Hypertext Markup Language (HTML)

Q1 What is HTML?

Ans: -HTML stands for Hypertext Markup Language. It is the most widely used language to write Web Pages. It is not a case—sensitive language.

Hypertext: - Hypertext refers to the way in which web pages (HTML documents) are linked together.

Markup: – Highlighting the text either by underlining or displaying it in different colours.

Language: - The way of communication between web pages. It has its syntax or rules.

Q2 Explain the history of HTML.

Ans: – IBM (International Business Machine) sowed the seed of HTML in the early 1980s. Initially it was known as GML (General Markup Language) and used for creating web pages including title, headings, text, font etc. In 1986, this concept got standardized by ISO (International Standard Organization) and was named SGML (Standard Generalized Markup Language). In 1989, Tim Berners Lee and his team designed this language and named it as HTML (Hyper Text Markup Language).

Q3 Name the different versions of HTML.

HTML was modified many times leading to a number of versions. Ans: –

S. N.	Version	Released Date
1	HTML 1.0	01–01–1994
2	HTML 2.0	24-11-1995
3	HTML 3.2	14-01-1997
4	HTML 4.0	24-04-1998
5	HTML 4.01	24–12–1999
6	HTML 5	28-10-2014
7	HTML 5.1	01–11–2016

What is the extension of a HTML file? Q4

.htm or .html Ans: -

Q5 How HTML works?

Structure of how HTML works -Ans: -

<html>

<head>

<title> title tag of html </title>

</head>

<body>

Computer Science

</body>

</html>

1) <html>: - This tag encloses the complete HTML programming language.

- 2) <head>: This tag is used inside the <html> tag. The <head> tag represents the document's header which can keep other HTML tags like <title>, <link> etc.
- <title>: This tag is used inside the <head> tag to write the document title.
- <body>: This tag represents the document's body which keeps other HTML tags like <marquee>, , , etc.

Q6 What is HTML text editor?

Ans: – HTML file is a text file, so to create an HTML file we can use any text editors. Text editors are the programs which allow editing in a written text. There are various types of text editors available like Notepad, Notepad++, Sublime Text, Vim, TextEdit etc.

Q7 How to run a HTML file?

Ans: – HTML (Hypertext Markup Language) is a web-based scripting language. It is mainly used to structure the look and function of websites. Any file containing HTML code is saved using the extension .htm or .html.

All modern browsers such as Google Chrome, Safari, Opera, Internet Explorer, Mozilla Firefox etc. recognize this format and can open these files, so all we need to do to run an HTML file is open it in our Web browser of choice.

Q8 What is HTML tag?

Ans: – Tag is an element, which instruct the browser, what to show and how to show on a web page.

A HTML document always starts and ends with a tag. Each tag in HTML is enclosed in angular brackets (< >)

Types of HTML Tag

1) <u>Container Tag or Paired Tag:</u> – The tags that include both <u>opening</u> and <u>closing</u> tags (<html> </html>) are called Container Tag.

Example -

Opening Tag <html>
Closing Tag </html>

- 2) <u>Empty Tag or Unpaired Tag:</u> There are special tag who not need an <u>end tag</u> or <u>closing tag</u> like
br>, <hr> etc. Empty tag only contains opening tag.
- 3) <u>Self-Closing Tag:</u> Self-Closing Tags are those HTML tags that do not have a partner tag, where the first tag is the only necessary tag that is valid for the formatting. An <u>image tag</u> is the classic example of a self-closing tag.

Example -

Note – In the older versions, the self-closing tags use a 'forward slash' before the ending or closing tag as written below –

- **Formatting Tag:** The HTML tags that help us in the formatting of the texts like the size of the text, font styles, making a text bold, italic, underline etc. This is done using tags like , , <u> etc.
- 5) <u>Structure Tag:</u> The HTML tags that help in structuring the HTML document are called Structure Tags like Description, html, head, title, body etc.

Q9 What are HTML attributes?

Ans: – HTML attributes can be said as special words which are used inside opening tags and are responsible for controlling an element's behavior. Attribute provides additional formatting to text like colors, alignments, style etc.

Q10 How can you change background color of a web page?

Ans: — We can change background color of a HTML page using bgcolor attribute inside <body> tag.

