COMPUTER

STD 10

PERSONALIZE NOTES

+

USEFUL STUDY MATERIAL

ACCORDING TO LATEST PAPER PATTERN OF BOARD

NUZHAT MEMON

INDEX & PATTERN

GSEB SYLLABUS FOR THE COMPUTER
STD 10 COMPUTER (ENGLISH MEDIUM) 2025-26

MARKS ALLOCATION

CHAPTER NO.	CHAPTER NAME	ANNUAL EXAM	
		THEORY	PRACTICAL
1	Introduction to HTML	6	8
2	Head and Body Sections	7	7
5	Introduction to Calc	3	4
6	Data Editing & Formatting in Calc	4	6
7	Functions in Calc	5	5
9	Problem and Problem Solving	3	-
10	Introduction to C Language	4	10
11	Data Types, Operators and Expression in C Language	6	
12	Using I/O Operations	4	10
13	Decision Structures	4	
14	Loop Control Structures	4	
	Total	50	50

INTRODUCTION TO HTML

Working of the Internet (WWW) and HTML

Computers are widely used in variety of applications.

Network

- When computers are connected with each other they can share resources. Such **group of connected computer** is known as a **computer network**.

Internet

- The Internet is a collection of such **multiple computer networks**, hence known as **network of networks**.

Web

- On the platform of the Internet, a **distributed information system** exists, which is called **World Wide Web** or **WWW** or **Web** in short.
- The notion of the Web was conceived in **1991** by **Tim Berners-Lee**, while consulting at **CERN** (**a European Organization for Nuclear Research**, http://cern.web.cern.ch/CERN/) in **Switzerland**.
- The **Web** is a **repository of multimedia information** on the **internet** platform.
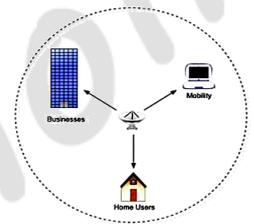
Browser

- The web content in form of web pages is explored using **browser** (special **software applications** to **retrieve and view web information**).
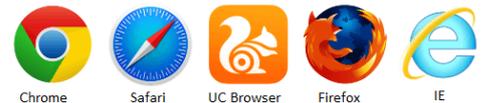
Hyperlink

- On web pages, links are placed pointing towards different locations. These links are known as hyperlinks.
- By clicking on hyperlink, one can redirect himself to an intended location. This operation is known as **following the hyperlink.**
- Any content such as **text, picture, graphics** etc can be embedded with hyperlink.

HTML

- The **content** and **hyperlinks** cannot be directly expressed on the **web.**
- HTML (**HyperText Markup Language**), is needed to **describe** how a **web page** should be displayed by a web browser. Thus the HTML is considered as **a language for describing web pages**.
- The HTML is a **documentation language** to **mark content of web pages** such as heading, title, table, image etc.
- HTML is a **machine-independent** and **all internet browsers accept the content** written using **HTML code**.

- A HTML is a kind of **markup language**.
- A markup language is a **set of tags** that enables **additional information** (besides the content) on how to present the web content.
- HTML files are **text files** that contain **additional formatting markup information** in form of **tag along with its content**.
- The HTML is the most popular **markup language**; and its offers **fixed set of tags**.
- HTML is derived from **SGML**
  - **S-Standardized   G-General   M-Markup   L-Language**
- SGML was developed by the **International Organization for Standards** (**ISO**) in **1986** to facilitate the sharing of **machine-readable documents**.
- An **HTML code** is a combination of **content** to be displayed on a web page using browser and **tags** that helps in guiding the presentation of the content. Without such building block codes, it is impossible to display content on web pages.
- This makes **HTML coding** compulsory utility for **web page creation**, **interpretation** and **presentation**.

