**Q1) List out the features of HTML 5**

Ans) Here are the key **features of HTML5**:

**1. New Semantic Elements**

HTML5 introduces elements that define the structure and meaning of web content:

* <header>, <footer>, <nav>, <article>, <section>, <aside>, <main>

**2. Multimedia Support**

Built-in support for audio and video without third-party plugins:

* <audio> and <video> tags

**3. Graphics and Effects**

* <canvas> for 2D drawing
* SVG (Scalable Vector Graphics) support
* WebGL (for 3D graphics)

**4. New Form Elements and Attributes**

* Input types: email, url, date, range, color, etc.
* New attributes: required, placeholder, autofocus, autocomplete, pattern

**5. Improved Accessibility**

* ARIA (Accessible Rich Internet Applications) roles and landmark elements make content more accessible

**6. Offline Capabilities**

* **Application Cache** (deprecated, replaced by Service Workers)
* **Local Storage** and **Session Storage** (Web Storage API)
* **IndexedDB** for large structured data storage

**7. Geolocation API**

Allows web apps to access the geographical location of a user (with permission)

**8. Enhanced Scripting with JavaScript APIs**

* Drag and Drop API
* Web Workers (for background scripts)
* WebSockets (for real-time communication)
* Server-Sent Events (SSE)

**9. Mobile-Friendly Features**

* Designed for responsive and mobile-first design
* Better integration with touch interfaces and sensors

**10. Doctype Simplification**

<!DOCTYPE html>

A cleaner and simpler way to define the document type

**Q2)What are HTML Entities ? List out 5 commonly used HTML enties?**

**Ans)**

HTML Entities are special codes used in HTML to display reserved characters (like <, >, &, etc.) or characters that do not appear easily on the keyboard (like ©, ®, etc.). These entities begin with an ampersand (&) and end with a semicolon (;). They help ensure that web browsers display the correct characters instead of interpreting them as HTML code.

**Five Commonly Used HTML Entities:**

|  |  |  |
| --- | --- | --- |
| Entity Code | Character | Description |
| &lt; | < | Less than Symbol |
| &gt; | > | Greater than symbol |
| &amp; | & | Ampersand Symbol |
| &quot; | “ | Double Quote |
| &copy | © | Double quote |

**Q3)** **> Define accessibility in the context of web development. Discuss why it's essential to create accessible websites and how it benefits different user group"**

**Ans)**

**Accessibility in Web Development**

**Accessibility** in the context of web development refers to the practice of designing and building websites, applications, and digital tools in a way that **people of all abilities and disabilities** can perceive, understand, navigate, interact with, and contribute to the web. This includes users with visual, auditory, physical, speech, cognitive, and neurological disabilities.

**Why Accessibility is Essential**

1. **Inclusive Access for Everyone:**
   * Ensures that all users, regardless of disability, can access and use web content.
   * Supports the fundamental idea of equal access to information and opportunities.
2. **Legal Compliance:**
   * Many countries have regulations (e.g., ADA in the U.S., WCAG globally, RPwD Act in India) that require digital accessibility.
   * Non-compliance can lead to lawsuits and penalties.
3. **Improved Usability:**
   * Accessibility features often improve overall usability for all users.
   * For example, captions help non-native speakers or users in noisy environments.
4. **SEO and Performance:**
   * Accessible websites are usually better structured with proper semantic HTML, which benefits search engine optimization.
   * Fast-loading, keyboard-navigable, and mobile-friendly websites also tend to be more accessible.
5. **Larger Audience Reach:**
   * Over 1 billion people globally live with some form of disability.
   * Ignoring accessibility means excluding a significant user base.

**Benefits for Different User Groups**

1. **Visually Impaired Users:**

Screen reader support, alternative text for images, high contrast modes, keyboard navigation

1. **Hearing Impaired Users:**

Captions, transcripts, and visual indicators for audio content

1. **Motor Impaired Users:**

Keyboard shortcuts, voice input support, and focus indicators

1. **Mobile Users / Situational Limitations:**

Accessible design improves experience in bright sunlight, one-handed use, or poor network

1. **Temporary Disabilities:**

Useful for people with temporary issues (e.g., broken arm, ear infection)

**Q4)** **List any 3 ways which help us in improving the accessibility of HTM1?**

**Ans)**

Here’s the completed answer for **Q4** along with the rest of your answers formatted consistently:

**Ans)**

1. **Use Semantic HTML Tags:**
   * Elements like <header>, <nav>, <main>, <section>, and <footer> help screen readers and assistive technologies understand the structure of the page.
2. **Add Alternative Text for Images:**
   * Use the alt attribute to describe the content or function of images so visually impaired users can understand them through screen readers.
3. **Ensure Keyboard Navigation:**
   * All interactive elements (like forms, buttons, and links) should be accessible using the keyboard alone, without requiring a mouse.

**Q5) Create a web page that highlights the features of HTML5. Use appropriate semantic tags to structure the content and showcase at least three key features of HTML5 with explanations>**

Ans)[Code for Question 5](https://github.com/Siddhant-Kumar-04/FullStack-Web-Developement/blob/16e64e5c1fd04fee5923628aa20c7947c4a2c6df/Module%205/HTML/Question_5.html)

**Q6)** **Create a simple web page which has a table. The table must have 2 columns HTML and HTML5. The table should include a minimum of three rows describing the differences between HTML and HTML5.**

Ans)[Code For Question 6](https://github.com/Siddhant-Kumar-04/FullStack-Web-Developement/blob/16e64e5c1fd04fee5923628aa20c7947c4a2c6df/Module%205/HTML/Question_6.html)