

Question 1: Media Queries in CSS and Their Importance for Responsive Design

1. Definition:

- **Media Queries** in CSS are conditional rules that apply specific styles based on the characteristics of the device or viewport (e.g., screen width, height, resolution). They allow designers to create flexible layouts that adjust to different screen sizes and devices.

2. Importance for Responsive Design:

- **Adaptability:** Media queries enable websites to adjust their layout and styling based on the device, ensuring a seamless user experience across devices like desktops, tablets, and mobile phones.
- **Improved User Experience:** By tailoring the design to fit various screen sizes, media queries help in delivering a more readable and navigable interface on smaller screens.
- **Performance:** Responsive design ensures that unnecessary styles are not applied on small devices, improving performance by optimizing the content display.
- **Future-Proofing:** As new devices with varying screen sizes are released, media queries allow a website to remain functional and aesthetically pleasing without requiring constant redesigns.
- **SEO and Accessibility:** Properly implemented media queries contribute to better SEO by ensuring that users on all devices can easily access and use the website.

Question 2: Basic Media Query to Adjust Font Size for Small Screens (<600px)

```
@media (max-width: 600px) {
```

```
  body {
```

```
    font-size: 14px; /* Adjust font size for screens smaller than 600px */
```

```
  }
```

```
}
```

- This media query targets devices with a viewport width smaller than 600px and adjusts the font-size property to 14px, making text more readable on smaller screens.