

Module 5) HTML5

1) What are the new tags added in HTML5?

Ans: HTML5 introduced several new tags to enhance semantic structure and provide more meaningful markup. Some of the notable new tags added in HTML5 include:

<header>: Used to define the header of a document or a section.

<footer>: Defines the footer of a document or a section.

<nav>: Indicates a section of navigation links.

<article>: Defines an independent piece of content, such as a blog post or news article.

<section>: Represents a generic section of a document.

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

<main>: Specifies the main content of a document.

<figure> and <figcaption>: Used together to embed images and provide a caption for them.

<details> and <summary>: Allows you to create collapsible sections of content, where the summary serves as a clickable heading for the details.

<time>: Specifies a specific time or a range of time.

Q-2) How to embed audio and video in a webpage?

Ans: To embed audio and video in a webpage, you can use the <audio> and <video> tags introduced in HTML5. Here's how you can do it:

Embedding Audio:

```
<audio controls>  
  <source src="audio_file.mp3" type="audio/mp3">  
</audio>
```

In this example:

The <audio> tag is used to embed audio content.

The controls attribute adds basic audio controls (play, pause, volume) to the audio player.

The <source> tag specifies the audio file's source (src) and MIME type (type). You can provide multiple <source> elements to specify alternative audio formats for better compatibility across different browsers.

Embedding Video:

```
<video controls width="400" height="300">  
  <source src="video_file.mp4" type="video/mp4">  
  
</video>
```

In this example:

The `<video>` tag is used to embed video content.

The `controls` attribute adds basic video controls (play, pause, volume) to the video player.

The `width` and `height` attributes set the dimensions of the video player.

Like with audio, you can provide multiple `<source>` elements to specify alternative video formats.

The fallback content "Your browser does not support the video element." is displayed if the browser doesn't support the `<video>` element.

Q-3) Semantic element in HTML5?

Ans: HTML5 introduced several semantic elements that help structure web documents in a more meaningful and understandable way. These elements convey the purpose or meaning of the content they enclose, making it easier for search engines, screen readers, and developers to understand the document's structure. Some of the key semantic elements introduced in HTML5 include:

`<header>`: Represents the header of a document or a section, typically containing introductory content, logos, navigation links, etc.

<footer>: Represents the footer of a document or a section, usually containing closing information, copyright notices, contact details, etc.

<nav>: Defines a section of navigation links, often used to contain menus or lists of links to other pages or sections within the website.

<article>: Represents an independent piece of content that can stand alone and be syndicated or reused independently, such as a blog post, news article, or forum post.

<section>: Represents a thematic grouping of content within a document, typically with a heading or a title, used to divide the content into different sections.

<aside>: Represents content that is tangentially related to the content around it, often used for sidebars, pull quotes, or related links.

<time>: Represents a specific point in time or a range of time, allowing you to markup dates, times, or durations in a machine-readable format.

These semantic elements improve the accessibility, search engine optimization (SEO), and maintainability of web documents by providing clearer and more structured markup. They also make it easier to style and manipulate content using CSS and JavaScript.

Q-4) Canvas and SVG tags

Ans:

1)Canvas:

Canvas is an extremely durable plain-woven fabric used for making sails, tents, marquees, backpacks, shelters, as a support for oil painting and for other items for which sturdiness is required, as well as in such fashion objects as handbags, electronic device cases, and shoes.

Canvas is a plain-weave, heavy-duty fabric that is commonly desired for its water-resistance. Originally popularized as a useful sail cloth material and an excellent painting medium, canvas has now made its way into applications as widespread as tent material, casual shoes, and designer handbags.

2)SVG:

SVG (Scalable Vector Graphics)

SVG defines vector-based graphics in XML, which can be directly embedded in HTML pages. SVG graphics are scalable, and do not lose any quality if they are zoomed or resized: SVG. SVG is supported by all major browsers.

Scalable Vector Graphics (SVGs) work well for logos and graphics because you can scale them up or down for different purposes. They're also a popular choice in web design because search engines like Google can read

their XML programming language. This helps with SEO and website rankings.