

①

INTERVIEW QUESTIONS

① What is HTML and what is its purpose?

Ans HTML is the code that is used to structure a webpage and its content. The content could be structured within a set of paragraphs, a list of bulleted points (or) using images and data tables.

Purpose - It can be displayed in all browser ^{and} devices.

② What is difference b/w HTML and XHTML

XHTML

HTML

① It stands for Extensible HyperText Markup language.

② It is more structured and easier to read.

③ It does not have backward compatibility.

④ It requires more bandwidth.

⑤ It has feature to both XML and HTML

③ What are new features introduced in HTML5

Ans ① Semantic elements

② Audio and Video support.

③ Responsive Images

④ Micro Data -

⑤ Local Storage.

① It stands for HyperText Markup language.

② It is easier to code.

③ It has backward compatibility.

④ It helps for the multimedia support such as images and video, audio.

⑤ It is used to create webpage and link them from one to another and used in

other technologies such as CSS and javascript.

④ How do you include comments in HTML?

= Include a comment in HTML by beginning with a less than sign and ending with greater than sign.
for ex: "<!--" and "-->"

⑤ Explain the difference b/w <div> and tag.

div

① It is a block-level element
② A block element that starts a new line and has width equal to the entire page.

③ It is related to paragraphs, headings, images and links.

But

```
<div id="paragraphs">  
  <p>first paragraph Content</p>  
  <p>second paragraph Content</p>  
</div>
```

④ what are semantic elements in HTML5 and why are they important.

= Semantic Elements are used to ~~search the describes its~~ meaning to both the browsers and developers.
= <form> | <table> | <articles> | <header> | <footer> | <section> | <aside> | <nav> | <main>

① It is a inline-element.
② It does not start newline and takes up as much space on the page as its content.

③ It takes small segment of text, links, images.

But

```
<p> she has <span id="  
  "special-text"> extra  
  Content </span> Inside it  
</p>.
```

⑦ what is the purpose of the following.

(a) `<header>` :- This tag is used to add the heading of the page as it contains on the top of the page.

Syntax

```
<header>
  <h1>
  <h2>
```

`</header>`

(b) `<nav>` :- It defines the set of navigation links either within a document or other document.

Syntax

```
<a href = "link" > /<a>
```

`</nav>`

(c) `<section>` :- It defines the diff section in a document.

Syntax

```
<p> /<p>
```

`</section>`

(d) `<footer>` :- It defines a footer of a document or section. It usually contains contact information, back to top links, related documents.

Syntax

```
<footer> /<footer>
```

⑧ How do you create a hyperlink in HTML?

Ans we use the anchor tag `<a>` to create a hyperlink in HTML that links one page to another page. The hyperlinks can be added to images to.

Syntax

```
<a href = " " > link </a>
```

⑨ what is difference b/w `` and `` elements

Ans `` :- Each element in the list is written in b/w `` `` tags. It is represented in form of bullet's rather than numbers.

Ques:

 4
 5

Output = List 1

= List 2.

.

 -> Each list is defined inside a tags.
It is represented in the form of numbers.

Ques:

Output 1. list1
2. list2

⑯ How do you embed an image in HTML?

Ans we can embed an image in html by tag.
and src as the reference to it.

Ques: <!DOCTYPE html>

<html>

<body>

<h2>

</h2>

</body>

</html>

⑰ What is the difference b/w and tag.

Ans tag makes the letters bold and strong emphasis.
 tag shows the letters in italics.

⑱ How do you create table in HTML?

Ans We used a tag to create table as <table> as opening
and closing tag </table>. It is a mixture of rows and
columns in table so, for rows we use <tr> tag and </tr>
and for the data of the table we use <td> tag and </td>

Q13 what is the purpose of <form> tag in HTML and how do you create a form? (3)

A13 The <form> tag is used for creating a form for user input. It can contain textfields, checkboxes, radio-buttons, etc. Submit button.

* The <input> element is the most used in form.

Q14 what are some new input types introduced in HTML5?

A14 * Date * Date-Time-local * Time, month * email * tel.
* URL * search * range * color * number.

Q15 How do you include audio and video content in HTML?

