**Q1: What is the purpose of the <head> section in HTML?**

The <head> contains meta-information about the document, such as the title, character set, linked stylesheets/scripts, and viewport settings. It doesn't display content directly but configures how the page behaves and appears.

**Q2: Why do we use semantic tags like <section>, <article>, and <footer>?**

Semantic tags describe the purpose of content, making the HTML more readable and accessible. They improve SEO and help screen readers and developers understand the layout and meaning of the page structure.

**Q3: How is the DOM different from the HTML file?**

The **HTML file** is static code stored on disk. The **DOM** (Document Object Model) is the live, in-memory representation of that HTML once the browser loads it. You can interact with and modify the DOM dynamically using JavaScript or DevTools.

**Q4: What happens in the browser when you add or delete nodes in the dev tools?**

Changes appear instantly in the rendered page, but they are temporary and not saved back to the original HTML file. It’s great for testing layout or content changes.

**Q5: What is the difference between GET and POST methods in forms?**

 **GET** appends form data to the URL (e.g., ?name=Nassor). It's useful for non-sensitive data and bookmarkable/searchable queries.

 **POST** sends data in the request body. It's used for secure or large data submissions like login forms or file uploads.

**Q6: What happens when a form is submitted without a required input?**

The browser prevents the form from submitting and displays a validation message near the missing required field. This ensures users fill out all necessary information.

**Q7: What’s the difference between inline, internal, and external CSS?**

* **Inline CSS**: written directly inside an HTML element’s style attribute. (<p style="color:red;">)
* **Internal CSS**: defined within a <style> tag in the <head> section.
* **External CSS**: linked via an external .css file using <link>. Best for maintainability and reusability.

**Q8: How do you resolve conflicting styles between selectors?**

CSS applies styles based on **specificity**, **importance**, and **source order**. Inline > ID selectors > Class selectors > Element selectors. The last rule (if equal in specificity) overrides earlier ones unless !important is used.

**Q9: What problems does responsive design solve?**

It ensures that web pages adapt to different screen sizes and devices, enhancing usability and appearance on phones, tablets, laptops, etc. It avoids the need for separate mobile versions of a site.

**Q10: Why is mobile-first design considered best practice?**

Mobile-first design prioritizes performance and usability on small screens. By designing for the smallest viewports first, you ensure that content remains accessible and scales up gracefully to larger screens.

**Q11: What are the benefits of using a CSS framework like Bootstrap?**

* Rapid development with prebuilt components
* Responsive grid system
* Consistent styling across browsers
* Saves time on design and layout

**Q12: What is the difference between container, container-fluid, and row in Bootstrap?**

* container: fixed-width layout that adapts to screen sizes with margins.
* container-fluid: 100% width layout spanning the full viewport.
* row: a flexbox wrapper for columns (col-) to ensure proper alignment and spacing within a container.