**HTML AND CSS QUESTIONS**

**1.What is HTML and what is its purpose?**

Ans:  the code that is used to structure a web page and its content. For example, content could be structured within a set of paragraphs, a list of bulleted points, or using images and data tables.

**Purpose:**

HTML should only be used to add text elements and structure them within a page. For more complex features, HTML can be combined with cascading style sheets (CSS) and JavaScript (JS)

**2. What is the difference between HTML and XHTML?**

**Ans:**

|  |  |
| --- | --- |
| **HTML** | **XHTML** |
| HTML stands for Hypertext Markup Language | XHTML stands for Extensible Hypertext Markup Language |
| HTML is SGML based language | XHTML is an XML-based language |
| HTML is elementary and straightforward development language | XHTML is stricter than HTML as it is case sensitive and syntax must be correct |
| HTML uses a system of markup tags to define the structure and content of a web page. Tags are enclosed in angle brackets (<>) and consist of an opening tag and a closing tag, with the content of the element between them. | XHTML has the same basic structure as HTML, with tags used to define the content and structure of a web page. However, in XHTML, all tags must be properly nested and closed, all attribute values must be quoted, and all tags must be in lowercase. |

**3. What are the new features introduced in HTML5?**

**Ans:**

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* Audio and Video Support. One of the main features introduced to HTML5.
* Canvas Elements. ...
* Local Storage. ...
* Responsive Images. ...
* Web Workers. ...
* Drag and Drop API. ...
* Form enhancements.

**4. How do you include comments in HTML?**

**ANS:** Comments are represented in HTML and XML as content between ' <! -- ' and ' --> '

**5. Explain the difference between <div> and <span> tags.**

**ANS:** <span> is very much like a <div> element, but <div> is a block-level element whereas a <span> is an inline-level element.

**6. What are semantic elements in HTML5 and why are they important?**

**ANS:**

**why are they important?**

The semantic HTML tags help the search engines and other user devices to determine the importance and context of web pages. The pages made with semantic elements are much easier to read. It has greater accessibility. It offers a better user experience.

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**7. What is the purpose of the <header>, <nav>, <section>, and <footer> tags in HTML5?**

**Ans: <header>:** The <header> HTML element represents introductory content, typically a group of introductory or navigational aids. It may contain some heading elements but also a logo, a search form, an author name, and other elements.

**<nav>:**The <nav> HTML element represents a section of a page whose purpose is **to provide navigation links, either within the current document or to other documents.**

**<section>:**You can use the HTML section **element to divide up a web page into standalone sections of related content.**

**<footer>**The <footer> HTML element represents a footer for its nearest ancestor sectioning content or sectioning root element. A <footer> typically contains information about the author of the section, copyright data or links to related documents

**8. How do you create a hyperlink in HTML?**

**Ans:** The <a> tag defines a hyperlink, which is used to link from one page to another. The most important attribute of the <a> element is the href attribute, which indicates the link's destination.

**9. What is the difference between <ol> and <ul> elements?**

|  |  |
| --- | --- |
| **<ol>** | **<ul>** |
| Ordered list ( <ol> ) is used to create a list of items in a specific order | unordered list ( <ul> ) is used to create a list of items in no particular order i.e. the order of items is not relevant. |
| It represent your list with numbers | It represent your list with bullets instead of numbers. |

**10. How do you embed an image in HTML?**

**Ans:** The HTML <img> tag is used to embed an image in a web page. Images are not technically inserted into a web page; images are linked to web pages. The <img> tag creates a holding space for the referenced image. The <img> tag is empty, it contains attributes only, and does not have a closing tag

**11. Explain the difference between the <strong> and <em> tags.**

**Ans:**

Adding to the confusion is the fact that while HTML 4 defined <strong> as indicating a stronger emphasis, HTML 5 defines <strong> as representing "strong importance for its contents." This is an important distinction to make.