A15 <audio> → we used <audio> tag to add the audio.

<video> → we used <video> tag and then we provide video to it which uses the path of it.

* we can use the width and height elements.
* we can use the controls elements to pause, forward, volume etc.

* we can use the muted option and autoplay option.

Q16 what is the purpose of the <iframe> tag and how is it used.

A16 <iframe> tag is used to create inline frame.

The inline frame is used to embed another document within the current html document.

<iframe src=" " title=" " ></iframe>

Q17 How do you add CSS styles to HTML documents?

A17 There are three ways.

- ① Inline CSS
- ② External .stylesheet
- ③ Internal Style sheet.

① Inline CSS :- In HTML document when less amount has to be styled . To use inline style add the style in the relevant tag.

② External Style Sheet :- In HTML document when style is applied to many elements . The page must link to style sheet using `<link>` tag.

Syn :-

```
<head>
  <link rel="stylesheet" type="text/css" href="style.css"/>
</head>
```

③ Internal Style Sheet :- It is used in the single document and apply in the several elements needed to be styled in format . It is added in the head section of an HTML page by using the `<style>` tag .

```
<head>
  <style type="text/css">
    </style>
  </head>
```

④ What is the role of alt attribute in `` tag ?
Any The alt attribute provides alternative tag text for the image in case image cannot be displayed .

⑤ How do you create a numbered list with custom numbering styles in HTML ?

Any we can create by a Ordered list tag as `` define the items using `` tag .

• The type attribute is used to custom numbering style in HTML .

Ex :- `type = "1"` → The list items with numbers .
`type = "a"` → The list items with lowercase letters .

Q20 what is difference b/w `<script async>` and `<script defer>`?
Ans `<script async>` → Allow your script to run as soon as it's loaded, without blocking other elements on the page.

`<script defer>` → It will allow script only to execute after the page has finished ~~loaded~~ loading.

Q21 what is responsive web design and why is it important.

Ans ~~to~~ Create a webpage that render well across a variety of devices and screen sizes.

In this way website experience that accommodates the many different ways user access and interact with websites.

Q22 How do you make a website responsive using CSS?
Ans By using the `viewport` ^{meta tag} in the stylesheet where the width and height constraint specifies for the viewport.

`<meta name="viewport" content="width=device-width, initial-scale=1.0">`

Q23 what is media query in CSS and how it is used in responsive design.

Ans media query allows you to apply different styles to a webpage based on certain condition, such as the characteristics of the device or screen it is being used.

`@media { media-type and (media-feature) { } }`

① Define a default set of styles.

② Identify breakpoints.

③ Write media queries.

Q24 Difference b/w fluid layout and fixed layout refernce to responsiveness.

Ans. Fluid layout is same as the responsive layout it can be seen in different devices.

Fixed layout is which you fix the width of the page to the given size.

Q25 How do you make image responsive in CSS?

Ans To make the image responsive we need to give the width property the height property will adjust itself. ``

Q26

Q26 what are the break points in responsive design and how are they determined.

Ans The "point" at which a website content and design will adapt in a certain way to provide the best possible user experience.

It is by using the media query is determined.

`@media mediatype and (Condition:) {`

css rules.

}

Q27 How Can you hide elements on specific screen sizes using CSS?

Ans We need to use 'css display property set to its "none" value along the @media rule and set the max-width property to which screen it should apply.

Q8) What is the purpose of max-width property in responsive CSS?

Ans This property is used to set the image to the max-width and does not allow width property from becoming larger than the value specified by max-width.

Q9) How do you create a responsive navigation menu using CSS?

Ans <!DOCTYPE HTML>

```
<html>
  <head>
    </head>
  <body>
    <div class = "nav">
      <a> <a> Reference links
      <a> <a>
    </div>
  </body>
</html>.
```

CSS:-

```
.nav { } } for navigation bar .
```

```
.nav a { } } for navigation bar in anchor tag .
```

Q) Explain the concept of mobile-first design and how it relates to responsive CSS.

Ans when we start by writing in CSS mobile devices and then use media query to add in styling for larger devices . In general media query uses a min-width.

Q) What is CSS flexbox, and what problem does it solve.

