1.What Is CSS?

CSS stands for Cascading Style Sheet. It's a style sheet language that determines how the elements/contents in the page are looked/shown. CSS is used to develop a consistent look and feel for all the pages.

2. What are the advantages of using CSS?
The main advantages of CSS are given below:

Separation of content from presentation - CSS provides a way to present the same content in multiple presentation formats in mobile or desktop or laptop.

Easy to maintain - CSS, built effectively can be used to change the look and feel complete by making small changes. To make a global change, simply change the style, and all elements in all the web pages will be updated automatically.

Bandwidth - Used effectively, the style sheets will be stored in the browser cache and they can be used on multiple pages, without having to download again.

3. What are the limitations of CSS?
Disadvantages of CSS are given below:

Browser Compatibility: Some style selectors are supported and some are not. We have to determine which style is supported or not using the @support selector).

Cross Browser issue: Some selectors behave differently in a different browser).

There is no parent selector: Currently, Using CSS, you can't select a parent tag.

- 4. How to include CSS in the webpage?

  There are different ways to include a CSS in a webpage,
- 1 External Style Sheet: An external file linked to your HTML document: Using link tag, we can link the style sheet to the HTML page.

<link rel="stylesheet" type="text/css" href="mystyles.css" />
2 - Embed CSS with a style tag: A set of CSS styles included within
your HTML page.

```
<style type="text/css">
/*Add style rules here*/
```

</style>

Add your CSS rules between the opening and closing style tags and write your CSS exactly the same way as you do in stand-alone stylesheet files.

3 - Add inline styles to HTML elements(CSS rules applied directly within an HTML tag.): Style can be added directly to the HTML element using a style tag.

<h2 style="color:red;background:black">Inline Style</h2>
4 - Import a stylesheet file (An external file imported into another CSS file): Another way to add CSS is by using the @import rule. This is to add a new CSS file within CSS itself.

@import "path/to/style.css";

5. How to determine if the browser supports a certain feature? The @support in CSS can be very useful to scan if the current browser has support for a certain feature.

```
@supports (display: grid) {
          div {
                display: grid;
          }
}
```

6. What is a CSS Preprocessor? What are Sass, Less, and Stylus? Why do people use them?

A CSS Preprocessor is a tool used to extend the basic functionality of default vanilla CSS through its own scripting language. It helps us to use complex logical syntax like - variables, functions, mixins, code nesting, and inheritance to name a few, supercharging your vanilla CSS.

SASS: Sass is the acronym for "Syntactically Awesome Style Sheets". SASS can be written in two different syntaxes using SASS or SCSS

SASS vs SCSS

SASS is based on indentation and SCSS(Sassy CSS) is not. SASS uses .sass extension while SCSS uses .scss extension. SASS doesn't use curly brackets or semicolons. SCSS uses it, just like the CSS.

- 7. What is VH/VW (viewport height/ viewport width) in CSS?
   It's a CSS unit used to measure the height and width in percentage with respect to the viewport. It is used mainly in responsive design techniques. The measure VH is equal to 1/100 of the height of the viewport. If the height of the browser is 1000px, 1vh is equal to 10px. Similarly, if the width is 1000px, then 1 vw is equal to 10px.
- 8. Difference between reset vs normalize CSS?. How do they differ? Reset CSS: CSS resets aim to remove all built-in browser styling. For example margins, paddings, font-sizes of all elements are reset to be the same.

Normalize CSS: Normalize CSS aims to make built-in browser styling consistent across browsers. It also corrects bugs for common browser dependencies.

9. What is the difference between inline, inline-block, and block? Block Element: The block elements always start on a new line. They will also take space for an entire row or width. List of block elements are  $\langle \text{div} \rangle$ ,  $\langle \text{p} \rangle$ .

Inline Elements: Inline elements don't start on a new line, they appear on the same line as the content and tags beside them. Some examples of inline elements are <a>, <span> , <strong>, and <img> tags.

Inline Block Elements: Inline-block elements are similar to inline elements, except they can have padding and margins added on all four sides.

- 10. How do you test the webpage in different browsers? It's most important to test a website in different browsers when you're first designing it, or when making major changes. However, it's also important to repeat these tests periodically, since browsers go through a lot of updates and changes.
- 11. What are the advantages of using translate() instead of absolute position?

Translate() does not cause the browser to trigger repaint and layout and instead only acts on the compositor. The absolute position triggers the repaint or DOM reflow. So, translate() gives the better performance

12. How do you specify units in the CSS?. What are the different ways to do it?

There are different ways to specify units in CSS like px, em, pt, percentage (%). px(Pixel) gives fine-grained control and maintains alignment because 1 px or multiple of 1 px is guaranteed to look sharp. px is not cascade. em maintains relative size. you can have responsive fonts. Em, will cascade 1em is equal to the current font-size of the element or the browser default. If u sent font-size to 16px then 1em = 16px. The common practice is to set default body font-size to 62.5% (equal to 10px).

pt(point) are traditionally used in print. 1pt = 1/72 inch and it is a fixed-size unit.

- %(percentage) sets font-size relative to the font size of the body. Hence, you have to set the font-size of the body to a reasonable size.
- 13. Does margin-top or margin-bottom have an effect on inline elements? No, it doesn't affect the inline elements. Inline elements flow with the contents of the page.

