CSS (Cascading Style Sheets)

The CSS stands for (Cascading Style Sheets) is a style sheet language used for describing the presentation of a document written in a markup language such as HTML. CSS allows you to create great looking web pages. CSS describes how HTML elements are to be displayed on screen or other media.

Background

The CSS specifications are maintained by the World Wide Web Consortium (W3C). Internet media type (MIME type) text**/**css is registered for use with CSS by RFC 2318 (March 1998). The World Wide Web Consortium, or W3C is a group that makes recommendations about how the Internet works and how it should evolve.

Cascading Style Sheets level 1 (CSS1) came out of W3C as a recommendation in December 1996. This version describes the CSS language as well as a simple visual formatting model for all the HTML tags.

CSS2 became a W3C recommendation in May 1998 and builds on CSS1. This version adds support for media-specific style sheets e.g. printers and aural devices, downloadable fonts, element positioning and tables.

Advantages of CSS

- **CSS saves time** – you can write CSS once and then reuse same sheet in multiple HTML pages. You can define a style for each HTML element and apply it to as many Web pages as you want.
- **Pages load faster** – If you are using CSS, you do not need to write HTML tag attributes every time. Just write one CSS rule of a tag and apply it to all the occurrences of that tag. So less code means faster download times.
- **Easy maintenance** – To make a global change, simply change the style, and all elements in all the web pages will be updated automatically.
- **Superior styles to HTML** – CSS has a much wider array of attributes than HTML, so you can give a far better look to your HTML page in comparison to HTML attributes.
- **Multiple Device Compatibility** – Style sheets allow content to be optimized for more than one type of device. By using the same HTML document, different versions of a website can be presented for handheld devices such as PDAs and cell phones or for printing.
- **Global web standards** – Now HTML attributes are being deprecated and it is being recommended to use CSS. So it's a good idea to start using CSS in all the HTML pages to make them compatible to future browsers.

There are three method**/**ways of CSS applying on HTML elements which are given below**:**

1) Inline CSS
2) Internal or Embedded CSS
3) External CSS

How to use Inline CSS Method

The Inline CSS contains the CSS property in the body section attached with element is known as inline CSS. This kind of style is specified within an HTML tag using the style attribute.

Syntax:

<ElementName   style ="properties : value; properties : value; .. ">

Example:

<h1 style ="border:1px solid blue; color:red "> Inline CSS way </h1>

<p style = "color:green; font-size:12px; font-style:italic; text-align:center;"> This is a para graph text and we will see that paragraph font color will be green, font style is italic and alignment will be center. </p>

How to use internal CSS

Internal or Embedded CSS: This can be used when a single HTML document must be styled uniquely. The CSS rule set should be within the HTML file in the head section i.e the CSS is embedded within the HTML file. CSS comprises of style rules that are interpreted by the browser and then applied to the corresponding elements in your document. A style rule is made of three parts –

Selector – A selector is an HTML tag at which a style will be applied. This could be any tag like <h1>,<p> or <table> etc.

Property – A property is a type of attribute of HTML tag. Put simply, all the HTML attributes are converted into CSS properties. They could be color, border or font-style etc.
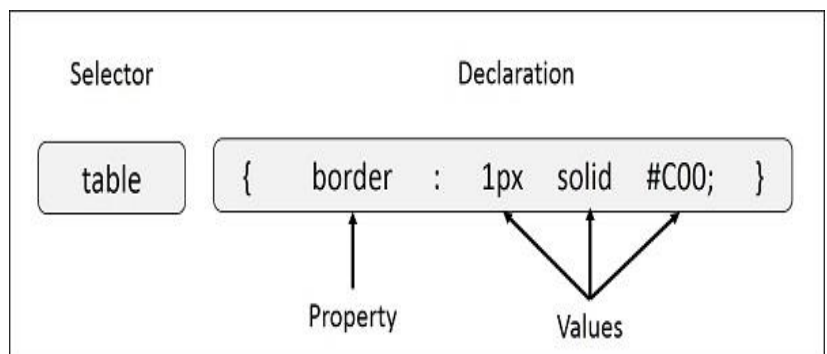
Value – Values are assigned to properties. For example, color property can have value either red or #F1F1F1 etc.

