Q1: What is CSS Flexbox, and how is it useful for layout design? Explain the terms flex-container and flex-item.

Flexbox is a way in CSS to arrange elements neatly inside a container. It's very helpful when making layouts because it automatically adjusts the position and size of items, even if the screen size changes.

Important terms:

Flex-container → The main box (parent) where we apply display: flex;. It controls how items will be arranged.

Flex-item → The small boxes (children) inside the flex-container. These are the elements that get arranged.

Example:

```
<div class="container">
  <div>Box 1</div>
  <div>Box 2</div>
</div>
```

Flexbox makes it easy to center items, create equal spacing, and build responsive designs without much extra code.

Q2: Describe the properties justify-content, align-items, and flex-direction used inFlexbox. justify-content → Decides how items are placed left to right (or along the main line).

Examples:

flex-start → items stick to the left

flex-end → items stick to the right

center → items in the middle

space-between → equal gap only between items

space-around → equal gap on both sides of items

align-items → Decides how items are placed top to bottom (or across the line).

Examples:

flex-start → all items go to the top

flex-end → all items go to the bottom

center → items in the vertical middle

stretch → items grow to fill the height

baseline → items line up by text

flex-direction → Decides the direction of items.

row → items go left to right (default)

row-reverse → items go right to left

column → items go top to bottom

column-reverse → items go bottom to top