Module (CSS and CSS 3)

Q.1- What are the benefits of using CSS?

### Ans.- 1) Faster Page Speed

2) Better User Experience

3) Quicker Development Time

4) Easy Formatting Changes

5) Compatibility Across Devices

Q.2-What are the disadvantages of CSS?

Ans.- **Disadvantages of CSS**

**1. Browser Compatibility**

CSS may render differently in various web browsers, leading to inconsistencies in the visual presentation.

**2. Learning Curve**

One among the main disadvantages of cascading style sheets is that while it is essential for web development, it can be complex, especially for beginners.

**3. Lack of Security**

CSS itself does not offer security features, and it can be vulnerable to attacks like Cross-Site Scripting (XSS) when used inappropriately. Developers must be cautious when implementing CSS to prevent security risks.

**4. Limited Layout Control**

CSS has limitations when it comes to controlling complex layouts

**5. Performance Impact**

Extensive or poorly optimized CSS files can slow down page load times. It's essential to minimize and optimize CSS to maintain optimal website performance.

**6. Overriding Styles**

The "cascading" nature of CSS can sometimes lead to unexpected styling conflicts.

**7. Maintenance Challenges**

As websites grow and evolve, maintaining and refactoring CSS can become complex and time-consuming.

Q.3- What is the difference between CSS2 and CSS3?

Ans.- Here are some of the key differences

between CSS2 and CSS3:

* **New features:** CSS3 adds a number of new features to CSS2, including:
* **Flexbox:** Flexbox is a layout module that makes it easier to create responsive layouts.
* **Grid:** Grid is a layout module that provides more control over the layout of elements on a web page.
* **Animations:** CSS3 adds support for animations, which can be used to create more dynamic web pages.
* **Transitions:** CSS3 adds support for transitions, which can be used to create smooth transitions between states of an element.
* **Custom properties:** CSS3 adds support for custom properties, which can be used to create reusable styles.
* **Improved support for media queries:** CSS3 improves the support for media queries, which can be used to adjust the layout of a web page for different screen sizes.
* **Better performance:** CSS3 code is typically more efficient than CSS2 code, which can lead to faster page load times.

Overall, CSS3 is a more powerful and versatile stylesheet language than CSS2. It offers a number of new features that make it easier to create responsive, dynamic, and visually appealing web pages.

However, it is important to note that not all browsers support all CSS3 features. For example, some older browsers may not support the flexbox and grid layout modules. It is therefore important to test your web pages on a variety of browsers before publishing them.

Q.4- Name a few CSS style components

Ans.- style components

* **Selecter:**  HTML element name, id name, class name.
* **Property:** It's like an attribute such as background color,font-size,position,text-align,color,border etc.
* **Values:** Which defines property or values allocate for properties.
* **Content:** The content is the actual text, images, or other media that the HTML element contains. It is the innermost part of the box.
* **Padding:** Padding is the space between the content and the border. It adds space inside the element and affects the element's size. Padding can be set using properties like padding-top, padding-right, padding-bottom, and padding-left.
* **Border:** The border surrounds the padding and content. It can be styled with different properties, such as border-width, border-style, and border-color. Borders can also be set individually for each side using properties like border-top, border-right, border-bottom, and border-left.
* **Margin:** Margin is the space outside the border. It defines the distance between the element's border and adjacent elements. Like padding, margins can be set using properties like margin-top, margin-right, margin-bottom, and margin-left.

Q.5-What do you understand by CSS opacity?

Ans-

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

   <style>

     .opacity-100 {

            opacity:100%;

        }

        p {

            font-size: 25px;

            font-weight: bold;

            margin-bottom: 5px;

        }

        .opacity-50 {

            opacity: 50%;

            text-align: center;

        }

   </style>

</head>

<body>

    <div class="opacity-100">

        <p>Image with 100% opacity (original image)</p>

       <img src="image123.png" alt="">

    </div>

  <div class="opacity-50">

        <p>Image with 50% opacity</p>

        <img src="image231.jpg" alt="">

    </div>

</body>

</body>

</html>

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

Ans-<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

    <style>

        div {

            margin: 50px 50px;

            font-size: 50px;

        }

        .gfg1 {

            background-color: green;

        }

        .gfg2 {

            background-color: rgb(163, 158, 158);

            color: black;

