# Modern HTML
## Assignment

**QUESTION 1: list of the features of HTML5?**
**ANSWER:** the main features of HTML5 are as follows -

- Improved Multimedia support - HTML5 allows for the integration of multimedia elements such as audio and video directly into web pages without the need for plugins like Flash.
- Canvas element - HTML5 introduced the <canvas> element, which allows for dynamic, interactive graphics to be created and manipulated within a web page.
- Geolocation API - HTML5 provides an API for obtaining the user's location, enabling web applications to offer location-based services.
- Local Storage - HTML5 introduced the localStorage API, which allows for the storage of data on the user's device, improving performance and reducing the need for round-trips to the server.
- New Structural Elements - HTML5 introduced new semantic elements such as <header>, <footer>, <nav>, and <article> that make it easier to structure and organize content on a web page.
- Form Improvements - HTML5 introduced several improvements to forms, including new input types like date,time, and color, as well as new attributes such as required and autofocus.
- Accessibility improvements - HTML5 provides better support for accessibility, including the ability to provide alternative text for images and improved support for screen readers.

**QUESTION 2:E What are HTML Entities? list out 5 commonl( Fsed 9TM6 entitiesE?**
**ANSWER:** HTML entities are special characters that cannot be easily typed on a keyboard or are reserved for use in HTML code.
Here are five commonly used HTML entities:

1. & - Exclamation mark - !
2. & - Ampersand - &
3. < - Less than sign - <
4. > - Greater than sign - >
5. $ - Dollar sign - $

**QUESTION 3:What is web accessibility? list some of the assistive devices which play a major role in providing accessibility?**
**ANSWER:** Web accessibility refers to the practice of designing and developing web applications that can be accessed and used by people with disabilities or different needs, without barriers or limitations.

There are some assistive devices which play a major role in providing accessibility.

1. Screen Reader : A screen reader is a software that reads out loud the content of a web page to individuals who are visually impaired. It can also interpret and communicate information about graphics, multimedia, and other elements on the page.

2. Voice recognition software: Voice recognition software enables users to navigate web pages and input text using voice commands. This technology is particularly useful for individuals with mobility impairments or those who have difficulty using a keyboard or mouse.

3. Keyboard alternatives: Keyboard alternatives such as sip-and-puff devices, head-tracking devices, and eye-tracking devices allow individuals with physical disabilities to navigate and interact with web pages without the use of a traditional keyboard or mouse.

**QUESTION 4:list any 3 ways which help us in improving the accessibility of HTML ?**
**ANSWER:**Here are some of the ways which helps us in improving accessibility of HTML.

1. Text content
Having well-structured content that includes headings, paragraphs, and lists is one of the most helpful accessibility features for users who rely on screen readers.

2. Page layouts
Although it is possible to design a layout using nested  elements, it is preferable to utilise proper sectioning elements to encapsulate your main navigation (<nav>), footer (<footer>), repeated content units (<article>), and other relevant content.

These elements offer additional semantics to screen readers and other assistive tools, providing users with more context and information about the content they are browsing.

3. UI controls
When referring to UI controls, these are the essential elements of web documents that users engage with, such as buttons, links, and form controls.

**QUESTION 5:Write a short note on the tab index?**
**ANSWER:** Basically, the tabindex attribute is primarily intended to allow tabbable elements to have a custom tab order (specified in positive numerical order), instead of just being tabbed through in their default source order.

There are two additional options available for tabindex:

1. tabindex="0" - this option allows elements that are not usually able to be focused via the keyboard to become focusable. This value of tabindex is particularly beneficial.

2. tabindex="-1" - this option enables elements that are not typically focusable to receive focus programmatically, such as through JavaScript, or as the target of links.

**QUESTION 6:list any 5 semantic tags in HTML along with their descriptions?**
**ANSWER:** Here are some of the commonly used semantic tags in HTML along with their descriptions.

1. <header> - Represents the introductory content of a page or section and typically includes a logo, navigation menu, and other elements that are repeated across multiple pages.

2. <nav> - Defines a section of the page that contains navigation links, such as menus and lists of links to other pages or parts of the same page.

3. <main> - Identifies the main content of a web page. It should only be used once per page and should not contain any content that is repeated across multiple pages.

4. <article> - Defines a self-contained section of content on a web page, such as a blog post, news article, or product review.

5. <footer> - Represents the footer or bottom section of a web page, typically containing copyright information, contact details, and links to relevant pages or resources.

These tags provide more specific and meaningful information about the content of a web page, making it easier for search engines and other tools to understand and process the information.

**QUESTION 7:What are the benefits of Using semantic tags for web page.?**
**ANSWER:**: The benefits of using semantic tags in our webpage. are:

1. By using Semantic tags in our code, we can provide additional information about the document by defining the layout and sections of the webpage.