You can put CSS Style Rule Syntax as follows –

selector { property: value; }

Example

table{ border :1px solid #C00; color:green}

h1{

    border :1px solid #C00;

    color :red;

  }

How to use External CSS

External CSS contains separate CSS file which contains only style property with the help of tag attributes (For example **class** and **id**). In external CSS, we link the web pages to the external .css extension file should be linked to the HTML document using **<link>** tag and @import statement. It is created by text editor. The CSS is more efficient method for styling a website. By editing the .css extension file, we can change the whole site at once.

Below is the HTML file that is making use of the created external style sheet

- **link tag** is used to link the external style sheet with the html webpage.
- **href** attribute is used to specify the location of the external style sheet file.

" Test.html "

```
<html>
  <head>
    <link rel="stylesheet" href="../css/myfile.css"/>
  </head>


  <body>
    <h1 class = "head1">Pakistan</h1>
<p class= "para1"> This is a para 1 and here use some external
css properties in the paragraph </p>
    <h1 id = "head2"> Karachi </h1>
    <p id= "para2">
      This is a para 1 and here use some external css
properties in the paragraph</p>
  </body>
</html>
```
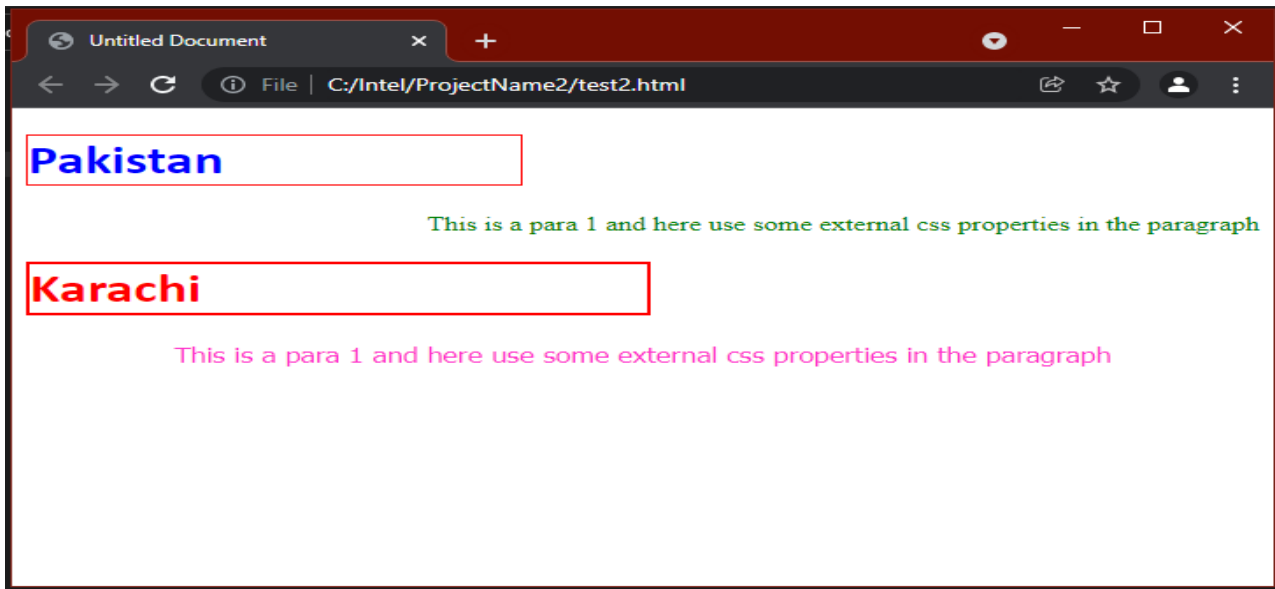