## 14. Explain CSS position property? Absolute

To place an element exactly where you want to place it. absolute position is actually set relative to the element's parent. if no parent is available then the relative place to the page itself (it will default all the way back up to the element).

## Relative

"Relative to itself". Setting position: relative; on an element and no other positioning attributes, it will no effect on its positioning. It allows the use of z-index on the element and it limits the scope of absolutely positioned child elements. Any child element will be absolutely positioned within that block.

## Fixed

The element is positioned relative to the viewport or the browser window itself. viewport doesn't change if you scroll and hence the fixed element will stay right in the same position.

Static

Static default for every single page element. The only reason you would ever set an element to position: static is to forcefully-remove some positioning that got applied to an element outside of your control.

Sticky

Sticky positioning is a hybrid of relative and fixed positioning. The element is treated as relative positioned until it crosses a specified threshold, at which point it is treated as fixed positioned.

15. What is the origin of CSS? SGML (Standard Generalized Markup Language) is the origin of CSS. It is a language that defines markup languages.

16. Different Box Sizing Property?
The box-sizing CSS property sets how the total width and height of an element are calculated.

Content-box: The default width and height values apply to the element's content only. The padding and border are added to the outside of the box.

Padding-box: Width and height values apply to the element's content and its padding. The border is added to the outside of the box. Currently, only Firefox supports the padding-box value.

Border-box: Width and height values apply to the content, padding, and border.

17. Why background and color are the separate properties if they should always be set together?
There are two reasons behind this:

It enhances the legibility of style sheets. The background property is a complex property in CSS, and if it is combined with color, the complexity will further increase.

Color is an inherited property while the background is not. So this can make confusion further.

18. Can you name the four types of @media properties? The four types of @media properties are:

All  $\rightarrow$  It's the default property. Used for all media-type devices. Screen  $\rightarrow$  Used for computer screen, mobile screen. Print  $\rightarrow$  Used for printers. Speech  $\rightarrow$  Used for screen readers.

- 19. What is the grid system?
- CSS Grid Layout is the most powerful layout system available in CSS. It is said to be a 2-dimensional system, meaning it can handle both columns and rows, unlike flexbox which is largely a 1-dimensional system.
- 20. What are the different ways to hide the element using CSS? Using display property(display: none). It's not available for screen readers. The element will not exist in the DOM if display: none is used.

Using visibility property(visibility: hidden), will take up the space of the element. It will be available to screen reader users. The element will actually be present in the DOM, but not shown on the screen.

Using position property (position: absolute). Make it available outside the screen.

- 21. What does the :root pseudo-class refer to? The :root selector allows you to target the highest-level "parent" element in the DOM, or document tree. It is defined in the CSS Selectors Level 3 specification.
- 22. What does Accessibility (ally) mean?
  Accessibility refers to how software or hardware combinations are
  designed to make a system accessible to persons with disabilities, such
  as visual impairment, hearing loss, or limited dexterity.

For example, a website developed with accessibility in mind might have text-to-speech capabilities. In the USA public websites have to have accessible compliance. It's defined in 508 compliance. It gives the guidelines and best practices for all website users that should be met with key areas of accessibility.

- 23. How do I restore the default value of a property? The keyword initial can be used to reset it to its default value.
- 24. Difference between CSS grid vs flexbox?
  CSS Grid Layout is a two-dimensional system, meaning it can handle both columns and rows. Grid layout is intended for larger-scale layouts which aren't linear in design.

Flexbox is largely a one-dimensional system (either in a column or a row). Flexbox layout is most appropriate to the components of an application.

25. What is Embedded Style Sheet?
An Embedded style sheet is a CSS style specification method used with HTML. You can embed the entire stylesheet in an HTML document by using the STYLE element <style>

```
body {
    background-color: linen;
}
h1 {
    color: red;
    margin-left: 80px;
}
</style>
```

26. What is a CSS selector?

It is a string that identifies the elements to which a particular declaration apply. It is also referred as a link between the HTML document and the style sheet. It is equivalent of HTML elements. There are several different types of selectors in CSS: -

```
CSS Element Selector
CSS Id Selector
CSS Class Selector
CSS Universal Selector
CSS Group Selector
```

27. What is the difference between CSS variables and preprocessor(SASS, LESS, Stylus) variables?

CSS variables can be used without the need of the preprocessor. Currently, all the major browsers support the CSS variables.

CSS variable cascade. But the preprocessor variables don't cascade.

CSS variable can be accessed and manipulated javascript.

28. What is specificity? How to calculate specificity?

A process of determining which CSS rule will be applied to an element. It actually determines which rules will take precedence. Inline style usually wins then ID then the class value (or pseudo-class or attribute selector), the universal selector (\*) has no specificity. ID selectors have a higher specificity than attribute selectors.

29. What are the advantages of using translate() instead of absolute position?

Translate() does not cause the browser to trigger repaint and layout and instead only acts on the compositor. The absolute position triggers the repaint or DOM reflow. So, translate() gives the better performance.

30. What is the use of CSS Opacity?
The CSS opacity property is used to specify the transparency of an element. In simple word, you can say that it specifies the clarity of the image. In technical terms, Opacity is defined as the degree to which light is allowed to travel through an object. For example:

<style>

```
img.trans {
     opacity: 0.4;
     filter: alpha(opacity=40); /* For IE8 and earlier */
}
</style>
```