* **What are the fundamental principles of website design?**

The fundamental principles of web design include:

1. User-centered design: The design should be focused on providing a positive user experience, making it easy for users to find what they are looking for and interact with the website.
2. Accessibility: The website should be accessible to people with disabilities, using techniques such as proper use of HTML, providing alternative text for images, and ensuring the site is usable with keyboard-only navigation.
3. Responsiveness: The website should be optimized for multiple devices, including desktops, laptops, tablets, and smartphones, with a layout that adapts to the size of the screen.
4. Content priority: Content should be prioritized, with the most important information placed "above the fold" and in a clear, easy-to-read format.
5. Clarity and simplicity: The website should have a clear and simple layout, with a minimum of distractions, making it easy for users to understand and navigate.
6. Consistency: The website should have a consistent look and feel, with a consistent use of color, typography, and other visual elements throughout the site.
7. Load time: The website should load quickly, with optimized images, efficient use of code, and proper server configuration.

* **What’s HTTP and its application to CSS?**

HTTP (HyperText Transfer Protocol) is a communication protocol used for transmitting data over the internet. It is the foundation of data communication for the World Wide Web.

CSS (Cascading Style Sheets) is a stylesheet language used for describing the look and formatting of a document written in HTML or XML. CSS can be used to style and lay out web pages, providing visual and formatting instructions for the web browser to apply to the HTML content.

CSS files are typically linked to an HTML document using the HTML "link" tag, with the "href" attribute pointing to the location of the CSS file. The CSS file is then fetched from the server using HTTP and applied to the HTML document by the browser. This allows the same HTML content to be styled differently based on the stylesheet that is applied, making it possible to separate the presentation of a website from its content.

* **What’s HTML and XHTML?**

HTML (HyperText Markup Language) is a markup language used for creating web pages and other information that can be displayed in a web browser. HTML uses tags surrounded by angle brackets to define the structure and content of a web page, including headings, paragraphs, lists, links, images, and more.

XHTML (Extensible HyperText Markup Language) is a version of HTML that is based on XML (Extensible Markup Language). XHTML has stricter syntax rules than HTML, requiring all elements to be properly nested and closed, and all attribute values to be quoted. XHTML also requires the use of lowercase tags and attribute names.

The primary difference between HTML and XHTML is that XHTML is an XML application, while HTML is not. This means that XHTML must conform to the rules of XML, making it easier to process and manipulate with software programs. However, XHTML also requires a higher level of discipline in the authoring of web pages, as any errors in the markup can result in the page not being displayed correctly.

Both HTML and XHTML are widely used for creating web pages, with HTML being more commonly used due to its more relaxed syntax rules and greater browser compatibility.

* **How do CSS rules and standards impact on document styling and layout?**

CSS (Cascading Style Sheets) rules and standards have a significant impact on document styling and layout because they provide a consistent and standardized way to apply visual and formatting styles to HTML documents.

CSS rules define how elements on a web page should look, including their color, font, size, spacing, and positioning. These rules can be defined in a separate CSS file or within the HTML document itself, and are then applied to the HTML elements using selectors and attributes.

CSS standards help to ensure that web pages are displayed consistently across different devices and browsers. For example, the W3C (World Wide Web Consortium) has established CSS standards that specify how CSS should be used and implemented, ensuring that web pages created with CSS will be compatible with the majority of web browsers.

By following CSS standards, developers can ensure that their web pages are accessible, user-friendly, and visually appealing, with a consistent look and feel across different devices and platforms. This, in turn, helps to improve the user experience and enhances the overall quality and professional appearance of the web page.

* **Define two methods in applying style sheets to web pages**

Either internally by using the <style></style> tags or externally linking to a .css file.

* **What are W3C standards?**

W3C (World Wide Web Consortium) is an international community that develops open standards to ensure the long-term growth of the Web. W3C was founded in 1994 by Tim Berners-Lee, the inventor of the World Wide Web.

W3C standards are technical specifications for web technologies such as HTML, CSS, and JavaScript, and are designed to ensure that the Web remains accessible, interoperable, and usable for all users. W3C standards are created through a consensus-building process, involving input from a diverse range of organizations, including web developers, browser makers, accessibility experts, and other stakeholders.

Adherence to W3C standards is important because it ensures that web pages will be displayed consistently across different devices and browsers, and that they will be accessible to all users, including those with disabilities. W3C standards also provide a foundation for innovation and growth on the Web, helping to ensure that the Web remains a powerful and flexible platform for communication, commerce, and collaboration.

* **Please explain how you test your website and any debugging methods you may have used**

The most common way to test a website is by manually checking its various pages and interactions to ensure they function as intended, and to identify any bugs or issues. This is often referred to as "manual testing". Debugging methods vary depending on the problem, but common approaches include:

* Using browser developer tools to inspect the HTML, CSS, and JavaScript code and identify any issues
* Printing debug statements or using a browser dev tool's JavaScript console to trace the flow of code and pinpoint where the issue is occurring
* Utilizing browser extensions or plugins that are designed to debug specific issues, such as cross-browser compatibility or responsive design
* Implementing automated testing tools and frameworks, such as Selenium, to run tests on a regular basis and catch any issues early in the development process

The best approach depends on the specifics of the website and the nature of the problem, and may involve a combination of these methods.

* **What are some of the techniques to amend browser incompatibilities?**

1. Validation tools such as W3C HTML Validator and Jigsaw CSS Validator
2. Maintaining layout compability by using HTML viewport metatag and CSS Flexbox and Grid

* **Please provide three organisational procedures applicable to developing CSS**

1. Formatting readable CSS
2. Commenting
3. Sections

* **Cybersecurity procedures and protocols**
* Firewalls are tools that eliminate malware, viruses and spam
* Encryption keeps passwords safe
* Incident response plans allow immediate action in response to security breaches
* Education keeps all users informed