" Myfile.css "

```
/* CSS Document */
body
{
  background-color:gray;
}
.head1{
    color:blue;
   font-family:calibri;
    border:1px solid red;
    width:40%; }
.para1{
    color:green;
    font-family: "Times New Roman";
    text-align:right;
}
#head2{
       color:red;
       font-family:calibri;
       border:1px solid red;
       width:50%;
}
#para2{
       color:#F3C;
       font-family:Tahoma;
       text-align:center;
}
```
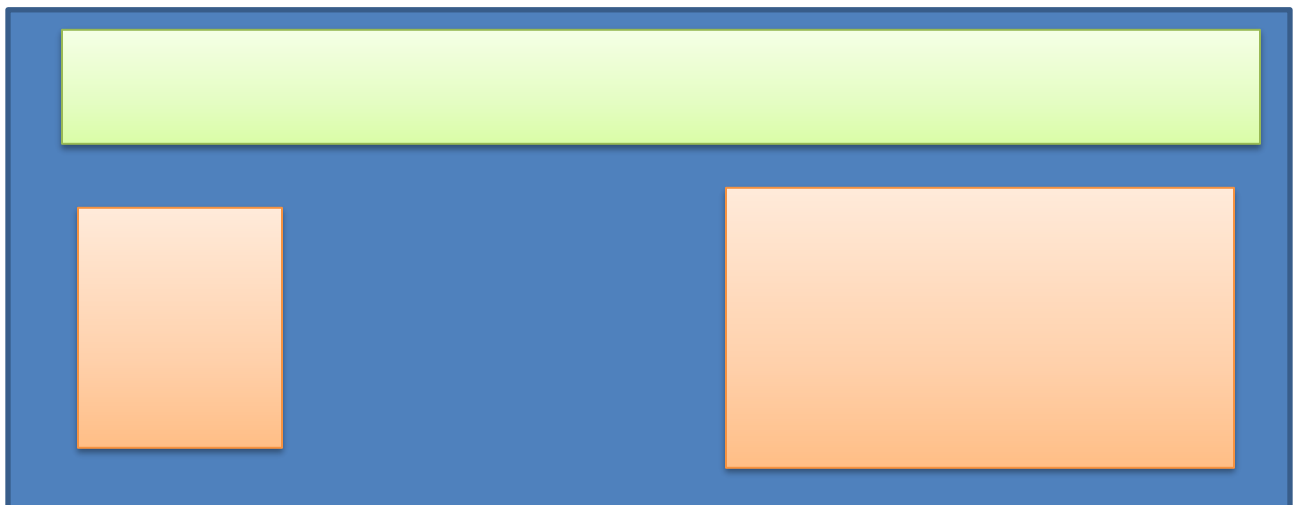
Priorities of CSS:

Inline CSS has the highest priority, then comes Internal/Embedded followed by External CSS which has the least priority. Multiple style sheets can be defined on one page. If for an HTML tag, styles are defined in multiple style sheets then the below order will be followed.

1) As Inline has the highest priority, any styles that are defined in the internal and external style sheets are overridden by Inline styles.
2) Internal or Embedded stands second in the priority list and overrides the styles in the external style sheet.
3) External style sheets have the least priority. If there are no styles defined either in inline or internal style sheet then external style sheet rules are applied for the HTML tags.

Example

We design web site layout using **<div>** tag and with help of internal cascade style sheet (CSS) and display on the browser same as below.

