**HTML BASIC THEORY ASSIGNMENT**

**Q-1: Define HTML. What is the purpose of HTML in web development?**

**Ans:-** HTML (HyperText Markup Language) is the standard language used to create and structure content on the web.

**Purpose in Web Development:**  
HTML provides the basic structure of web pages by defining elements like headings, paragraphs, links, images, and forms. It is the foundation of all websites.

**Q-2: Explain the basic structure of an HTML document. Identify the mandatory tags and their purposes.**

**Ans:- Basic Structure of an HTML document :**  
<!DOCTYPE html>

<html>

<head>

<title>Page Title</title>

</head>

<body>

<h1>Heading</h1>

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

</body>

</html>

**Mandatory Tags and Their Purposes:**

1. **<!DOCTYPE html>**

* Declares the document type and version of HTML (HTML5 here).
* Helps browsers render the page correctly.

1. **<html>**

* Root element that wraps the entire HTML document.

1. **<head>**

* Contains meta-information about the document like the title, character encoding, and links to styles/scripts.

1. **<title>**

* Sets the title of the web page (shown in the browser tab).

1. **<body>**

* Contains all the visible content on the web page such as text, images, links, etc.

**Q-3: What is the difference between block-level elements and inline elements in HTML? Provide examples of each.**

**Ans:- Difference Between Block-Level and Inline Elements in HTML:**

|  |  |  |
| --- | --- | --- |
| **Feature** | **Block-Level Elements** | **Inline Elements** |
| **Layout** | Start on a new line and take full width | Do not start on a new line; take only as much width as needed |
| **Purpose** | Structure the layout (sections, blocks) | Format parts of content within a block |
| **Examples** | <div>, <p>, <h1>, <ul>, <table> | <span>, <a>, <img>, <strong> |

**Block-Level Example:**

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

<div>This is a div block.</div>

**Inline Example:**

<span>This is a span.</span>

<a href="#">Click Here</a>

<img src="image.jpg" alt="Image">

**Q-4: Discuss the role of semantic HTML. Why is it important for accessibility and SEO? Provide examples of semantic elements.**

**Ans:-** Semantic HTML uses meaningful tags that clearly describe the purpose of the content inside them. It improves the readability of the code for both developers and machines (like search engines and screen readers).

**Importance:**

1. **Accessibility:**

* Helps screen readers understand the structure and content of the page.
* Improves the browsing experience for users with disabilities.

1. **SEO (Search Engine Optimization):**

* Search engines use semantic tags to better understand and index content.
* Increases the chances of higher search rankings.

**Examples of Semantic Elements:**

|  |  |
| --- | --- |
| **Element** | **Purpose** |
| **<header>** | Represents the header of a section/page |
| **<nav>** | Defines navigation links |
| **<main>** | Indicates the main content area |
| **<article>** | Contains self-contained content |
| **<section>** | Groups related content together |
| **<footer>** | Represents the footer of a section/page |
| **<aside>** | Content indirectly related to the main content |

**Example:**

<article>

<header>

<h1>Blog Post Title</h1>

</header>

<p>This is the blog post content.</p>

<footer>Author: John Doe</footer>

</article>