**MODULE: 2 (CSS and CSS 3)**

1. **What are the benefits of using CSS?**

CSS (Cascading Style Sheets) offers numerous advantages, including the ability to separate content from presentation, which enhances website maintenance and consistency. It enables greater design flexibility, faster page loading times, improved accessibility for users and search engines, and facilitates responsive design for various devices.

1. **What are the disadvantages of CSS?**

Despite its benefits, CSS has some drawbacks. It can lead to browser compatibility issues, especially with older browsers. CSS code can become complex, making it challenging to manage, especially in large projects. Additionally, mastering CSS requires a learning curve, and achieving desired layouts may sometimes be cumbersome.

1. **What is the difference between CSS2 and CSS3?**

CSS3 introduced several new features and enhancements compared to CSS2. Some notable additions include support for media queries, rounded corners, shadows, gradients, transitions, animations, and flexible box layout (flexbox) and grid layout. CSS3 offers more tools for web designers to create modern and dynamic web layouts and styles.

1. **Name a few CSS style components.**

CSS style components include properties (such as color, font-size, margin), values (e.g., hex codes, pixel measurements), selectors (element, class, ID), units (px, em, %), and layout techniques (flexbox, grid).

1. **What do you understand by CSS opacity?**

CSS opacity refers to the transparency level of an element. It ranges from 0 (completely transparent) to 1 (completely opaque). This property allows designers to create visually appealing effects by controlling the visibility of elements and overlaying content.

1. **How can the background color of an element be changed?**

The background color of an element can be changed using the background-color property in CSS. Simply specify the desired color value (e.g., hex code, RGB, or color name) for the background-color property of the targeted element.

1. **How can image repetition of the background be controlled?**

To control image repetition in the background, use the background-repeat property in CSS. Values like repeat, repeat-x, repeat-y, or no-repeat can be applied to control how the background image repeats horizontally, vertically, or not at all.

1. **What is the use of the background-position property?**

The background-position property in CSS determines the starting position of a background image within its containing element. It accepts values such as pixels, percentages, or keywords (like top, center, bottom) to specify the positioning.

1. **Which property controls the image scroll in the background?**

The background-attachment property controls whether a background image scrolls with the rest of the page content or remains fixed in its position. Values include scroll, fixed, or local.

1. **Why should background and color be used as separate properties?**

Separating background and color properties allows for better organization and specificity in CSS code. It enhances readability, simplifies maintenance, and provides finer control over background-related styles, such as images, gradients, or patterns.

1. **How to center block elements using CSS?**

In CSS1, block elements can be centered horizontally by setting the left and right margins to auto. For example: margin: 0 auto; centers the block element horizontally within its containing element.

1. **How to maintain the CSS specifications?**

To maintain CSS specifications, stay updated with the latest standards published by the W3C (World Wide Web Consortium). Regularly review official documentation, participate in relevant forums or communities, and follow best practices for writing clean, efficient CSS code.

1. **What are the ways to integrate CSS as a web page?** CSS can be integrated into a webpage using three methods: inline styles (within HTML tags), embedded styles (within the <style> tag in the <head> section), and external style sheets (linked via the <link> tag).
2. **What is embedded style sheets?**

Embedded style sheets are CSS styles written directly within an HTML document, typically enclosed within the <style> tag in the <head> section. They allow for more control over styling individual web pages but can lead to code duplication in larger projects.

1. **What are the external style sheets?**

External style sheets are separate CSS files containing styles that are linked to HTML documents using the <link> tag. They offer advantages such as centralized styling, improved site-wide consistency, and easier maintenance across multiple pages.

1. **What are the advantages and disadvantages of using external style sheets?**

Advantages of external style sheets include easier maintenance, site-wide consistency, and improved performance due to browser caching. However, they may lead to additional HTTP requests, potential for slower loading times, and dependency on external files.

1. **What is the meaning of the CSS selector?**

A CSS selector is a pattern used to select and style HTML elements based on various criteria, such as element type, class, ID, attribute, or relationship to other elements. Selectors determine which elements on a webpage will be affected by the associated CSS rules.

1. **What are the media types allowed by CSS?**

CSS supports different media types for applying styles based on the device or context, including all, screen, print, speech, projection, handheld, tv, and braille. Each media type targets specific output devices or environments.

1. **What is the rule set?**

A CSS rule set consists of a selector (specifying which HTML elements to style) and one or more declarations (defining the styles to be applied). It follows the syntax: selector { property: value; }. Multiple declarations can be separated by semicolons.

1. **Create Layouts**

Layouts in CSS involve arranging and styling elements on a webpage to achieve a desired visual structure. Common layout techniques include using floats, flexbox, grid layout, or a combination of these methods to create responsive and dynamic designs.