          </select>
        </td>
      </tr>
      <tr>
        <td colspan = "2" align = "center">
          <textarea id = "ordereditems" rows = "10" cols = "40">

          </textarea>
        </td>
      </tr>
      <tr>
        <td>
          <input type = "button" value = "Find total Cost" onclick = "findcost()" />
        </td>
        <td>
          <input type = "reset" value = "Clear" />
        </td>
```

```
            </tr>
        </table>
    </form>
</body>
</html>
```

A10: Mouse events

```
<html>

<head>

<title> Mouse Over and Mouse Out </title>

<style type="text/css">

#image1{position:absolute; top:50px, left:50px , border:thin, visibility:visible;}

#image2{position:absolute; top:50px, left:50px , border:thin, visibility:hidden;}

</style>

<script type="text/javascript">

function changeImage()

{

var imageOne=document.getElementById("image1").style;

var imageTwo=document.getElementById("image2").style;

if(imageOne.visibility=="visible")

{

imageOne.visibility="hidden";

imageTwo.visibility="visible";

}

else

{

imageOne.visibility="visible";

imageTwo.visibility="hidden";

}

}

</script>

</head>
```

```
<body bgcolor="cyan" text=blue>

<h1 align = center> Mouse Events </h1>

<hr>

<form >

<img src="C:\Users\Prajwal\Desktop\img1.jpg" id="image1"
onMouseOver="changeImage()" onMouseOut="changeImage()"></img>

<img src="C:\Users\Prajwal\Desktop\img2.jpg" id="image2"
onMouseOver="changeImage()" onMouseOut="changeImage()"></img>

</form>

</body>

</html>
```

PART-B

B1: UPPER&LOWERCASE

```
<!DOCTYPE html>
<html>
<head>
<script type = "text/javascript">
   function upper()
   {
     var upper = document.form1.string.value.toUpperCase();
     document.form1.string.value = upper;
   }

   function lower()
   {
     var lower = document.form1.string.value.toLowerCase();
     document.form1.string.value = lower;
   }
</script>
```

```
</head>
<body>
   <form name = "form1">
      <table>
         <tr>
            <td>Enter String</td>
            <td><input type = "text" name = "string" /></td>
         </tr>
         <tr>
            <td><input type = "button" value = "upper" onclick = "upper()"></td>
            <td><input type = "button" value = "lower" onclick = "lower()"></td>
         </tr>
      </table>
   </form>
</body>
</html>
```

B2: FACTORIAL OF A NUMBER

```
<html>
   <body>
      <script type = "text/javascript">
         var n = parseInt(window.prompt("Enter the Number:"));
         var result = fact(n);
         window.alert("Factorial of the given number " + result);
         function fact(n)
         {
            if(n == 0)
               return 1;
            else
               return (n*fact(n-1));
         }
      </script>
   </body>
</html>
```

B3: FACTORIAL OF A NUMBER

```
<!DOCTYPE html>
<html>
<head>
<script type ="text/javascript">
function convert(degree)
{
if(degree=="C")
{
F=document.getElementById("c").value*9/5+32;
document.getElementById("f").value=Math.round(F);
}
else
{
C=(document.getElementById("f").value-32)*5/9;
document.getElementById("c").value=Math.round(C);
}
}
</script>
</head>
<body>
<p></p><b>Insert a number into one of the input fields below:</b></p>
<form>
<input type=text id="c" name= "c" onkeyup="convert('C')">Degree Celsius<br/>equals<br/>
<input type=text id="f" name= "f" onkeyup="convert('F')">Degree Fahrenhiet
</form>
<p>Note that <b>Math.round()</>method is used,so that the result will be returned as an integer.</p>
</body>
</html>
```

B4: To Change Background Color

```
<!DOCTYPE html>
<html>
<head>
<title></title>
<script type="text/javascript">
function changeBg()
{
var userName=document.forms[0].UserName.value;
var bgColor=document.BgForm.BgColor.value;
document.bgColor=bgColor;
alert(userName+",the background color is,"+bgColor+",");
}
</script>
</head>
<body>
<h1>Change Background Color</h1>
<form name="BgForm">
Your Name:<input type="text" name="UserName" size="10"><br/><br/>
Background Color:<input type="text" name="BgColor" size="10"><br/><br/>
```

```
<input type="button" value="Change Background" onclick="changeBg();">
</form>
</body>
</html>
```

B5: To Display Current Month

```
<!DOCTYPE html>
<html>
<body><script type="text/javascript">
</script>
<p>Click the button to display the name of this month.</p>
<button onclick="myFunction()">Try it</button>
<p id="demo"></p>
<script>
function myFunction() {
    var month = new Array();
    month[0] = "January";
    month[1] = "February";
    month[2] = "March";
    month[3] = "April";
    month[4] = "May";
    month[5] = "June";
    month[6] = "July";
    month[7] = "August";
    month[8] = "September";
    month[9] = "October";
    month[10] = "November";
    month[11] = "December";
    var d = new Date();
    var n = month[d.getMonth()];
    document.getElementById("demo").innerHTML = n;
}
</script>
</body>
</html>
```

B6:To change Font Color and back to Default Color

