WEB DEV MODULE 04

Sure! Here is a detailed and exam-oriented explanation of the **CSS topics** you mentioned. The content is written in **complete sentences**, using **simple language** that is **easy to remember and understand**, but without reducing the depth or length of the explanation.

CSS Selectors

CSS selectors are used to target and apply styles to specific HTML elements. They define **which element(s)** the CSS rule will apply to.

1. ID Selectors

- ID selectors are used to select a single, **unique** element on a web page.
- To select an element using its ID, we use the # symbol followed by the ID name.
- In HTML, the ID attribute should be unique for each element.
- **Example:**

#header {

  background-color: lightblue;

}

This style will only apply to the element with id="header".

2. Class Selectors

- Class selectors are used to target **multiple elements** that share the same class.
- They use the . (dot) symbol followed by the class name.
- Multiple elements can have the same class.
- **Example:**

.box {

  border: 1px solid black;

}

All elements with class="box" will get a black border.

3. Grouping Selectors

- Grouping selectors allow us to apply the same style to multiple elements at once.
- We separate the element names with commas ,.
- This reduces repetition in CSS code.
- **Example:**

h1, h2, p {

  font-family: Arial;

}

4. Universal Selector

- The universal selector (*) targets **all elements** on a web page.
- It is helpful for applying global styles like margin or padding reset.

- **Example:**

```
* {
  margin: 0;
  padding: 0;
}
```

5. Descendant / Child Selectors

- **Descendant selector** targets elements **nested inside** a parent, at any level.
  - Syntax: parent descendant
  - Example: div p will target all <p> inside <div> elements.
- **Child selector** targets elements that are **direct children** only.
  - Syntax: parent > child
  - Example: ul > li targets only the first-level <li> items inside a <ul>.

6. Attribute Selectors

- Attribute selectors apply styles to elements **based on their attributes**.
- Syntax: element[attribute="value"]
- **Example:**

```
input[type="text"] {
  border: 1px solid gray;
```

```
}
```

7. CSS Pseudo-Classes

- Pseudo-classes define the **special state of an element**.
- Common pseudo-classes include :hover, :focus, :first-child, etc.
- **Example:**

```
a:hover {
  color: red;
}
```

The above style changes the color of a link when the mouse is hovered over it.

CSS Background and Text Properties

These properties control the **look and feel** of backgrounds and text in web pages.

1. Background Image

- You can add a background image to an element using background-image.
- **Example:**

```
body {
  background-image: url('image.jpg');
}
```

2. Background Color

- The background-color property is used to set the background color of an element.

- **Example:**

```
div {
  background-color: lightgreen;
}
```

3. CSS Cursor

- The cursor property changes the appearance of the mouse cursor when hovered over an element.

- **Example:**

```
button {
  cursor: pointer;
}
```

4. Text Color

- The color property is used to change the text color.

- **Example:**

```
p {
  color: navy;
}
```

5. Other Text Properties

- font-size: controls the size of the text.
- font-family: defines the typeface.

- text-align: aligns text (left, right, center, justify).
- font-weight: controls boldness (normal, bold).
- **Example:**

h1 {

  font-size: 24px;

  font-family: Verdana;

  text-align: center;

  font-weight: bold;

}

Inline Styling

- Inline styling is done **directly in the HTML tag** using the style attribute.
- It affects only the specific element where it is written.
- **Example:**
- <p style="color:blue; font-size:18px;">This is a paragraph.</p>

Linking External Style Sheet

- External styles are written in a separate .css file and linked using the <link> tag in HTML's <head> section.
- This is the most organized and reusable method for applying CSS.

- **Example:**

```
<link rel="stylesheet" href="styles.css">
```

Box Model

- The CSS Box Model represents the structure of a web element.
- It includes:
  - **Content** – The actual text or image.
  - **Padding** – Space between content and border.
  - **Border** – Surrounds the padding.
  - **Margin** – Space outside the border.
- **Example:**

```
div {
  padding: 10px;
  border: 1px solid black;
  margin: 15px;
}
```

CSS Tables

- CSS is used to style tables in a more attractive way.
- You can style elements like table, th, and td.

- Common properties: border, padding, text-align, background-color.
- **Example:**

table {

  border-collapse: collapse;

  width: 100%;

}

th, td {

  border: 1px solid black;

  padding: 8px;

  text-align: left;

}

th {

  background-color: lightgray;

}

Let me know if you'd like a summarized version for last-minute revision or if you want practice questions on these topics! 😊