Q1. Explain the CSS box model and its components (content, padding, border, margin). How does each affect the size of an element?

Ans: CSS Box Model

The CSS Box Model is a fundamental concept that describes how every HTML element on a webpage is structured and how its size and space are calculated. Each element is treated as a rectangular box that consists of four main components — content, padding, border, and margin.

Components of the Box Model

1. Content:

     o   The actual area where text, images, or other content appear.

     o   The width and height properties apply to this part.

     o   Example: A paragraph's text inside a <p> tag.

2. Padding:

     o   The space between the content and the border.

     o   It increases the size of the box without affecting the content area.

     o   Example: padding: 10px; adds 10px space inside the border.

3. Border:

     o   A line that wraps around the padding and content.

     o   You can set its thickness, style, and color (e.g., border: 2px solid black;).

4. Margin:

     o   The outermost space between the element's border and the next element.

     o   It creates space outside the element and separates it from others.

     o   Example: margin: 20px; pushes the box 20px away from nearby elements.

Q2. What is the difference between border-box and content-box box-sizing inCSS? Which is the default?

Ans: Difference Between border-box and content-box in CSS

The box-sizing property in CSS defines how the total width and height of an element are calculated — whether padding and border are included in the size or not.

1. content-box (Default)

- This is the default value of box-sizing.

- The width and height properties apply only to the content area.

- Padding and border are added outside the defined width and height, making the total size larger

Example:

div {

  box-sizing: content-box;

  width: 200px;

  padding: 20px;

  border: 5px solid black;

}

2. border-box

- The width and height include content + padding + border.

- The total size of the element remains fixed, regardless of padding or border thickness.

- Makes layouts easier and more predictable.

Example:

div {

  box-sizing: border-box;

  width: 200px;

  padding: 20px;

  border: 5px solid black;

}