COMPUTER MULTIMEDIA & ANIMATION

LAB MANUAL : PART-A

4^{TH} SEM – BCA

Part -A:

1) Write a HTML/5 program to demonstrate the use of Font family, font variant, font style, and font size.

2) Write a HTML/5 program to display random contents using list properties:
   a) Ordered list b) Unordered list

3) Write a HTML/5 program to create gradient using CSS.

4) Write a HTML/5 code to demonstrate following CSS animation properties:
   a) Delay b) Direction c) Duration

5) Write a HTML/5 program to demonstrate key frames

6) Write a HTML/5 code to demonstrate CSS transition and transformation.

7) Write a HTML/5 program to turn on/off a light bulb using JavaScript. Make use of .gif image and buttons.

1) Write a HTML/5 program to demonstrate the use of Font family, font variant, font style, and font size.

```
<!DOCTYPE html>
<html>
<head>
<style>
// Font Family
p.p1 {
  font-family: "Times New Roman", Times, serif;
}
p.p2 {
  font-family: Arial, Helvetica, sans-serif;
}
p.p3 {
  font-family: "Lucida Console", "Courier New", monospace;
}
// Font Style
p.normal {
  font-style: normal;
}
p.italic {
  font-style: italic;
}
// Font Variant
p.normal {
  font-variant: normal;
}
p.small {
  font-variant: small-caps;
}
```

```
// Font Size
p.p1 {
  font-size: 15px;
}
p.p2 {
  font-size: large;
}
p.p3 {
  font-size: 150%;
}
</style>
</head>
<body>
<h1>The font-family</h1>
<p class="p1">This is a paragraph, shown in the Times New Roman font.</p>
<p class="p2">This is a paragraph, shown in the Arial font.</p>
<p class="p3">This is a paragraph, shown in the Lucida Console font.</p>
<h1>The font-style</h1>
<p class="normal">This is a paragraph in normal style.</p>
<p class="italic">This is a paragraph in italic style.</p>
<h1>The font-variant</h1>
<p class="normal">Governament First Grade College, Kolar.</p>
<p class="small">Governament First Grade College, Kolar.</p>
<h1>The font-size</h1>
<p class="p1">Governament First Grade College, Kolar.</p>
<p class="p2">Governament First Grade College, Kolar.</p>
<p class="p3">Governament First Grade College, Kolar.</p>
</body>
</html>
```

2) Write a HTML/5 program to display random contents using list properties:
a) Ordered list b) Unordered list

a) Ordered list

```
<!DOCTYPE html>
<html>
<head>
  <title>Ordered List</title>
</head>
<body>
   <h1>List of CS Subjects</h1>
   <ol type = "A">
      <li>HTML</li>
      <li>Java</li>
      <li>Data Structure</li>
      <li>C Programming</li>
      <li>Python</li>
   </ol>
</body>
</html>
```

b) Unordered list

```
<!DOCTYPE html>
<html>
<head>
   <title>Unordered List</title>
</head>
<body>
   <h1>List of CS Subjects</h1>
   <ul type="circle">
      <li>HTML</li>
```

```
      <li>Java</li>
      <li>Data Structure</li>
      <li>C Programming</li>
      <li>Python</li>
    </ul>
</body>
</html>
```

3) Write a HTML/5 program to create gradient using CSS.

```
<!DOCTYPE html>
<html>
<head>
<style>
#grad1 {
  height: 200px;
  background-color: red;
  background-image: linear-gradient(to right, red, orange, yellow, green, blue, indigo, violet);
}
</style>
</head>
<body>
<div id="grad1" style="text-align:center;margin:auto;color:#888888;font-size:40px;font-weight:bold">
Rainbow Background
</div>
</body>
</html>
```

