**MODULE 15 :- HTML IN FULL STACK**

**1 :- HTML Basic Theory**

**QUE. 1 DEFINE HTML. What is the purpose of HTML in web development ?**

**ANS.** HTML (Hyper Text Markup Language) is the standard language used to create and structure content on the web. It defines the structure of web pages using a system of tags and elements.

These tags describe the content, such as headings, paragraphs, links, images, and other types of media, and how they should be displayed in a web browser.

* **PURPOSE OF HTML :-**

The purpose of HTML (Hyper Text Markup Language) in web development is to structure the content and define the layout of a webpage. It serves as the foundation for all web pages, providing the basic framework for displaying text, images, links, forms, and other elements that make up the content of a website. HTML allows browsers to interpret and render the content in a readable and accessible format for users.

* **Key purposes of HTML in web development:-**
* **Structure Content:** HTML defines how the content of a webpage is organized and arranged. It tells the browser how to display text, images, videos, and other elements.
* **Create Links:** HTML is used to create hyperlinks (<a> tags), allowing users to navigate between different pages or external websites.
* **Embed Media:** HTML allows for the embedding of media like images, videos, audio, and animations within a webpage using tags such as <img>, <video>, and <audio>.
* **Form Elements:** HTML is used to create forms (e.g., contact forms, login forms, search bars) using tags like <form>, <input>, <textarea>, and <button>, enabling user interaction with the website.
* **Semantic Structure:** HTML helps to organize content semantically (using tags like <header>, <footer>, <article>, and <section>), making websites more accessible and easier to navigate, especially for search engines and users with disabilities.
* **Compatibility with Other Technologies**: HTML works alongside CSS for design (styling) and JavaScript for dynamic interactions, enabling the creation of fully functional, interactive, and visually appealing websites.

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

**ANS. :-** The basic structure of an HTML document consists of a set of elements that define the content and organization of the webpage. Here's an overview of the main components:

* **STRUCTURE OF HTML DOCUMENT:-**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

</body>

</html>

* **Identify the mandatory tags and their purposes :-**

1. **<!DOCTYPE html>**

* **Purpose**: This declaration tells the browser that the document is written in HTML5. It ensures the document is interpreted using the correct version of HTML.
* **Why it's mandatory**: Without it, browsers may fall back to older rendering modes (quirks mode), which can lead to inconsistent display across different browsers.

1. **<html>**

* **Purpose**: This is the root element of an HTML document, and all other elements must be nested inside it. It represents the start of the HTML document.
* **Why it's mandatory**: It indicates the start of an HTML document and serves as a container for all content in the document.

1. **<head>**

* **Purpose**: The <head> element contains metadata about the document, such as the title, character encoding, and links to external resources like stylesheets or scripts.
* **Why it's mandatory**: While not all content in the <head> is visible to users, it contains critical information for the browser (such as the page title) and for SEO and accessibility purposes.

1. **<title>**

* **Purpose**: Defines the title of the document, which appears in the browser's title bar or tab.
* **Why it's mandatory**: The title is important for accessibility, SEO, and user experience. It helps users identify the page in their browser.

1. **<body>**

* **Purpose**: The <body> tag contains all the visible content of the webpage, such as text, images, links, and other elements that are rendered by the browser.
* **Why it's mandatory**: Without the <body>, there would be no content visible on the page. It's the primary section where all user-visible content is placed.