**iNeuron PPT Program Assignment – FJSJ Alpha Batch**

**HTML Questions**

**Q.1 <!DOCTYPE html> is it a tag of html? If not, what is it and why do we use it?**

**(1 Marks)**

<!DOCTYPE html> is not a tag. It is called as document type declaration. It specifies the version of HTML that the web page is written in. The doc type declaration is placed at the very beginning of HTML document before <html> tag. It informs the web browser about the type of markup language being used like HTML or XHTML so that the browser can render it properly. It ensure page is declared and processed correctly as each version of HTML/XHTML has different set of rules, features and specification.

<!DOCTYPE html> indicate we are using HTML5 which is the latest version.

**Q.2 Explain Semantic tags in html? And why do we need it? ( 2 Marks)**

Semantic tags are set of element which provide meaning and structure to the content within a webpage. These element describe the purpose or role of the content rather than just specifying how the design should look. They help search engine, assistive technologies and developers to understand the web content better and make it more accessible.

Below are the commonly use semantics tags which helps to organize content in meaningful way and address the issues of non semantics tags like <div>, <span> etc. The semantics tags are:

1. <header>
2. <nav>
3. <main>
4. <section>
5. <article>
6. <aside>
7. <footer>

Benefits of using semantics tags in place of non-semantics tags are:

1. Accessibility: Semantic tags provide clearer structure to help user understand and navigate the content more effectively. This improves accessibility for people with disabilities.

1. Search engine optimization (SEO): Search engines can better understand the content and context of the page when semantic tags are used.

1. Maintainability: Semantic tags make the code more readable and maintainable.

1. Future-proofing: Semantic tags are designed to adapt new technologies and requirements more easily. This also reduces the need for major code changes when updating or enhancing a website.

**Q.3 Differentiate between HTML Tags and Elements? (2 Marks)**

**HTML Tags**: HTML tags are used to define the structure and presentation of content within an HTML document. Tags are written using angle brackets ("<" and ">") and surround HTML elements. The HTML tag is just an opening or closing entity.

For Example: <p> and </p> are called Html tags.

**HTML Elements:** HTML elements are the building blocks of an HTML document. They are defined by HTML tags and consist of everything between the opening and closing tags, including any nested elements and content. An Html Element consists of an opening and closing tag with the content inserted in between.

For Example:<p>HTML Element</p>

**Q.5 Write Html code so that it looks like the given image Link (5 Marks)**

Link to repo:  https://github.com/erraja97/pap-assignment-ineuron/tree/main/Q5-HTML

**Q.6 What are some of the advantages of HTML5 over its previous versions? (2 Marks)**

These are the some of the important points which are an advantage HTML5 offer over its previous versions.

1. **Enhanced Semantics**: HTML5 introduced new semantic elements, improving the structure and meaning of web content.

1. **Improved Multimedia Support:** HTML5 natively supports audio and video playback, eliminating the need for plugins like Flash Player.

1. **Richer Forms and Input Types:** HTML5 introduced new input types, such as date pickers and range sliders etc.

1. **Canvas and SVG:** HTML5's canvas element allows dynamic graphics and animations, while native support for SVG enables the use of scalable vector graphics, enhancing visual appeal and interactivity.

1. **Offline and Storage Capabilities:** HTML5 provides APIs for offline browsing and local storage, allowing web applications to work without an internet connection and store data locally.

1. **Improved Performance:** HTML5 incorporates optimizations like asynchronous script loading and improved rendering, resulting in faster page loading and a smoother user experience.

1. **Mobile-Friendly and Responsive Design**: HTML5 features like touch events and responsive design techniques enable developers to create mobile-friendly and adaptable web pages, ensuring a consistent experience across devices.

**Q.7 Create a simple Music player using html only (5 Marks)**

Link to repo:  https://github.com/erraja97/pap-assignment-ineuron/tree/main/Q7-HTML

it is not possible to create a functional music player using HTML only. HTML alone is a markup language for structuring content on a web page and does not have built-in capabilities to handle audio playback.

To create a functional music player, you would typically need to incorporate additional technologies such as JavaScript and possibly server-side scripting for handling the audio files and playback controls.

However, I have written code of an HTML audio player that uses the <audio> element to embed an audio file on a web page. Please see the link above.

**Q.8 What is the difference between <ﬁgure> tag and <img> tag? (1 Marks)**

**<figure> Tag:** The <figure> tag in HTML5 is used to add self-contained content like illustrations, diagrams, photos, or codes listing in a document. Figure tag represents a standalone content block that is typically used to encapsulate multimedia content, such as images, illustrations, videos, or audio. For Example:

<figure>

  <img src="image.jpg" alt="A beautiful sunset">

  <figcaption>A beautiful sunset at the beach</figcaption>

</figure>

**<img> Tag:** The <img> tag is a self-closing tag used to embed an image within an HTML document. It is primarily used to display static images on a webpage. The <img> tag requires a src attribute to specify the image source (URL) and an alt attribute to provide alternative text for accessibility purposes. For example:

<img src="image.jpg" alt="A beautiful sunset">

**Q.9 What’s the difference between html tag and attribute and give example of some**

**global attributes? (2 Marks)**

**HTML Tags**: HTML tags are used to define the structure and presentation of content within an HTML document. Tags are written using angle brackets ("<" and ">") and surround HTML elements. The HTML tag is just an opening or closing entity.

For Example: <p> and </p> are called Html tags.

**HTML Attribute:** An attribute provides additional information or properties to an HTML element. Attributes are used within HTML tags and provide specific instructions or values that modify the behavior or appearance of the element. They are written within the opening tag and consist of a name and a value, separated by an equals sign ("="). For example:

<img src="image.jpg" alt="Image description">, "src" and "alt" are attributes.

Some of the Global attributes are:

1. **class:** Specifies one or more CSS classes to be applied to an element for styling or JavaScript manipulation.

1. **id:** Provides a unique identifier for an element, which can be used for styling, JavaScript manipulation, or linking to specific parts of a page.

1. **style:** Allows inline CSS styling to be applied to an element.

1. **title:** Defines additional information about an element, typically displayed as a tooltip when the cursor hovers over the element.

1. **data-\*:** Allows custom data attributes to be added to elements, which can be accessed and manipulated using JavaScript.

These global attributes can be used with various HTML elements to enhance their functionality and appearance.

**Q.10 build Table which looks like the given image Link (5 Marks)**

Link to repo: https://github.com/erraja97/pap-assignment-ineuron/tree/main/Q10-HTML