2. Semantic elements are of great help to people using screen readers. The additional information provided by semantic tags helps screen readers understand the content better and help them to determine the different sections within a page more efficiently.

3. HTML Semantic tags help the browser determine the purpose of the page and its content. Semantic tags also help in Search Engine Optimization as they help browsers interpret the content more easily by making content more adaptive.

**QUESTION 8: Create a simple webpage with semantic HTML which has the header, main, and footer sections. The header section must contain links to navigate to different sections of the webpage. The main section must contain three subsections about what is HTML. What is semantic HTML and a list of commonly Used semantic tags In the end, the footer section must contain your name?**

**ANSWER:**

PROGRAM:

```
<!DOCTYPE html>
<html >
<head>

</head>
<body>
   <h1>HTML SEMANTICS</h1>
   <UL>
      <li><a href="#what_is_html">what is HTML?</a></li>
      <li><a href="#what_is_sementic_html">what is semantic html</a></li>
      <li><a href="#common_sementic_HTML_tag">common semantic HTML tag</a></li>
   </UL>
   <main>
      <section>
         <h2 id="what_is_html">what is HTML?</h2>
         <p>HTML stands for HyperText Markup Language. It is the standard markup language used to create web pages. HTML describes the structure of a web page using markup tags, which are used to define different elements on the page such as headings, paragraphs, links, and images.</p>
      </section>
      <section>
         <h2 id="what_is_sementic_html">what is semantic html</h2>
         <p>Semantic HTML is a way of writing HTML that emphasizes the meaning of the content rather than its appearance. Semantic HTML uses tags that describe the purpose of the content, such as &lt;header&gt;, &lt;nav&gt;, and &lt;section&gt;, rather than tags that describe how the content looks, such as <font> or <center>.</p>
      </section>
      <section>
         <h2 id="common_sementic_HTML_tag">common semantic HTML tags?</h2>
         <p>Here are some common semantic HTML tags:</p>
```

```
        <ul>
          <li>&lt;header&gt;: Defines a header for a document or section.</li>
          <li>&lt;nav&gt;: Defines a set of navigation links.</li>
          <li>&lt;main>&gt;: Defines the main content of a document</li>
          <li>&lt;section&gt;: Defines a section of a document</li>
          <li>&lt;article&gt;: Defines an article or self-contained piece of content.</li>
          <li>&lt;aside&gt;: Defines content that is not directly related to the main content of a
document</li>
          <li>&lt;footer&gt;>: Defines a footer for a document or section</li>
        </ul>
         </section>

   </main>
<footer>abhishek</footer>


</body>
</html>
```

**QUESTION 9: 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 tabindex value of 2. The second input field should have a tabindex value of 1. The third input field should have a tabindex value of 4. The form should have a submit button with the label "sumit" and a tabindex value of 3. observe the behaviors of tabindex on your webpage?**

**ANSWER:**

PROGRAM:

```
<!DOCTYPE html>
<html >
<head>

</head>
<body>
   <H1>TAB INDEX</H1>
   <form action="/abc.de"></form>
   <label for="input1">FIRST NAME:</label>
   <input type="text" name="first name" id="input1" tabindex="2">
   <br>
   <br>
```

```
    <label for="input2">LAST NAME:</label>
    <input type="text" name=" last name" id="input2" tabindex="1">
    <br>
    <br>
    <label for="input3">EMAIL ID:</label>
    <input type="email" name="email" id="input3" tabindex="4">
    <br>
    <br>
    <label for="input4"></label>
    <input type="submit" value="submit" id="input4" tabindex="3">

</body>
</html>
```

**CONCLUSION:** i observe that no change in the behaviors of tabindex on my webpage

**QUESTION 10:Create a registration form with fields for the users name, email address, password, and a checkbox to agree to the terms and conditions Use the text input type for the name and email fields, the password input type for the password field, and the checkbox input type for the terms and conditions field?**

**ANSWER:**

PROGRAM:

```
<!DOCTYPE html>
<html >
<head>

</head>
<body>
    <H1>TAB INDEX</H1>
    <form action="/abc.de"></form>
    <label for="input1">USERNAME:</label>
    <input type="text" name="" id="input1" tabindex="2">
    <br>
    <br>
    <label for="input2">EMAIL ID:</label>
    <input type="email" name="" id="input2" tabindex="1">
    <br>
    <br>
    <label for="input3">PASSWORD:</label>
    <input type="password" name="password" id="input3" tabindex="4">
    <br>
```

```
    <br>

    <input type="checkbox" value="submit" id="input4" tabindex="3">
    <label for="input4">*terms and conditions apply</label>
    <br>
     <br>
    <input type="submit" value="submit" id="input4" tabindex="3">

</body>
</html>
```

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