Conceptual Exercise - CSS Fundamentals

Question 1

Explain how CSS differs from HTML in the context of web development.

Answer

HTML (Hypertext Markup Language) provides the structure for the content of a web page using elements like headings, sections, paragraphs, lists, and more. CSS (Cascading Style Sheets) are used to provide the style and layout of the content. It defines the presentation of the elements such as color, position, size, etc.

Question 2

List the methods of including CSS in an HTML document and briefly describe each.

Answer

1. Inline Styles: These are added directly to individual HTML element via the “style” attribute. This is not a recommended method because it mixes the structure and layout of the page.
2. Embedded styles: This is CSS written using the “<style>” element in the “<head>” section of the HTML page. This is good for styling only applied to a single document.
3. External Styles: CSS is written in a separate file, usually using a “.css” extension. This file is then linked to the HTML page with the “<link>” tag in the “<head>” section of the document. This is the method that should be used for large multi-page websites because styles can be reused across pages, changes made to styles can be made in one place and will update for all pages where it is linked, and it allows for separation between content and presentation.

Question 3

Describe the anatomy of a CSS rule.

Answer

1. Selector: Specifies the name of the HTML element(s) to which the styles will be applied.
2. Declaration block: Designated with curly braces ({}), this section contains one or more style declarations
3. Declaration: Consists of a property and a value separated by a colon (:) and ended with a semicolon (;)

Question 4

When might you want to use RGBA instead of RGB?

Answer

When you want to specify the opacity of a color. “A” stands for “Alpha” and is a value between 0 (completely transparent) and 1 (completely opaque).

Question 5

How do Hex color values differ from RGB?

Answer

Hex color values are essentially the same as RGB values, except that they use hexadecimal to represent the numbers. Instead of the one decimal values 0 – 255 for each position, the values are two character hexadecimal values from 00 – FF. So the RGB value of rgb(0,0,255) for blue would be #0000FF in hex notation.

Question 6

When might a developer prefer to use HSL over other color formats?

Answer

A developer might prefer HSL when they want finer control over the color variations. Adjusting the hue changes the actual color but adjusting saturation can make the color duller (closer to gray) or make it pop more. Adjusting lightness will make the color darker or lighter. HSL is good for creating color schemes and color variations.

Question 7

What are the primary text properties used in CSS to modify the appearance and layout of text?

Answer

1. Font-size
2. Text-align
3. Color
4. Font-family
5. Text-decoration
6. Line-height
7. Text-transform
8. Text-indent
9. Text-align

Question 8

In what scenarios might it be beneficial to use vh or vw as a unit for font size?

Answer

For times when you want the size of the text to be responsive to the size of the viewport. For instance, if someone shrinks the the size of their browser, the text size will change depending on the setting of vh (viewport height) and/or vw (viewport width).

Question 9

Explain the difference between em and rem units.

Answer

Em and rem are relative units in CSS. Em is relative to the size of the font of its closest parent element, but rem is relative to the root (<html>) element’s font size. Nested elements with font sizes of “em” can multiply, but “rem” will always relate to the root.

Question 10

If multiple font families are listed in the font-family property, how does the browser decide which one to display?

Answer

The browser will try to use the fonts in the order they are listed. If the first font isn’t available, the browser will attempt move to the next font in the list, and so on. It’s a way of making sure that the page can still be displayed using an alternative font if the first choice is not available.