

HTML5 & CSS3 Assessment - 05

Section I [Multiple

Choice Questions] :

1 Marks Each

1. What HTML5 tag is described as: A section of a page that consists of a composition that forms an independent part of a document, page or site.
A. <article>

2. Which tag would you use in the <HEAD> to set the document character encoding to UTF-8?*
B. <meta charset="utf-8" />

3. What is the proper syntax for adding placeholder text to a text input?*
B. <input placeholder="Placeholder text" />

4. The Attribute of video element which mutes the video on loading it, is*
D. Muted

5. Which of the following is false about autoplay attribute of <video> element?
E. It value can be "autoplay" or ""

6. Which of the following languages will you use to paint the graphics designed using the HTML 5.0 <canvas> tag?*
D. JavaScript

7. Which tag is used to display graphics?
D. <canvas>

8. Which of the following method is used to draw an image on a canvas?*
A. drawImage(image,x,y)

9. What is required to run the Geolocation API on your device?*
A. A browser which supports HTML5

10. HTML5 offers two new objects which use JavaScript APIs for storing local data. These new objects are...*
C. localStorage and sessionStorage.

11. What is the correct HTML for referring to an external style sheet?*

C. <link rel="stylesheet" type="text/css" href="mystyle.css">

12. Which HTML attribute is used to define inline styles?*

D. style

A. body {color: black}

14. How do you add a background color for all <h1> elements?*

C. h1 {background-color:#FFFFFF}

15. In CSS, how would you select this image by its id? *

D. #mainpic {}

16. Which of the following selector selects all paragraph elements whose lang attribute contains the word "fr"?*

C. p[lang~="fr"]

17. How do you display hyperlinks without an underline?*

C. a {text-decoration:none}

18. "How do you display a border like this:

The top border = 10 pixels

The bottom border = 5 pixels

The left border = 20 pixels

The right border = 1pixel ?

B. border-width:10px 1px 5px 20px

19. How to create transition effects using CSS3?*

A. transition: width 2s;

20. What are the first three values of text-shadow in order ?*

D. horizontal, vertical, blur

Section II [Complete to Get Output] :**1 Marks****Each****1. Create an HTML document which uses article element?**

```
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8">
<title>HTML Article</title>
</head>
<body>
  <article>    <h1>Welcome to HTML Articles</h1>    <p>The HTML article
element represents an independent section of content in a document, page, application
or website. </p>  </article>
</body>
</html>
```

2. Create an HTML document which uses aside element?

```
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8">
<title> HTML Aside </title>
</head>
<body>
<aside>
  <h2>Did You Know?</h2>
  <p>Today is June 6th 2025 3:12:46 PM</p>
</aside>
</body>
</html>
```

3. How to define navigation links?

```
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8">
<title> HTML Links</title>
</head>
<body>
```

```
<a href="index.html">Home</a>
</body>
</html>
```

4. How to specify a text which is an extended quotation?

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <title>HTML Quotations</title>
</head>
<body>
  <blockquote cite = "http://www.google.com"> Content taken from google </blockquote>
</body>
</html>
```

5. How to define a header for a document or section?

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <title>Header for Section</title>
</head>
<body>
  <header>  <h1>Welcome to My Website</h1>  <nav>    <ul>      <li><a href="#">Home</a></li>      <li><a href="#">About</a></li>      <li><a href="#">Operation</a></li>    </ul>  </nav>  </header>  <section>    <header>
  <h2>About Us</h2>    </header>    <p>This section contains information about our company.</p>  </section>
</body>
</html>
```

**Section III [Descriptive Questions]:
Marks Each**

2.5

1. Create an HTML Page to specify a list of pre-defined options for input controls? Create an HTML Page to specify a regular expression that an input element's value is checked against?

```
<!DOCTYPE html>
<html>
<head>
<title>Predefined Options & Pattern</title>
</head>
<body>

<h3>Choose a Fruit</h3>
<input list="fruits" name="fruit" placeholder="Select or type a fruit">
<datalist id="fruits">
<option value="Apple">
<option value="Banana">
</datalist>

<h3>Username (letters only)</h3>
<form>
<input type="text" name="username" pattern="[A-Za-z]+" required placeholder="Enter letters only">
<input type="submit" value="Submit">
</form>

</body>
</html>
```

2. Write a CSS Code to Add an external style sheet with the URL: "mystyle.css". Change the color of the element with id="para1", to "red".

```
<!DOCTYPE html>
<html>
<head>
<title>External CSS Example</title>
<link rel="stylesheet" href="mystyle.css">
</head>
<body>

<p id="para1">This paragraph text will be red.</p>
```

```
<p>This paragraph text will have default color</p>
```

```
</body>
</html>
```

mystyle.css file :

```
#para1 {
  color: red;
}
```

3. Use the padding property to set the top and bottom paddings for <p> to "25px", and left and right paddings to "50px". Style text in <h1> to uppercase letters, and text in <p> to capitalized letters and Indent the first line of the <p> element with 20px.

