1. What are semantic tags.

Ay. Semantic tags are those which describe the particular meaning to the browser and the developer.

ex:- <form>, <table>, <strong>, <em>, <p>,

2. Explain type of selectors and specificity

Ay CSS selectors is the part of CSS ruleset that actually selects the content you want to style.

1. universal selector:- selector works like a wildcard character, selecting all elements on a page. [*]

2. Element selector:- selector mathes one or more HTML elements of same name.

3. ID selector: This selector matches any HTML element that has an ID attribute with same value as that of the selector [#]

4. class selector:- selector also matches all the elements on the page that have their class attribute set to the same value as the class. [.]

5. Descendant combinator:- The descendant selector or more accurately, the descendant combinat lets you combine two or more selectors so you can be more specific in your selection method.

6. Child combinator:- A selector that uses the child combinator is similar to a selector that uses a descendant combinator, expect it only target immediate child element.

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General sibling combinator:- A selector that uses a general sibling combinator to match element based on sibling relationship. The selected elements are beside each other in the HTML [~]

Adjacent sibling combinator:- A selector that uses a adjacent sibling combinator uses plus symbol (+) and is almost the same as general sibling selector. The difference is that the targeted element must be an immediate sibling, not just a general sibling.

Attribute selector:- Selector targets elements based on the presence and/or value of HTML attributes and is declared using square brackets

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

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4. If we are applying two class for same div with different style which CSS will apply either class1 or class2

As class1 will apply to the element.

5. What is CSS? why we use it?

Ans Cascading style sheets (CSS) is a style sheet language used for describing the presentation of document written in a markup language such as HTML

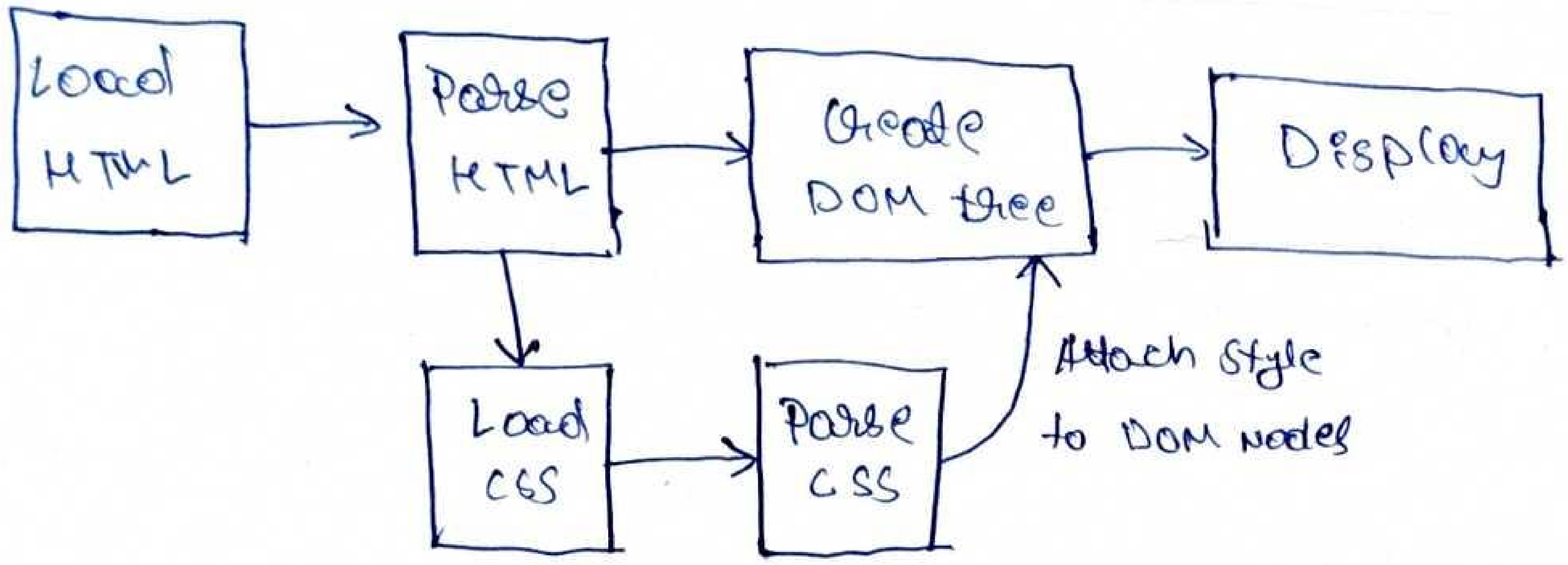
- Better website speed:- CSS make website faster and smooth website experience
- Easier to Maintain:- CSS is easy to maintain because a single line code changes affect the entire web page.
- consistent design:- CSS enables developers to ensure that style elements are applied consistenly across several web pages.
- Time-saving:- CSS saves a lot of time and effort in the web development.

