



## Assignment No - 1

① Explain different tags of HTML5 with example

Q. Different tags of HTML5 are -

i) `<article>` → This element is used to define an independent piece of content in a document that may be a blog, a magazine or a newspaper article.

Ex → `<article>`

`<h2> Assignment No-1 </h2>`

`<p> Assignment for Ganpati Holiday </p>`

`</article>`

ii) `<audio>` → This tag is used to play a audio file in HTML

Ex → `<audio controls>`

`<source src = "audio.mp3" type = "audio/mp3">`

Your browser does not support audio

`</audio>`

iii) `<canvas>` → This tag is used to draw canvas

Ex - `<canvas id = "myCanvas" width = "200" height = "100">`

Your browser doesn't support the canvas element

`</canvas>`

iv) `<header>` → Represents the header section of a document or a section. It can contain introductory content like heading, navigation links, logos etc.

EX → <header>

```
<h1> Welcome to Website </h1>  
<nav>  
  <ul>  
    <li><a href = " # " > Home </a> </li>  
  </ul>  
</nav>  
</header>
```

<section> → Defines section in a document,  
such as chapters, headers, footers or  
any thematic grouping of content.

EX → <section>

```
<h2> Our Services </h2>  
<p> We provide web development and  
design service </p>  
</section>
```

<aside> Represent a section of content that  
is tangentially related to the content  
around it, such as sidebars or pull  
quotes.

<a aside>

```
<h3> Related Articles </h3>  
<ul>
```

```
  <li><a href = " # " > How to Improve websites </a>  
</li>  
</ul>
```



②

Differences b/w HTML & XML

HTML

XML

i) It stands for Hyper text-transfer protocol.	It stands for extensible markup language.
ii) It is used for designing & displaying web pages.	It is used for storing & transporting data.
iii) Tags are predefined & fixed in HTML.	Tags are not predefined, users can define their own tags.
iv) It focused on how data is displayed.	It focused on describing & transporting data.
v) It is not case sensitive (e.g. <HTML> is same as <html>)	It is case sensitive (<tag> is different <Tag>).
vi) Not all tags need to be closed (e.g. <img>)	Every tag must be closed (e.g. -<tag>-</tag>)
vii) It ignores extra whitespace.	In XML whitespace preserved as a part of the data.
viii) It has predefined attributes like id, class, style.	Custom attributes can be defined for any element.

(3) What is CSS? Explain various ways to add CSS into HTML pages.

Ans CSS (Cascading style sheets) is a style sheet language used to describe the presentation of a document written in HTML or XML.

→ It defines how HTML element should be displayed on screen, paper, or other media.

Ways to add CSS into HTML pages :-

(1) Inline CSS → CSS styles are applied directly to individual HTML element using the style attribute. This method is useful when you need to apply unique style to a specific element.

Ex → <h1 style="color: red; text-align: center;"> Welcome </h1>

(II) Internal (Embedded) CSS → CSS rules are placed inside the <style> tag within the <head> section of the HTML document. This method is ideal when you want to style a single document without affecting other pages.

Ex → <html>  
  <head>  
    <style>  
      body {  
        background-color: red;  
      }  
    </style>  
  </head></html>

  h1 {  
    color: green;  
    text-align: center;  
  }



- ③ External CSS: → CSS rules are written in a separate .css file which is linked to HTML document using the `<link>` tag in the `<head>` section. This method is recommended for longer websites.

Eg → HTML

`<HEAD>`

`<link rel="stylesheet" href="styles.css">`

`</Head>`

`<body>`

`<h1> Hello world </h1>`

`<p> Assignment no. 1 for IP </p>`

`</body>`

`</HTML>`

CSS (External) →

`body {`

`background-color: green;`

`}`

`h1 {`

`color: Red;`

`text-align: center;`

`}`

`p {`

`font-size: 20px;`

`color: darkblue;`

`}`

(4) Discuss CSS3 selector with examples.

