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

* **Semantic Elements:** HTML tags that accurately reflect the content they contain
* **Audio and Video Support:** It has reduced the hassle of relying upon third-party services such as Adobe Flash player. To embed Audio and Video into your HTML document, you may use the following two tags, **<audio>** and **<video>** tags.
* **Local Storage:** This feature of HTML allows a number of browsers that frequently store data in the user's browsers to access them through JavaScript APIs. This functionality comes in handy when developing offline applications that require local data storage.
* **Canvas Elements:** With the help of Canvas elements, you can easily draw graphics using JavaScript. It is optimum for creating simple animations and drawing photo compositions.
* **Form Enhancements:** New input types including email, URL, and others, placeholder text, a feature that makes fields required, validation, and other changes are some of the major improvements in the new HTML 5.

1. **What are HTML entities? List out commonly used HTML entities.**

HTML entities are some reserved characters that are used in an HTML Document. Each of these codes starts with an ampersand and ends with a semicolon.

| Entity | Character Code | Description |
| --- | --- | --- |
| &nbsp; | &#160; | Non-breaking space |
| &amp; | &#38; | Ampersand |
| &lt; | &#60; | Less than |
| &gt; | &#62; | Greater than |
| &quot; | &#34; | Double quote |

1. **What is web accessibility? List some of the assistive devices which play a major role in providing accessibility.**

Web accessibility is the process of creating websites and web content that is equally accessible and usable for those who have disabilities. Regardless of a person's talents or limitations, web accessibility aims to make online information and services accessible to everyone.   
  
Assistive devices and technologies that play a crucial role in providing web accessibility include:

* **Screen Readers:** Screen readers are software applications that read out the content displayed on a computer screen.
* **Text-to-Speech (TTS) Software:** TTS software reads out text content, which can be helpful for individuals with reading difficulties or learning disabilities.
* **Keyboard Accessibility:** Ensuring that websites can be fully navigated and used with a keyboard alone is crucial for users who cannot use a mouse.

1. **List any 3 ways which help us in improving the accessibility of HTML.**

Following are the three ways to enhance the accessibility of HTML:

* **Semantic HTML Elements:** Use semantic HTML elements to provide meaningful structure to your web content. Semantic elements like <header>, <nav>, <main>, <article>, <section>, <aside>, and <footer> help screen readers and other assistive technologies understand the organisation of the content.
* **Alternative Text for Images:** Providing descriptive alternative text (alt text) for images using the alt attribute serves as a replacement for images when they cannot be displayed or for users who are visually impaired and use screen readers.
* **Form Accessibility:** Use appropriate labels for form fields and associate them correctly using the for attribute and id attribute. This helps screen readers identify form fields and provides context to users, making it easier to understand and complete the form.

1. **Write a short note on tabindex.**

When users use their keyboards to browse a website, the tabindex HTML attribute is used to regulate the order in which elements acquire focus. When users hit the "Tab" key on their keyboard, the attention shifts according to the tabindex values from one focusable element to the next. Links, form fields, buttons, and other elements that can get focus are just a few examples of the different HTML elements to which it can be applied.

**Ex:**  
<input type="text" tabindex="3" />

<a href="#" tabindex="1">Link 1</a>

<a href="#" tabindex="2">Link 2</a>

<button tabindex="4">Submit</button>

When users click the "Tab" key in this example, the emphasis will first go to "Link 1," then "Link 2," then the text field, and lastly the "Submit" button, all in accordance with the supplied tabindex values.

1. **List any 5 semantic tags in HTML along with their descriptions.**

* <header>: It contains the introductory content of a section or the whole web page. It usually contains a logo, navigation menu, and other introductory elements.
* <nav>: It is a section that contains links for navigating the website or particular pages within it. Typically, it includes a menu or connections to other pages on the website.
* <main>: It encapsulates the page's primary content, excluding headers, footers, and sidebars. It should provide the main information that is specific to each page and isn't spread out over several.
* <article>: It is a self-contained piece of material, like a blog post, news article, or forum message, that may be individually shared or reused.
* <footer>: It is a section within a page that is in the footer, such as the footer of a web page. It frequently includes details on copyrights, links to privacy policies, terms of usage, and other pertinent data.

1. **What are the benefits of using semantic tags in our web page?**

* Semantic Tags improve the overall structure and readability of the HTML document.
* Semantic Tags also helps in improving the accessibility of the website by allowing assistive technologies to interpret the content for differently abled people
* To understand the content of your web page, search engines rely on the structure and semantics of your HTML. The use of semantic tags can help your website's SEO and positioning in search results by clearly indicating the page's structure and the significance of its sections.
* Responsive web design is made easier by semantic tags. Layouts that adapt well to various screen sizes and devices are simpler to build when meaningful structural elements are used. This is especially helpful in the era of multi-device and mobile browsing.