

CSS Interview Question

Date: 30/11/24 YOUVA

1. What is purpose of CSS media queries?
The purpose of media query is used to create responsive web design based on the device & different screen size, resolutions & device capabilities.

- * Responsive web design
- * Adaptive to Device capabilities
- * Viewport control
- * Point Styles

2. How do you write basic media query in CSS?
→ @media media-type and (media-feature)

→ ↳

@body {

width: 16px font-size: 18px }

@media screen and (max-width: 600px) {

@body {

font-size: 14px } }

3. Explain difference b/w max-width & min-width in media query.

* min-width & max-width are media features of media queries

* It is used to specify set a condition for display of element based on size of the viewport.

* max-width :- Here the condition applies when the width of viewport is less than or equal to the specified value.

* min-width :- This condition applies when the ^{viewport} specified width is equal to or more than specified value.

4) What is the purpose of the viewport meta tag in responsive web design.

It is used for creating responsive webdesign.
It is used in HTML document in 'head' section.

* The 'viewport' meta tag is used to ensure the web pages are displayed properly & responsively on different devices.

Width:- It specifies width of the ~~web~~ device

initial-scale:- Sets the initial zoom when the page is first loaded.

maximum-scale & minimum-scale

User cannot zoom-in above the level.

Ex:- content = 'maximum-scale=2.0'

minimum-scale

User cannot zoom-out beyond the level.

Ex:- content = 'minimum-scale=0.5'

5 How do we apply different styles for landscape and portrait orientation using media queries.

We use media queries Orientation to apply different styles when the orientation of device is changed b/w portrait & landscape

~~& don't body {color: black;}~~

```
@media (orientation: landscape) {
    body { color: red; }
}
```

```
@media (orientation: portrait) {
    body { color: blue; }
```

6 Explain the concept of mobile first approach in responsive design.

Mobile first approach refer to designing a web page that is suitable for mobile, then later expanding it to larger screen device. i.e progressive enhancement.

7 What are common breakpoints used in responsive design.

Break points in responsive design are specific points at which layout of a web page is adjusted to accomodate content based on different screen size

1) Small screen :- Mobile Phone

```
@media (max-width: 767px)
```

2) Medium screen : Tablets

(min-width: 768) and (max-width: 991px)

3) Large Screen : Laptop, desktop
 (min-width : 992px) and (max-width : 1199px)

4) Extra Large Screen : Large desktop
 (min-width : 1200px)

5) Portrait & Landscape orientation

Breakpoints based on orientation

@ media (orientation : landscape) { }

6) High resolution display

There will be a breakpoint based on resolution.

@ media (min-resolution : 2dppx) { style } }

8) What is the purpose of rem unit in media queries.

rem → root em @ root element

It is used to specify font size based on root element.

If user change base font size then it will change font with rem.

* It is used to create responsiveness of font in different screen size

9) How can you combine multiple media queries in CSS

we can combine multiple media queries by separating them with comma.

When we combine the style is applied if any one condition is satisfied

body { font-size: 16px }

@media (min-width: 768px) and (max-width: 991px),
 (min-width: 992px) and (max-width: 1199px) {
 body { font-size: 20px } } For Desktop.

Here condition for tablet & desktop is added together.

10 What is the significance of all keyword in media queries.

→ all keyword used for media-type in media queries

all keyword is used to apply styles to all media queries explicitly to all the

all keyword is used to specify that the style should apply to at all media-type.

11 How do you apply styles to only for print stylesheet.

To apply styles for print stylesheet we use 'Print' media-type

```
@media print {
  body {
    font-size: 12px;
    color: black;
  }
}
```

12 What is the difference between 'screen' and 'print' in media queries?

The main difference between 'screen' and 'print' media type is it is used to define different styles based on output device.

* Style of 'screen' media-type applies when viewed on desktop / laptop / mobile

* Style of 'print' media-type applies when it is printed

13 How can you hide an media element on a specific screen size using media queries.

We can use display property & set value to none.

Ex:-

```
@media screen and (max-width: 767px) {
```

```
img {
```

```
display: none }
```

14 Explain Role of Orientation property in media queries.

Orientation property allows to apply different style or adjustment to the layout based on the position of user holding the device.