Ans It is a one dimensional layout . It helps to organize and arrange elements either in rows (or) columns. It is a modern way of aligning and distributing items in a container.

It arranges the img (or) content in the problem order.

Q) Explain the difference between flex container and flex items.

Ans A flex container is an HTML element whose display property's value is flex (or) inline-flex . It expands items to fill available free space (or) shrinks them to prevent overflow.

A flex items are the direct children of a flex container.

Q) How do you create flex-container in CSS?

<DOCTYPE HTML>

```
<html>
  <head> stylesheet
    <style>
      flex container {
        display: flex;
        width: 400px;
        height: 200px;
        background-color: lightred;
      }
    </style>
  </head>
<body>
```

(6)

```

• flex-item {
    background-color: brown;
    width: 100px;
    height: 100px;
    margin: 10px;
}

<html>
<head>
<body>
<div class = "flex-container">
    <div class = "flex-item">flex item1</div>
    <div class = "flex-item">flex item2</div>
</div>
</body>
</html>

```

Q4) what are the main properties used to control the layout in flexbox?

A) (a) **flex-direction**:- It defines in which direction the container wants to stack the flex items.

Eg:-

```

• flex-container {
    display: flex;
    flex-direction: column;
}

```

(b) **flex-wrap**:- It specifies whether the flex-items should wrap or not.

Eg:-

```

• flex-container {
    display: flex;
    flex-wrap: wrap;
}

```

(c) Flex-Flow property:- Setting the property for both flex-direction and flex-wrap properties.

Eg:-

```
.flex-container {  
    display: flex;  
    flex-flow: row wrap;  
}
```

(d) justify-content property:- property is used to align the flex-items.

Eg:-

```
.flex-container {  
    display: flex;  
    justify-content: center; flex-start, flex-end, space-around  
    space-between.  
}
```

(e) Align-items property:- The property is used to align the flex-items.

Eg:-

```
.flex-container {  
    display: flex;  
    height: 200px;  
    align-items: center; flex-start; flex-end; stretch; baseline-  
    center.  
}
```

(f) align-content property:- The property is used to align the flex-lines.

Eg:-

```
.flex-container {  
    display: flex;  
    height: 600px;  
    flex-wrap: wrap;  
    align-content: space-between; space-around; stretch; center;  
    flex-start; flex-end.  
}
```

Q5) How do you specify the direction of flex items within a flex container?

A) By adding a flex-direction property to the flex-container. It allows us to change the direction in which our flex items display.

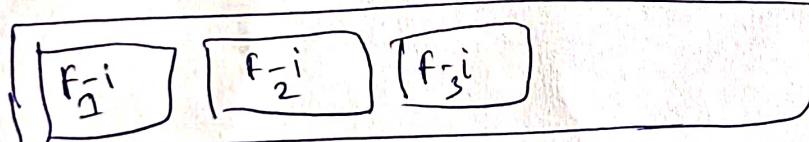
```
flex-container {
    display: flex;
    flex-direction: row reverse;
}
```

The items shows in the reverse order.

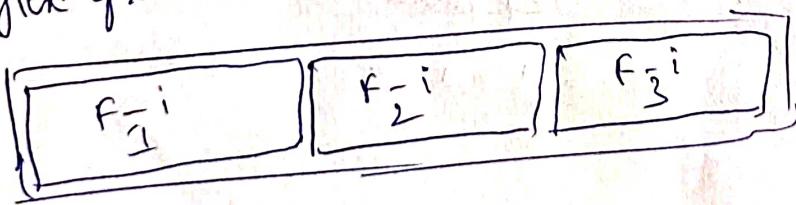
Q6) What is the purpose of the flex-grow, flex-shrink and flex-basis properties?

A) flex-grow - How much an item will grow inside the container as compare to other items.

flex-grow = 0



flex-grow = 1



flex-shrink: It specifies how much the item will shrink relative to the rest of the flexible items inside the same container.

- (c) flex-basis! It sets the initial main size of flex-items.
It sets the size of the content box unless otherwise set with box-sizing.
- ③ How do you align flex-items horizontally and vertically with a flex-container.