Copy Right

http://www.sirmasood.com

```html
<head>
<meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
<title>web site layout</title>
<style>
  .head{
        width:80%;
        height:80px;
       background-color:#0F6;
        margin-left:8%;
  }
  .leftside{
        width:25%;
        height:300px;
        background-color:#9F0;
        margin-left:8%;
        margin-top:100px;
        float:left;
  }
  .rightside{
        width:40%;
        height:300px;
        background-color:#9F0;
        display:inline-block;
        margin-top:100px;
        margin-right:12%;
        float:right;
  }
</style>
</head>

<body>
   <div class="head">

   </div>
   <div class ="leftside">

   </div>

   <div class="rightside">
   </div>

</body>
</html>
```
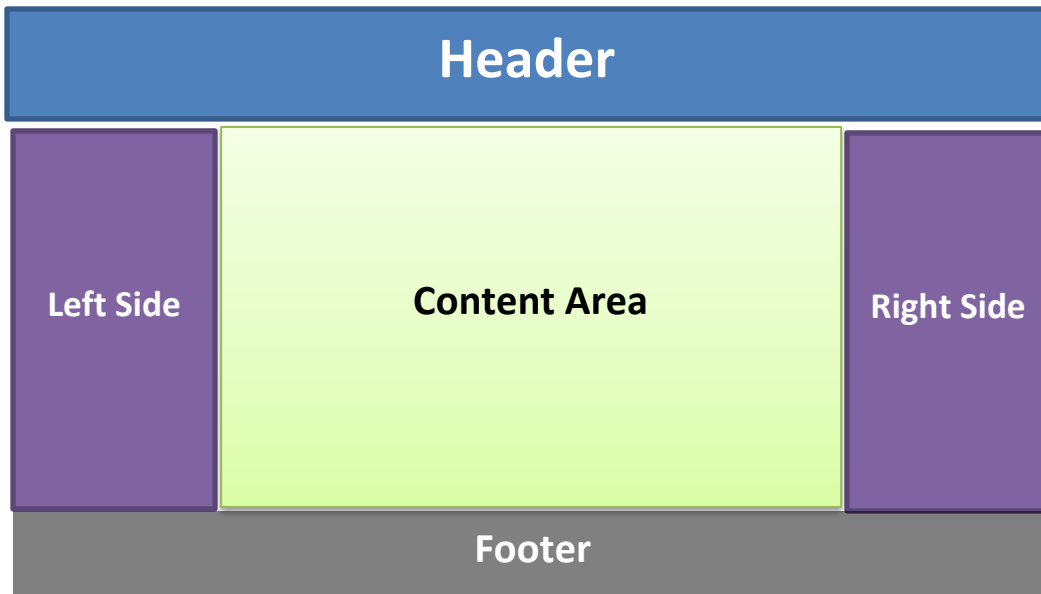
Theory Question

1) What is CSS in detail?
2) How many mays to write CSS in HTML with detail.
3) Write syntax of external CSS?

Practical Question

1) Write a HTML program to develop website layout same as given below example

Objective and MCQ

1) _____CSS has the highest priority.
   a) internal
   b) External
   c) inline
   d) noting all

2) _____style sheets have the least priority.
   a) internal
   b) External
   c) inline
   d) noting all

3) CSS stand for _____.
    a) cascade style sheet
    b) cascade sheet style
    c) crystal style sheet
    d) nothing all

4) _____is used to link the external style sheet with the html webpage.
    a) **<iframe>** tag
    b) **<type>** tag
    c) **<script>** tag
    d) **<link>** tag

5) _____ Attribute is used to specify the location of the external style sheet.
    a) src
    b) img
    c) href
    d) link

6) In external CSS, we link the web pages to the external _____ extension file should be linked to the HTML document.
    a) .html
    b) .php
    c) .jsp
    d) .css

7) The Inline CSS contains the CSS property specified within an HTML tag using the _____ attribute.
    a) id
    b) class
    c) style
    d) name

8) Cascading Style Sheets level 1 (CSS1) came out of W3C as a recommendation in_____ .
    a) December 1996
    b) March 1996
    c) May 1998
    d) March 1998

9) Internal or Embedded stands _____ in the priority list
    a) Highest
    b) least
    c) second
    d) third