        }

        .gfg3 {

            background-color: rgb(102, 119, 102);

        }

    </style>

</head>

<body>

    <div class="gfg1">

        12354

    </div>

    <div class="gfg2">

        45684

    </div>

    <p class="gfg3" style="margin:50px 50px; font-size: 50px;">

        65489087

    </p>

</body>

</html>

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

Ans-

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

    <style>

       .h1{

        height: 500px;

        background-image: url(img-bird.jpg);

        background-repeat: repeat;

        text-align: center;

       }

       .h2{

        height: 500px;

        background-image: url(img-woma.jpg);

        background-repeat: no-repeat;

        background-size: cover;

        text-align: center;

       }

    </style>

</head>

<body>

    <h1 class="h1">background-repeat: repeat;</h1>

    <h2 class="h2">background-controlled; </h2>

</body>

</html>

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

Ans.-

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

    <style>

   .h1{

     height: 500px;

    background-image: url(image123.png);

        background-repeat: no-repeat;

        background-position: right top;

   }

    </style>

</head>

<body>

    <h1 class="h1">background-position</h1>

</body>

</html>

Q.9-Which property controls the image scroll in the background?

Ans.-

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

    <style>

        .h1 p {

            text-align: center;

            background-image: url(image123.png);

            background-position: center;

            background-repeat: no-repeat;

            background-attachment: fixed;

        }

    </style>

</head>

<body>

    <h1 class="h1">

        <p>

            Paragraphs are the building blocks

            of papers. Many students define

            paragraphs in terms of length: a

            paragraph is a group of at least

            five sentences,

        </p>

        <br><br>

        <p>

            Lorem ipsum, dolor sit amet consectetur adipisicing elit. Temporibus doloremque magnam voluptas harum nisi,

            saepe exercitationem consequuntur, suscipit fugiat nobis debitis fuga autem sequi hic dolor. Corrupti cum

            optio quos?

        </p>

        <br><br>

        <p>

            Lorem ipsum dolor, sit amet consectetur adipisicing elit. Soluta in similique quibusdam illo, alias beatae

            explicabo? Nostrum, illo? Ut consequuntur quibusdam aut necessitatibus error, quas voluptates expedita.

            Minus, numquam assumenda.

        </p>

        <br><br>

        <p>

            Lorem ipsum dolor, sit amet consectetur adipisicing elit. Soluta in similique quibusdam illo, alias beatae

            explicabo? Nostrum, illo? Ut consequuntur quibusdam aut necessitatibus error, quas voluptates expedita.

            Minus, numquam assumenda.

        </p>

        <br><br>

        <p>

            Lorem ipsum dolor, sit amet consectetur adipisicing elit. Soluta in similique quibusdam illo, alias beatae

            explicabo? Nostrum, illo? Ut consequuntur quibusdam aut necessitatibus error, quas voluptates expedita.

            Minus, numquam assumenda.

        </p>

        <br><br>

        <p>

            Lorem ipsum dolor, sit amet consectetur adipisicing elit. Soluta in similique quibusdam illo, alias beatae

            explicabo? Nostrum, illo? Ut consequuntur quibusdam aut necessitatibus error, quas voluptates expedita.

            Minus, numquam assumenda.

        </p>

    </h1>

</body>

</html>

Q.10Why should background and color be used as separate properties?

Ans.- background properties

* Shorthand property
* Used to assign multiple background properties
* Accepts various values for various properties
* Shortens the code
* Following the correct order is necessary
* Values depend on the used properties

Background-color properties

* A subset of the background shorthand property
* Used to assign the color of the background
* Accepts values in keywords, RGBA, HSLA or hexadecimal form

### Define the Background Color by Using Keyword Color Value

### Q.11- How to center block elements using CSS1?

### Ans.-

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

    <style>

div {

  border: solid 3px;

  padding: 1em;

  max-width: 75%;

}

.container {

  display: flex;

  align-items: center;

  justify-content: center;

  height: 8em;

}

    </style>

</head>

<body>

    <div class="container">

        <div class="item">I am centered!</div>

    </div>

</body>

</html>

### Q.12- How to maintain the CSS specifications?

### Ans.-

* The syntax and data types of the language
* Detailed explanation on CSS Selectors
* How you can assign values to properties
* The Cascade (the "C" in CSS)
* How inheritance works
* The Box Model e.t.c

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

## Ans.- **Different ways to integrate CSS in a webpage**

## **Internal CSS:-** Internal CSS is one of the most popular methods of integrating CSS files into a webpage. It is also a widely used CSS form for customizing, updating, and modifying a webpage’s unique style. You can incorporate the internal CSS by integrating the <style> element into your HTML webpage’s <head> section.