Web Coding: -

<html>

<head>

<title> My Web Page </title>

```
</head>
        <body bgcolor="Pink">
            Computer Science
        </body>
        </html>
        Note: - The value of bgcolor attribute can be a hexadecimal number, an RGB value or a color
        1)
            <body bgcolor="#000000">
        2)
            <body bgcolor="rgb(0,0,0)">
        3)
            <body bgcolor="black">
Q11
        How can you insert image in the background of a web page?
Ans: –
        We can insert image in the background of a HTML page using background attribute inside
        <body> tag.
        Web Coding: -
        <html>
        <head>
        <title> My Web Page </title>
        </head>
        <body background="flower.jpg">
            Computer Science
        </body>
        </html>
Q12
        How can you insert image in the foreground of a web page?
        We can insert image in the foreground of a HTML page using <img> tag. Inside the <img> tag
Ans: -
        we can use many attributes.
    1) src: – src (Source) specifies where to download the image from.
    2) alt: - Specifies an alternate text for an image.
    3) height: – Specifies the height of an image.
    4) width: - Specifies the width of an image.
        Web Coding: -
        <html>
        <head>
        <title> My Web Page </title>
        </head>
        <body>
            <img src="flower.jpg" alt="Software development icon" height="150" width="140" />
            Computer Science
        </body>
        </html>
Q13
        What are HTML formatting tags?
        The HTML tags that help us in the formatting of the texts like the size of the text, font styles,
Ans: –
        making a text bold, italic, underline etc. Some of the most useful formatting tags are -
    1) Font Tag <font> </font> : - As the name suggests, it is used to apply a specific font to a text.
        It has three main attributes -
```

ii) color: – It is used to change the color of font.

face: - It means the font name, like "Monotype Corsiva", "Times New Roman", etc.

iii) size: - It is used to change the size of font.

```
Web Coding: -
    <html>
    <head> <title> My Web Page </title> </head>
        <font size="7" color="yellow" face="Monotype Corsiva">
            Computer
        </font>
    </body>
    </html>
2) Header Tags <h1> ..... <h6>: - Headings are the beginning of any document. Several size
    headings can be used in HTML. It offers 6 heading levels <h1> to <h6> where <h6> being the
    smallest heading and <h1> being the largest heading.
   Web Coding: -
    <html>
    <head> <title> My Web Page </title> </head>
        <h1> Computer </h1>
                                          Computer
        <h2> Computer </h2>
                                          Computer
        <h3> Computer </h3>
                                          Computer
        <h4> Computer </h4>
                                          Computer
        <h5> Computer </h5>
                                          Computer
        <h6> Computer </h6>
                                          Computer
    </body>
    </html>
3) Bold Tag <b> </b>: - To make the text bold, this tag is used. <b> is used as the opening tag
   and </b> is used as the closing tag.
   Web Coding: -
    <html>
    <head> <title> My Web Page </title> </head>
    <body>
        <b>
            Computer
        </b>
    </body>
   </html>
4) Underline Tag <u> </u>: - To make the text underline, this tag is used. <u> is used as the
   opening tag and </u> is used as the closing tag.
   Web Coding: -
    <html>
    <head> <title> My Web Page </title> </head>
    <body>
        <u>>
            Computer
        </u>
    </body>
   </html>
5) <u>Italic Tag <i> </i></u>: – To make the text italic, this tag is used. <i> is used as the opening tag and
   </i> is used as the closing tag.
```

