

Module 5 – Frontend – HTML5

Theory Assignment

Question 1 :_Difference b/w HTML & HTML5?

Answer : The key differences between **HTML** and **HTML5** are:

Feature	HTML	HTML5
Doctype Declaration	<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">	<!DOCTYPE html> (Simplified)
Multimedia Support	Requires plugins like Flash for video & audio	Supports <audio> and <video> elements natively
Graphics & Animations	Uses external plugins like Flash	Supports <canvas> and <svg> for drawing & animations
Form Enhancements	Limited form controls	New input types (email, date, range, etc.) & attributes (placeholder, autofocus)
Semantic Elements	Uses <div> for structuring	Introduces <header>, <footer>, <article>, <section>, etc. for better readability
Offline & Storage	No built-in offline support	Supports Web Storage (localStorage, sessionStorage) & IndexedDB
Mobile Optimization	Not mobile-friendly	Designed to be more mobile-friendly with responsive elements

Feature	HTML	HTML5
Geolocation API	Not available	Built-in Geolocation API for location tracking
Drag & Drop Support	Requires JavaScript or external libraries	Native drag-and-drop support using dragstart, dragover, etc.
Performance & Speed	Heavier, less efficient	Lighter, faster, and optimized for modern web applications

Summary:

HTML5 is an **improved version** of HTML with **better multimedia support, new semantic tags, offline storage, mobile-friendliness, and enhanced performance.**

Question 2 : What are the additional tags used in HTML5?

Answer : HTML5 introduced several new **semantic, multimedia, form, and interactive elements** to enhance the functionality and structure of web pages. Here's a breakdown of the additional tags used in HTML5:

1. Semantic Elements (Improve readability & SEO)

- `<header>` – Defines a section header.
- `<footer>` – Defines a section footer.
- `<article>` – Represents independent, self-contained content.
- `<section>` – Defines sections within a document.
- `<nav>` – Represents navigation links.
- `<aside>` – Represents side content (like a sidebar).
- `<main>` – Defines the main content of the document.
- `<figure>` – Groups images and captions together.

- `<figcaption>` – Defines a caption for a `<figure>`.
- `<mark>` – Highlights important text.
- `<time>` – Represents a specific time or date.

2. Multimedia Elements (Built-in audio & video support)

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

3. Graphics & Interactive Elements

- `<canvas>` – Used for drawing graphics via JavaScript.
- `<svg>` – Defines vector-based graphics.
- `<meter>` – Displays a scalar measurement (e.g., disk usage).
- `<progress>` – Displays progress of a task (e.g., file download).
- `<details>` – Creates a collapsible section.
- `<summary>` – Defines a summary for the `<details>` element.
- `<dialog>` – Represents a modal dialog box.

4. Form Enhancements (New input types & controls)

- `<datalist>` – Provides a list of predefined options for input fields.
- `<output>` – Represents the result of a calculation.
- New `<input>` types: email, date, tel, url, range, search, color, etc.
- New attributes: autofocus, required, placeholder, pattern, etc.

5. Structural & Functional Elements

- `<bdi>` – Isolates text for bi-directional formatting (useful for multilingual content).
- `<wbr>` – Defines a word break opportunity to control text wrapping.

Conclusion:

HTML5 introduced **powerful new tags** that improve **SEO, accessibility, interactivity, media handling, and user experience**. These elements help create **faster, more efficient, and mobile-friendly** websites without relying on external plugins.