Orientation : portrait @ landscape

15 How do you target specific devices using media queries?

We target devices based on specifying device size, like device-width, device-height.

By combining these features in your media queries, you can create conditions that specifically target certain devices or device categories.

16 What is the purpose of the `not` keyword in media queries.

'not' keyword in media queries is used to negate or exclude specific condition.

It allows you to apply styles when a particular condition is not met.

```
@media not (max-width: 767px) {
```

```
    body {
```

```
        background-color: light green; }
```

```
@media not (max-width: 767px) {
```

```
    body { background-color: light blue; }
```

17 How can you use media queries to adjust font sizes for different screen sizes.

We can specify by setting different font size for different screen size.

18 What is box-sizing property in CSS & what does it control?

The 'box-sizing' property in CSS controls how the total width and height of an element are calculated.

It determines whether the specified width and height properties includes the elements padding and border and margin.

Two values for 'box-sizing':

19 Difference b/w content-box and border-box.
1 Content box :- (default)

The width and height property applies to only its content excluding padding, border, margin.

box-sizing: content-box

2d border-box :- (initial) (normal) (border) (padding) (margin) @

With borderbox the specified width and height properties includes the elements, content and border , excluding margin.

20 How does the box-sizing property affect the calculation of an element's width
 $\text{div} \{$

box-sizing: content-box;

width: 100px;

padding: 10px;

border: 2px solid #000;

}

$$\Rightarrow 100\text{px} + (2 * 10\text{px}) + 2 * 2\text{px} \Rightarrow \underline{\underline{124\text{ px}}}$$

$\text{div} \{$

box-sizing: border-box;

width: 100px;

padding: 10px;

border: 2px solid #000; }

$\xrightarrow{\text{Content size}} 100\text{px} - (2 * 10\text{px}) - (2 * 2\text{px}) = \underline{\underline{76\text{ px}}}$

Element size $\Rightarrow \underline{\underline{100\text{ px}}}$

21 Why might you choose box-sizing: border-box as the default box model for your project.

We choose ~~box~~ border-box as default box-sizing because it simplifies layout calculations, making it more appropriate and consistent, especially for responsive design, spacing control and compatibility with modern layout techniques.

Q3. What is CSS combinator, and how is it used in a selector.

CSS combinator are used to define

(a) combine two or more Selectors.

* Combinators are used to define relation b/w two or more Selectors.

1. Descendent Combinator. (Select 1 \neq Select 2)

It is used to select the descending element of $\text{div} \rightarrow \text{p}$

$\Rightarrow \text{div} \text{ p}$

2. Child Combinator : (Select 1 $>$ Select 2)

It is used to select all the elements which are direct children of their parents

$\text{ul} > \text{li}$

3. Adjacent Sibling Selector : (Select 1 + Select 2)

Selects the elements matching that is immediately preceded by another element matching, both share the same parent.

$\text{h2} + \text{p}$

4. General Sibling Combinator (Select 1 ~ Select 2)

Selects all elements that are sibling of an element and share the same parent.

- 24 Differentiate between descendant and child combinator in CSS Selectors. Provide example for each.

Descendant Combinator :- Targets elements at any level of nesting beneath the specified ancestor article p

Child Combinator :

Targets only elements at any level of nesting beneath that are immediate children of the specified parents.

nav > ul

- 25 Explain the purpose of the adjacent sibling combinator (+) in CSS. Provide a use case.

Adjacent sibling combinator in CSS is used to select an element that is immediately preceded by a specific element. It targets an element that shares the same parent and appears directly after the referenced element in the HTML structure.

h2 + p { color: red; }

color: red;

