**MODULE: 1**

**HTML**

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

* HTML tags and elements are not the same. Tags are the markup characters that define the structure of content, such as <p> for paragraphs or <div> for divisions. Elements, on the other hand, consist of a start tag, content, and an end tag, forming a complete unit in HTML. For example, <p> is a tag, while <p>This is a paragraph</p> is an element.

**2.** **What are tags and attributes in HTML?**

* HTML tags are the fundamental building blocks used to define the structure and content of a web page. They are enclosed in angle brackets, such as <p> for paragraphs or <img> for images. Attributes, on the other hand, provide additional information about HTML elements. They are specified within the start tag of an element and are written as name-value pairs, such as <img src="image.jpg" alt="Description">, where src and alt are attributes.

**3.** **What are void elements in HTML?**

* Void elements, also known as self-closing or empty elements, are HTML elements that do not have a closing tag. They self-terminate within the start tag. Void elements include elements like <img>, <br>, and <input>. For example, <img src="image.jpg" alt="Description"> is a void element where the <img> tag does not require a closing tag.

**4.** **What are HTML Entities?**

* HTML Entities are special characters that have a predefined meaning in HTML and XML documents. They are represented by predefined codes or entity references, such as &lt; for <, &gt; for >, and &amp; for &. HTML entities are used to display reserved characters and symbols in web pages without interfering with the HTML syntax.

**5.** **What are different types of lists in HTML?**

* HTML supports three types of lists: unordered lists (<ul>), ordered lists (<ol>), and definition lists (<dl>). Unordered lists are bulleted lists where each item begins with a bullet point, ordered lists are numbered or lettered lists, and definition lists are lists of terms and their corresponding definitions.

**6.** **What is the ‘class’ attribute in HTML?**

* The ‘class’ attribute in HTML is used to apply one or more CSS classes to an element. CSS classes define styles that can be applied to multiple elements across a web page. By using the ‘class’ attribute, developers can apply consistent styling to elements with similar characteristics without needing to specify styles individually for each element.

**7.** **What is the difference between the ‘id’ attribute and the ‘class’ attribute of HTML elements?**

* The ‘id’ attribute and the ‘class’ attribute are both used to apply styles to HTML elements, but they serve different purposes. The ‘id’ attribute is used to uniquely identify an element on a web page. Each ‘id’ attribute must be unique within the page. In contrast, the ‘class’ attribute is used to apply one or more CSS classes to an element. Multiple elements can share the same ‘class’ attribute, allowing developers to apply styles to multiple elements simultaneously.

**8.** **What are the various formatting tags in HTML?**

* HTML provides various formatting tags to apply stylistic changes to text. Some of the commonly used formatting tags include <b> for bold text, <i> for italic text, <u> for underlined text, <strong> for strong emphasis, <em> for emphasized text, <sub> for subscript text, <sup> for superscript text, <strike> for strikethrough text, and <span> for grouping inline elements for styling.

**9.** **How is Cell Padding different from Cell Spacing?**

* Cell Padding and Cell Spacing are properties of HTML tables used to control the spacing and appearance of cells within a table. Cell Padding specifies the space between the content of a cell and its border. It is set using the cellpadding attribute of the <table> tag or through CSS. Cell Spacing, on the other hand, specifies the space between cells in a table. It is set using the cellspacing attribute of the <table> tag or through CSS. Cell Padding affects the space inside individual cells, while Cell Spacing affects the space between cells.

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

* In HTML tables, rows or columns can be combined into a single row or column using the rowspan and colspan attributes of the <td> (table data) or <th> (table header) tags. The rowspan attribute specifies the number of rows a cell should span, while the colspan attribute specifies the number of columns a cell should span. By setting these attributes appropriately, developers can merge multiple cells into a single row or column, creating complex table structures.

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

* Block-level elements and inline elements are two types of HTML elements that differ in their default behavior and display properties. Block-level elements start on a new line and occupy the full width available, stretching to fill the container horizontally. Examples of block-level elements include <div>, <p>, <h1> to <h6>. Inline elements, on the other hand, do not start on a new line and only take up as much width as necessary. They flow within the text and do not force a line break. Examples of inline elements include <span>, <a>, <strong>, <em>.

**12.** **How to create a Hyperlink in HTML?**

* Hyperlinks, also known as anchor links, are created using the <a> (anchor) tag in HTML. The <a> tag requires an href attribute that specifies the destination URL of the link. For example, <a href="https://example.com">Visit Example</a> creates a hyperlink with the text "Visit Example" that, when clicked, navigates to the URL "<https://example.com>".

**13.** **What is the use of an iframe tag?**

* The <iframe> (inline frame) tag in HTML is used to embed another HTML document within the current document. It allows developers to display content from another web page or resource within a specific section of their own web page. This can be useful for incorporating external content such as maps, videos, or interactive applications without having to navigate away from the main page.

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

* The <span> tag in HTML is a generic inline container used to apply styles or manipulate individual elements within a block of text without affecting the overall document structure. It does not add any semantic meaning to the content but is useful for styling purposes. For example, <span style="color: red;">This text is red</span> applies red color to the enclosed text without altering its meaning or behavior.

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

* To insert a picture into the background image of a web page using HTML, developers typically use CSS (Cascading Style Sheets). They can set the background-image property of a CSS selector to the URL of the image file they want to use as the background. For example:

**16.** **How are active links different from normal links?**

* Active links and normal links refer to the states of hyperlinks in web pages. Normal links are regular hyperlinks that have not been interacted with, and they are typically styled according to the default or specified CSS rules. Active links, on the other hand, represent hyperlinks that are currently being clicked or have been clicked, but the navigation process is not yet complete. They may be styled differently to provide visual feedback to users during the interaction.

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

* HTML provides several tags to separate sections of text and organize content within a web page. Some of the commonly used tags for this purpose include <div> for generic divisions, <p> for paragraphs, <section> for thematic grouping, <article> for self-contained content, <header> for introductory content, <footer> for closing content, and <aside> for tangentially related content.

**18.** **What is SVG?**

* SVG (Scalable Vector Graphics) is an XML-based vector image format used to define vector-based graphics for the web. Unlike raster image formats such as JPEG or PNG, which store images as a grid of pixels, SVG files store images as lines, curves, and shapes defined by mathematical equations. This allows SVG images to be scaled to any size without losing quality, making them ideal for graphics that need to be displayed at various resolutions and sizes.

**19.** **What is the difference between HTML and XHTML?**

* HTML (Hypertext Markup Language) and XHTML (Extensible Hypertext Markup Language) are both markup languages used to create web pages, but they have differences in syntax and rules. HTML is based on SGML (Standard Generalized Markup Language) and has a more lenient syntax, allowing for shortcuts like omitting closing tags. XHTML, on the other hand, is an XML-based reformulation of HTML and follows stricter syntax rules. XHTML requires all tags to be properly nested and closed, and attribute values to be enclosed in quotes.

**20. What are logical and physical tags in HTML?**

* Logical and physical tags are classifications of HTML tags based on their intended use and functionality. Logical tags define the structure and meaning of content, while physical tags are used for text formatting. Examples of logical tags include <div> for division, <p> for paragraph, <header> for header, etc., which define the structure of content. Examples of physical tags include <b> for bold, <i> for italic, <u> for underline, etc., which are used to format text visually without altering its structural meaning.