A Simple HTML Document

Let us create a simple web page about rainbow using HTML
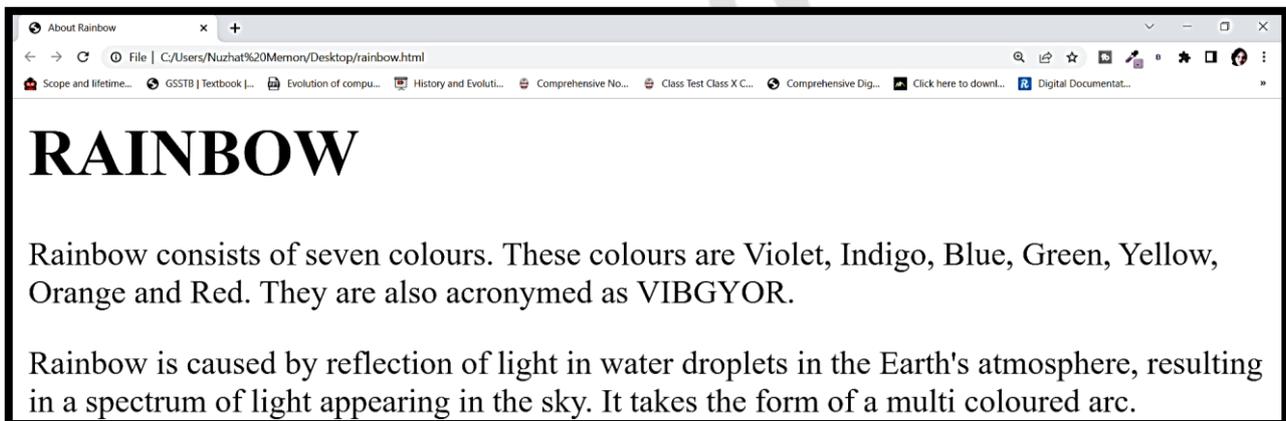

```
<html>
    <head>
        <title> About Rainbow </title>
    </head>
    <body>
        <h1> RAINBOW </h1>
        <p> Rainbow consists of seven colours. These colours are Violet,
        Indigo,   Blue, Green, Yellow, Orange and Red. They are also
        acronymed as VIBGYOR. </p>
        <p>Rainbow is caused by reflection of light in water droplets in the
        Earth's atmosphere, resulting in a spectrum of light appearing in the
        sky. It takes the form of a multi coloured arc. </p>
    </body>
</html>
```

HTML tag

- Several sets of **angular brackets with words or letters** within them.
- These **angular brackets and words inside them** are known as **tags**.
- A tag is made up of **letter, words and numbers** enclosed between a **left** and **right angular bracket (< >)**.
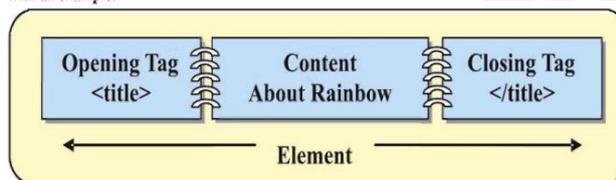
HTML Element

- A combination of **opening** and **closing tag** along with **some content** between the two tags forms an **element**.
- An HTML element may be *empty* or can have some *attributes* to specify the **additional formatting** and publishing **instructions.**
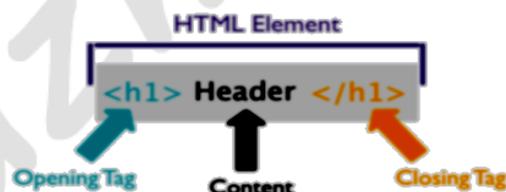

Example 1:

- <title> About Rainbow </title> forms an element of the HTML code.
- Closing tag contents are preceded with a **forward slash** </title>. It marks the end of an element.
- Together, the **pair of tags** and the **content** with them forms an **HTML element**.
- The **title** tag defines title of the web page generated by the HTML code.

Example 2:

- <h1> RAINBOW </h1>
- Here **h1** tag refers to **heading**. Content between **<h1>** and **</h1>** is identified as **heading** and presented as heading.

Example 3:

- The content available between **<p>** and **</p>** is identified as **paragraph** and presented as paragraph text.
- The whole document is embedded between opening **<html>** and closing **</html>** tags.

