

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

- **Definition:** HTML stands for **HyperText Markup Language**. It is the basic language used to create the structure of a webpage.
 - **Purpose:**
 1. It organizes content into elements like headings, paragraphs, links, images, etc.
 2. It helps web browsers understand and display content properly.
 3. It works with CSS and JavaScript to make websites interactive and visually appealing.
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Question 2: Explain the basic structure of an HTML document. Identify the mandatory tags and their purposes.

- **Basic Structure:**
 1. **<!DOCTYPE html>**: Declares the version of HTML being used (HTML5).
 2. **<html>**: The root element that wraps the entire document.
 3. **<head>**: Contains metadata, title, and links to stylesheets or scripts.
 4. **<body>**: Holds the main content that users see on the webpage.
- **Mandatory Tags and Their Purposes:**
 - **<title>**: Sets the title shown on the browser tab.
 - **<meta>**: Provides information like character encoding and page description.
 - **<h1> to <h6>**: Defines headings (h1 is the largest, h6 is the smallest).
 - **<p>**: Defines a paragraph for text.

Example:

```
<!DOCTYPE html>

<html>

  <head>

    <title>My Website</title>

  </head>

  <body>

    <h1>Welcome to My Website</h1>

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

  </body>

</html>
```

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

1. Block-Level Elements:

- Always start on a new line.
- Take up the full width of their container.
- Used for organizing larger sections.
- **Examples:**
 - `<div>`: A container for content.
 - `<p>`: Paragraphs of text.
 - `<h1>` to `<h6>`: Headings.

2. Inline Elements:

- Stay in line with surrounding elements.
- Take up only as much space as needed.
- Used for formatting small parts of content.
- **Examples:**
 - ``: A container for styling inline text.
 - `<a>`: Links to other pages or websites.
 - ``: Makes text bold.

Example:

```
<div>

<p>This is a block-level element.</p>

<span>This is inline text.</span>

</div>
```

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

• **Role of Semantic HTML:**

- It uses clear and meaningful tags to define parts of a webpage.
- For example, `<header>` is used for the top section, and `<footer>` is for the bottom.

• **Why It's Important:**

1. **Accessibility:** Helps screen readers and assistive devices understand content better.
2. **SEO:** Makes content easier for search engines to index, improving rankings.

3. **Clarity:** Makes the code easier for developers to read and understand.

- **Examples of Semantic Elements:**

- `<header>`: Defines the top section of a webpage, often containing a logo or menu.
- `<nav>`: Contains navigation links.
- `<main>`: Wraps the main content of the page.
- `<article>`: Represents an independent piece of content like a blog post.
- `<footer>`: Contains information at the bottom, like copyright or links.

Example:

```
<header>
```

```
  <h1>Welcome to My Blog</h1>
```

```
</header>
```

```
<nav>
```

```
  <ul>
```

```
    <li><a href="#">Home</a></li>
```

```
    <li><a href="#">About</a></li>
```

```
  </ul>
```

```
</nav>
```

```
<main>
```

```
  <article>
```

```
    <h2>Blog Post Title</h2>
```

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

```
  </article>
```

```
</main>
```

```
<footer>
```

```
  <p>© 2024 My Blog</p>
```

```
</footer>
```