

Question 1: Explain the CSS box model and its components (content, padding, border, margin). How does each affect the size of an element?

Ans : The **CSS Box Model** describes how every element on a webpage is structured as a rectangular box. It controls the space and size of elements.

Components of the Box Model:

1. Content

- The actual text, image, or content inside the box.
- Example: width/height set in CSS applies to this area (by default).

2. Padding

- Space **between the content and the border**.
- Increases the element's size without affecting neighboring elements.

3. Border

- A line that wraps around the padding and content.
- Adds thickness and can have styles (solid, dashed, etc.).

4. Margin

- Space **outside the border**.
- Creates distance between this element and nearby elements.

Visual:

[Margin]

[Border]

[Padding]

[Content]

Effect on size:

- **Content + Padding + Border + Margin = Total element space occupied on the page.**

Question 2: What is the difference between border-box and content-box box-sizing in CSS? Which is the default?

Ans : The box-sizing property defines how the total width/height of an element is calculated.

1. content-box (Default)

- Width/height apply **only to the content area.**
- Padding and border are added on top.
- Example:
- ```
div {
```
- ```
width: 200px; /* Content only */
```
- ```
padding: 20px;
```
- ```
border: 5px solid;
```
- ```
box-sizing: content-box;
```
- ```
}
```

Final width = 200 (content) + 20+20 (padding) + 5+5 (border) = **250px**

2. border-box

- Width/height include **content + padding + border.**
- Easier to control layouts.
- Example:
- ```
div {
```

- width: 200px; /\* Includes content, padding, and border \*/
- padding: 20px;
- border: 5px solid;
- box-sizing: border-box;
- }

Final width = **200px total** (content shrinks to fit).