Steps to view HTML document (web page) in a browser

STEP 1: Open gedit editor using **Applications → Accessories → gedit**.　　OR
Click on shortcut available for the gedit editor at the header row of the screen.
- The gedit is a **general purpose text editor** for the **GNOME** (part of **GNU** project, free software by **MIT**) desktop environment, **Mac OS X** and **Microsoft window**

STEP 2: Type the HTML contents in the empty gedit window.
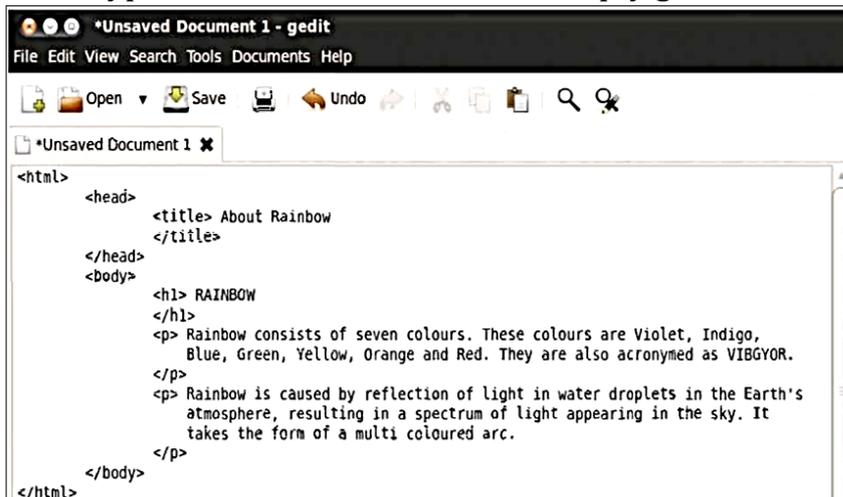
- Save the code as "p1.html" by selecting save option shown at the header row of the editor. Note that the HTML file can be saved with **html** or **htm** extensions.

STEP 3: Open a **browser** that is installed on your computer.
- Select **File → Open** File, you will see an **open file** dialog box. Select the file that you want to open and click on **Open button**.　　OR
Double click on the file to open it.
- NOTE: The **tags** used in HTML code are **not case sensitive**. The tags may be written in **uppercase** letter, **lowercase** letter or **mixture of upper and lower case** letters.
- Further, multiple elements can be written in a **single line**. However, it is advisable to write each element in a **new line** with proper **indentations** for sake of readability.

Structure of an HTML Document
- HTML document is structured into **two major parts**:
- The first part is **head section** and second part is **body section**. They are also known as **head element** and **body element**.
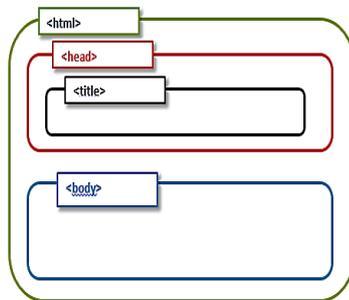 1. **Head Section (**also known as **Head element)**
     - The head section contains **information about the page** such as **title** and **description** of the page.
     - Information should be embedded within the **<head>** and **</head>** tags.

2. **Body Section (**also known as **Body element)**
   o The body element is embedded within the **<body>** and **</body>.**
   o This is the **content which can be seen or display within the browser**


```
<html>

    <head>
        <title> Title here </title>
    </head>

    <body>
        Web page content goes here.
    </body>

</html>
```

**Both the sections are embedded within the <html> and </html> tags.**

HTML Title

- The title of a web page is specified by the **TITLE element**.
- It is **placed in the head section** of the document.
- A document should have **only one title element**.
- It is used to **identify the document content** in a general way.
- The content of title is **not a part of the document text**. Because of this, title should be **simple text** and **cannot contain special commands** such as hyperlinks.
- The title appears as a **label of the window** displaying the text.
- The title also holds a place in a **browser's history or bookmark list.** It is therefore recommended that **title should be short**.
- Example: <head><title> About Rainbow</title></head>
- It appears at the top of the windows.

HTML Heading Style

- HTML document generally **beginning** with **heading**.
- Heading can be creating in **total six inbuilt sizes** names **h1, h2, h3, h4, h5 and h6**.
- Most browsers display the contents of the **<h1>, <h2>** and **<h3>** elements larger than the default size of text in the document.
- The **content of the <h4> element** is similar **to the default content size**.
- Type the code to see six levels of headings and save the code as "p2.html":

```
<html>
    <head>
        <title>About Rainbow</title>
    </head>
    <body>
        <h1>Rainbow</h1>
        <h2>Rainbow</h2>
        <h3>Rainbow</h3>
        <h4>Rainbow</h4>
        <h5>Rainbow</h5>
        <h6>Rainbow</h6>
    </body>
</html>
```
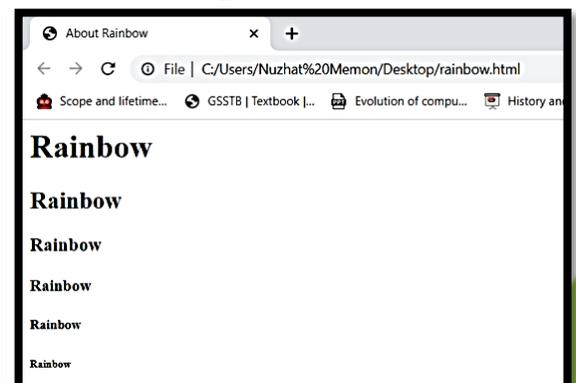
Basic Text Formatting Tags

