**CSS and CSS 3**

**1.What are the benefits of using CSS?**  
**Benefits of Using CSS:**

* Separation of Content and Presentation: CSS separates the structure (HTML) from the visual presentation (styling), making code cleaner and easier to maintain.
* Consistency**:** Allows consistent styling across multiple pages by defining styles in a single file.
* Flexibility and Control**:** Provides extensive control over the layout, colors, fonts, and other visual aspects of a web page.
* Efficiency: Reduces file size and page loading times by enabling reuse of styles across the site.

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

**Disadvantages of CSS:**

* Browser Compatibility**:** Different browsers may interpret CSS rules differently, leading to inconsistencies in rendering.
* Learning Curve: Understanding CSS concepts and mastering its usage might require time and practice.
* Complexity in Layouts**:** Achieving complex layouts may require intricate CSS rules and could be challenging.

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

**Difference Between CSS2 and CSS3:**

**CSS2:** Released in 1998, CSS2 was an extension of CSS1 and introduced new capabilities like absolute, relative, and fixed positioning, media types, z-index, among others.

**CSS3:** Started development in the early 2000s and introduces new modules, each handling different aspects like selectors, colors, backgrounds, borders, animations, etc. CSS3 is a more modular and expanded version compared to CSS2.

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

**Some CSS style components include:**

* Selectors (like class, ID, tag, attribute selectors)
* Properties (like color, font-size, margin, padding)
* Values (such as hex colors, pixel values, percentages)
* Units (px, em, rem, %)
* Pseudo-classes and pseudo-elements (like :hover, :before, :after)

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

**CSS Opacity:**

* CSS opacity is a property that controls the transparency of an element.
* The value ranges from 0 (completely transparent) to 1 (fully opaque).

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

**Changing Background Color of an Element:**

The background-color property is used to change the background color of an element in CSS.

**example:**

.element { background-color: #ff0000;

**7.How can image repetition of the backup be controlled?**

**Controlling Image Repetition in Background:**

* The background-repeat property in CSS controls how a background image repeats.
* Values can be repeat, repeat-x, repeat-y, or no-repeat.

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

**Background-Position Property:**

* The background-position property sets the initial position of a background image.

**9. How can image repetition of the backup be controlled?**

**Controlling Image Scroll in Background:**

* The background-attachment property controls whether a background image is fixed or scrolls with the content.

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

**Separation of Background and Color Properties:**

* Separating background and color properties enhances code readability, maintenance, and allows for better organization of styles.

**11.How to center block elements using CSS1?**

**Centering Block Elements using CSS:**

* To center a block-level element horizontally in CSS, you can use the following:
* block-element { margin: 0 auto; /\* This centers the element horizontally \*/ }

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

**Maintaining CSS Specifications:**

* To maintain CSS specifications, stay updated with W3C (World Wide Web Consortium) documentation, follow best practices, and use modern tools and resources.

**13.What are the ways to integrate CSS as a web page?**

**Integrating CSS into a Web Page:**

* CSS can be integrated into a web page using:
* Inline styles
* Embedded or internal style sheets
* External style sheets

**14.What is embedded style sheets?**

**Embedded Style Sheets:**

* Embedded or internal style sheets are CSS styles written with
* <style> tags in the <head> section of an HTML document.

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

**External Style Sheets:**

* External style sheets are separate .
* css files linked to an HTML document using the **<link>** tag.
* They allow for the reuse of styles across multiple pages.

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

**Advantages and Disadvantages of External Style Sheets:**

**Advantages:**

* Consistency across multiple pages
* Easier maintenance and updates
* Faster page loading due to browser caching
* Disadvantages:
* Additional HTTP requests to fetch external CSS files
* Possible dependency on the external file's availability

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

**Meaning of CSS Selector:**

* A CSS selector is a pattern used to select and style HTML elements.
* It can target elements based on their type, class, ID, attributes, etc.

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

**Media Types Allowed by CSS:**

* Common media types allowed by CSS include all, screen, print, speech, tv, projection, handheld, etc.

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

**Rule Set in CSS:**

* A rule set consists of selectors and declarations.
* Selectors determine which elements the style applies
* while declarations define the style properties and their values.

**Creating Image Gallery Using Display Grid:**

example of creating a simple image gallery using CSS Grid:

**HTML:**

**<div class="image-gallery">**

**<div class="image-item">Image 1</div>**

**<div class="image-item">Image 2</div>**

**<div class="image-item">Image 3</div>**

**<!-- Add more image items as needed -->**

**</div>**

**CSS:**

**.image-gallery {**

**display: grid;**

**grid-template-columns: repeat(auto-fit, minmax(200px, 1fr));**

**gap: 10px;**

**}**

**.image-item {**

**/\* Style for individual image items \*/**

**border: 1px solid #ccc;**

**padding: 10px;**

**text-align: center;**

**}**