

## Assignment

### Ques 1: List out the features of HTML5.

**Answer:**

#### 1. Intro of Audio and Video tag:

Audio and Video tags are the two major additions to HTML5. It allows developers to embed a video or audio on their website.

#### 2. Into of Header and Footer tag:

Footer is placed at the end of the web page while Header is placed at the start of the web page. By using <header> and <footer> HTML5 elements, the browser will know what to load first and what to load later.

#### 3. Placeholder attribute:

The placeholder attribute specifies a short hint that describes the expected value of an input field/text area. The short hint is displayed in the field before the user enters a value.

#### 4. Web API :

The most important thing is that web api is released in html5. A Web API is an application programming interface for the Web. A Browser API can extend the functionality of a web browser. A Server API can extend the functionality of a web server.

### Ques 2: What are HTML Entities? List out 5 commonly Used HTML entities.

**Answer:**

An HTML Entity is a piece of text ("string") that begins with an ampersand (&) and ends with a semicolon (;).

Entities are frequently used to display reserved characters(like non-breaking spaces).

Some commonly used html entities are:

1. **Non breaking space (&nbsp;):** Interpreted as the non breaking space.
2. **Less than (&lt;):** Interpreted as the beginning of the tag.
3. **Greater than (&gt;):** Interpreted as the ending of the tag.
4. **Copyright (&copy;):** Interpreted as the copyright sign.
5. **Ampersand (&amp;):** Interpreted as the beginning of the entity.

### Ques 3: What is web accessibility? List some of the assistive devices which play a major role in providing accessibility.

**Answer:**

Web accessibility means that websites, tools, and technologies are designed and developed so that people with disabilities can use them. Web accessibility ensures that all visitors, regardless of ability, have a seamless experience on your website.

Some assistive devices which play a major role in providing accessibility are:

1. **Wheelchairs:** Electric or manual wheelchairs provide mobility assistance for individuals with limited or no ability to walk or move independently.
2. **Hearing Aids:** These devices amplify sound for people with hearing loss, allowing them to communicate and participate more effectively in various situations.
3. **Canes and Walking Aids:** Canes, crutches, walkers, and rollators provide support and stability to individuals with mobility impairments, helping them walk safely.

### Ques 4: List any 3 ways which help us in improving the accessibility of HTML.

**Answer:**

1. **Use Semantic HTML:** Use Semantic HTML: Semantic HTML involves using HTML elements that convey the meaning and structure of the content accurately. By choosing the appropriate HTML elements (such as headings, lists, paragraphs, and semantic tags like <article>, <nav>, <header>, etc.), you provide clearer context and organisation to the content, making it more accessible for users who rely on screen readers or other assistive technologies.

2. **Provide Alternative Text for Images:** Images are a vital part of web content, but they may not be accessible to individuals who are visually impaired or cannot see the images for other reasons. To address this, use the alt attribute in the <img> tag to provide alternative text that describes the image's content and purpose. This text is read aloud by screen readers, enabling visually impaired users to understand the visual information conveyed by the image.
3. **Using clear language:** The language you use can also affect accessibility. In general, you should use clear language that is not overly complex and doesn't use unnecessary jargon or slang terms. This not only benefits people with cognitive or other disabilities; it benefits readers for whom the text is not written in their first language.

**Ques 5: Write a short note on the tab index.**

**Answer:**

The tabindex Global attributes allows developers to make HTML elements focusable, allow or prevent them from being sequentially focusable (usually with the Tab key, hence the name) and determine their relative ordering for sequential focus navigation.

1. A negative value (the exact negative value doesn't actually matter, usually tabindex="-1") means that the element is not reachable via sequential keyboard navigation.
2. tabindex="0" means that the element should be focusable in sequential keyboard navigation, after any positive tabindex values. The focus navigation order of these elements is defined by their order in the document source.
3. A positive value means the element should be focusable in sequential keyboard navigation, with its order defined by the value of the number. That is, tabindex="4" is focused before tabindex="5" and tabindex="0", but after tabindex="3". If multiple elements share the same positive tabindex value, their order relative to each other follows their position in the document source. The maximum value for tabindex is 32767.

**Ques 6: List any 5 semantic tags in HTML along with their descriptions.**

**Answer:**

1. **<header>:** The <header> tag defines the header of a web page. It typically contains the page title, logo, and navigation links.
2. **<nav>:** The <nav> tag defines the navigation section of a web page. It typically contains links to other pages on the site.
3. **<article>:** The <article> tag defines an independent piece of content, such as a blog post, news article, or product description.
4. **<aside>:** The <aside> tag defines a sidebar or other ancillary content. It is typically used to provide additional information or promote related content.
5. **<figure>:** The <figure> tag defines a self-contained piece of content, such as an image, diagram, or table. It can be used to group related content together and provide a caption.

**Ques 7: What are the benefits of using semantic tags in our webpage.**

**Answer:** There are many benefits to using semantic tags in your webpage. Here are some of the most important ones:

1. Improved SEO: Semantic tags help search engines understand the meaning of your content, which can help improve your website's ranking in search results.
2. Enhanced accessibility: Semantic tags can make your website more accessible to people with disabilities, such as screen readers.
3. Better user experience: Semantic tags can help users understand the structure of your website and find the information they are looking for more easily.
4. Increased readability: Semantic tags can make your code more readable and easier to maintain.

5. Enhanced compatibility: Semantic tags are supported by all major browsers, so you can be sure that your website will look good on any device.