Besides the heading styles such as h1 to h6, there are more **basic formatting tags** available in HTML, which can be used in **body section** of an HTML code.

Paragraph tags (<p> and </p>)

- The <p> tag **structures the content into a paragraph**.
- Each paragraph of text should go in between an **opening <p> and closing </p> tag**.
  Examples of Paragraph:

> **<p> This is the first paragraph</p>**
> **<p> The second paragraph is here. This is about multiple colours of rainbows. Though it is a temporary even it leaves a great impact on human mind.</p>**
> **<p> Best of Luck! </p>**

- In the second paragraph, multiple blank space and carriage returns; such white space will be considered as a single space.
- When an HTML code is displayed into a browser, the text will automatically take up the full width of the screen.
- If you resize the browser window, the browser will wrap the text onto new lines.
- Such white space management allows developer of HTML code to **indent** the code and add extra **spaces** to maintain readability of the code.

Line break (
 or <br/>)

- Unlike all other tags, <br> element **does not have an opening and closing tags**.
-
 is an abbreviated form of **break**. Such tags are known as **empty tags**.
- Advanced versions like XHTML use **
** tag. Note space between 'br' and '/'
- The <br> just **pushes the coming text into new line**.
- If we **need multiple lines**, then simply **use multiple <br> tags.**
  Example: First example

 Second example
-
 in paragraph **forces compulsory break into the content** and **disturbs text wrapping** while **presentation** and **resizing** the browser window.

Preformatted Text (<pre> and </pre>)

- Many a times we display text with **multiple white spaces** and in **multiple lines** without wanting to be changed it by the browser. For that we may embed the **content** into **pre-formatted tag** set using **<pre>** and **</pre>.**
- Any text between the opening **<pre>** and the closing **</pre>** tag will **preserve the formatting of the given content**.
- **Example with multiple spaces and lines** (It **displays the content of notepad** in the same format in the **browser**) :

> **<pre>**
>   **This is first line.**
>   **This is second line.**
>   **This is third line.**
> **</pre>**

- In a browser, the text appears along with given indentations.

CHAPTER 1

Text Formatting Tags

Elements	Description
Bold (and)	This tag is used to display given content into **bold** letters. Example: `<p>This is the <b> bold  </b> text </p>`
Underline (<u> and </u>)	This tag is used display given content with **Underlined** letters. Example: `<p> This is the <u> underline </u> text </p>`
Italics (<i> and </i>)	This tag is used to display given content into **Italics** letters. Example: `<p>This is the <i> italics </i> text</p>`
Strike Through (<s> and </s>) 's' is abbreviated form of 'strike'	The content of an <s> or <strike> element is displayed with a **strikethrough a thin line through the text**. The **"cancelled"** word is displayed in strikethrough manner. Example: `<p>This is the <s> cancelled </s> text</p>`
Type writer font (<tt> and </tt>)	The content of a <tt> element is written in **typewriter type of fonts**, which is also identified as **mono-spaced font** (like that of a **teletype machine**) Example: `<p>This is the <tt> teletype </tt> text</p>`

Other Text Formatting Tags

Elements	Description
and	The content is displayed **one font size smaller than the rest of the text** surrounding it.
<big> and </big>	The content is displayed **one font size bigger than the rest of the text** surrounding it. x
^{and}	The content is displayed in **superscript**.
_{and}	The content is displayed in **subscript**.
<acronym> and </acronym>	It defines the content as an **acronym**.
<dfn> and </dfn>	It defines **a special term**.
<q> and </q>	It defines a **quote**.

