1.

Ans-

```html
<!DOCTYPE html>
<html>
<head>
 <title>PW Skills Blog</title>
 <style>
  body {
    font-family: Arial, sans-serif;
    margin: 20px;
  }
  h1, h2 {
    color: #333;
  }
  img {
    max-width: 100%;
    height: auto;
  }
 </style>
</head>
<body>
 <h1>PW Skills Blog</h1>

 <h2>What are PW Skills?</h2>
 <p>PW Skills, short for Power Washing Skills, refer to the abilities and techniques required for effectively using a power washer or pressure washer. Power washing is a cleaning method that uses high-pressure water spray to remove dirt, grime, mold, mildew, and other unwanted substances from various surfaces.</p>

 <img src="power-washer.jpg" alt="Power Washer">

 <h2>Importance of PW Skills</h2>
 <p>Having proper PW skills is essential for achieving desirable cleaning results while ensuring the safety of the user and the surfaces being cleaned. Without the right skills, power washing can lead to damage, injury, or ineffective cleaning.</p>

 <p>Some key aspects of PW skills include:</p>

 <ul>
   <li>Understanding the different nozzle types and their uses</li>
   <li>Knowing the appropriate pressure settings for different surfaces</li>
   <li>Using proper spraying techniques to avoid streaking or uneven cleaning</li>
   <li>Being familiar with the safety guidelines and precautions</li>
 </ul>

 <p>By acquiring and honing these skills, individuals can efficiently and safely use power washers to clean a wide range of surfaces, including driveways, decks, sidings, vehicles, and more.</p>
```

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

2. Create a simple webpage with the PW Skills logo and add a title attribute with the value "PW Skills". Observe the changes that the title attribute applies to the image.

Ans-
```
<!DOCTYPE html>
<html>
<head>
  <title>PW Skills Logo Example</title>
</head>
<body>
  <h1>Welcome to PW Skills</h1>
  <img src="pwskills-logo.png" alt="PW Skills Logo" title="PW Skills">
</body>
</html>
```

In this example, the logo image is referenced using the `src` attribute, and the `alt` attribute provides alternative text for the image. The `title` attribute is added to the `img` tag and its value is set to "PW Skills".

When you save this code as an HTML file and open it in a web browser, the browser will display the image with the PW Skills logo. If you hover over the image, you should see a tooltip or a small text box displaying "PW Skills" due to the title attribute.

3.Create a <audio> tag that has controls to pause, play, and adjust the volume

Ans-
```
<!DOCTYPE html>

<html>

<head>

  <title>Audio Controls Example</title>

</head>

<body>

  <audio controls>

    <source src="audio_file.mp3" type="audio/mpeg">

    Your browser does not support the audio element.

  </audio>

</body>

</html>
```

In this example, replace `"your-audio-file.mp3"` with the URL or file path to your audio file. The `<source>` tag is used to specify the audio file's source and type.

The `controls` attribute adds the default controls to the `<audio>` element, including play/pause buttons and a volume slider.

If the browser does not support the `<audio>` element, the text "Your browser does not support the audio element" will be displayed.

4.Create a <audio> tag that automatically starts playing a song when the page loads. The audio tag should have controls to pause ,playing and adjust the volume additionally ,the song should be set loop countiniously until it is paused by user

Ans-<audio controls autoplay loop>

  <source src="your-audio-file.mp3" type="audio/mpeg">

  Your browser does not support the audio element.

</audio>

Again, replace `"your-audio-file.mp3"` with the URL or file path to your audio file. The `<source>` tag specifies the audio file's source and type.

The `controls` attribute adds the default controls to the `<audio>` element, including play/pause buttons and a volume slider.

The `autoplay` attribute tells the browser to automatically start playing the audio when the page loads.

The `loop` attribute ensures that the audio plays continuously in a loop until the user pauses it.

If the browser does not support the `<audio>` element, the text "Your browser does not support the audio element" will be displayed.