6. How does CSS work?

1. The browser loads the HTML
2. It converts the HTML into a DOM (Document object Model)
3. Browser the fetches most of the resources that are linked to by the HTML document, such as embeded images & videos and linked CSS.
4. Browser parses the fetced CSS, & sorts the different rules by their selector types into different buckets ex element, class, ID and so on. Based on the selector it finds, it works out which rules should be applied to which nodes in the DOM and attaches style to them as required.

5. The render tree is laid out in the structure it should appear in after the rules have been aplied to it

6. The visual display of the page is shown on the screen



7. What are new features in HTML5?

Ans 1. Intro of audio and video

2. Email attribute

3. placeholder attribute

4. progress tag

5. Nav tag

6. Figure tag

7. Header and Footer

8. What are merits and demerits of external css

Merits :

1. The style of a few documents can be controlled from the site by utilizing them

2. multiple HTML elements can have numerous documents where classes can be made

3. To assemble styles in complex circumstances, selectors and grouping strategies are utilized

Demerits :.

1. The additional download is expected to import documets having style information.
2. To render the documets, the outer template ought to be stacked
3. Not practice fr small style defuitios.

9. How can you create a nested web page in HTML.

As. HTML iframe is used to display a nested a webpage (a webpage within a page). The HTML <iframe> tag defines an inline frame, hence it is also called as an inline frame.

10. Explain CSS box model

As. A rectangle box is wrapped around every HTML element. The box model is used to determine the height and width of rectangular box.

Content : Actual content of the box where the text or images is placed

Padding : Area surrounding the content (space b/w border & content)

Border : Area surrounding the padding

Margin : Area surrounding the border.

11. what is Doctype ? expain

As All HTML documets must start with a <!DOCTYPE> declaration The declaration is not an HTML tag. It is an information to the browser about what document type of expect.

Types

Strict : This DTD contains all HTML elements and attributes but does not include presentational element (like font) Frameset are not allowed.

Transitional :- This DTD contains all HTML elements and attributes including presentational elements (like font) Framesets are not allowed.

Frameset :- This DTD is equal to HTML 4.01 Transitional but allows the use of frameset content.

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12. Explain flexbox property.

A) Flexbox is a one dimension layout used to align items horizontally & vertically in responsive condition.

Properties

flex-direction :- This property helps in defining the direction the container should stack items targeted to flex

row
column
row-reverse
column-reverse

flex-wrap : This property specifies if flex items should be wrapped & not.

wrap
no-wrap
wrap-reverse

flex-flow : This property is used for setting both flex-direction and flex-wrap properties in one stateme

Justify content

centre

flex-start :- items are aligned at the start of container

flex-end :- items are aligned at the end of container

align-items :- This is used for aligning flex items

align-content :- used for aligning flex lines

13. what are the diff display properties available in HTML

A) inline:- using this we can display any block element as inline element

block:- :- using this we can display any inline element as block element

inline-block:- This property is similar to inline, except by using this display as inline-block we can format the element using height & width values.

flex:- It displays the container and element as a flexible structure.

inline-flex:- displays the flex container as an inline element where its content follows the flexbox properties

grid:- It displays the HTML element as a grid container

none:- hides the HTML element

14. what are all the position property

A. Static:- Default value. Here the element is positioned according to the normal flow of document.

absolute:- Here the element is positioned relative to its parental element. The final position is determined by the values of left, right, bottom, top

fixed:- This is similar to absolute expect here the elements are positioned relative to the <html> element.

relative:- Here the element is positioned according to the normal flow of document

initial: This resets the property to its default value

inherit: Here the element inherits or take the property of its parent.

