**Assignment 1 – PPT Web Dev**

Q1. <!DOCTYPE html> is it a tag of html? If not, what is it and why do we use it?

<!DOCTYPE html> is not a tag; it is a document type declaration (DTD) that is used to specify the version and type of HTML being used in an HTML document. It informs the web browser or HTML parser about the version and ruleset to be used for rendering the page.

is used to indicate that the HTML document is written in HTML5, the latest version of the HTML specification. The doctype declaration is important for HTML document validation. It helps ensure that the document is written according to the specified HTML version, allowing validators and parsers to identify errors and provide accurate feedback.

Q2. Explain Semantic tags in html? And why do we need it?

Semantic tags in HTML are specific elements that provide meaning and structure to the content of a web page. They convey the intended purpose or role of the content to both the browser and developers. Semantic tags are designed to describe the type of content they contain, rather than just specifying how the content should be styled.

Here are a few commonly used semantic tags in HTML5:

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

Semantic tags provide several benefits:

1. Improved Accessibility

2. SEO and Search Engine Rankings

3. Code Readability and Maintainability

4. Future-proofing

In summary, semantic tags in HTML provide meaningful structure and convey the purpose of content within a web page. They improve accessibility, SEO, code readability, and future-proofing. Using semantic tags correctly enhances both the user experience and the development process.

Q3. Differentiate between HTML Tags and Elements?

HTML Tags:

HTML tags are the building blocks of HTML markup. They are used to define the structure and appearance of content within an HTML document.

HTML Elements:

HTML elements consist of HTML tags along with the content they enclose. An element is a complete unit that includes both the opening and closing tags along with any content or nested elements within them.

Q6. What are some of the advantages of HTML5 over its previous versions?

HTML5 introduced several advancements and new features compared to its previous versions. Some of the key advantages of HTML5 over its predecessors (such as HTML4 and XHTML) include:

1. Improved Semantics: HTML5 introduced a set of new semantic elements (e.g., <header> , <nav> , <section> , <article> ) that provide better structure and meaning to web content. These elements help search engines, screen readers, and other technologies understand the document structure, improving accessibility and SEO.

2. Multimedia Support: Introduced native support for audio and video elements ( <audio> and <video> ). This eliminates the need for third-party plugins (e.g., Flash) to play media content, making it easier to embed and control multimedia directly within web pages.

3. Canvas Element: It provides a powerful drawing and rendering API, enabling the creation of interactive graphics, animations, and games without the need for plugins or external libraries.

4. Improved Form Handling: HTML5 introduced several new form input types (e.g., <input type="date"> , <input type="email"> ) and attributes (e.g., required , pattern ) that simplify form validation and improve user experience. Additionally, HTML5 introduced the <datalist> element to create auto-complete dropdowns.

5. Offline and Storage Capabilities: HTML5 introduced the Application Cache ( manifest attribute) and the Web Storage API (localStorage and sessionStorage) for offline and client-side storage, enabling web applications to function even when the user is offline and providing a mechanism to store data locally.

Q9. In HTML, there is a distinction between HTML tags and attributes. Here's an explanation of each term:

HTML Tags:

HTML tags are the building blocks of HTML markup. They are used to define the structure and appearance of content within an HTML document. Tags are enclosed within angle brackets ("<" and ">") and come in pairsFor example:

<p>This is a paragraph.</p>

HTML Attributes:

HTML attributes provide additional information about an HTML element. They are used within the opening tag of an element and provide extra instructions or details for that particular element. Attributes are specified using the attribute name followed by an equal sign ("=") and the attribute value enclosed in quotes. For example:

<a href="https://www.example.com">Click here</a>

Some examples of global attributes include:

1. class

2. id

3. style

4. title

5. data-\*