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Web Coding: -

<html>

```
<head> <title> My Web Page </title> </head>
    <body>
        <i>>
             Computer
        </i>
    </body>
    </html>
6) Strike-Out Tag <strike> </strike>: - To cross any text, this tag draws a line through its
    center. This shows that the text is to be removed or no longer be used.
    Web Coding: -
    <html>
    <head> <title> My Web Page </title> </head>
    <body>
        <strike>
             Computer
        </strike>
    </body>
    </html>
    Note: - We can also use <s> </s> in place of <strike> </strike>
7) Typewriter Text Tag <tt> </tt>: - The font of the text becomes similar to the one as typed
    using the typewriter and has a fixed width.
    Web Coding: -
    <html>
    <head> <title> My Web Page </title> </head>
    <body>
        <tt>
             Computer
        </tt>
    </body>
    </html>
8) Subscript Tag <sub> </sub>: – The text between the opening and the closing tag is written as
    the subscript. For displaying H<sub>2</sub>O we can write code as -
    Web Coding: -
    <html>
    <head> <title> My Web Page </title> </head>
    <body>
        H <sub> 2 </sub> O
    </body>
    </html>
9) Superscript Tag <sup> </sup>: – The text between the opening and the closing tag is written
    as the subscript. For displaying Mg<sup>++</sup> we can write code as -
    Web Coding: -
    <html>
    <head> <title> My Web Page </title> </head>
    <body>
        Mg <sup> ++ </sup>
    </body>
    </html>
10) Mark Tag <mark> </mark>: - Using it we can highlight any text in HTML. Anything that
    appears within <mark> ...... </mark> element, is displayed as highlighted with yellow ink.
```

```
Web Coding: -
        <html>
        <head> <title> My Web Page </title> </head>
             My favourite subject is <mark> Computer Science </mark>
        </body>
        </html>
Q14
        How can you scroll any text in HTML?
Ans: –
        The HTML <marquee> tag defines a scrolling text area in the HTML document that moves
        across the page in a horizontal or vertical direction. Inside <marquee> tag we can use the
        following attributes according requirement –
    1) direction: – Specifies the direction of the scrolling text. The value may be left, right, up and
        down. By default, text found within the <marquee> tag will scroll from right to left.
    2)
        bgcolor: – Specifies background color of marguee slide.
        behavior: – Specifies how the text scrolls. The value may be alternate, scroll and slide.
       width: - Specifies width of the marquee (expressed in either pixels or percent) slide.
        height: - Specifies height of the marquee (expressed in either pixels or percent) slide.
    5)
    6) loop: - Specifies the number of times that the text will scroll. The default value is -1 which
        means that the marquee will loop continuously.
    7) scrollamount: - Specifies the amount of scrolling (in pixels) for each interval. The default
        value is 6 if the scrollamount is not specified.
    8) scrolldelay: - Specifies the delay in milliseconds between scrolling. The default value is 85 if
        the scrolldelay is not specified.
        Web Coding: -
        <html>
        <head>
        <title> My Web Page </title>
        </head>
        <body>
                                                                                           loop="5"
             <marquee
                           direction="right" behavior="alternate" bgcolor="pink"
            width="80%">
                 Computer Science
             </marquee>
        </body>
        </html>
Q15
        Explain the following tags available in HTML.
    1)
        Line Break Tag <br/>- It is used for changing any line. It is an empty tag.
        Web Coding: -
        <html>
        <head>
        <title> My Web Page </title>
        </head>
        <body>
                 Computer Science
                                      <br>
                 Physics
                                       <br>
                 Chemistry
        </body>
        </html>
```

- 2) Horizontal Rule Tag <hr>: It is used to insert a horizontal line in a HTML page. It is an empty tag. Inside <hr> tag we can use the following attributes according requirement
 - i) <u>align</u>: Specifies the alignment of the horizontal line. The value may be left, right and center. By default, alignment will be center.
 - ii) noshade: Used to specify the bar without shading effect.
 - iii) <u>size</u>: Used to specify the height of the horizontal line. The value may be in pixels or percent.
 - iv) width: Used to specify the width of the horizontal line. The value may be in pixels or percent.
 - v) color: Used to specify the color of the horizontal line.

3) <u>Preformatted Tag or Preserve Formatting - Pre tag used to keep text format as it is written in HTML document. It shows the preformatted text of the content.</u>

</html>

4) Paragraph Tag : – It is used to create a paragraph in a HTML page.

This is the second paragraph of text.

```
This is the second paragraph of text.
    </body>
    </html>
5) Comment Tag <!-- -->: - The comment tag is used to insert a comment in the
   HTML source code. A comment will be ignored by the browser.
    Web Coding: -
    <html>
    <head>
    <title> My Web Page </title>
    </head>
    <body>
        <!-- This is a comment -->
        Computer Science
    </body>
    </html>
6) <div> Tag : - The <div> element allows us to group together several elements to create
   sections or subsections of a page.
    Web Coding: -
    <html>
    <head>
    <title> Div Tag Example </title>
    </head>
    <body>
        <div id="menu" align="middle" >
            <a href="http://www.google.com"> Google </a> |
            <a href="http://www.facebook.com"> Facebook </a> |
            <a href="http://www.gmail.com"> Gmail </a>
        </div>
    </body>
    </html>
7) <bdo> ...... </bdo> Tag: - The element stands for Bi-Directional Override and it is used to
   override the current text direction. The value of dir attribute inside <bdo> tag may be rtl
    (Right to Left) or ltr (Left to Right).
    Web Coding: -
    <html>
    <head>
    <title> My Web Page </title>
    </head>
    <body>
            <bdo dir="rtl"> This text will go right to left </bdo> <br>
            <bdo dir="ltr"> This text will go left to right </bdo>
    </body>
   </html>
8) <center> ...... </center> Tag : - It is used to put any content in the center of the page or any
   table cell.
    Web Coding: -
    <html>
    <head>
    <title> My Web Page </title>
```

```
</head>
        <body>
                <center> Computer Science </center>
        </body>
        </html>
Q16
        How can you link web pages in HTML?
Ans: -
        Anchor tags are commonly used to link separate webpages, but they can also be used to link
        between different places in a single document. We use href (hyper reference) attribute inside
        Anchor Tag for representing address of destination site.
    1) Linking to another site: -
        <html>
        <head>
        <title> My Web Page </title>
        </head>
        <body>
                <a href="http://www.google.com"> Google </a> <br>
                <a href="http://www.facebook.com"> Facebook </a> <br>
                <a href="http://www.gmail.com"> Gmail </a>
        </body>
        </html>
        Note: - We can use target attribute inside Anchor Tag like as -
                <a href="http://www.google.com" target = " self"> Google </a>
        The value of target attribute may be -
            blank
                             Opens the linked document in a new window or tab.
        i)
                             Opens the linked document in the same frame.
        ii)
           self
                             Opens the linked document in the parent frame.
        iii) _parent
                             Opens the linked document in the full body of the window.
        iv) top
    2) Linking to a Page Section: – We can create a link to a particular section of a given webpage by
        using name attribute. This is a two-step process.
            First create a link to the place where you want to reach with-in a webpage and name it
            using <a...> tag as follows -
            HTML Text Links <a name = "top"> </a>
        ii) Second step is to create a hyperlink to link the document and place where you want to
            reach -
            <a href="#top">Go to the Top</a>
            Web Coding: -
            <html>
            <head>
            <title> My Web Page </title>
            </head>
            <body>
            HTML Text Links <a name = "top"> </a>
            <
                <!-- Insert more than 15 blank lines -->
            <a href="#top">Go to the Top</a>
            </body>
            </html>
```