15 what clas name will you give if want to display a division in centre horizontally or vertically in bootstrap

A d-flex align-items-centre = to place vertically centre
d-flex justify-content-centre = to place horizontally center

---

16 Explain Hoisting

A Hoisting is a default behaviour of JS where all the variable and fuction declarations are moved on top

---

17. Explain call and apply

Ans call:- It is a predefined method in JS. This method invokes a function by specifying the owner object

apply:- It is similar to call. The only difference is apply method takes argument as an array

---

18. What are types of datatypes of JS

A 1. Primitive data type:- immutable and pass by value

Number:- It represents a number
Floats:- Numbers with decimals
Integer:- Number without decimals

Strings:- collection of characters it may be two of letter. strings are written inside double quotes or single quotes

Boolean:- Boolean can have only two values
True or False

Null:- It represents a non-existent or a invalid value

undefined:- when a variable is declared but not assigned.

Non-primitive data type:- mutable and pass by reference

Array:- which can hold more than one value, that value may be of any datatype.

object:- It holds the key-value pairs and properties written inside curly braces

function:- reusable set of code or statement used to perform certain tasks.

---

19. what are object methods?

1. object.create() = method is used to create a new object and link it to the prototype of an existing object.

2. object.keys():- creating an array contains the keys of an object

3. object.values(): creates an array contains the values of object

4. object.entries():- creates a nested array of the key/value pairs of an object.

5. object.assign(): used to copy values from one object to another

6. object.freeze(): prevents modification of properties and values of an object, and prevents properties being added or removed from object

20. Explain setTimeout and set Interval

Ans <u>Settimeout</u>:- method is used to call a fuction or evaluate an expression after a specified no of ms

<u>Setinterval</u>:- method used to call a fuction or evaluate an expression at specified interval

21. What is callback fuction

Ans The functions that are used as an argument to another fuction are called callback fuction

22. Difference b/w declaration and definitions

Ans <u>Declaration</u>:- gives details about the properties of a variable

<u>Definition</u>:- of a variable says where the variable get stored

$\underset{\text{declaration}}{\underline{\text{var x}}} = \underset{\text{definition}}{\underline{3}}$

23. Difference b/w arrow fuction & normal fuction

Ans

| arrow fuction | Normal fuction |
|---|---|
| • Syntax is short | • Syntax is large |
| • fuction keyword is not used | fuction key word is used |
| • No fuction name | fuction is given |
| • dont use paranthesis for a single argument | • use paranthesis to write arguments |

24. what is the output of 5+4+'4'-9-4-2

As 79

```
5+4=9
9+'4'=94
94-9=85
85-4=81
81-2=79
```

25. what is destructing in JS give an example

As Destructing assignment syntax is a JS expression that makes it possible to unpack values from arrays & properties from objects into distinct variable

ex:-

```
let a, b, rest;
[a, b] = [10, 20]
console.log(a)      //10
console.log(b)      //20
[a, b, ...rest] = [10, 20, 30, 40, 50]
console.log(rest);        // 30,4050
```

26 what is typeof operator

As. JS typeof operator is used to find the type of a JS variable. It returns the type of variable

27. Explain spread and rest operator

As Rest parameters:- by using rest parameter we can create functions that can take variable no of arguments.

Any number of arguments will be converted into an array using rest parameter

Spread operator:- is used to spread an array and object literal. we also use spread operators where are of more arguments are expected in a function call

28. Difference b/w null, undefined and empty

Null is used to explicitly define nothing

ex:- var name = null;

undefined happens when we don't assign any values to a variable

ex:- var name;

empty:- is an explicit way to define an empty string.

ex:- var name = " ";

29 Type of null = object

undefined = undefined

array = object

object = object

30 output of null == undefined is true because both datatypes are used as a representation of no value

Output of null === undefined is false because both are of same value but datatypes are different.

31. overriding equals:- this method is used in our class to check whether two objects have same data or not

32 Difference b/w == and ===

Ay == it compares only values between two variable

=== it compares both datatype and values b/w two variable

33. Explain ternary operator with example

As ternary operator is also called conditional operator is the only JS operator that take three operands which acts as a shortcut for if statements.

```
let marks = 45
let result = (marks >= 40) ? 'pass' : 'fail';
console.log (result)      // pass
```

34. write a function for palindrome

```
function Palindrome (string) {
    const len = string.length
    for (let i=0; i< len/2; i++){
        if (string[i] != string[len-1-i]) {
            return 'It is not a palindrome'
        }
    } return 'It is a palindrome'
}

const string = "madam"
const value = palindrome (string)
console.log (value);
```

35. what is Closure?