An <!DOCTYPE HTML>

```
<html>
  <head>
    <style>
      .flex-container {
        flex-direction: row(0) column(1);
        justify-content: space-around;
        align-items: center;
      }
      .flex-item {
        display: flex;
        width: 100px;
        height: 50px;
      }
    </style>
  <body>
    <div class="flex-container">
      <div class="flex-item">flex-item 1</div>
      <div class="flex-item">flex-item 2</div>
      <div class="flex-item">flex item -1</div>
    </div>
  </body>
</html>
```

⑧ Explain the difference between justify-content and align-items property in flex-box.

Ans justify-content: property is used to align the flex-items.

Eg. - `.flex-container {`

`display: flex;`

`justify-content: center; flex-start, flex-end, space-around,
space-between;`

Align-item: property is used to align the flex-items.

Eg. - `.flex-container {`

`display: flex;`

`align-items: center; flex-start; flex-end; stretch;
baseline;`

⑨ How can you control the order of flex-items using CSS flexbox?

Ans The order of flex-items can be controlled by order property.

```
<div class="flex-container">  
  <div class="flex-item">1</div>  
  <div class="flex-item">2</div>  
  <div class="flex-item">3</div>
```

CSS

```
.flex-container {  
  display: flex;  
}
```

```
.flex-item {  
  }
```

```
.flex-item:nth-child(1) {  
  order: 3  
}
```

```
.flex-item:nth-child(2) {  
  order: 1  
}
```

```
.flex-item:nth-child(3) {  
  order: 2  
}
```

⑩ What are flexbox breakpoints and how can they be used for responsive design.

Ans It is the size where the design adjusts for a specific screen width. Breakpoints enable design to be responsive as they scale up and down.

(ii) What are HTML attributes?

Ans Attributes are the properties that can be added to an HTML tag. These attributes changes the way the tag behaves (or) is displayed.

For example `` tag has an `src` attribute, which you use to add the source from which the image should be displayed.

Add the attribute such after the name of HTML tag, inside the brackets. Only add to the attributes to openings (or) self closing tags, but never be in closing tag.

(iii) Explain the difference b/w global attributes and element specific attributes in HTML?

Ans Global attributes: These are attributes common to all HTML elements; they can be used on all elements, though they may have no effect on some elements.

Eg: `class`, `hidden`, `id`, `dir`, `Itemid`, `itemprop`.

Element specific attributes:-

(iv) How do you add attributes to HTML?

Ans The attributes are added to an element for a tag in the HTML.

Eg: ``

Here `img` is a tag and `src` is used as element to the tag.

(44) What is the purpose of the id attribute in html, how is it unique. (9)

Ans It specifies the unique id for an HTML element. The id attribute is used to point to a specific style declaration in a style sheet.

```
<!DOCTYPE html>
<head>
<style>
#myheader {
background-color: red;
color: black;
padding: 10px;
text-align: center;
}
</style>
</head>
<body>
<h1 id="myheader">My Header </h1>
</body>
</html>
```

It is unique because we use "#" in the stylesheet and can be used only once in html for id name. for other we use (.) (dot) symbol in the stylesheet. for declaration can be used multiple times in html.

(45) what is the difference b/w class attribute and id attribute.

Ans

```
<!DOCTYPE html>
<head>
<style>
#myheader {
color: red;
padding: 10px;
text-align: center; }
```

```
• City {  
background-color: tomato;  
color: white;  
padding: 10px;}  
  
</style> </head>  
<body>  
<h1 id="myheader">My Header </h1>  
<!-- multiple element in same class -->  
<h2 class="city">London </h2>  
<h2 class="city">America </h2>  
</body>  
</html>
```

Q) Explain the role of the href attribute in HTML, particularly in the context of links and anchors.
Ans The href attribute specifies the URL of the page the link goes to.

If href does not present, the `a` tag will not be hyperlink.

Q) How do you add alternative text to an image using the alt attribute?

Ans ``

Q) What is the purpose of the target attribute in HTML links, what are its possible values?

Ans Target attribute provides where the link to open the linked document.

The values are .