4) Write a HTML/5 code to demonstrate following CSS animation properties:
a) Delay b) Direction c) Duration

a) Delay

```
<!DOCTYPE html>
<html>
<head>
<style>
      div {
        width: 100px;
        height: 100px;
        background-color: red;
        position: relative;
        animation-name: example;
        animation-duration: 4s;
        animation-delay: 2s;
      }

      @keyframes example {
        0%   {background-color:red; left:0px; top:0px;}
        25%  {background-color:yellow; left:200px; top:0px;}
        50%  {background-color:blue; left:200px; top:200px;}
        75%  {background-color:green; left:0px; top:200px;}
        100% {background-color:red; left:0px; top:0px;}
      }
</style>
</head>
<body>

<h1>CSS Animation</h1>
<p>The animation-delay property specifies a delay for the start of an animation. The following example has a 2 seconds delay before starting the animation:</p>
<div>  </div>
</body>
</html>
```

b) Direction

```
<!DOCTYPE html>
<html>
<head>
<style>
      div {
        width: 100px;
        height: 100px;
        background-color: red;
        position: relative;
        animation-name: example;
        animation-duration: 4s;
        animation-direction: reverse;
      }
      @keyframes example {
        0%   {background-color:red; left:0px; top:0px;}
        25%  {background-color:yellow; left:200px; top:0px;}
        50%  {background-color:blue; left:200px; top:200px;}
        75%  {background-color:green; left:0px; top:200px;}
        100% {background-color:red; left:0px; top:0px;}
      }
</style>
</head>
<body>
<h1>CSS Animation</h1>
<p>The animation-direction property specifies whether an animation should be played forwards, backwards or in alternate cycles. The following example will run the animation in reverse direction (backwards):</p>
<div></div>
</body>
</html>
```

c) Duration

```
<!DOCTYPE html>
<html>
<head>
<style>
      div {
        width: 100px;
        height: 100px;
        background-color: red;
        animation-name: example;
        animation-duration: 4s;
      }
      @keyframes example {
        0%   {background-color: red;}
        25%  {background-color: yellow;}
        50%  {background-color: blue;}
        100% {background-color: green;}
      }
</style>
</head>
<body>
<h1>CSS Animation</h1>
<div> </div>
<p><b>Note:</b> When an animation is finished, it goes back to its original style.</p>
</body>
</html>
```

5) Write a HTML/5 program to demonstrate key frames

```
<!DOCTYPE html>
<html>
<head>
<style>
      div {
        width: 100px;
        height: 100px;
        background: red;
        position: relative;
        animation: mymove 5s infinite;
      }
      @keyframes mymove {
        0%   {top: 0px; background: red; width: 100px;}
        100% {top: 200px; background: yellow; width: 300px;}
      }
</style>
</head>
<body>
<h1>Demonstration of keyframes</h1>
<div></div>
</body>
</html>
```

6) Write a HTML/5 code to demonstrate CSS transition and transformation.

```
<!DOCTYPE html>
<html>
<center>
<head>
<style>
      div {
        width: 100px;
        height: 100px;
        background: green;
        transition: width 2s, height 2s, transform 2s;
      }

      div:hover {
        width: 300px;
        height: 300px;
        transform: rotate(180deg);
      }
</style>
</head>
<body>
<h1>Transition and Transform</h1>
<p>click the below animation to see the Transition and Transformation effect:</p>
<div></div>
</body>
</center>
</html>
```

7) Write a HTML/5 program to turn on/off a light bulb using JavaScript. Make use of .gif image and buttons.

```
<!DOCTYPE html>
<html>
<body>
 <center>
     <p>Click the below Button to turn on/off the light.</p>
<script>
     function light(value)
     {
       var pic;
       if (value == 0)
       {
        pic= "bulboff.gif";
       }
       else
       {
        pic= "bulbon.gif";
      }
       document.getElementById('bulb').src=pic;
     }
</script>
 <img id="bulb" src="bulboff.gif" width="150px" height="200px"> <br/> <br/>
<button onclick="light(1)">Turn ON</button>
<button onclick="light(0)">Turn OFF</button>
 </center>
</body>
</html>
```