Anchor Tag

- When text is displayed within an HTML document, besides the content and format specification, some extra information or reference to other entity is needed. Many times further explanation is also required.
- **Set of words or text that appears in different colour** (generally blue and underlined) are called **hyperlink**.
- A hyperlink is created using an **<a> element**, where the **'a' stands for an anchor.**
- Let us modify the file "p1.html" with the following line :

  `<a href="p4.html">`Click here to visit Theory of Rainbow`</a>`

- It uses the attribute **"href" that stands for hyperlink or hypertext reference.**
- To create link between web pages, we need hyperlink.
- When user clicks on the hyperlink, an intended file describing the "Theory of Rainbow" must be opened.

RAINBOW

Rainbow consists of seven colours. These colours are Violet, Indigo, Blue, Green, Yellow, Orange and Red. They are also acronymed as VIBGYOR.

Rainbow is caused by reflection of light in water droplets in the Earth's atmosphere, resulting in a spectrum of light appearing in the sky. It takes the form of a multi coloured arc.

Click here to visit Theory of Rainbow.

- When you click on **the linked (anchor) text (Click here to visit Theory of Rainbow)** then the content of p4.html will be loaded in the browser.
- Let us create an HTML code for the file referred by the hyperlink. Save the code as "p4.html".

How Rainbow Developed

Rainbow is caused by reflection of light in water droplets in the Earth's atmosphere, resulting in a spectrum of light appearing in the sky. It takes the form of multi coloured arc.

```
<html>
      <head>
            <title>About Rainbow</title>
      </head>
      <body>
            <h1>How Rainbow Developed</h1>
            <p>Rainbow is caused by reflection of light in water droplets in
            the Earth's atmosphere, resulting in a spectrum of light
            appearing in the sky. It takes the form of multi coloured arc. </p>
      </body>
</html>
```

- The hyperlink is a way to **link two HTML documents** by creating a **hyper text** in a document and **giving reference of the other document** to it.
- A **website is a collection of many web pages**, manages links through such **hyperlink** management.
- The web pages are just presenting given content in a formatted way as we have specified them into the HTML code. Such web page contains static (fixed) information, hence known as **static web pages**.

Absolute or Relative Address in Anchor Tag

- **Relative Address**
  - Instead of giving a full address such as "http://www.somedomain.com/p4.html", we have given only the **file name** "p4.html". ****
  - Giving just a file name will work only when you have the **calling file** (**parent file**) and **called file** (**referred file**) in the **same directory**.
  - NOTE: calling file is p3.html (parent file contain the hyperlink) and called file (referred file) is p4.html
  - The **location of the called file is relative to the calling file**. Hence it is known as a **relative address**.

  - **Absolute Address**
    - While the **complete address is known as an absolute address**.
    ****
    - If no path is provided, the browser will understand that the referred file is located in the same directory where the parent file is stored.
    - If the referred file is located one directory above, may prefix **../** to the filename.

Attributes to the Tags

- To specify **more information along with tags**, additional attribute accompany the tags. In other words, attributes **tell more about the elements**.
- Attributes **always appear on the opening tags of the elements** that carry them.

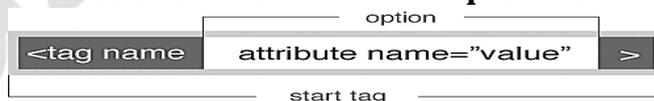 **Example** :   <a **href="p4.html"**> Click here

- An attribute is made up of **two parts**:
  1) **Name of the Attribute**
     - The name of an attribute **indicates the property** to be set.
     - The **<a> tag** has name '**href**'
  2) **Value**.
     - The value is a **value to be set to the property**.
     - The value of href attribute is the reference to the link (eg p4.html).
     - The **values should be in double quotation marks**.

- Between the **name** and the **value** there should be an **equal (=) sign**

Align attribute

- The align attribute indicates whether the heading appears to the **left, center or right** of the page.
- By default, the **content is aligned to the left of the page**.
- It can take **three values** as follows:
  - **Left:** The content is aligned to the left of the page.
  - **Right:** The content is aligned to the right of the page.
  - **Center:** The content is aligned to the center of the page.

