HTML-5

THEORY ASSIGNMENT

Q-1 DIFFRENCE BETWEEEN HTML AND HTML 5?

ANS: 1. Doctype Declaration

- **HTML**: Uses a long and complex doctype declaration

  HTML5: Uses a simple doctype declaration

2. New Elements & Semantics

- **HTML**: Uses and for layout.
- **HTML5**: Introduces semantic elements like:
  - <header>
  - <footer>
  - <section>
  - <article>
  - <nav>
  - <aside>

3. Multimedia Support

- **HTML**: Requires third-party plugins (like Flash) for audio and video.

- **HTML5**: Introduces built-in support with <audio> and <video> elements.

4. New Form Elements & Attributes

- **HTML**: Basic form controls without advanced validation.
- **HTML5**: New input types and attributes such as:
    - <input type="email">, <input type="date">, <input type="number">
    - required, placeholder, autofocus, pattern attributes

5. Canvas & SVG Support

- **HTML**: No built-in support for graphics.
- **HTML5**: Introduces <canvas> for 2D drawing and supports **SVG** (Scalable Vector Graphics).

6. Improved APIs & Features

- **HTML**: Limited API support.
- **HTML5**: Introduces new APIs like:
    - Geolocation API
    - Web Storage API (localStorage, sessionStorage)
    - WebSockets
    - Drag and Drop API

7. Mobile Compatibility & Responsive Design

- **HTML**: Not designed for mobile devices.
- **HTML5**: Optimized for mobile, supports responsive design with **media queries**.

8. Better Performance & Faster Loading

- **HTML5** removes the need for additional plugins and supports better performance through **lighter code and optimized elements**.

Q-2 WHAT ARE THE ADDITIONAL TAG ARE USED IN HTML 5?

1. Semantic Elements (Better Structure & Readability)

- <header> – Defines a page or section header.
- <footer> – Represents footer content.
- <nav> – Contains navigation links.
- <section> – Groups related content.
- <article> – Represents independent content (e.g., blog posts, news articles).
- <aside> – Defines side content (e.g., sidebars).
- <main> – Indicates the main content of a webpage.
- <figure> – Groups media elements like images with captions.
- <figcaption> – Provides a caption for <figure>.
- <mark> – Highlights text.
- <time> – Represents a specific time or date.
- <summary> – Used with <details> to create collapsible content.
- <details> – Creates a toggleable section (like an FAQ dropdown).

- <dialog> – Represents a modal or dialog box.

2. Multimedia Elements (Audio & Video Without Plugins)

- <audio> – Embeds audio files.
- <video> – Embeds video content.
- <source> – Defines multiple media sources for <audio> and <video>.
- <track> – Adds subtitles or captions for <video>.

3. Graphics & Animation Elements

- <canvas> – Used for drawing graphics using JavaScript.
- <svg> – Supports vector graphics (Scalable Vector Graphics).

4. Form Elements (Better User Input Handling)

- <datalist> – Provides autocomplete suggestions for an <input>.
- <output> – Displays the result of a calculation.
- <progress> – Shows progress of a task (e.g., file download).
- <meter> – Represents a measurement within a given range.

Key Benefits of These Tags

✅ **Improves SEO & Accessibility**
✅ **Reduces Dependency on JavaScript & Plugins**
✅ **Enhances User Experience with Multimedia & Forms**