A) Closure is a fuction having access to parameters & arguments of its parental function.

36. write program for closures

```
function greet(){
        let name= "Renu"
         fuction display(){
           return name
         }
       return display()
     }
let   a = greet()
 console.log(a)
```

37. what is armstrong number? write the function.

A) Armstrong :- An armstrong number of three digits is an integer such that the sum of the cubes of its digit is equal to the number itself.

ex!. 371 = 3*3*3 + 7*7*7 + 1*1*1

```
let  num= 153
 let  sum=0
 let  temp = num
 while (temp>0) {
      remainder = temp % 10
      sum += remainder* remainder x remainder
      temp = parseInt (temp/10)
 }
```

```
if (sum == num){
    console.log ("this is armstrong number")
}else{
    console.log ("this is not armstrong number").
```

38. What are class.

Ans Class is a template that is used to create objects in Javascript

· constructor function is used to initialize the properties of object

39. Destructing of objects

Ans Unpack values from arrays or properties from object into distinct variable.

40. Inheritance :- enables us to define a class that takes all the functionality from parent class & allows us to add more

41. Spread operator can it be used with objects

Ans object spread operator can be used to clone an object or merge objects into one. The cloning is always shallow.

42. what is Super in JS

Ans · It is used inside a child class denote its parental class

· used to initilize the attributes of parental object

· used to call constructor function of parental object

43. Explain Static method in JS

As It is a inbuilt fuction i.e we cannot call a Static method on a object, only an object class.

- properties will apply to whole object

44. How do you loop through an object

A By using for in loop

```
let person = {
    name : 'Renuprashanth';
    age : 22,
    DOB : ~~'05~~ '14/05/2000';
    email : 'renuprashanthkm@gmail.com'.
};

for (let key in person) {
    Console.log(`${key} : ${user[key]}`);
}
```

output:

```
name : Renuprashanth
age : 22.
DOB = 14/05/2000
email = renuprashanthkm@gmail.com
```

48. Fuction to calculate the frequency of occurance of each number are

As
```
let counts = {};
let array = [1,1,2,3,4,4]
array.forEach((x) => {counts[x] = (counts[x] || 0) +1; });
console.log (counts)
```

49. write a function to reverse a string

As ⇒ without using buit in function

```
let string = "Javascript is best language";
function revstring (string) {
            let newstring = " ";
            for (i = ~~newstring~~ string.length -1 ; i ~~A~~>= 0 ; i-- {
                  newstring += string[i]
            }
          return newstring,
      }
   let result = revstring (string);
     console.log (results)
```

⇒ with using built in function

```
   let string = " Javascript is best language"
   fuction revstring (string) {
      toarray = string. Split (" ");
      reverse = toarray. reverse ();
      Join = reverse . join (" ");
     return join
   }
```

```
let result = revString (string)
 console.log (result)
```

47. write a function on removing duplicates

As

```
function unique(arr){
        let uniqueArr = [ ];
     for (let i of arr) {
            if (uniqueArr.indexOf(i) === -1) {
                  uniqueArr.push(i);
            }
        console.log(uniqueArr);
      }
  let ~~unique~~ arr = [1, 2, 3, 2, 3]
    ~~let~~ unique (arr);
```

48. write a function on sorting the no in ascending order

As

```
     var price =[1000, 50, 8, 7, 14]
  price.sort((a,b) => a-b);
  console.log (price)
  price.sort((a,b) => b-a);
   console.log (price)
```

49. ~~A~~

49. merge 2 arrays & remove duplicated without using inbuilt fuction

As

```
    function merge (arr1, arr2){
        let arr = arr1.concat(arr2)
        let unique arr = []
        for (let i of arr){
            if (uniquearr.indexof (i) = == -1){
                uniquearr.push (i);
            }
        }
        console.log (uniquearr);
    }
const array1 = [1.2, 3].
const array2 = [2, 3. 5]
merge (array1, array2);
```