- There are some attributes which can appear along with every tag. Such attributes are called **universal attributes**.
  - **Align is such universal attribute**.
    - <p align="right">Some content goes here</p>
  - Being a universal attribute, the align attribute can also go with heading.
    - <h1 align="center">Some heading goes here</h1>

Soft spaces and hard spaces in align attribute

- When content given in a paragraph is aligned, **some spaces are automatically added for adjustment**. The **spaces which are inserted automatically** are known as **soft spaces**.
- If **users himself (manually) inserts some spaces**, such **hard spaces** will be automatically deleted unless the content is written using **<pre>** and **</pre>** tag.

SciTE

- SciTE is a **text editor** based on a **free source code editing** component called **Scintilla** (**http://www.scintilla.org**)
- It comes with complete source code and a license that permits use in any free project or commercial product.

Interface of the SciTE editor

- The **menu bar items** is available at the **top of the screen**.
- The **menu items** include basic facilities for **file** operations, **editing** facilities, **searching**, **viewing** and other **tools options** etc.
- Next line beneath the menu items represents some icons for **basic operations** such as **new, open, save, edit, search** etc.
- You may open any existing code in the SciTE editor as follows:
  - **STEP 1:** Locate the file you want to open.
  - **STEP 2:** Right click on it and choose **Open With**.
  - **STEP 3:** Select SciTE text editor. It will open the file in the SciTE editor.
    You may note the indicators for indentations and colour of tags shown in the SciTE. Having such indentations and tags in different colour separates the content from the tags and increases the ease of reading the code.
  - **STEP 4:** To view the output in browser, select **Tools → Go** or press **F5**.
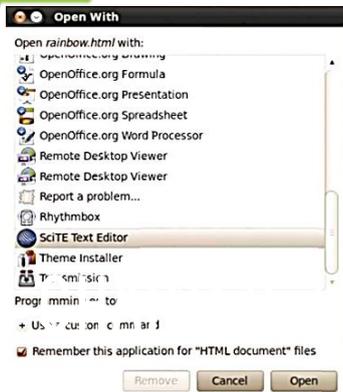
Current Version of HTML
- During the process of evolution, the HTML kept its focus on its **purpose** that is **composing** and **publishing** content.
- With the progress of time, more and more functionalities were added to the HTM to be useful and compatible with new browsers, new technologies and increasing developer demands.
- Latest version of the HTML is called **HTML 5.0**. It is popular at present.

Different Tags of HTML

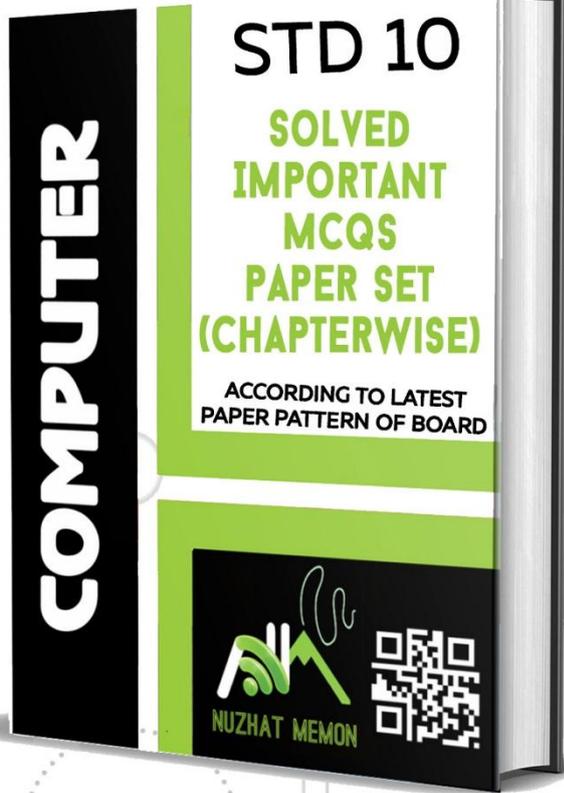| Tags	Description
\<html> ... \</html>	Cover the entire HTML document.
\<head> ...\</head>	Defines the head section of an HTML document. Appears within \<html> tag pair.
\<title> .. \</title>	Defines the title of the document. Appears within the \<head> tag pair.
\<body> ... \</body>	Defines body of the HTML document. Appears within the \<html> tag pair.
**\ ... **	Displays text in bold fonts.
\<i> ... \</i>	Display text in italics font.
\<u> ... \</u>	Display text in underlined font.
**\ ... \ **	Defines a first level heading.
**\ ... \ **	Defines a second level heading.
**\ ... \ **	Defines a third level heading.
**\ ... \ **	Defines a fourth level heading.
**\ ... \ **	Defines a fifth level heading.
**\ ... \ **	Defines a sixth level heading.
**\ or \ **	Defines line break. It is an empty singular tag.
**\ ... \ **	Defines a paragraph.
\<pre> ... \</pre>	Displays Preformatted text.
\<s> ... \</s>	Displays text in strikethrough manner.
\<tt> ... \</tt>	Displays text in typewriter fonts
**\<a href> ... **	Anchors parent file to the referred file through hot text (link).