``

(10)

- blank → opens the linked document in a new window (control)
- self → opens the linked document in same frame as it was clicked.
- parent → opens the linked document in the parent frame.
- top → opens the linked document in the full body of the window.
- frameName → opens the linked document in the named frame

Q9) How do you use the src attribute to embed an external resource, such as an image (or) video, in HTML?

Ex for video

```
<video width="320" height="240" controls>
  <source src=".mp4" type="video/mp4">
  <track src="Subtitles-en.utt" kind="subtitles" srclang="en"
        label="english">
</video>
```

for image

```
<img src="" />
```

Q10) What is the purpose of the disabled attribute and how is it used in HTML form elements?

Ans The disabled attribute is a boolean attribute. When present, it specifies that the element should be disabled.

```
<button type="button" disabled> Click me! </button>
```

In the form we use type disabled = "disabled".

Q1 Is there any relation b/w Java and Javascript.

Ans Java is a compiled language, you write the code, then run it through compiler and create byte code. It is like building software.

Javascript is an interpreted language. It doesn't get compiled but is interpreted as the script runs. Commonly used to create interactive websites. Javascript has no direct relation to Java besides being used for web technologies.

Q2 Is javascript a compiled or interpreted language.

Ans Javascript is an interpreted language as the script runs.

Q3 Is Javascript a case-sensitive language.

Ans It is a case sensitive language. This means that language keywords, variables, function names and any other identifiers must always be typed with a consistent capitalization of letters.

Q4 What is node.js?

Ans Node.js is the open source service environment. It runs on various platforms (Windows, Linux, Unix, Mac OS etc). It uses javascript on the server.

Q5 What is difference b/w let and var.

Ans let : It is the declaration where it can be declared inside a scope.

```
function letscooping() {
```

```
let x=1;
```

```
y=function f
```

```
let x=2;
```

```
console.log(x); // Console.log(x);
```

Output: 2

1

var Variables declared by var are available throughout the function in which they are declared.

11

function varscooping()

```
var x=1;  
if(true){  
    let var x=2;  
    console.log(x);  
}  
console.log(x);  
}
```

Output: 2
2

varscooping()

Q What are the difference b/w undeclared and undefined variables.

Any Undeclared: when a variables are not declared. ~~then~~ using var or const, we use "typeof" operator to get a value of an undeclared value. It shows undefined.

~~undeclared~~

undefined: Variables has been declared but has yet not been assigned a value.

Eg: "let a
 console.log(a). ~~if we get donot get any output~~

Q What is hoisting?

Any The declaration of the variable moves to the top of the scope.

Scope:

Console.log(x); ~~1~~ undefined.

Var x=5;

Q What is scope in javascript?

Any It defines the current context of scope, which determines the accessibility of variables to javascript. There are two types of scope local and global: global are those declared outside the block and local are those declared inside a block.

(59) what are reserved words? Can i use reserved words as identifiers.

Any Reserved are the predefined keywords. It Cannot be used as an identifier, such as the name of a variable, function etc.

(60) Table .

There are many reserved words such as .

char, class, byte, const , continue , else , false , final , finally , etc .

(60) why do you need strict mode? How do you declare strict mode .

Any strict mode makes it easier to write secure javascript .
strict mode changes previously accepted "bad syntax" into great errors.

<script>
use strict;
let x=3.14;
delete x; Deleting a variable not allowed.
This will cause error.
</script>

(61) what are global variables?

Any global variables can be accessed from anywhere in a javascript program.

Eg var is the global variable .

(62) what are the problems with global variables .

Any global variables are easily overwritten by other scripts .
There are not bad but not even a security concern , but it
should not override values of another variable . On the usage
of more global variable in our code , it may lead to a
main tenance issue .

(12)

Q63 what is NaN property?

Ans It is a number that is not a legal number.

Eg: let x = NaN;

Console.log(x);

Output: It returns NaN (Not a number).

Q64 what is the purpose of delete operator?

Ans It removes a property from an object. If the property's value is an object and there are no more references to the object, the object held by that property is eventually released automatically.

const Employee = {

 firstname: 'John',

 lastname: 'Doe'

};

Console.log(Employee.firstname);

// Expected output: "John"

delete Employee.firstname;

Console.log(Employee.firstname);

// Expected output: undefined.