3) <u>Linking to any document</u>: – We can link any document (pdf file or image file or sound file or video file) with our HTML document.

```
<html>
<head>
<title> My Web Page </title>
</head>
<body>

<a href="C:/student.pdf> My File </a>
</body>
</html>
```

- Q17 What are Lists? Explain their types.
- Ans: List is a way to group together related piece of information, so that they are easy to read and understand. In HTML there are following type of lists
 - 1) Ordered List: HTML Ordered List or Numbered List displays elements in numbered format. The HTML tag is used for ordered list. We can use ordered list to represent items either in numerical order format or alphabetical order format. Each list item starts with the tag. We can use following attributes inside tag
 - i) type: Specifies different ordered lists. The value may be 1, I, i, A and a. 1 is the default type.
 - ii) <u>start</u>: The start attribute is used with tag to specify from where to start the list items.

```
Web Coding: -
<html>
<head>
<title> My Web Page </title>
</head>
<body>
  Java
     Java 
                      4. HTML
     HTML 
                       PHP
     PHP 
                       6. C++
     C++ 
  </body>
</html>
```

Note: – If we use the reversed attribute with tag then it will numbered the list in descending order.

2) <u>Unordered List</u>: — An unordered list items are marked with bullets (typically small black circles). An unordered list starts with the tag. Each list item starts with the tag. We can use type attribute inside tag —

type: – Specifies different unordered lists. The value may be circle, square and disc. The default value is disc.

```
Web Coding: -
      <html>
      <head>
      <title> My Web Page </title>
      </head>
      <body>
          Java 

    Java

                                  HTML
             HTML 

    PHP

             PHP 
                                  C++
             C++ 
          </body>
      </html>
Q18
      What are Nested Lists?
Ans: –
      List within list called Nested List.
      Web Coding: -
      <html>
      <head>
      <title> My Web Page </title>
      </head>
      <body>
          Computer 
                                           A. Computer

    type="1" >

                                                1. Programming
                                                2. Web Designing
                    Programming 
                                           B. Chemistry
                    Web Designing 
                                                1. Organic
                2. Inorganic
             Chemistry 

    type="1" >

                    Organic 
                    Inorganic 
                </body>
      </html>
```

Q19 How can you insert table in HTML?

Ans: – Tables are defined with the tag. A table is divided into rows (with the
 table are defined with the tag. A table is divided into rows (with the
 table are defined with the tag). The letters td stands for table data which is the content of a data cell. A data cell can contain text, images, lists, paragraphs, forms, horizontal rules, tables etc.

row 1,cell 1	row 1, cell 2
row 2,cell 1	row 2, cell 2

```
    row 2, cell 1
    2 cell 2
    2 ce
```

Name	Class
Ajay	12
Manish	10
Suraj	11

Q20 Explain different attributes of tag in HTML.

