Web Technologies – CSS

Inline CSS, Internal CSS, External CSS

Que 1: Overview of CSS and its importance in web design.

- CSS (Cascading Style Sheets) is used to control the layout and appearance of web pages.
- It allows developers to style HTML elements by adding colors, spacing, fonts, borders, backgrounds, and more.

Importance of CSS:

- Makes websites visually attractive.

- Separates design from HTML structure.

- Helps maintain consistency across web pages.

- Improves user experience (UX).

- Makes websites responsive across devices.

Types of CSS

1. Inline CSS

- Written directly inside an HTML element's style attribute.

- Used for quick, small styling.

   Example:

   <p style="color: blue;">This is inline CSS.</p>

2. Internal CSS

- Written inside a <style> tag within the <head> section.

- Used to style a single webpage.

   Example:

   <head> <style> h1 { color: green; } </style> </head>

3. External CSS

- Written in a separate .css file and linked to HTML using the <link> tag.

- Best for large websites and reusable styling.

  Example:

  h1 { color: red; }

Margin and Padding

Que 1: Definition and difference between margin and padding.

Margin

- Margin is the space outside an element.

- It creates space between the element and other elements.

- Does not affect the element's background color or border.

- Yes, margin can be negative.

- Does not increase element's total width/height.

Padding

- Padding is the space inside an element.

- It creates space between the content and the element's border.

- Padding expands the element's background area.

- No, padding cannot be negative.

- Increases element's total width/height.

Explanation in Simple Words

- **Margin = Outer space**
  Like space around a photo frame on the wall.

- **Padding = Inner space**
  Like the soft cushion inside the frame around the photo.

Pseudo-Class

Que 1: Introduction to CSS pseudo-classes like :hover, :focus, :active, etc.

- CSS pseudo-classes allow you to style HTML elements based on their state or position without adding extra classes or IDs.

- They are written using a colon (:) followed by the pseudo-class name.

Pseudo-class description

:hover -- Styles an element when the mouse pointer is over it.

:focus -- Styles an element when it gains focus (like clicking on an input field).

:active -- Styles an element while it is being clicked.

:visited -- Styles links that the user has already visited.

:first-child -- Styles the first child of its parent element.

Use of Pseudo-Classes

- Pseudo-classes help enhance interactivity and user experience.

Example uses:

- Change link color when hovered.

- Highlight input fields when focused.

- Add visual feedback when buttons are clicked.

ID and Class Selectors

Que 1: Difference between id and class in CSS.

1. ID Selector (#)

- ID is used to style one unique element on a webpage.

- Each ID must be used only once in the entire HTML document.

- ID has higher specificity than a class.

- Written with # in CSS.

Example:

```
<h1 id="main-title">Welcome</h1>

#main-title {

   color: blue;

}
```

When to use ID?

Use ID when:

- You want to style one specific element only.

- Example: header, footer, unique section, navigation bar container.

2. Class Selector (.)

- Class is used to style multiple elements.

- A class can be reused any number of times.

- Written with . in CSS.

- Ideal for applying common styles to many elements.

Example:

```
<p class="highlight">Text 1</p>

<p class="highlight">Text 2</p>

.highlight {

   background-color: yellow;

}
```

Use Class when:

- You want to apply same style to multiple **elements**.

- Example: buttons, paragraphs, cards, grid items.