Q65 what is the difference b/w null and undefined.

Ans Null is an assignment value. It can be assigned to a variable as a representation of no value.

let a = null

Console.log(a)

undefined → Variable has been declared but not yet assigned
a value.

let a;

Console.log(a) ↗

66) what are the bitwise operators available in js?

Ans The bitwise operators are:
① AND ② OR ③ XOR ④ NOT ⑤ zero fill left shift
⑥ signed right shift ⑦ zero filled right shift.

67) Can I redeclare let and const variables?

Ans It cannot be redeclared -- let and const must be declared before use. Let have block scope.

68) Does const variable makes the value immutable?
Ans It creates an immutable reference to a value. It does not mean the value it holds is immutable - just that the variable identifier cannot be reassigned.

69) What is es6? List down some of the features of es6.

Ans It is the new version of Javascript that was introduced in 2015. ECMAScript is the standard that js programming language uses. ECMAScript provides the specification on how javascript programming language should work.

Features:

① let keyword ② const keyword ③ Arrow function ④ for/of.

⑤ classes ⑥ Array.findIndex() ⑦ new Math methods.

70) What are the possible ways to create objects in javascript.

Ans There are four main ways to create objects.

① Using object literals.

② Constructor function.

③ ES6 classes.

④ Object.

71) What is the difference b/w slice and splice.

Ans Splicer It is used to add(+) or delete elements to existing array.

- splice (first para, second para, third para)

first is index, second how many elements be removed.
third we can give array elements

(13)

Slice:- It is used to create Sub-array from an array.

• slice()

Ques 25 what is the difference.

a. == and === operators.

== → checks for the comparison of value.

=== → checks for the comparison of value and datatype

b. = and ==

= → It is used to assign a value to a declared variable

== → checks for the comparison of value.

c. /= and =

/= → performs remainder on the two operands and assign result to left operand.

= → It is used to assign a value to a declared variable

Ques 26 what are higher order functions.

Ans A function that takes one (or) more functions as arguments, or returns a function as its result.

There are different types of higher order function such as map and reduce.

Eg:- function callbackfunction (l1)

 console.log ('I am a callback function');

}

//higher order function.

function higherorderfunction (func) {

 console.log ('I am a higher order function')

 func ()

}

higherorderfunction (callbackfunction).

Q) what are arrow functions.
Ans Arrow functions $\{c \Rightarrow d\}$ are a clear and concise method of writing normal / regular javascript function. It is a anonymous function i.e., they are functions without a name and are not bound by identifier.

Syntax

```
Const gfg = c => {  
    console.log(" ");  
}  
gfg()
```

Q) what is spread parameter.
Ans Allows a function to accept an indefinite number of arguments as an array, providing a way to represent variadic function in javascript.

Q) what are regular expression pattern.
Ans A Regular expression pattern that describes a set of strings that matches the pattern.
Consists of sequence of characters (`\d, \D, \s, \S, \w, \W`) and operators (such as `+, *, ?, ., ^`). They are constructed by combining many smaller sub-expressions.

Q) what is the purpose of switch-case.
Ans It is used to test the equality of a variable against several values specified in the test cases.

```
Int <identifier>=value;>
```

```
Switch (<identifier>) {
```

Case 1:

```
    Console.log(" ");  
    break;
```

Case 2:

```
    Console.log(" ");  
    break;
```

(8) what are the conventions to be followed for the usage of switch case.

Ans we start a switch statement by using the switch keyword, followed by parenthesis with the conditional expression that would like to evaluate.

(9) what are primitive datatypes.

Ans The primitive datatypes are.

① Number ② String ③ Boolean ④ null ⑤ undefined ⑥ NaN

⑦ Object

⑧ Function

⑨ Symbol

⑩ BigInt

⑪ Date

⑫ Error

⑬ Map

⑭ Set

⑮ WeakMap

⑯ WeakSet

⑰ Object

⑲ Symbol

⑳ BigInt

㉑ Date

㉒ Error

㉓ Map

㉔ Set

㉕ WeakMap

㉖ WeakSet

㉗ Object

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Syntax

```
let arr = []
for (let i = 0; i < arr.length; i++) {
    console.log(arr[i]);
}
```

Console.log ().