* **External CSS:-** Another popular method to integrate CSS files in a webpage is external CSS. This method is also widely used to style, update and adjust different styles. External CSS can help you update, adjust or style different styles simultaneously on multiple web pages. You can integrate external CSS into an HTML document in two different ways. **First, use a <link> tag in your webpage or HTML document <head> section.**
* Inline CSS:- Lastly, you can use inline CSS to integrate CSS files to your webpage. Inline CSS can be used to apply style rules to individual HTML elements. The process of embedding CSS with an HTML file (instead of using an Internal or external CSS file) is called CSS Inlining.

Q.14- What is embedded style sheets?

Ans:-

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

    <style>

      h2 {

            font-size: large;

            color: #2f8d46;

            text-align: center;

        }

        .p-content {

            font-variant: italic;

            font-size: large;

            background-color: antiquewhite;

        }

    </style>

</head>

<body>

  <h2>Embedded stylesheet</h2>

  <p class="p-content">

      This document is using an

      embedded stylesheet!

  </p>

  <p>This is a paragraph</p>

  <p>This is another paragraph</p>

</body>

</html>

Q.15- What are the external style sheets?

Ans:- external style sheets

To apply a rule to multiple pages, an external style sheet is used. An external style sheet is a separate CSS file that can be accessed by creating a link within the head section of the webpage. Multiple webpages can use the same link to access the stylesheet.

The link to an external style sheet is placed within the head section of the page.

<head>

<link rel="stylesheet" type="text/css" href="mystyle.css">

</head>

The actual style sheet file will contain CSS rules that are then applied across the entire page. For example:

body {

background-color: ghostwhite;

}

h1 {

color: blue; font-size: 20px; font-family: verdana; font-style:italic;

}

In this case, the background color of the webpage will be ghostwhite and any h1 headings will appear in verdana font, as size twenty blue text in italic style.

External style sheets have the following advantages over internal and inline styles:

* one change to the style sheet will change all linked pages
* you can create classes of styles that can then be used on many different HTML elements
* consistent look and feel across multiple web pages
* improved load times because the css file is downloaded once and applied to each relevant page as needed

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

Ans:-

The advantages of External Style Sheets are as follows :

* With the help of External Style Sheets, the styles of numerous documents can be organized from one single file.
* In External Style Sheets, Classes can be made for use on numerous HTML element types in many forms of the site.
* In complex contexts, Methods like selector and grouping can be implemented to apply styles.

The disadvantages of External Style Sheets are as follows :

* An extra download is essential to import style information for each file.
* The execution of the file may be deferred till the external style sheet is loaded.
* While implementing style sheets, we need to test Web pages with multiple browsers in order to check compatibility issues.

Q.17- What is the meaning of the CSS selector?

Ans:-

[There are several different types of selectors:](https://www.thoughtco.com/preformatted-text-3468275)

* [type selectors – matching a specific element](https://www.thoughtco.com/preformatted-text-3468275)
* [class selectors – matching elements with a specific class](https://www.thoughtco.com/preformatted-text-3468275)
* [ID selectors – matching the element with a specific ID](https://www.thoughtco.com/preformatted-text-3468275)
* [descendant selectors](https://www.thoughtco.com/property-definition-3466899) – matching elements that are descendants of a specific element
* child selectors – matching elements that are a child of the specific element
* universal selectors – matching any element
* adjacent sibling selectors – matching elements immediately preceded by a specific element
* attribute selectors – matching elements with a specific attribute or attribute value
* pseudo-class selectors – matching elements with a specific pseudo-class
* pseudo-element selectors – matching elements with specific pseudo-element property

Q.18- What are the media types allowed by CSS?