5. Create a <video> tag that automatically starts playing a sunrise video when the page loads. The video tag should have controls to pause, playing and adjust the volume

Ans-

```
<html>
<head>
  <title>Sunrise Video</title>
</head>
<body>
  <video id="sunriseVideo" controls autoplay>
```

```
    <source src=""C:¥Users¥SOUVIK DAS¥Downloads¥stock-footage-beautiful-sunrise-with-
flying-birds-orange-and-gold-blue-sky-gold-sea-sound-of-waves-the-sea-on.webm" "
type="video/mp4">
    Your browser does not support the video tag.
  </video>
```

6. " Create a similar webpage as we built for assignment question 5. Add a poster attribute to the <video> tag that display an image of the sunrise"

Ans-

```
<!DOCTYPE html>
<html>
<head>
    <title>Sunrise Video</title>
</head>
<body>
    <video controls poster="C:\Users\SOUVIK DAS\Pictures\sunrise image.avif">
        <source src="C:\Users\SOUVIK DAS\Downloads\stock-footage-beautiful-
sunrise-with-flying-birds-orange-and-gold-blue-sky-gold-sea-sound-of-waves-
the-sea-on.webm" type="video/mp4">
        Your browser does not support the video tag.
    </video>
</body>
</html>
```

- The `<video>` element is used to embed a video in the webpage.
- The `controls` attribute adds video controls (play, pause, volume, etc.) to the video player.
- The `poster` attribute specifies the URL of the image that will be displayed as a placeholder before the video plays. In this example, the image file is named "sunrise.jpg" and should be located in the same directory as the HTML file.
- Inside the `<video>` element, you can add one or more `<source>` elements to specify different video formats (e.g., MP4, WebM) for better browser compatibility. In this example, we have added a single `<source>` element with a video file named "sunrise_video.mp4".
- The text "Your browser does not support the video tag." will be displayed if the browser does not support the `<video>` element.

7. creat a similar webpage as we built for assignment question 6 and disable the download option.

Ans-

<!DOCTYPE html>

<html>

<head>

```
    <title>video player</title>
</head>
<body>
    <video controls controlsList="nodownload">
        <source src=" C:\Users\SOUVIK DAS\Downloads\stock-footage-beautiful-
sunrise-with-flying-birds-orange-and-gold-blue-sky-gold-sea-sound-of-waves-
the-sea-on.webm" type="video/mp4">
        Your browser does not support the vedio element.
    </audio>
</body>
</html>
```

- The `<video>` element is used to embed an video file in the webpage.
- The `controls` attribute adds video controls (play, pause, volume, etc.) to the video player.
- The `controlsList="nodownload"` attribute disables the download option for the video file.
- Inside the `<video>` element, you can add one or more `<source>` elements to specify different video formats for better browser compatibility.
- The text "Your browser does not support the audio element." will be displayed if the browser does not support the <video> element.

8. Create a simple webpage that displays Wikipedia's physics wallah page using an iframe

Ans-

```
<!DOCTYPE html>
<html>
<head>
  <title>Physics Wallah Page</title>
  <style>
    iframe {
      width: 100%;
      height: 100vh;
      border: none;
```

```
        }
    </style>
</head>
<body>
    <iframe src="https://en.wikipedia.org/wiki/Physics_Wallah"></iframe>
</body>
</html>
```

9. **Create a feedback form with a field for the users name, email address, and message.**

Ans-

```
<!DOCTYPE html>
<html>
<head>
    <title>Feedback Form</title>
</head>
<body>
    <h1>Feedback Form</h1>
    <form action="/submit-feedback" method="POST">
        <label for="name">Name:</label>
        <input type="text" id="name" name="name" required>
        <br><br>
        <label for="email">Email Address:</label>
        <input type="email" id="email" name="email" required>
        <br><br>
        <label for="message">Message:</label>
        <textarea id="message" name="message" rows="5" required></textarea>
        <br><br>
        <input type="submit" value="Submit">
    </form>
</body>
</html>
```

Create a registration form with fields for the users name, email address, password, and a checkbox to agree to the terms and condition. Use the text input type for name and email fields the password input type for password field and checkbox input type for terms and conditions fields.

Ans—

```html
<!DOCTYPE html>
<html>
<head>
  <title>Registration Form</title>
</head>
<body>
  <h2>Registration Form</h2>
  <form action="/register" method="POST">
    <label for="name">Name:</label>
    <input type="text" id="name" name="name" required><br><br>

    <label for="email">Email Address:</label>
    <input type="email" id="email" name="email" required><br><br>

    <label for="password">Password:</label>
    <input type="password" id="password" name="password" required><br><br>

    <label for="terms">Agree to Terms and Conditions:</label>
    <input type="checkbox" id="terms" name="terms" required><br><br>

    <input type="submit" value="Register">
  </form>
</body>
</html>
```

SECOND ASSIGNMENT:

1. **list out the features of HTML5.**

1. ANS— Semantics: HTML5 provides new semantic elements that describe the structure of web content more accurately. These elements include `<header>`, `<footer>`, `<nav>`, `<section>`, `<article>`, `<aside>`, `<figure>`, `<figcaption>`, etc.
2. Multimedia support: HTML5 includes native support for embedding multimedia elements without the need for plugins. The `<audio>` and `<video>` elements allow seamless integration of audio and video content into web pages.
3. Canvas: The `<canvas>` element enables dynamic rendering and manipulation of graphics and animations using JavaScript. It provides a powerful API for drawing shapes, images, and animations directly on the web page.
4. Scalable Vector Graphics (SVG): HTML5 incorporates support for SVG, a markup language for describing two-dimensional vector graphics. SVG allows the creation of scalable, resolution-independent graphics that can be easily manipulated and animated.
5. Geolocation: HTML5 includes a Geolocation API that allows websites to request a user's location information with their permission. This feature enables the development of location-based services and applications.
6. Offline web applications: HTML5 provides the ability to create web applications that can function offline or in low-connectivity environments. The Application Cache API allows developers to cache web resources, enabling offline access and improved performance.
7. Web Storage: HTML5 introduces two mechanisms for client-side storage: localStorage and sessionStorage. These APIs enable developers to store larger amounts of data locally on the user's device, improving performance and providing persistence.
8. Web Workers: HTML5 supports Web Workers, which are background scripts that run concurrently with the main JavaScript execution thread. Web Workers allow for multi-threaded JavaScript processing, enhancing performance and responsiveness in web applications.
9. Form enhancements: HTML5 introduces several new form input types and attributes, such as `<input type="email">`, `<input type="date">`, `<input type="number">`, `<input type="range">`, etc. These enhancements improve the user experience and provide better input validation.
10. Improved Accessibility: HTML5 includes new accessibility features to improve the usability of web content for people with disabilities. It introduces new elements, attributes, and ARIA (Accessible Rich Internet Applications) roles to enhance accessibility support.

2. **What are HTML Entities? List of 5 commonly used HTML entities?**
   ANS—

HTML entities are special character codes that are used to represent reserved characters, characters with special meaning in HTML, or characters that are not easily typed or displayed directly. These entities are written using the ampersand (`&`) followed by a specific code or name, and then closed with a semicolon (`;`).

Here are five commonly used HTML entities:

1. `<` - Represents the less-than symbol `<`. This entity is used to display the less-than symbol without it being interpreted as an HTML tag opening.
2. `>` - Represents the greater-than symbol `>`. This entity is used to display the greater-than symbol without it being interpreted as an HTML tag closing.
3. `&` - Represents the ampersand symbol `&`. This entity is used to display the ampersand symbol without it being interpreted as the start of an HTML entity itself.
4. `"` - Represents the double quotation mark `"` (also known as a quote). This entity is used to display double quotation marks within attribute values or text content without interfering with HTML parsing.
5. `©` - Represents the copyright symbol `©`. This entity is used to display the copyright symbol.

These HTML entities ensure that special characters are correctly rendered and interpreted by browsers, even if they have reserved meanings in HTML syntax.

3.What is web accessibility? List some assistive devices which play a major role in providing assessibility?

Ans-

Web accessibility refers to the inclusive design and development of websites and web applications that can be accessed and used by people with disabilities. It aims to ensure equal access and usability for all individuals, regardless of their physical or cognitive abilities. Web accessibility involves making websites perceivable, operable, understandable, and robust for everyone.

Assistive devices play a crucial role in providing accessibility by assisting individuals with disabilities in navigating and interacting with digital content. Here are some commonly used assistive devices:

1. Screen Readers: Screen readers are software applications that read out the content of a web page aloud to individuals with visual impairments. They interpret the HTML structure and convert the text into synthesized speech or braille output. Examples of popular screen readers include JAWS, NVDA, and VoiceOver.
2. Screen Magnifiers: Screen magnifiers are tools that enlarge the content displayed on the screen, making it easier for individuals with low vision or visual impairments to read and interact with web pages. They provide options for zooming in, panning, and adjusting contrast. Examples include ZoomText and macOS built-in screen magnification.
3. Braille Displays: Braille displays are tactile devices that convert digital text into braille characters. They allow people who are blind or have visual impairments to read and navigate web content using their sense of touch. Braille displays are often used in conjunction with screen readers for a more comprehensive experience.
4. Alternative Keyboards and Input Devices: These devices cater to individuals with physical disabilities or motor impairments that affect their ability to use a standard keyboard or mouse. Examples include ergonomic keyboards, one-handed keyboards, sip-and-puff switches, and eye-tracking systems. These devices enable alternative input methods for interacting with websites and applications.
5. Captioning and Transcription Tools: Captioning and transcription tools are essential for individuals with hearing impairments. They provide text-based representations of audio content, such as videos and podcasts, allowing individuals to read along and understand the information presented. Captions can be manually created or generated using automatic speech recognition (ASR) technology.
6. Assistive Listening Devices: Assistive listening devices, such as hearing aids and personal amplifiers, enhance the auditory experience for individuals with hearing impairments. They help individuals hear sounds more clearly by amplifying and clarifying sound signals, making it easier to consume audio content on websites.

