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
2) **Hearing Impaired Users:**
   Captions, transcripts, and visual indicators for audio content
3) **Motor Impaired Users:**
   Keyboard shortcuts, voice input support, and focus indicators
4) **Mobile Users / Situational Limitations:**
   Accessible design improves experience in bright sunlight, one-handed use, or poor network
5) **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

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