WD HTML ASSIGNMENT

Theory question’s

Question 1: Define HTML. What is the purpose of HTML in web development?

Ans : HTML (HyperText Markup Language) is the standard markup language used to create and structure content on the webpage , which is the standard language for creating web pages.

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

Ans: An HTML document has a well-defined structure that tells the web browser how to display the content of a webpage.

Example for tags used:

1. <!DOCTYPE html> → Declares the document type and version of HTML.
2. <html> → Root element that contains all the HTML content.
3. <head> → Contains metadata (like title, styles, scripts, and links) about the document.
4. <title> → Defines the title of the webpage shown in the browser tab.

5. <body> → Contains the actual content of the webpage (text, images, links, etc.).

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

Ans : Block-level elements:

These elements always start on a new line and take up the full width available.

They are mainly used to define large sections or containers of content.

Examples:

, <p>, <h1> to <h6>, <ul>, <ol>, <table>

Inline elements:

These elements do not start on a new line; they appear in the same line as the surrounding text.

They only take up as much width as their content requires.

Inline elements are mainly used to format text or add small parts of content inside block elements.

Examples:

, <a>, <img>, <label>, <i>.

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

Ans. Importance for Accessibility:

- Semantic HTML helps screen readers and assistive technologies understand the structure of a webpage.
- It makes it easier for people with disabilities to navigate and interpret content.
- For example, <nav> tells assistive tools that the section contains site navigation links.

1. <header> – Defines the top section or header of a page/document.
2. <nav> – Defines navigation links.
3. <main> – Defines the main content of the webpage.
4. <footer> – Defines the bottom section or footer of a page.

2. HTML Forms

Theory Questions

Question 1: What are HTML forms used for? Describe the purpose of the input, textarea, select, and button elements.

Ans:

- HTML forms are used to collect user input and send it to a server for processing.
- They are commonly used for tasks like user registration, login, search, feedback, and surveys.
- Forms allow interaction between the user and the website.

Question 2: Explain the difference between the GET and POST methods in form submission.When should each be used?

GET Method:

- Sends form data by appending it to the URL as query parameters.
- Data is visible in the browser's address bar.
- Limited amount of data can be sent (URL length restrictions).
- Mainly used for retrieving data and when data is not sensitive.

POST Method:

- Sends form data inside the HTTP request body, not in the URL.
- Data is not visible in the address bar.
- Can handle large amounts of data.
- More secure than GET for sensitive information like passwords or personal details.

Question 3: What is the purpose of the label element in a form, and how does it improve accessibility?

Ans: Purpose of the <label> element:

The <label> element is used to define a caption or description for a form input element (like text boxes, checkboxes, or radio buttons).

It improves the usability of forms by making it clear what information the user should enter in a field.

A label can be linked to a form control using the for attribute (matching the id of the input).

3. HTML Tables

Theory Questions

Question 1: Explain the structure of an HTML table and the purpose of each of the following

elements: <table>, <tr>, <th>, <td>, and <thead>.

Ans.

1. <table> ... </table>
    - The main container element that defines the start and end of a table.
    - All table rows and data must be placed inside it.
2. <tr>
    - Represents a row in the table.
    - A table is divided into multiple rows, each created with <tr>.
3. <th>
    - Defines a header cell in the table (usually bold and centered by default).
    - Used for column or row headings.
4. <td>
    - Defines a standard data cell in the table.
    - Each <td> contains the actual data value.
5. <thead>
    - Groups all the header rows of the table.
    - Makes the table more organized and improves accessibility.

Question 2: What is the difference between colspan and rowspan in tables? Provide examples.

Ans: colspan → Used to make a cell span across multiple columns.

- rowspan → Used to make a cell span across multiple rows.

  Both attributes are applied to <td> or <th> elements to merge cells and create more complex table layouts.

Question 3: Why should tables be used sparingly for layout purposes? What is a better alternative?

Ans:

- Not semantic: Tables are meant for tabular data, not for page design. Using them for layout makes the HTML code confusing and less meaningful.
- Accessibility issues: Screen readers and assistive technologies may read layout tables incorrectly, making it harder for visually impaired users to understand the content.
- Difficult to maintain: Table-based layouts are harder to update or redesign compared to modern layout methods.
- Slower performance: Large, nested tables increase page load time and make rendering more complex.

- Not responsive: Tables do not adapt well to different screen sizes (like mobile devices), leading to poor user experience.