5.Write a short note on the tab index.

ANS-

Tab index is an HTML attribute used to define the order in which elements are focused when using the "Tab" key on a webpage. It allows web developers to control

the flow of focus between interactive elements, such as input fields, buttons, and links, providing a better user experience and ensuring accessibility.

The tab index attribute can be applied to various HTML elements, including form controls, clickable elements, and even non-interactive elements with tabindex="-1" to exclude them from the tab order. The value assigned to the tab index determines the order in which elements are focused.

Here are some important points to note about tab index:

1. Default Behavior: By default, HTML elements can be focused using the "Tab" key in the order they appear in the document's source code. This is known as the natural tab order.
2. Positive Tab Index: Elements with a positive tab index (tabindex="1", tabindex="2", etc.) are included in the tab order and are focused in ascending numerical order. For example, an input field with tabindex="1" will receive focus before an element with tabindex="2".
3. Zero Tab Index: Elements with a tab index of zero (tabindex="0") are included in the natural tab order. They are focused after elements with positive tab indexes but before elements with no tab index specified.
4. Negative Tab Index: Elements with a negative tab index (tabindex="-1") are programmatically focusable but are not included in the natural tab order. This can be useful for elements that should receive focus only through JavaScript or other means.
5. CSS Order: The tab index attribute interacts with the CSS z-index property. If multiple elements have the same tab index, the CSS z-index property determines the order in which they are stacked and thus focused.

6. list any 5 semantic tags in HTML along with their description?
   ANS-

1. `<header>`: The `<header>` tag represents the introductory content or the container for a group of introductory or navigational elements. It typically includes a site logo, website title, navigation menus, and other header-related content.
2. `<nav>`: The `<nav>` tag is used to define a section of navigation links, allowing users to navigate within a website or to different parts of a webpage. It often contains menus, lists, or other navigation-related elements.
3. `<main>`: The `<main>` tag represents the main content area of a webpage. It should include the primary content that is unique to that page and exclude any repetitive content such as headers, footers, or navigation menus.
4. `<article>`: The `<article>` tag is used to mark up a self-contained composition that can be independently distributed or syndicated. It represents a complete or standalone piece of content, such as a blog post, news article, or forum post.

5. `<footer>`: The `<footer>` tag defines the footer section of a webpage, typically containing information about the author, copyright notices, contact information, related links, or other supplementary content relevant to the entire document.

10. Create a simple webpage with a form for a user to enter their personal information. The form should contain three input fields with the labels "first Name", "last Name", and "Email". The first input field should have a tab index value of 2. The second input field should have a tab index value of 1. The third input field should have a tab index value of 4. The form should have a submit button with the label "sumit" and a tab ndex value of 3. observe the behaviors of tab index of your webpage

ANS-
```
<!DOCTYPE html>
<html>
<head>
  <title>Personal Information Form</title>
</head>
<body>
  <h1>Personal Information Form</h1>

  <form>
    <label for="firstName">First Name:</label>
    <input type="text" id="firstName" tabindex="2" required><br>

    <label for="lastName">Last Name:</label>
    <input type="text" id="lastName" tabindex="1" required><br>

    <label for="email">Email:</label>
    <input type="email" id="email" tabindex="4" required><br>

    <input type="submit" value="Submit" tabindex="3">
  </form>
</body>
</html>
```

10 . Create a simple webpage which has a table. The table must have 2 columns html and html5. The table should include minimum three rows describing the differences between HTML and HTML5..

ANS-

```
<!DOCTYPE html>
<html>
<head>
  <title>HTML vs HTML5</title>
</head>
<body>
  <h1>Differences between HTML and HTML5</h1>

  <table border="2px">
    <tr>
      <th>HTML</th>
      <th>HTML5</th>
    </tr>
    <tr>
      <td>HTML stands for HyperText Markup Language.</td>
      <td>HTML5 stands for HyperText Markup Language version 5.</td>
    </tr>
    <tr>
```

```
      <td>HTML is based on SGML (Standard Generalized Markup Language).</td>
      <td>HTML5 is not based on SGML, it's based on a new parsing
algorithm.</td>
    </tr>
    <tr>
      <td>HTML does not support native multimedia elements.</td>
      <td>HTML5 includes native support for audio and video elements.</td>
    </tr>
  </table>
</body>
</html>
```