```
<!DOCTYPE html>
<html>
<head>
<title></title>
<script type="text/javascript">
function changeColor()
 {
 document.getElementById("color1").style.color="#FF0000";
 document.getElementById("color2").style.color="#FFFF00";
 document.getElementById("color3").style.color="#339933";
```

```
document.getElementById("color4").style.color="#0000FF";
document.getElementById("color5").style.color="#FF6600";
}
function defaultColor()
{
document.getElementById("color1").style.color="";
document.getElementById("color2").style.color="";
document.getElementById("color3").style.color="";
document.getElementById("color4").style.color="";
document.getElementById("color5").style.color="";
}
</script>
</head>
<body>
<span id="color1">Red Color</span><br>
<span id="color2">Yellow Color</span><br>
<span id="color3">Green Color</span><br>
<span id="color4">Blue Color</span><br>
<span id="color5">Orange Color</span><br><br>
<a href="javascript:changeColor();">Change Font Color JavaScript</a>
<br><br>
<a href="javascript:defaultColor();">Change Default Font Color JavaScript</a>
</body>
</html>
```

B7:Fibonacci Series

```
<html>
<head>
<title> Fibonacci Series in JavaScript </title>
</head>
<body>
<script>
// declaration of the variables
var n1 = 0,  n2 = 1, next_num, i;
var num = parseInt (prompt (" Enter the limit for Fibonacci Series "));
document.write( "Fibonacci Series: ");
for ( i = 1; i <= num; i++)
{ document.write (" <br> " +  n1); // print the n1
   next_num = n1 + n2; // sum of n1 and n2 into the next_num
   n1 = n2; // assign the n2 value into n2
   n2 = next_num; // assign the next_num into n2
}
</script>
</body>
```

</html>

B8:Move Image to Right Side

```html
<!DOCTYPE html>
<html>
  <head>
    <title></title>
    <script type="text/javascript">
        var imgObj = null;
        function init(){
          imgObj = document.getElementById('myImage');
          imgObj.style.position= 'relative';
          imgObj.style.left = '0px';
        }
        function moveRight(){
          imgObj.style.left = parseInt(imgObj.style.left)+10+'px';
        }
        window.onload =init;
    </script>
  </head>
  <body>
    <form>
      <img id="myImage" src="image1.jpg" />
      <p>Click button below to move the image to right</p>
      <input type="button" value="Click Me" onclick="moveRight();"/>
    </form>
  </body></html>
```

B9:Email Validation

```html
<html>
<body>
<script>
function validateemail()
{
var x=document.myform.email.value;
var password=document.myform.password.value
var atposition=x.indexOf("@");
var dotposition=x.lastIndexOf(".");
if (atposition<1 || dotposition<atposition+2 || dotposition+2>=x.length)
{
  alert("Please enter a valid e-mail address");
  return false;
}
if(password.length<6)
{
  alert("Password must be at least 6 characters long.");
  return false;
  }
```

```
}
</script>
<body>
<form name="myform"  method="post"
action="http://www.javatpoint.com/javascriptpages/valid.jsp" onsubmit="return
validateemail();">
<table>
<tr><td>Enter Email-id:</td><td><input type="text" name="email"/>
<span id="nameloc"></span></td></tr>
<tr><td>Enter Password:</td><td><input type="password" name="password"/>
<span id="passwordloc"></span></td></tr>
<tr><td colspan="2"><input type="submit" value="Login"/></td></tr>
</table>
</form>
</body>
</html>
```

B10:Stack Elements

```
<!DOCTYPE html>
<html>
<head>
<title></title>
<script type="text/javascript">
var initialTop="layer1";
function toTopLayer(imagelayer)
{
var initTop=document.getElementById(initalTop).style;
var newTop=document.getElementById(imagelayer).style;
initTop.zIndex="0";
newTop.zIndex="2";
initialTop=imagelayer;
}
</script>
<style type="text/css">
.image1{position:absolute;top:10px;left:10px;z-index:0;}
.image2{position:absolute;top:40px;left:50px;z-index:0;}
.image3{position:absolute;top:80px;left:90px;z-index:0;}
</style>
</head>
<body>
<img class="image1" src="image1.jpg" width="300" id="layer1"
onmouseover="toTop('layer1')"/>
<img class="image2" src="image2.jpg" width="300" id="layer2"
onmouseover="toTop('layer2')"/>
<img class="image3" src="image3.jpg" width="300" id="layer3"
onmouseover="toTop('layer3')"/>
</body>
</html>
```