**📌 Basic HTML Interview Questions & Answers**

1️⃣ What is HTML?

HTML (HyperText Markup Language) is the standard language used to create and structure web pages.

2️⃣ What are HTML tags?

HTML tags are predefined keywords enclosed in angle brackets < > used to mark up the content and structure on web pages.

3️⃣ What is the structure of a basic HTML document?

<!DOCTYPE html>

<html>

<head>

<title>Page Title</title>

</head>

<body>

<h1>Content</h1>

</body>

</html>

4️⃣ What is the difference between HTML and XHTML?

HTML is flexible and forgiving, while XHTML is stricter and follows XML syntax.

5️⃣ What are semantic HTML elements? Examples?

Elements that clearly describe their meaning. Examples: <header>, <footer>, <article>, <section>.

6️⃣ Purpose of the <!DOCTYPE html> declaration?

It informs the browser about the HTML version and ensures proper rendering in standards mode.

7️⃣ Difference between <div> and <span>?

<div> is a block-level element; <span> is inline.

8️⃣ Difference between block-level and inline elements?

Block-level: starts on a new line, takes full width.

Inline: stays within the line, only takes necessary space.

9️⃣ Role of <head> and <body> tags?

<head> holds metadata and links, while <body> holds visible content.

🔟 How to insert an image in HTML?

<img src="image.jpg" alt="Description">

1️⃣1️⃣ How to create a hyperlink in HTML?

<a href="https://example.com">Visit Site</a>

1️⃣2️⃣ Use of the alt attribute in <img>?

Provides alternative text if the image can’t load.

1️⃣3️⃣ Difference between ordered and unordered lists?

<ol>: numbered list.

<ul>: bulleted list.

1️⃣4️⃣ Use of the <iframe> tag?

Embeds another HTML page into the current page.

1️⃣5️⃣ What are self-closing tags? Examples?

Tags without a closing tag. Examples: <img>, <br>, <hr>.

**📌 Intermediate HTML Interview Questions & Answers**

1️⃣ What are meta tags?

Provide metadata about the HTML document, like description, keywords, and viewport info.

2️⃣ Difference between id and class attributes?

id is unique. class can be shared across multiple elements.

3️⃣ How to make a website mobile-responsive?

Use <meta name="viewport" content="width=device-width, initial-scale=1.0"> and CSS media queries.

4️⃣ What are data attributes?

Custom attributes that store extra information starting with data-, accessed via JavaScript.

5️⃣ What is local storage and session storage?

Local storage: persists data without expiration.

Session storage: clears when the browser tab closes.

6️⃣ Difference between <figure> and <img>?

<figure> wraps an image with a caption. <img> only displays an image.

7️⃣ Explain the <form> tag and its attributes?

Collects user input. Attributes: action, method, enctype.

8️⃣ Difference between GET and POST methods?

GET: data in URL.

POST: data in request body (more secure).

9️⃣ New form input types in HTML5?

email, url, number, date, color, range, search, tel.

🔟 Difference between <section>, <article>, and <aside>?

<section>: groups related content.

<article>: standalone content.

<aside>: side content like sidebars.

1️⃣1️⃣ What is the viewport meta tag?

Controls layout on mobile.

Example:

<meta name="viewport" content="width=device-width, initial-scale=1.0">

1️⃣2️⃣ What is contenteditable attribute?

Makes HTML elements editable directly in the browser.

1️⃣3️⃣ Purpose of <canvas> element?

Used for rendering dynamic graphics like charts or games via JavaScript.

1️⃣4️⃣ How to embed audio/video?

<audio src="audio.mp3" controls></audio>

<video src="video.mp4" controls></video>

1️⃣5️⃣ Difference between <b> vs <strong> and <i> vs <em>?

<b> and <i> are for styling.

<strong> and <em> add semantic importance.

**📌 Advanced HTML Interview Questions & Answers**

1️⃣ Explain ARIA roles and attributes?

ARIA makes web content accessible by adding roles, states, and properties for assistive technologies.

2️⃣ How does the browser render an HTML page?

Parses HTML to DOM, CSS to CSSOM, builds Render Tree, calculates layout, and paints to the screen.

3️⃣ What is progressive enhancement?

Basic functionality first, with advanced features added for capable browsers.

4️⃣ Difference between synchronous and asynchronous script loading?

Synchronous: blocks rendering.

Asynchronous: loads in background.