< h2 > Heading </h2 >

< p > This paragraph will be red </p >

< p > This will not be red </p >

26 How Does general sibling combinator different from adjacent sibling combinator.

Adjacent sibling :-

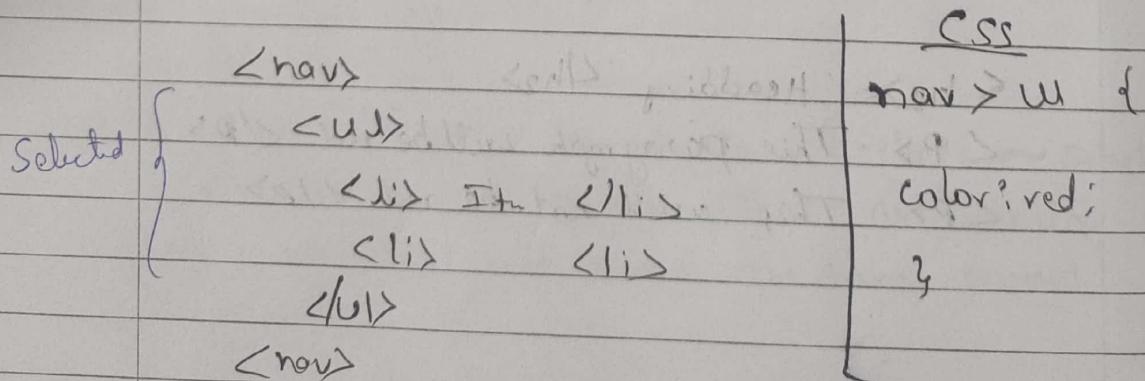
- * Selects only immediate next sibling
- * Requires second element to immediately follow the first element

General sibling :-

- * Selects all siblings not just the immediate one
- * No need of immediate adjacency. It need not to be present immediately next.
- * It selects all sibling with same parent

27 Significance of child combinator in CSS.

- * It selects elements which are direct children of specified parents, ignoring elements which are nested further down the hierarchy.
- * Increased specificity :- It targets exact element need to be targeted i.e. avoids unintentional styling.



not selected

28 How can we select all paragraphs that are direct descendants of a div using a CSS selector.

div > p { }

29 Provide an example of using descendant combinator to style nested elements.

```

<div class='container'>
  <p> This is first Paragraph </p>
  <div>
    <p> This is nested paragraph </p>
    <p> This is another nested paragraph </p>
  </div>
  <p> This is last Paragraph </p>
</div>
```

- container p {
 color: blue;
 font-style: italic;
 }

⇒ All P will be blue and italic.

30 Explain How space b/w 2 selectors represent descendant combinator.

The space b/w 2 selectors represent descendant combinator.

31. How do you select element that are immediate next sibling of another element in CSS.

Adjacent Sibling Selector.

32. In what scenarios would you choose one combinator over another and what are the considerations for efficient CSS selector.

1) Descendant Combinator (space)

- * This is broadest selector, and it can potentially match a large number of elements
- * In large and complex HTML structures as they can lead to slower performance

2 Child Combinator (>)

- * More specific than the descendant combinator, as it only targets immediate children
- * Faster than descendant selectors since it narrows down the scope of elements to consider.

3 Adjacent Sibling Combinator (+)

- * Useful for styling elements that are direct siblings.
- * Provides a more restrictive selection, potentially improving performance.

33 Explain the concept of pseudo-selectors. Provide examples of commonly used pseudo-selectors and their purposes.

Pseudo-selectors in CSS are used to select and style element based on their state, position in the document.

Pseudo class are used to define special state of an element.

- :first-child → Selects first child of its parent.
- :last-child → Selects the last child of parent
- :nth-child(n) → Selects the nth child of parent

:hover :- Selects & styles an element when the user hover over it

:active :- Selects & styles an element while it is being activated

:focus :- Selects & styles an element that has keyboard focus.

:checked :- Selects checked checkboxes & radio buttons.

34 Differentiate b/w pseudo-classes & pseudo-elements in CSS. Give example of each.

Both pseudo-classes & pseudo-elements are used to apply styles to specific elements based on certain criteria.

Pseudo-classes :

- * It is used to select & style elements based on their state or specific conditions.
- * They are denoted by : (colon) followed by pseudo-class
- * Ex:- :hover, :active, :nth-child

Pseudo-Element .

- * It is used to select & style specific part of an element.
- * Denoted by :: (double colon) followed by pseudo-element.
- * Ex:- ::before, ::after, ::first-line

35 How can you use the :nth-child pseudo-class to select specific elements in a list Q contains? Provide Example.

The :nth-child pseudo-class in CSS is used to select & style element based on their position as a child of parent container. We can target specific children by using formula in the parenthesis.

The formula $\Rightarrow (n), (an+b)$ Q (even) & (odd)

 Item 1

 Item 2

 Item 3

 Item 4

li : nth-child(odd) { color : red }

li : nth-child(3) { background-color : lightgreen }