Ans CSS3 introduced a wide range of new selectors that allows you to style HTML elements more precisely and flexibly.

### ① Basic Selector

i) Universal Selector (\*): → It select all the element

```
* {  
    margin: 0;  
    padding: 0;  
}
```

ii) Element Selector → Selects all instances of a particular HTML element.

```
p {  
    font-size: 18px;
```

iii) Class Selector → ?

• Classname: → Select all elements with the specified class attribute.

```
.intro {  
    color: blue;  
    border: 2px solid black;  
}
```

iv) id Selector (#idname) → Select a single element with a specific ID.

```
#header {  
    display: flex;  
    align-items: center;  
}
```



② Combinator Selectors.

i) Descendant Selector (ancestor descendant): Select elements that are descendants of a specified element.

ex→ `div p {`

`color: Red;`

`}`

ii) Child Selector (parent > child) → Select all direct child element of a specified parent.

ex→ `ul > li {`

`color: red;`

`font-weight: bold;`

`}`

③ Pseudo-Class Selector → :hover selector Applies a style to an element when the User hovers over it.

ex→ `a:hover {`

`color: Red;`

`size: 20px;`

`}`

:nth-child(n) selector: → Select elements based on their position among siblings.

ex→ `li:nth-child(2) {`

`color: blue;`

`}`

Q5) What is Bootstrap? Discuss the features of Bootstrap?

Ans → Bootstrap is a popular open-source front-end framework that simplifies the process of creating responsive and mobile-first websites. It includes HTML, CSS and JS components, providing pre-designed templates and styles and components that help developers build visually appealing and functional web pages quickly.

Features of Bootstrap →

1) responsive Grid system.

- Description: Bootstrap includes a powerful grid system that helps in creating responsive layouts. The grid is based on 12-column layout and allows developers to divide the pages into rows and columns.

<div class="row">

<div class="col-md-6"> column1 </div>

<div class="col-md-6"> column2 </div>

</div>

2) pre-defined Component → Bootstrap provides a variety of reusable components such as button, form, table, cards, modals etc.

Ex → <button class="btn btn-primary"> Click me. </button>

3) Responsive media queries: → Bootstrap includes media queries that ensure that elements on the page respond and resize based on the screen size. These media queries target different device break points.

Ex → (small, medium, large, & extra-large).



- 4) Customizations → Bootstrap allows extensive customization of its components & styles by overriding the default setting or using sass variable.  
→ Developer can create a unique look & feel by customizing the Bootstrap framework without writing code from scratch.

- 5) Utility classes → Bootstrap offers utility classes for tasks like spacing, text alignment, backgrounds, colors, borders & more.

Ex →

`<div class="p-3 mb-2 bg-primary text-white> This is a  
Red box </div>`

- 6) Explain BreadCrumb, Jumbotron with example.

Ans Bread Crumbs are navigation element used to display the current location of a user within a website's hierarchy. They are particularly useful in website with multiple levels of navigation, such as e-commerce sites where they help users track their location relative to the site's structure. Each breadcrumb link represents a step in the path & helps user navigate back to higher-level pages.



```
<nav aria-label="breadcrumb">
  <ol class="breadcrumb">
    <li class="breadcrumb-item"><a href="#">Home</a><(i)>
    <li class="breadcrumb-item"><a href="#"> Library </a><(ii)>
  </ol>
</nav>
```

Jumbotron → It is a large, attention-grabbing section used to highlight key information on a web page. It is typically used as a hero section placed at the top of the page, to draw attention to the most important content, such as a product promotion, a welcome message or a call-to-action.

```
ce→ <div class="jumbotron">
  <h1 class="display-4"> Welcome to my website. </h1>
  <p class="lead"> This is a simple hero unit <1P>
  <hr class="my-4">
  <p> It uses utility classes for typography <P>
  <a class="btn btn-primary btn-lg" role="button">
    Learn more </a>
</div>
```