(b) `for...in` → It is used to find the index of the element in the array.

Syntax

```
let arr = [1, 2, 3]
for (let i in arr) {
    console.log(i);
}
```

Console.log ().

Q2 what are the differences b/w argument object and rest parameters.

A2 Argument object represents all arguments passed to the function. It is not a real array.

Rest parameters represent the unknown number of arguments inside the function.

Q3 what is destructuring.

A3 It is a feature that allows you to extract values from array or objects and assign them to variables in a concise and convenient way.

Destructuring array

```
const no = [1, 2, 3, 4, 5]
const [a, b, ...rest] = no;
```

Console.log(a) || 1

Console.log(b) || 2

Console.log(rest) || [3, 4, 5].

(18)

Destructuring Objects

const person = { name: "John", age: 20, city: "New York" };

const {name, age, city} = person;

Console.log(name); || John

Console.log(age); || 20

Console.log(city); || New York.

Q4 what is spread operator.

Ans The spread operator in Javascript is denoted by three dots (...). It allows an iterable to be expanded into individual elements.

1. spread operator with arrays.

const no = [1, 4, 3]

const no1 = [4, 5, 6];

const combined = [...no, ...no1]

Console.log(combined) = [1, 2, 3, 4, 5, 6].

Q5 Explain all array methods , what are the outputs and whether the method modifies the original array.

Ans 1. push :- It allows to append one or more elements to the end of array. It modifies array.

Eg1 let arr1 = [1, 2, 3]

let arr2 = arr1.push(4, 5)

Console.log(arr2) || [1, 2, 3, 4, 5]

2. pop : It removes the last element of array.. It modifies the array.

```
Const arr1 = [1, 2, 3]
```

```
Const arr2 = arr1.pop(3)
```

```
Console.log(arr2). || [1, 2]
```

③ Shift: This method removes first element of array. It modifies the array.

```
Const arr1 = [1, 2, 3]
```

```
Const arr2 = arr1.shift()
```

```
Console.log(arr1). || [2, 3]
```

④ unshift: This method adds one (or) more elements of an array. It modifies array.

```
Const array = [1, 2, 3]
```

```
Const array2 = array.unshift(4, 5)
```

```
Console.log(array2). || [4, 5, 1, 2, 3]
```

⑤ Concat: This method merges both array and return a new array without modifying a array.

```
Const arr1 = [1, 2, 3]
```

```
Const arr2 = [4, 5, 6]
```

```
Const arr3 = arr1.concat(arr2)
```

```
Console.log(arr3). || [1, 2, 3, 4, 5, 6]
```

⑥ Slice: This method is used to extract a section of a array and returns the new array. It does not modify the original array.

```
Const arr1 = [1, 2, 3, 4, 5]
```

```
Const arr2 = arr1.slice(1, 5)
```

```
Console.log(arr2). || [2, 3, 4]
```

```
Console.log(arr1). || [1, 2, 3, 4, 5]
```

⑧ Splice It is used to add and remove, replacing elements.
It modifies original array.

```
const arr1=[1,2,3,4,5]  
const arr2=arr1.splice(1,2,6,7,8,9)
```

```
console.log(arr2) // [2,3]  
console.log(arr1) // [1,6,7,8,9,4,5]
```

⑨ Index of It is used to find index of the element in array.

```
const arr1=[1,2,3,4,5]  
console.log(arr1.indexOf(1))
```

⑩ Includes Method It is used to check whether array is present in array or not.

```
const arr1=[1,2,3,4,5]  
console.log(arr1.includes(6))
```

⑪ what is forEach and map.

forEach It is used to iterate over elements of an array and perform the specific operation (or) function on an element.

It does not return the new array.

```
Eg: let arr1=[1,2,3,4,5]  
let arr2=[]
```

```
arr1.forEach(el=>arr2.push(el**2))  
console.log(arr2)
```

map It is used to iterate over elements of an array and perform the specific operation on an element.

It returns the new array.

```
Gt let arr1=[1,2,3,4,5]  
let arr2=arr1.map(el=>el**2)  
console.log(arr2)
```