

Regularity (2)	Content (4)	Viva-voce (2)	Timely Submission (2)	Total (10)	Dated Sign of Subject Teacher

**Assignment No. 01**

Date of Performance: .....

**Title:** Using HTML5 layout tags develop informative page with sections which include various images, links to other pages for navigation, make use of all possible formatting (for example font, color etc.).

**Objective:** To study the basic concepts & tags in HTML5

**Theory: HyperText Markup Language (HTML)** is the standard markup language used to create web pages. HTML is written in the form of HTML elements consisting of *tags* enclosed in angle brackets (like `<html>`). HTML tags most commonly come in pairs like `<h1>` and `</h1>`, although some tags represent *empty elements* and so are unpaired, for example `<img>`. The first tag in a pair is the *start tag*, and the second tag is the *end tag* (they are also called *opening tags* and *closing tags*).

**HTML Versions**

Version	Year
HTML	1991
HTML+	1993
HTML 2.0	1995
HTML 3.2	1997
HTML 4.01	1999
XHTML	2000
HTML5	2014

**HTML Example**

```
<!DOCTYPE html>
<html>
  <head>
    <title>This is a title</title>
  </head>
  <body>
    <p>Hello world!</p>
  </body>
</html>
```

**HTML5** is a markup language used for structuring and presenting content on the World Wide Web. It is the fifth and current version of the HTML standard. It was published in October 2014 by the World Wide Web Consortium (W3C) to improve the language with support for the latest multimedia. Many new syntactic features are included. To natively include and handle multimedia and graphical content, the new `<video>`, `<audio>` and `<canvas>` elements were added, and support for scalable vector graphics (SVG) content and MathML for mathematical formulas. To enrich the semantic content of documents, new page structure elements such as `<main>`, `<section>`, `<article>`, `<header>`, `<footer>`, `<aside>`, `<nav>` and `<figure>`, are added. New attributes are introduced, some elements and attributes have been removed, and others such as `<a>`, `<cite>` and `<menu>` have been changed, redefined or standardized.

**Various HTML Tags:**➤ **HTML `<html>` Tag**

- Tells the browser that this is an HTML document.
- Represents the root of an HTML document.
- Syntax is given in above HTML example.

- **HTML <body> Tag**
  - Defines the document's body.
  - The <body> element contains all the contents of an HTML document, such as text, hyperlinks, images, tables, lists, etc.
  - Syntax is given in above HTML example.
- **HTML <head> Tag**
  - The <head> element is a container for all the head elements.
  - The <head> element must include a title for the document, and can include scripts, styles, Meta information, and more.
  - Syntax is given in above HTML example.
- **HTML <title> Tag**
  - The <title> tag is required in all HTML documents and it defines the title of the document.
  - Syntax is given in above HTML example.
  - The <title> element:
    - Defines a title in the browser toolbar
    - Provides a title for the page when it is added to favorites
    - Displays a title for the page in search-engine results.
- **HTML <br > Tag**
  - Inserts a single line break. And it is an empty tag which means that it has no end tag.
- **HTML <h1> --- <h6> Tag**
  - <h1> defines the most important heading while <h6> defines the least important heading.
- **HTML <b> Tag**
  - The <b> tag specifies bold text.
  - Syntax/Example: <b>this is bold text</b>
- **HTML <i> Tag**
  - The content of the <i> tag is usually displayed in italic.
  - Syntax/Example: <i>this is italic text</i>
- **HTML <u> Tag**
  - The <u> element was outdated in HTML 4.01. (It was used to define underlined text).
  - The <u> element is redefined in HTML5, to represent text that should be stylistically different from normal text, such as misspelled words or proper nouns in Chinese.
  - Syntax/Example: This is a <u>paragraph</u>
- **HTML <em> Tag**
  - The <em> tag is a phrase tag. It renders as emphasized text.
  - This tag is not deprecated, but it is possible to achieve richer effect with CSS.
- **HTML <p> Tag**
  - The <p> tag defines a paragraph.
  - Browsers automatically add some space (margin) before and after each <p> element. The margins can be modified with CSS (with the margin properties).
- **HTML <strike> Tag**
  - The <strike> tag is not supported in HTML5. Use <del> or <s> instead.
  - The <strike> tag defines strikethrough text.

- **HTML <strong> Tag**
  - The <strong> tag is a phrase tag. It defines important text.
  - This tag is not deprecated, but it is possible to achieve richer effect with CSS.
- **HTML <sup> Tag**
  - The <sup> tag defines superscript text.
  - Superscript text appears half a character above the normal line, and is sometimes rendered in a smaller font. Superscript text can be used for footnotes, like WWW<sup>[1]</sup>.
- **HTML <sub> Tag**
  - The <sub> tag defines subscript text. Subscript text appears half a character below the normal line, and is sometimes rendered in a smaller font.
  - Subscript text can be used for chemical formulas, like H<sub>2</sub>O.
- **HTML <img> Tag**
  - Used to define images in HTML document.
  - It is empty tag, it contains attributes only and does not have a closing tag.
  - Syntax/Example: 
- **HTML <a> Tag**
  - Defines a hyperlink, which is used to link from one page to another.
  - It's Most important attribute is the *href* attribute, which indicates the link's destination.
  - By default, links will appear as follows in all browsers:
    - An unvisited link is underlined and blue
    - A visited link is underlined and purple
    - An active link is underlined and red
  - In HTML 4.01, the <a> tag could be either a hyperlink or an anchor. In HTML5, the <a> tag is always a hyperlink, but if it has no *href* attribute, it is only a placeholder for a hyperlink.
  - Syntax/Example: <a href="http://www.snbj.org/">Visit SNJB</a>
- **HTML <font> Tag**
  - The <font> tag is not supported in HTML5. Use CSS instead.
  - The <font> tag specifies the font face, font size, and color of text.
- **HTML <table> Tag**
  - Defines an HTML table.
  - An HTML table consists of the <table> element and one or more <tr>, <th>, and <td> elements.
  - The <tr> element defines a table row, the <th> element defines a table header, and the <td> element defines a table cell.
  - A more complex HTML table may also include <caption>, <col>, <colgroup>, <thead>, <tfoot>, and <tbody> elements.
- **HTML <th> Tag**
  - Defines a header cell in an HTML table.
  - The text in <th> elements are bold and centered by default.
- **HTML <tr> Tag**
  - Defines a row in an HTML table.
  - A <tr> element contains one or more <th> or <td> elements.

➤ **HTML <td> Tag**

- Defines a standard cell in an HTML table.
- The text in <td> elements is regular and left-aligned by default.

➤ **HTML <center> Tag**

- The <center> tag is not supported in HTML5. Use CSS instead.
- The <center> tag is used to center-align text.

➤ **HTML <label> Tag**

- The <label> tag defines a label for an <input> element.
- The <label> element does not render as anything special for the user. However, it provides a usability improvement for mouse users, because if the user clicks on the text within the <label> element, it toggles the control.
- The for attribute of the <label> tag should be equal to the id attribute of the related element to bind them together.

➤ **HTML <ol> Tag**

- The <ol> tag defines an ordered list. An ordered list can be numerical or alphabetical.
- Use the <li> tag to define list items.

➤ **HTML <ul> Tag**

- The <ul> tag defines an unordered (bulleted) list.
- Use the <ul> tag together with the <li> tag to create unordered lists.

➤ **HTML <li> Tag**

- The <li> tag defines a list item.
- The <li> tag is used in ordered lists (<ol>), unordered lists (<ul>), and in menu lists (<menu>).

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**Conclusion:** Thus, we have studied some basic text formatting tags required to create a link & to add an image in HTML5.

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