Ans: - Attributes of tag are -

- i) border: It is used to set border of table. The value may be in pixel.
- ii) bordercolor: It is used to specify border color of table.
- iii) align: Whole tables can be aligned to the center, left or right.
- iv) width: It is used to specify how wide the table is, either in pixels or in a percentage of the screen width. For example, we can specify width="400" or width="80%".
- v) <u>height</u>: It is used to specify width of table. We can provide value either in pixels or in a percentage of the screen height. For example, we can specify height="400" or height ="80%".
- vi) <u>bgcolor</u>: It is used to specify background color of table.

Q21 How can we change cell alignment in HTML?

Ans: – Not only we can align the entire table, we can also align the text or images or whatever inside a cell to either side (middle or right or center or to the top or to the bottom) using the following attributes inside or tag –

i) <u>align</u>: – It means horizontal alignment. Left is default horizontal alignment. We simply put the align attribute inside the or tag (or in the tag if we want to affect the whole row) like –

or or

ii) <u>valign</u>: – It means vertical alignment. Middle is default vertical alignment. We simply put the valign attribute inside the or tag (or in the tag if we want to affect the whole row) like –

or or

Q22 How can we merge, Rows and Columns in HTML?

Ans: – We can merge Rows and Columns in HTML by using attributes <u>rowspan</u> and <u>colspan</u> inside or tag. Rowspan is used for rows and colspan is used for column.

```
Web Coding: -
```

```
<html>
<head>
<title>
Use of table
</title>
</head>
```

```
<body>

 Report Card
```

HTML Forms

A form is an area that can contain form elements. Form elements are elements that allow the user to enter information in a form. Example – If a user wants to purchase some items on internet, he/she must fill the form. A form is defined with the <form> tag.

The most used form tag is the <input> tag. The type of input is specified with the type attribute. The most commonly used input types are –

1) <u>Text Field</u>: – Text fields are used when we want the user to type letters, numbers etc. in a form.

Example -

Enter First Name <input type="text" size="20" maxlength="5" name="firstname">

Enter Last Name <input type="text" size="20" maxlength="5" name="lastname">

Note: - In most browsers, the width of the text field is 20 characters by default.

2) Password Box: – It is used when we want the user to type password in a form.

Example –

Enter Password <input type="password" size="20" maxlength="5" name="password">

3) <u>Text Area:</u> – Defines a text-area (a multi-line text input control). It is used when we want the user to type address, feedback comment etc. in a form. A text area can hold an unlimited number of characters. The size of a text area is specified by the cols and rows attributes.

Example -

Enter Address <textarea name="p1" rows="3" cols="10"> </textarea>

4) Radio Button: – The radio button is used to select one from multiple options. It is used in gender, quiz questions etc.

Example -

```
Male <input type="radio" name="p1" value="male"> <br>
Female <input type="radio" name="p1" value="female">
```

Note: - For Radio Button (Multiple choices but selection one) name must be same.

Check Box Control: – Checkboxes are used when we want the user to select one or more options of a limited number of choices.

Example -

6) Select Box Control: - Defines a selectable list (a drop-down box).

Example -

```
<select name = "dropdown">
        <option value = "Computer" selected> Computer </option>
        <option value = "Physics"> Physics </option>
        <option value = "Chemistry"> Chemistry </option>
</select>
```

7) <u>File Upload Box</u>: — In a form, the file value of the type attribute allows us to define an input element for file uploads. This displays a browse button, which the user can click on to select a file on their local computer.

Example -

```
<input type = "file" name = "fileupload" accept = "image/*" />
```

8) Button Controls: – Defines a push button.

Example -

```
<input type = "submit" name = "submit" value = "Submit" />
<input type = "reset" name = "reset" value = "Reset" />
<input type = "button" name = "ok" value = "OK" />
```

HTML Frames

HTML frames are used to divide our browser window into multiple sections where each section can load a separate HTML document. A collection of frames in the browser window is known as a frameset. The window is divided into frames in a similar way the tables are organized: into rows and columns.

```
Example 1) -
<html>
<head>
<title> My Web Page </title>
</head>
<frameset rows="20%, 30%, 50%">
    <frame src="C:\school.html" />
    <frame src="C:\student.txt" />
    <frame src="D:\college.doc" />
</frameset>
</html>
Example 2) -
<html>
<head>
<title> My Web Page </title>
</head>
<frameset cols="50%, 50%">
    <frame src="C:\school.html" />
    <frame src="C:\student.txt" />
</frameset>
</html>
Example 3) -
<html>
<head>
<title> My Web Page </title>
</head>
<frameset rows="50%, 50%">
    <frameset cols="50%, 50%">
        <frame src="C:\school.html" />
        <frame src="C:\student.txt" />
    </frameset>
    <frame src="C:\student.txt" />
</frameset>
</html>
```