1. What is HTML?

HTML (Hyper Text Markup Language) is the standard markup language used to create and structure web pages. It consists of elements and tags that instruct the browser on how to display text, images, links, and other media on a web page.

2. What is the difference between HTML and HTML5?

- HTML is the original markup language for web pages, with basic structure, limited support for multimedia, and it requires additional plugins for media content.

- HTML5 is the latest version, offering new semantic elements (like <header>, <footer>, <article>), built-in support for multimedia (<audio>, <video>), offline storage, better error handling, and is optimized for mobile devices.

3. What are semantic HTML elements?

Semantic HTML elements are tags that clearly describe their meaning both to the browser and the developer. Examples include <header>, <nav>, <main>, <section>, <article>, <footer>, and <aside>. Using these elements improves accessibility, SEO, and maintainability by providing meaningful structures to web content67.

4. What is the role of <!DOCTYPE html> in HTML?

The <!DOCTYPE html> declaration defines the document type and version of HTML being used. For HTML5, this declaration tells the browser to render the page in standards-compliant mode, ensuring consistent behaviour across browsers and supporting the latest features.

5. What is the difference between block-level and inline elements?

- Block-level elements (e.g., <div>, <p>, <section>, <h1>) start on a new line and take up the full width available. They can contain other block-level or inline elements.

- Inline elements (e.g., <span>, <a>, <img>, <strong>) appear within the flow of text, only taking up as much width as necessary. They cannot contain block-level elements.

6. How is <div> different from <span>?

- <div> is a block-level element used for grouping and structuring larger sections of content.

- <span> is an inline element used to apply styles or markup small portions of text or other elements within block-level containers.

7. What are the different types of lists in HTML?

HTML supports three main types of lists:

- Ordered List (<ol>): Numbered list of items.

- Unordered List (<ul>): Bulleted list of items.

- Description (Definition) List (<dl>): List of terms and their descriptions using <dt> (term) and <dd> (definition).

8. How do you create a hyperlink in HTML?

Use the <a> (anchor) tag with the href attribute:

xml

Visit Example

This creates a clickable link that opens the specified URL.

9. What are Core components in HTML? Explain each briefly.

- <html>: Root element; wraps the entire HTML document.

- <head>: Contains metadata, title, styles, and scripts.

- <title>: Sets the page title (shown on browser tab).

- <body>: Holds the visible content of the page.

- <h1> to <h6>: Define headings, major heading tagsant.

- <p>: Paragraph tag; formats blocks of text.

- <a>: Anchor; creates hyperlinks.

- <img>: Embeds images.

- , <ol>, <li>: Create lists.

- <div>, <span>: Generic containers for layout and styling.

10. What are the concepts involved in multimedia?

Multimedia on the web refers to the integration of different types of media:

- Text: The most basic element.

- Graphics: Images and illustrations.

- Audio: Speech, music, and sound effects.

- Video: Moving images with sound.

- Animation: Moving graphics or text.
  Multimedia systems allow for interactivity, navigation, and the communication of information in multiple formats.

11. What are the different types of form elements in HTML?

Common form elements include:

- <input>: For text, passwords, checkboxes, radio buttons, etc.

- <label>: Labels for form fields.

- <select>, <option>: Dropdown lists.

- <textarea>: Multi-line text input.

- <button>: Clickable buttons.

- <fieldset>, <legend>: Group and label sets of form elements.

- <datalist>: Provides autocomplete options.

- <output>: Displays calculation results or feedback.

12. What is CSS and what are its types?

CSS (Cascading Style Sheets) is used to style and layout web pages. The main types are:

- Inline CSS: Styles written directly in an element's style attribute.

- Internal CSS: Styles placed in a <style> tag within the HTML <head>.

- External CSS: Separate .css files linked to the HTML document.

13. What is the difference between class and id selectors in CSS?

- Class selectors (.classname) can be applied to multiple elements, allowing for reusable styles.

- Id selectors (#idname) are unique, used to style a single element. Ids have higher specificity in CSS.

14. What are the different ways to apply CSS to a web page?

1. Inline: Using the style attribute inside HTML tags.

2. Internal: Using a <style> element in the HTML <head>.

3. External: Linking an external CSS file with the <link> tag.

4. @import: Importing a CSS file inside another stylesheet.

15. What is the Box Model in CSS?

The CSS Box Model defines how elements are displayed and sized:

- Content: The actual content of the element (text, image, etc.).

- Padding: Space between the content and the border.

- Border: Surrounds the padding and content.

- Margin: Space outside the border, separating elements from others.

16. Explain different types of positions in CSS

- Static: Default; elements follow normal document flow.

- Relative: Positioned relative to its normal position.

- Absolute: Positioned relative to the nearest positioned ancestor.

- Fixed: Positioned relative to the viewport, stays fixed on scroll.

- Sticky: Acts as relative until a threshold is met, then behaves as fixed.

17. How does z-index work in CSS?

z-index controls the stacking order of positioned elements (those with position set to anything but static). Elements with a higher z-index appear in front of those with lower values when their boxes overlap.

18. What is the difference between visibility: hidden and display: none?

- visibility: hidden: The element is not visible, but it still occupies space in the layout.

- display: none: The element is removed from the layout and does not take up any space.