While <em> is used to change the meaning of a sentence as spoken emphasis does ("I love carrots" vs. "I love carrots"), <strong> is used to give portions of a sentence added importance (e.g., "**Warning!** This is **very dangerous.**") Both <strong> and <em> can be nested to increase the relative degree of importance or stress emphasis, respectively

**12. How do you create a table in HTML?**

**Ans:** An HTML table is created with an opening <table> tag and a closing </table> tag. Inside these tags, data is organized into rows and columns by using opening and closing table row <tr> tags and opening and closing table data <td> tags

**13. What is the purpose of the <form> tag in HTML and how do you create a form?**

**Ans:** To create an HTML form, we will use the HTML <form> element. It starts with the <form> tag and ends with the </form> tag. The HTML form tag is required when you want to collect information that visitors provide. For example, you may want to collect specific data from visitors, such as name, email address, password, etc.

**14. What are some new input types introduced in HTML5?**

**Ans:** HTML 5 introduces several input types like Date, DateTime, DateTime-local, time, week, month, email, tel, URL, search, range, color, and number to improve the user experience and to make the forms more interactive

**15. How do you include audio and video content in HTML?**

**Ans:** The HTML5 <audio> and <video> tags make it simple to add media to a website. You need to set src attribute to identify the media source and include a controls attribute so the user can play and pause the media.

16. What is the purpose of the <iframe> tag and how is it used?

**Ans:** <iframe>: The Inline Frame element. The <iframe> HTML element represents a nested browsing context, embedding another HTML page into the current one

**17. How do you add CSS styles to HTML elements?**

**Ans:** we can add CSS style to HTML in ways

* Inline - by using the style attribute inside HTML elements.
* Internal - by using a <style> element in the <head> section.
* External - by using a <link> element to link to an external CSS file.

**18. What is the role of the alt attribute in <img> tags?**

**Ans:** The src attribute is required, and contains the path to the image you want to embed. The alt attribute holds a textual replacement for the image, which is mandatory and incredibly useful for accessibility — screen readers read the attribute value out to their users so they know what the image means.

**19. How do you create a numbered list with custom numbering styles in HTML?**

**Ans:** The HTML element represents an ordered list <ol>of items — typically rendered as a numbered list .The list-style CSS shorthand property allows you to set all the list style properties at once.

**20. What is the difference between <script async> and <script defer>?**

**Ans:** If **async is present**: The script is downloaded in parallel to parsing the page, and executed as soon as it is available (before parsing completes) .

If **defer is present** (and not async ): The script is downloaded in parallel to parsing the page, and executed after the page has finished parsing.

**21. What is responsive web design, and why is it important?**

**Ans:** Essentially, responsive design is a way to put together a website so that it automatically scales its content and elements to match the screen size on which it is viewed.

It is important to be responsive by that a user can understand and easy to use our website.

**22. How do you make a website responsive using CSS?**

**Ans:** To allow this, developers have to use responsive breakpoints, sometimes called CSS breakpoints or media query breakpoints. These are points defined in the code. Website content responds to these points and adjusts itself to the screen size to display the accurate layout

**or**

Responsive Web Design (RWD) is a Web development concept focusing on making sites look and behave optimally on all personal computing devices, from desktop to mobile.

24. Explain the difference between a fluid layout and a fixed layout in terms of responsiveness.

**Ans:** Web page layout follows one of two different approaches: Fixed Layouts: These are layouts where the layouts of the entire page is set with a specific numerical value. fluid Layouts: These are layouts where the layouts of the entire page is flexible depending on how wide the viewer's browser is.

**25. How do you make images responsive in CSS?**

**Ans:** An image can be made responsive by using CSS and setting the width of the image to be a percentage of its parent container, rather than a fixed pixel value. This way, when the size of the parent container changes (e.g. due to different screen sizes), the size of the image will also change proportionally.