Ans:-

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

    <style>

    @media only screen and (max-width:1160px) {

        h2{

            width: 100%;

            background-clip: border-box;

        }

     }

     @media only screen and (max-width:992px){

        .p-content{

            font-size: 24px;

            background-color: brown;

        }

     }

     @media only screen and (max-width:768px){

        .content{

            font-size: 16px;

            background-color: blueviolet;

        }

     }

     @media only screen and (max-width:500px){

        .content-1{

            background-color: aqua;

        }

     }

    </style>

</head>

<body>

  <h2>Embedded stylesheet</h2>

  <p class="p-content">

      This document is using an

      embedded stylesheet!

  </p>

  <p class="content">This is a paragraph</p>

  <p class="content-1">This is another paragraph</p>

</body>

</html>

Q.19- What is the rule set?

Ans:-

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

    <style>

   h1 {

            color: green;

        }

        /\* Selector \*/

        p:first-child{

            /\* Declaration-block \*/

            background-color: green;

            color: white;

            font-size: 15px;

            border-radius: 50px

            ;

            text-transform: uppercase

            ;

            font-weight: bold;

            border-radius: 50%;

        }

        body {

            text-align: center;

        }

    </style>

</head>

<body>

    <div>

        <p>Rulesets in CSS</p>

        <h1>12354</h1>

        <h2>CSS Rulesets</h2>

        <p>1231335 </p>

    </div>

</body>

</html>

Q.20- Create Layouts

Ans:- Layouts

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

    <style>

        .sec{

            display: flex;

            flex-wrap: wrap;

            gap: 30px;

        }

        .div{

            height: 200px;

            width: 150px;

            border: 2px solid;

            position: relative;

        }

        .row{

            width: 150px;

            height: 100px;

            background-color: aqua;

            position: absolute;

            top: 0;

        }

        .div .col .col-p{

            padding-top: 50px;

            position: absolute;

            top: 40px;

            font-size: 15px;

            text-align: center;

            margin-bottom: 20px;

        }

        .div .button1 {

            position: absolute;

            bottom: 15px;

            width: 30px;

            font-size: 5px;

            font-weight: 5px;

        }

        .div .button2 {

            position: absolute;

            bottom: 2px;

            width: 30px;

            font-size: 5px;

            font-weight: 5px;

        }

    </style>

</head>

<body>

    <section class="sec">

    <div class="div">

        <div class="row">

            <div class="col">

                <p class="col-p">

                    Lorem ipsum dolor sit, amet consectetur <br>adipisicing elit. Ullam culpa, unde velit deleniti

                </p>

            </div>

        </div>

        <button class="button1"> View</button>

        <button class="button2">Exit</button>

    </div>

    <div class="div">

        <div class="row">

            <div class="col">

                <p class="col-p">

                    Lorem ipsum dolor sit, amet consectetur <br>adipisicing elit. Ullam culpa, unde velit deleniti

                </p>

            </div>

        </div>

        <button class="button1"> View</button>

        <button class="button2">Exit</button>

    </div>

    <div class="div">

        <div class="row">

            <div class="col">

                <p class="col-p">

                    Lorem ipsum dolor sit, amet consectetur <br>adipisicing elit. Ullam culpa, unde velit deleniti

                </p>

            </div>

        </div>

        <button class="button1"> View</button>

        <button class="button2">Exit</button>

    </div>

    <div class="div">

        <div class="row">

            <div class="col">

                <p class="col-p">

                    Lorem ipsum dolor sit, amet consectetur <br>adipisicing elit. Ullam culpa, unde velit deleniti

                </p>

            </div>

        </div>

        <button class="button1"> View</button>

        <button class="button2">Exit</button>

    </div>

    <div class="div">

        <div class="row">

            <div class="col">

                <p class="col-p">

                    Lorem ipsum dolor sit, amet consectetur <br>adipisicing elit. Ullam culpa, unde velit deleniti

                </p>

            </div>

        </div>

        <button class="button1"> View</button>

        <button class="button2">Exit</button>

    </div>

    <div class="div">

        <div class="row">

            <div class="col">

                <p class="col-p">

                    Lorem ipsum dolor sit, amet consectetur <br>adipisicing elit. Ullam culpa, unde velit deleniti

                </p>

            </div>

        </div>

        <button class="button1"> View</button>

        <button class="button2">Exit</button>

    </div>

</section>

</body>

</html>