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <title>Padding and Text Styling Example</title>
  <style>
    p {
      padding: 25px 50px;      /* top & bottom = 25px, left & right = 50px */
      text-transform: capitalize; /* capitalize first letter of each word */
      text-indent: 20px;        /* indent first line by 20px */
    }

    h1 {
      text-transform: uppercase; /* convert text to uppercase */
    }
  </style>
</head>
<body>

  <h1>this is a heading</h1>
  <p>this is a paragraph demonstrating padding, capitalization, and indentation.</p>

</body>
</html>
```

4. Set the color for links to "green" and Set the color for unvisited links to "red", and the color for visited links "blue".

```

<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8">
<title>Link Colors</title>
<style>
a:link {
    color: red;
}
a:visited {
    color: blue;
}
a {
    color: green;
}
</style>
</head>
<body>

<p>Unvisited link: <a href="https://example.com">Example</a></p>
<p>Visited link: <a href="https://example.com/visited">Visited Example</a></p>

</body>
</html>

```

5. Set the list style for unordered lists to "square", and the list style for ordered lists to "upper-roman". Set the border to "2px solid green" for table, th and td elements.

```

<!DOCTYPE html>
<html>
<head>
<title>Grocery List with Styles</title>
<style>
ul {
    list-style-type: square;
}
ol {
    list-style-type: upper-roman;
}
table, th, td {
    border: 2px solid green;
}

```

```
border-collapse: collapse;
padding: 8px;
}
</style>
</head>
<body>

<h2>Grocery Items </h2>
<ul>
<li>Milk</li>
<li>Bread</li>
<li>Eggs</li>
<li>Fruits</li>
</ul>

<h2>Shopping Steps</h2>
<ol>
<li>Make a list</li>
<li>Go to the store</li>
<li>Buy</li>
<li>Return home</li>
</ol>

<h2>Grocery Table</h2>
<table>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
<tr>
<td>Milk</td>
<td>2 liters</td>
</tr>
<tr>
<td>Bread</td>
<td>Meat</td>
</tr>
</table>

</body>
</html>
```

6. Give the <div> element rounded corners (use the shorthand property and the value "25px"). Set a "2px" horizontal, and "2px" vertical, text shadow for the <h1> element. And Change the color of the text shadow to "green", and set a "5px" blur radius.

```
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8">
<title>Rounded Div and Text Shadow</title>
<style>
div {
    border-radius: 25px;
    padding: 20px;
    border: 1px solid #000;
    width: 300px;
    margin: 20px auto;
    text-align: center;
}
h1 {
    text-shadow: 2px 2px 5px green;
}
</style>
</head>
<body>

<div>
<h1>Stylish Heading</h1>
<p>This div has rounded corners and the heading has a green text shadow.</p>
</div>

</body>
</html>
```

7. With the transform property, move the <div> element 100px to the right, and 200px down and with the transform property, rotate the <div> element 45 degrees.

```
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8">
<title>Transform Example</title>
<style>
```

```

    div {
        width: 100px;
        height: 100px;
        background-color: lightblue;
        transform: translate(100px, 200px) rotate(45deg);
    }

```

</style>

</head>

<body>

<div></div>

</body>

</html>

8. Create an HTML Page to embed audio in a HTML document? Add autoplay an audio, Show controls to an audio and to play an audio repeatedly.

```

<!DOCTYPE html>
<html>
<head>
    <meta charset="utf-8">
    <title>Embed Audio Example</title>
</head>
<body>

    <audio src="audiofile.mp3" autoplay controls loop>
        Your browser does not support the audio element.
    </audio>

</body>
</html>

```

9. Create an HTML Page to specify that video controls should be displayed (such as a play/pause button etc). Set the height of the video player, do specify that the video will start over again, every time it is finished?

```

<!DOCTYPE html>
<html>
<head>
    <meta charset="utf-8">
    <title>Video Controls Example</title>
</head>
<body>

```

```
<video src="videofile.mp4" controls height="300" loop>
  Your browser does not support the video tag.
</video>

</body>
</html>
```

10. Use circles and squares to create a snowman like the one pictured below: [Usage of Canvas API]

- a. A layer of snow on the ground.
- b. Three balls for the body and head.
- c. Eyes, mouth and nose.
- d. A hat.
- e. Arms.
- f. Buttons.
- g. A sun.



