

Theoretical Questions & Answers

Assignment – HTML - 1

1. Are the HTML tags and elements the same thing?

Ans –

HTML Tags are building blocks of HTML Page. HTML Elements are components that are used in HTML Page.

2. What are tags and attributes in HTML?

Ans -

In HTML, tags and attributes are fundamental components used to structure and define web content.

Tags: Tags are HTML elements that define different parts of a web document. They are represented by angle brackets (< and >) and appear as opening and closing pairs. For example, the <p> tag is used to indicate a paragraph, <h1> represents a heading, and defines an image. Tags enclose content and provide structure to the document.

Attributes: Attributes provide additional information or instructions to HTML tags. They are added within the opening tag and consist of a name and a value. Attributes modify the behavior or appearance of the associated tag. For instance, the src attribute in the tag specifies the image source, while the href attribute in the <a> tag defines the destination URL of a hyperlink.

By combining tags and attributes, HTML allows web developers to create structured, interactive, and visually appealing web pages.

3. What are void elements in HTML?

Ans - Most of the HTML elements are surrounded by start and end tags to specify the starting and end of the element.

There is a special group of elements that only have start tags and does not contain any content within it, these elements are called void elements. Void elements doesn't have ending tags and can only have attributes but do not contain any kind of content. These elements can have backslash before ending of start tag but that is completely optional. Example of such elements

are
, <hr>, , <input>, <link>, <base>, <meta>, <param>, <area>, <embed>, <col>, <track>, <source> etc.

Characteristics:

Void elements do not have end tags.

Void elements cannot have content inside it.

Void elements have attributes.

Void elements cannot be nested.

Example

HTML
 tag: This tag is used to insert line breaks in text in HTML. It accepts clear attribute that indicates where to start the next line.

Example 1: In this example, we will use of the
 tag.

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<h2 style="color:green">GeeksforGeeks</h2>
```

```
<p>Hi Geeks! <br>Welcome to GeeksforGeeks</p>
```

```
</body>
```

```
</html>
```

4. What are HTML Entities?

Ans - HTML entities are special character sequences used to represent characters that have special meaning or cannot be easily represented directly in HTML. They are used to display reserved characters, mathematical symbols, special characters, or characters with specific formatting purposes.

HTML entities are written using an ampersand (&), followed by a specific entity name or a numerical code, and ending with a semicolon (;). For example, < represents the less-than

symbol (<), © represents the copyright symbol (©), and € represents the Euro sign (€).

Here are a few examples of HTML entities:

< represents the less-than symbol (<)

> represents the greater-than symbol (>)

& represents the ampersand symbol (&)

" represents the double quotation mark (")

© represents the copyright symbol (©)

€ represents the Euro sign (€)

HTML entities are useful when you need to display special characters or symbols in your HTML documents without conflicting with the HTML syntax. They ensure that these characters are correctly interpreted and rendered by the web browser.

5. What are different types of lists in HTML?

Ans he List can be used to store the information in short, either in bulleted form or numbered format, that visually help to look at a glance. In other words, it is used to group together related items or lists, & used to structure and show important information where each list item is displayed on the new line.

HTML lists allow the content to follow a proper semantic structure. All the tags in the list require opening and closing tags. There are 3 types of lists in HTML, namely:

Unordered List

Ordered List

Description List

We will explore all the List types in HTML, along with their implementation through the examples.

Unordered List: An Unordered list is used to create a list of related items, in bulleted or unordered format. It starts with the tag, followed by the tag to show list items inside tag. –

Syntax:

```
<ul>
  <li>Item1</li>
  ...
</ul>
```

We can also use different CSS properties to create a list with different styles. It can have one of the following values :

circle: It gives a circle list item marker.

square: It gives square as list item marker.

disc: This is the default filled circular bullet item marker.

none: This is used to unmark list items.

Ordered Lists: The Ordered lists have an order which is either numerical or alphabetical. The tag is used to create ordered lists in HTML and just like unordered list, we use tag to define or show lists inside tag.

Syntax:

```
<ol>
  <li>Item1</li>
  <li>Item2</li>
  <li>Item3</li>
</ol>
```

The ordered list has a type operator which defines what type of order the list will have, like whether the list will start with a numerical value or an alphabetical value. The various ways to use the ordered list, are given below:

type = "1": List will start from 1.

type = "A": Here the list will start from A.

type = "a": Here the list will start from lowercase a.

type = "I": The list will start from Roman numbers.

type = "i": TheList will start from lowercase Roman numbers.

Description List: A description list is a type of list where each item has a description. It is also known as a definition list. The <dl> tag is used to create description list, the <dt> tag defines the item, and the <dd> tag describes each item in list.

Syntax:

```
<dl> Contents... </dl>
```

The HTML definition list contains following 3 tags:

<dl>: It defines the start of the list.

<dt>: It defines a item.

<dd>: It defines the description of each item.

6. What is the 'class' attribute in HTML?

Ans –

The class attribute in HTML is used to assign one or more class names to an element. It allows elements to be grouped together based on common characteristics, facilitating targeted styling or behavior using CSS and JavaScript. By adding the class attribute to an HTML element and assigning it a value, developers can easily apply specific styles or functionality to elements with the same class. This promotes consistency, reusability, and separation of concerns within web development, as the class names defined in the HTML can be referenced and manipulated in external CSS and JavaScript files.

7. What is the difference between the 'id' attribute and the 'class' attribute of HTML elements?

Ans - In HTML, the id and class attributes are used to uniquely identify and classify elements, but they have some key differences.

The id attribute is used to assign a unique identifier to a specific element on a web page. It must be unique within the entire HTML document, meaning no two elements can have the same id. The id attribute is typically used when there is a need to specifically target or manipulate a particular element using JavaScript or CSS. For example, `<div id="header">` can be targeted specifically in CSS using `#header` or in JavaScript using `document.getElementById('header')`.

On the other hand, the class attribute is used to classify elements into groups based on shared characteristics. Multiple elements can have the same class, and a single element can have multiple classes separated by spaces. The class attribute is commonly used for applying consistent styles or behavior to multiple elements. For example, `<p class="highlight">` can be styled consistently using `.highlight` in CSS.

In summary, the id attribute provides a unique identifier for individual elements, while the class attribute allows grouping and applying styles or behaviors to multiple elements with shared characteristics.

8. What are the various formatting tags in HTML?

Ans –

HTML provides a variety of formatting tags that allow you to apply different types of formatting and presentation to your content. Some commonly used formatting tags include:

`` and ``: Used to make text bold.

`<i>` and ``: Used to italicize text.

`<u>`: Used to underline text.

`<s>`: Used to strike through text.

`<sub>`: Used to display subscript text.

`<sup>`: Used to display superscript text.

`<mark>`: Used to highlight or mark specific text.

`<code>`: Used to represent computer code or programming instructions.

`<pre>`: Preserves whitespace and displays text in a preformatted style.

`<blockquote>`: Indicates a block of quoted text.

`<cite>`: Specifies a citation or reference to a source.

`<abbr>`: Represents an abbreviation or acronym.

``: Represents deleted or removed text.

`<ins>`: Represents inserted or added text.

These formatting tags allow you to enhance the visual presentation of your content, emphasize specific parts, indicate quotations, or represent specific textual elements. However, it is important to note that the use of these tags for formatting purposes is generally discouraged in favor of using CSS styles for better separation of concerns and maintainability.

9. How is Cell Padding different from Cell Spacing?

Ans –

Cell padding and cell spacing are attributes used in HTML tables to control the space around and between table cells, respectively. Cell padding adds space within each cell's content, while cell spacing adds space between adjacent cells in the table.

10. How can we club two or more rows or columns into a single row or column in an HTML table?

Ans –

In HTML tables, you can use the `rowspan` attribute to merge multiple rows into a single row, and the `colspan` attribute to merge multiple columns into a single column. By specifying the number of rows or columns to span, you can create a cell that occupies the space of multiple cells horizontally or vertically.

11. What is the difference between a block-level element and an inline element?

Ans –

Block-level elements and inline elements are two types of elements in HTML with key differences in their default behavior and rendering.

Block-level elements start on a new line and occupy the entire available horizontal space. They create vertical blocks of content. Block-level elements can contain other block-level and inline elements. Examples include `<div>`, `<p>`, `<h1>` to `<h6>`, and ``.

Inline elements, on the other hand, do not start on a new line and only occupy as much horizontal space as necessary. They are typically used for small, inline portions of content within a block-level element. Inline elements can contain only data or other inline elements. Examples include ``, `<a>`, ``, and ``.

Understanding the distinction between block-level and inline elements is important for proper layout and styling of HTML documents.

12. How to create a Hyperlink in HTML?

Ans –

To create a hyperlink in HTML, you use the `<a>` tag (anchor tag) and the `href` attribute. The `href` attribute specifies the URL or destination of the hyperlink. For example, `Link text` creates a hyperlink with the text "Link text" that redirects to "https://www.example.com" when clicked.

13. What is the use of an iframe tag?

Ans –

The `<iframe>` tag in HTML is used to embed another HTML document or webpage within the current document. It allows you to display external content, such as videos, maps, or other websites, within a frame or window on your webpage.

14. What is the use of a span tag? Explain with example?

Ans -

The `` tag in HTML is an inline element used for grouping and applying styles or behaviors to specific portions of text or elements within a larger block of content. It has no inherent semantic meaning and is often used in conjunction with CSS or JavaScript.

For example, consider the following code:

html

Copy code

```
<p>This is a <span class="highlight">highlighted</span> word.</p>
```

In this case, the `` tag is used to wrap the word "highlighted" within the paragraph. The `class="highlight"` attribute assigns a class to the `` element, allowing CSS to target and apply specific styles, such as changing the background color or font color, to the highlighted word. The `` tag provides a way to selectively style or manipulate specific portions of text or elements within HTML content.

15. How to insert a picture into a background image of a web page?

Ans –

In HTML, you can insert a picture as the background image of a web page by using CSS. Here's how:

Ensure you have an image file available.

In your HTML file, add a `<style>` tag within the `<head>` section.

Inside the `<style>` tag, target the desired HTML element (e.g., `<body>`) where you want to set the background image.

Use the `background-image` property to specify the path or URL of the image.

For example:

html