TEXTUAL EXERCISE MCQs

1. To display the web content, which mark-up language is needed?
   (A) CML   (B) HTML   (C) NML   (D) WML

2. Which of the following is considered as a language for describing web page?
   (A) HTML   (B) WML   (C) NML   (D) CML

3. Which of the following is the full form of HTML?
   (A) Hot Text Manipulation Language   (B) Hyper Text Manipulation Law
   (C) Hyper Text Markup Language   (D) Hidden Text Markup Language

4. Which of the following is the full form of SGML?
   (A) Standardized General Markup Language
   (B) System General Manipulation Law
   (C) Standardized Genome Markup Law
   (D) Standardized Gigabyte Markup Language

5. Which of the following refers to an HTML element?
   (A) An opening tag, content and a closing tag
   (B) Angular brackets
   (C) Content
   (D) Any of these

6. Which of the following can be used to specify additional formatting along with an HTML elements?
   (A) Numbers   (B) Attributes
   (C) Comments   (D) Contents

7. Which of the following refers to a singular tags that do not require contents?
   (A) Complete   (B) Empty
   (C) Null   (D) Void

8. Which of the following attributes type can appear along with any tag?
   (A) Unique   (B) Universal
   (C) Trivial   (D) Preliminary

9. Which type of information can be incorporated in an HTML document?
   (A) Multimedia information (B) Text information
   (C) Address and path of filename (D) All of these

10. Which of the following is an editor to edit an HTML document?
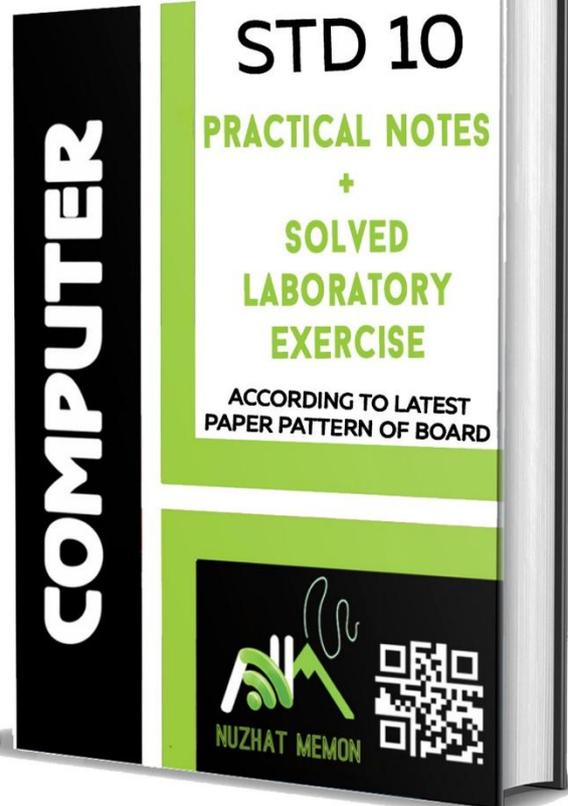   (A) SciTE   (B) BriTE
    (C) LigHT   (D) SpriTE

ANSWER KEY

1. B   2. A   3. C   4. A   5. A   6. B   7. B   8. B   9. D   10. A

STD 10 COMPUTER

STD 10
SOLVED IMPORTANT MCQS PAPER SET (CHAPTERWISE)
ACCORDING TO LATEST PAPER PATTERN OF BOARD

COMPUTER

NUZHAT MEMON

STD 10
PRACTICAL NOTES + SOLVED LABORATORY EXERCISE
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IMPORTANT MCQS PAPER SET

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