```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8" />
  <title>Snowman with Fixed Arms</title>
  <style>
    body {
      margin: 0;
      background-color: white;
      display: flex;
      justify-content: center;
      align-items: center;
      height: 100vh;
    }
    canvas {
      border: 1px solid black;
      background-color: #9999ff; /* lavender background */
    }
  </style>
</head>
<body>
  <canvas id="snowmanCanvas"></canvas>
</body>
</html>
```

```
        }
    </style>
</head>
<body>
<canvas id="canvas" width="600" height="600"></canvas>
<script>
    var canvas = document.getElementById('canvas');
    var ctx = canvas.getContext('2d');

    // a. Layer of snow on the ground
    ctx.fillStyle = 'white';
    ctx.fillRect(0, 500, 600, 100);

    // g. Sun - yellow circle with orange stroke in top right
    ctx.beginPath();
    ctx.arc(550, 100, 60, 0, Math.PI * 2, false);
    ctx.fillStyle = 'yellow';
    ctx.fill();
    ctx.lineWidth = 5;
    ctx.strokeStyle = 'orange';
    ctx.stroke();

    // Helper function to draw circle with fill and stroke
    function drawCircle(x, y, radius, fillColor, strokeColor, strokeWidth)
    {
        ctx.beginPath();
        ctx.arc(x, y, radius, 0, Math.PI * 2, false);
        ctx.fillStyle = fillColor;
        ctx.fill();
        if (strokeColor) {
            ctx.lineWidth = strokeWidth || 1;
            ctx.strokeStyle = strokeColor;
            ctx.stroke();
        }
    }

    // Helper function to draw square with fill and stroke
    function drawSquare(x, y, size, fillColor, strokeColor, strokeWidth) {
        ctx.beginPath();
        ctx.rect(x, y, size, size);
        ctx.fillStyle = fillColor;
        ctx.fill();
        if (strokeColor) {
            ctx.lineWidth = strokeWidth || 1;
            ctx.strokeStyle = strokeColor;
            ctx.stroke();
        }
    }

```

```
}

// b. Three balls for body and head
drawCircle(300, 450, 100, 'white', 'black', 1); // bottom ball
drawCircle(300, 320, 70, 'white', 'black', 1); // middle ball
drawCircle(300, 210, 50, 'white', 'black', 1); // head ball

// f. Buttons - black squares on middle ball
drawSquare(295, 280, 12, 'black');
drawSquare(295, 310, 12, 'black');
drawSquare(295, 340, 12, 'black');

// c. Eyes - black circles on head
drawCircle(280, 200, 7, 'black');
drawCircle(320, 200, 7, 'black');

// c. Mouth - red arc
ctx.beginPath();
ctx.arc(300, 230, 18, 0, Math.PI, false);
ctx.strokeStyle = 'red';
ctx.lineWidth = 3;
ctx.stroke();

// c. Nose - orange triangle
ctx.beginPath();
ctx.moveTo(300, 210);
ctx.lineTo(335, 220);
ctx.lineTo(300, 230);
ctx.closePath();
ctx.fillStyle = 'orange';
ctx.fill();
ctx.strokeStyle = 'black';
ctx.lineWidth = 1;
ctx.stroke();

// d. Hat - brim and top rectangle
ctx.fillStyle = 'black';
ctx.fillRect(240, 160, 120, 15); // brim
ctx.strokeRect(240, 160, 120, 15);
ctx.fillRect(270, 90, 60, 70); // top
ctx.strokeRect(270, 90, 60, 70);

// e. Arms - brown sticks with branches

ctx.strokeStyle = '#8B4513'; // saddlebrown
ctx.lineWidth = 6;
```

```
// Left arm main branch
ctx.beginPath();
ctx.moveTo(230, 320);
ctx.lineTo(140, 390);
ctx.stroke();

// Left arm smaller branches
ctx.lineWidth = 3;
ctx.beginPath();
ctx.moveTo(140, 390);
ctx.lineTo(120, 380);
ctx.stroke();
ctx.beginPath();
ctx.moveTo(140, 390);
ctx.lineTo(130, 410);
ctx.stroke();
ctx.beginPath();
ctx.moveTo(140, 390);
ctx.lineTo(150, 400);
ctx.stroke();

// Right arm main branch
ctx.lineWidth = 6;
ctx.beginPath();
ctx.moveTo(370, 320);
ctx.lineTo(460, 270);
ctx.stroke();

// Right arm smaller branches
ctx.lineWidth = 3;
ctx.beginPath();
ctx.moveTo(460, 270);
ctx.lineTo(480, 260);
ctx.stroke();
ctx.beginPath();
ctx.moveTo(460, 270);
ctx.lineTo(470, 280);
ctx.stroke();
ctx.beginPath();
ctx.moveTo(460, 270);
ctx.lineTo(450, 290);
ctx.stroke();

</script>
</body>
</html>
```