```
<style>
```

```
  body {
```

```
    background-image: url('path/to/your/image.jpg');
```

```
  }
```

```
</style>
```

Adjust additional CSS properties like background-repeat, background-position, and background-size to control the behavior and appearance of the background image.

Make sure to provide the correct path or URL in the url() function to locate your image file. This method allows you to insert a picture as the background image of a web page using HTML and CSS.

16. How are active links different from normal links?

Ans –

Active links and normal links differ in their appearance when interacted with by a user. Normal links have their default styling, usually indicating a non-visited link with an underline and a specific color. Active links, on the other hand, change their appearance when clicked or hovered over. This change can be in the form of a different color, a different background, or a different text decoration. The purpose of the active link styling is to provide visual feedback to the user, indicating that the link is being interacted with. Once the interaction is over, the link usually reverts to its normal state.

17. What are the different tags to separate sections of text?

Ans –

In HTML, there are several tags available to separate sections of text and provide structure to the content:

`<div>`: Used as a generic container to divide the content into logical sections or divisions.

`<section>`: Represents a standalone section of content that is thematically related.

`<article>`: Represents a self-contained composition, such as a blog post or news article.

`<header>`: Represents introductory content, often containing the page title, logo, or navigation.

`<footer>`: Represents the closing content of a section or document, typically containing author information or copyright notice.

`<aside>`: Represents content that is tangentially related to the main content, such as sidebars or pull quotes.

`<main>`: Represents the main content of the document.

`<nav>`: Represents a section of navigation links.

By using these tags appropriately, you can provide semantic meaning to your HTML structure and improve accessibility and SEO

18. What is SVG?

Ans –

SVG stands for Scalable Vector Graphics. It is an XML-based vector image format used for describing two-dimensional graphics and graphical applications on the web. Unlike raster images (such as JPEG or PNG), which are made up of pixels, SVG files contain mathematical descriptions of shapes and paths. This allows SVG images to be scaled, rotated, and manipulated without losing image quality. SVG supports various shapes, text, gradients, filters, and animations, making it a versatile format for creating interactive and dynamic visual content. It is widely supported by modern web browsers and can be created and edited using text editors or specialized software. SVG is commonly used for icons, logos, illustrations, charts, and other graphics on websites.

19. What is difference between HTML and XHTML?

Ans –

HTML (Hypertext Markup Language) and XHTML (Extensible Hypertext Markup Language) are two versions of the markup language used for creating web pages. The main differences between HTML and XHTML are as follows:

Syntax: HTML has a more lenient syntax, allowing for some flexibility in writing and structure, while XHTML has a stricter syntax based on XML rules. XHTML requires well-formed XML syntax, such as closing all tags, enclosing attribute values in quotes, and using case-sensitive element and attribute names

Compatibility: XHTML is designed to be compatible with XML tools and technologies, while HTML has broader compatibility with web browsers and legacy systems.

Parsing: HTML parsers are more forgiving and capable of handling errors or malformed code, while XHTML parsers are stricter and may produce errors or fail to parse if the code does not follow XML rules.

MIME Type: HTML is typically served with the text/html MIME type, while XHTML is served with the application/xhtml+xml MIME type.

In summary, XHTML is a stricter, XML-based version of HTML that enforces cleaner code and better compatibility with XML tools, while HTML has more lenient syntax and broader browser compatibility.

20. What are logical and physical tags in HTML?

Ans –

Physical and Logical tags are used in HTML for better visibility and understanding of the text by the user on the web page. However, both tags differ from each other as suggested by their names.

Logical Tags :

Logical Tags are used in HTML to display the text according to the logical styles. Following are the Logical tags commonly used in HTML.

Logical Tags

Tag	Description
<abbr>	Defines an abbreviation
<acronym>	Defines an acronym
<address>	Defines an address element
<cite>	Defines citation
<code>	Defines computer code text
<blockquote>	Defines a long quotation

Tag	Description
	Defines text
<dfn>	Defines a definition term
<ins>	Defines inserted text
<kbd>	Defines keyboard text
<pre>	Defines preformatted text
<q>	Defines short quotation
<samp>	Defines sample computer code
	Defines strong text
<var>	Defines a variable

Physical Tags

Physical Tags are used in HTML to provide actual physical formatting to the text. Following are the Physical tags commonly used in HTML.

Physical Tags

Tag	Description
	Defines bold text

Tag	Description
<big>	Defines big text
<i>	Defines <i>italic</i> text
<small>	Defines small text
<sup>	Defines ^{superscripted} text
<sub>	Defines _{subscripted} text
<tt>	Defines teletype text
<u>	Deprecated. Use styles instead