**Web Programming**

**Btech SEM:V (20-21)**

**Program 3**

**PART-A**

**A.1 Aim:**

Create a static web pages using HTML5

1. Use semantic elements <main>, <header>, <footer>,<section>,<aside>,<article>,<nav>,<figure>,<figcaption>,<details>, <summary>
2. Use media tags <audio>,<video>
3. The forms created in previous practicals need to updated with more HTML 5 tags and attributes (Use

<input> tags type attribute as number, range, datetime-local

attributes: placeholder, autofocus, required

<progress>

1. Use title attribute on any one hyperlink
2. Use strong and em tags on text without using b and i tags.
3. The web page made should be validated at w3c validator <http://validator.w3.org/>
4. Follow html best practices

**A.2 Prerequisite:**

There are no prerequisites as such to learn and implement HTML.

**A.3 Outcome:**

After successful completion of this experiment students will be able to

1. Understand the basic Technique in building a static web application using HTML5
2. Build up well formed html pages

**A.4 Theory:**

**html 5 semantic elements structure**

**<body>**

**<header>**

**<nav> </nav>**

**</header>**

**<main>**

**<section>**

**<article> </article>**

**</section>**

**<aside>**

**</aside>**

**<details>**

**<summary> </summary>**

**</details>**

**<footer>**

**<div> </div>**

**</footer></main></body>**

Syntax of <nav>

<nav>

<a href="html">HTML</a>

<a href="css">CSS</a>

</nav>

Syntax of <figure>

<figure>

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

<figcaption>Fig.1 - xyz.</figcaption>

</figure>

Syntax of <details>

<details>

<summary>Student strength</summary>

<p>This class has 60 students <p>

</details>

**html 5- forms; new tags and attributes**

<input>

<label for="dob">Date of Birth:</label>

<input type="datetime-local" id="dob" name="dob">

<input type="number">

<input type="range">

<progress>

<label for="python">Knowledge in python:</label>

<progress id="python " value="32" max="100"> 32% </progress>

<audio>

<audio controls width=”100” height=”100”>

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

</audio>

**title tag on hyperlink (anchor tag): It displays tootltip text when mouse moves over the link.**

<a href="https://www.google.com" title="This is google's home page">Google.</a>

**HTML Best Practices**

* **"Check" HTML code** with the w3c Validator.  It should pass.
* **Write lang, meta information of your web page as shown below.**
* <!DOCTYPE html>
* <html lang="en">
* <head>
* <meta charset="UTF-8">
* <meta name="author" content="xyz">
* <title>xyz Home page</title>
* </head>
* **Lowercase**.  Use lowercase for elements and attributes  
  Best:  
  <a href="http://xyz.edu">This is a hyperlink</a>  
  Avoid:  
  <A HREF="http://xyz.edu"> This is a hyperlink </A>
* **Quotes**.  Use quotes around attribute values (typically double quotes)  
  Best:  
  <a href="http://xyz.edu/"> This is a hyperlink </a>  
  Avoid:  
  <a href=http://xyz.edu/> This is a hyperlink </a>
* **End tags**.  Use end tags, even if they are optional.  They will help with clarity.  
  Best:
* <ul>
* <li>Tea</li>
* <li>Coffee</li>
* <li>Water</li>

</ul>

Avoid:

<ul>

<li>Tea

<li>Coffee

<li>Water

</ul>

* **Beautify and Prettify.**  Indent nested block-level tags to help with readability.
* **Comment**.  <!-- Comment your code -->   Not excessively, but enough so that the person who reads your code will be able to understand the **what** and **why** -- you might be that person!
* **<p>-.** It’s a good practice to enclose content in <p> tag. Also tags like<br> are not be enclosed directly in <body>. Rather enclose in <p>
* **Avoid** table for layouts
* Use label for form input elements

**Note: It is left to discretion of students to decide the topic to make static webpages on. Also students are given freedom to learn more tags and implement it much better to improve UI of the web page**

**PART B**

**(PART B: TO BE COMPLETED BY STUDENTS)**

**B.1 Software Code written by student:**

**B.2 Input and Output**

**B.3. Observations and Learning**

**B.4. Conclusion**