**26. What are breakpoints in responsive design, and how are they determined?**

**Ans:** A mobile breakpoint refers to the screen width at which a website or application should adapt its layout and design to ensure optimal user experience. Since mobile screens come in various sizes and resolutions, breakpoints define the points at which the content and layout should adjust to accommodate smaller screens.

**27. How can you hide elements on specific screen sizes using CSS?**

**Ans:** Formally, the **display** property sets an element's inner and outer display types. The outer type sets an element's participation in flow layout; the inner type sets the layout of children. Some values of display are fully defined in their own individual specifications; for example the detail of what happens when display: flex is declared is defined in the CSS Flexible Box Model specification.

**28. What is the purpose of the max-width property in responsive CSS?**

**Ans:** if th display size is increases the max-width will reaches its given max size and does not

Increases as diplay increases by this the content will not get bigger as screen increses.

**29. How do you create a responsive navigation menu using CSS?**

Ans: We position the nav element at the top-right of the screen and specify its width to fit-content . We float the menu list items to the left of the nav . We specify the background color to be transparent and the menu list items to be gray on hover. Lastly, we use the display property to hide the hamburger menu icon.

**30. Explain the concept of mobile-first design and how it relates to responsive CSS.**

**Ans:** Mobile First design is an approach where web designers prioritize designing and developing for mobile devices first, before moving on to larger screens. It involves starting the design process with the mobile screen size as the primary focus, ensuring a user-friendly experience on mobile devices.

**31. What is CSS Flexbox, and what problem does it solve?**

**Ans:**Flexbox is a one-dimensional layout method for arranging items in rows or columns. Items flex (expand) to fill additional space or shrink to fit into smaller spaces. This article explains all the fundamentals.

**32. Explain the difference between flex container and flex items.**

Ans: The parent element that has display: flex set on it (the <section> in our example) is called the flex container. The items laid out as flexible boxes inside the flex container are called flex items (the <article> elements in our example).

**33. How do you create a flex container in CSS?**

**Ans:** To create a flex container, we set the value of the area's container's display property to flex or inline-flex . As soon as we do this the direct children of that container become flex items

**34. What are the main properties used to control the layout in Flexbox?**

**Ans:** Shorthand values for the flex properties. You will very rarely see the flex-grow , flex-shrink , and flex-basis properties used individually; instead they are combined into the flex shorthand. The flex shorthand allows you to set the three values in this order — flex-grow , flex-shrink , flex-basis.

**35. How do you specify the direction of flex items within a flex container?**

**Ans:** Adding the flex-direction property to the flex container allows us to change the direction in which our flex items display. Setting flex-direction: row-reverse will keep the items displaying along the row, however the start and end lines are switched.

**36. What is the purpose of the flex-grow, flex-shrink, and flex-basis properties?**

**Ans: flex-grow** - Specifies how much a flex item will grow relative to the rest of the flex items inside the same container

**flex-shrink** - Specifies how much a flex item will shrink relative to the rest of the flex items inside the same container

**37. How do you align flex items horizontally and vertically within a flex container?**

**Ans:** To center our box we use the align-items property to align our item on the cross axis, which in this case is the block axis running vertically. We use justify-content to align the item on the main axis, which in this case is the inline axis running horizontally.

**38. Explain the difference between justify-content and align-items properties in Flexbox.**

**Ans:**  justify-content acts on the main axis and align-items acts on the cross axis. If the flex-direction is horizontal.

**39. How can you control the order of flex items using CSS Flexbox?**

**Ans:** The order property. In addition to reversing the order in which flex items are visually displayed, you can target individual items and change where they appear in the visual order with the order property. The order property is designed to lay the items out in ordinal groups.

**40. What are flexbox breakpoints, and how can they be used for responsive design?**

**Ans:** A breakpoint is the size where the design adjusts for a specific screen width. Breakpoints enable designs to be responsive as they scale up and down.

As an example, we have built a simple responsive layout above using flexbox. We use a breakpoint to switch to multiple columns when the screen grows, and limit the size of the main content with max-width : example, source code