5️⃣ Difference between defer and async in scripts?

defer: runs after parsing, in order.

async: runs when ready, out of order.

6️⃣ How to optimize web page performance?

Minify files, defer/async scripts, compress images, enable caching, lazy load.

7️⃣ What is lazy loading?

Delays loading images until needed.

<img loading="lazy" src="image.jpg">

8️⃣ Explain Shadow DOM?

Encapsulates a part of DOM and its styles, isolated from the main document.

9️⃣ What is a web manifest?

A JSON file defining a PWA’s appearance and behavior when installed.

🔟 Can multiple <header> or <footer> exist?

Yes, within different sections or articles.

1️⃣1️⃣ How to implement SEO best practices?

Use semantic tags, proper meta tags, structured heading hierarchy, alt attributes, and meaningful URLs.

1️⃣2️⃣ Purpose of <template> tag?

Holds content not rendered initially, which can be instantiated via JavaScript.

1️⃣3️⃣ What are custom data attributes?

Attributes like data-id="123" accessed via element.dataset.id.

1️⃣4️⃣ What is CORS?

A browser security feature controlling cross-origin HTTP requests.

1️⃣5️⃣ How to handle backward compatibility?

Use feature detection, polyfills, conditional comments, and graceful degradation.

**📌 Basic CSS Interview Questions & Answers**

1️⃣ What is CSS?

Answer:

CSS (Cascading Style Sheets) is a stylesheet language used to describe the presentation of HTML elements on a web page, including layout, colors, fonts, and spacing.

2️⃣ What are the different types of CSS?

Answer:

Inline CSS: Inside HTML tags via the style attribute.

Internal CSS: Inside a <style> tag within <head>.

External CSS: In a separate .css file linked via <link>.

3️⃣ What is the difference between class and id selectors in CSS?

Answer:

.class: Targets multiple elements.

#id: Targets a unique, single element.

4️⃣ What is the syntax of CSS?

Answer:

selector {

property: value;

}

5️⃣ How do you apply multiple classes to a single element?

Answer:

Separate class names by space:

<div class="box red"></div>

6️⃣ What are pseudo-classes in CSS?

Answer:

Special keywords added to selectors to define a special state.

Example:

a:hover {

color: blue;

}

**📌 Intermediate CSS Interview Questions & Answers**

7️⃣ What is the Box Model in CSS?

Answer:

The Box Model describes how elements are structured:

Content

Padding

Border

Margin

8️⃣ What is the difference between relative, absolute, fixed, and sticky positioning?

Answer:

relative: Relative to its normal position.

absolute: Relative to nearest positioned ancestor.

fixed: Relative to viewport.

sticky: Switches between relative and fixed based on scroll.

9️⃣ How do you implement Flexbox?

Answer:

.container {

display: flex;

}

It’s a layout model for distributing space and aligning items.

🔟 Difference between em, rem, %, px units?

Answer:

px: Fixed pixels.

%: Relative to parent element.

em: Relative to parent font size.

rem: Relative to root font size.

1️⃣1️⃣ What is Z-index in CSS?

Answer:

Controls the vertical stacking order of elements. Higher z-index appears above lower values.

1️⃣2️⃣ How do you make a website responsive?

Answer:

Using:

Media Queries

Flexible grids and layouts

Flexible images

Example:

@media (max-width: 600px) {

body {

background: lightblue;

}

}

**📌 Advanced CSS Interview Questions & Answers**

1️⃣3️⃣ What is a CSS Grid?

Answer:

A powerful layout system for creating two-dimensional layouts.

Example:

.container {

display: grid;

grid-template-columns: 1fr 1fr;

}

1️⃣4️⃣ What is specificity in CSS?

Answer:

A ranking system that determines which style rules apply when multiple rules target the same element.

1️⃣5️⃣ Difference between visibility: hidden and display: none?

Answer:

display: none: Hides element and removes from layout.

visibility: hidden: Hides element but occupies space.

1️⃣6️⃣ What is a CSS preprocessor?

Answer:

A scripting language like Sass or LESS that extends CSS with variables, functions, and nested rules.

1️⃣7️⃣ What is a pseudo-element?

Answer:

Used to style specific parts of an element.

Example:

p::first-line {

color: red;

}

1️⃣8️⃣ What is the difference between auto and inherit in CSS?

Answer:

auto: Browser decides the value.

inherit: Takes the value from its parent element.