Answers to Conceptual Exercise - CSS Fundamentals

Question 1: CSS (Cascading Style Sheets) differs from HTML (HyperText Markup Language) in the context of web development because while HTML is used to format the structure and content of a webpage, CSS is used to style the website by allowing a developer to alter various aspects of it. While one can run and debug an HTML text file by itself, a CSS text file is included in an HTML file to style it.

Question 2: There are 3 methods of including CSS in an HTML document. One method is to use a <style> element in an HTML document. Once you include a <style> element then you can include every CSS change that you want to include and can easily change as much of the website as one wants. However, <style> elements can’t be shared between files. Another method, which is preferred out of all 3, is including an external stylesheet using a <link> element. This involves writing CSS in a separate text file for CSS that can be included in any HTML document, so any CSS changes can just be made in 1 place in that .css file. A third method, that is usually never recommended as it is very basic, is to include inline styles, which means that you have to duplicate a lot of code every time one wants to include CSS.

Question 3: The anatomy of a CSS rule is composed of 2 parts: a selector (such as h1, h2, h3) and a declaration (such as font-size). The selector affects the part of the HTML document that is referenced, and the declaration shows what change will be made to that part.

Question 4: You might want to use RGBA instead of RGB because RGBA has 4 components instead of the 3 in RGB. While RGB allows you to define the color in an HTML file by choosing the intensity of Red, Green, and Blue colors that are mixed to create that color, RGBA provides those 3 as well as allowing you to change the opacity of that color so that you can control whether those colors are more transparent or more opaque.

Question 5: Hex color values differ from RGB in that Hex (hexadecimal) doesn’t allow you to define opacity. However, Hex is quicker to write with the format: #rrggbb, and since there aren’t decimals like RGB there are fewer options for colors in Hex.

Question 6: A developer might prefer to use HSL over other color formats because it allows you to select a color’s hue, saturation, and light components. The other color formats mostly allow you to only change the color and opacity, but HSL gives a developer more control over how those colors are displayed in HTML.

Question 7: The primary text properties used in CSS to modify the appearance and layout of text are: font-size, font-family, text-align, and line-height. Font-size defines the size of the font displayed in a webpage. Font-family defines the type of font in which text is displayed. Text-align defines whether text is aligned toward the left, center, or right of the page. Line-height will modify how much space exists between the lines of text on the page.

Question 8: The scenarios in which it might it be beneficial to use vh (viewport height) or vw (viewport width) as a unit for font size where a website may be accessed by mobile devices with relatively small screens. By being able to scale the height and width, a website’s content will be readable no matter what the size of the screen may be. Also, some fonts may normally be too large for a header in HTML, so vh and vw will make the header smaller so that its size won’t look out of place on the page.

Question 9: The difference between em and rem units is that em alters the font size of the parent as well as the font size of the element itself, while rem alters the font size of the root element. This means that if a developer needs to scale font size for more of the website than just the root size.

Question 10: If multiple font families are listed in the font-family property, the browser decides which one to display based on whether it is compatible with the browser. The first font listed will be displayed if it is compatible. If a font isn’t compatible with the first font then it tries the next one listed.