Link:

1. What are the different data types in JavaScript?

   numbers, strings, boolean, null, undefined

2. What is hoisting in JavaScript?

   all function and variable declarations are moved to the top of their scope

   so they can be called before they are declared.

3. What is the difference between null and undefined?

   no value or empty value , not assigned any value

4. Why do we use the word "debugger" in JavaScript?

   tool used to find errors by stepping through the code line by line

5. What is the purpose of the "this" keyword in JavaScript?

   The this keyword refers to the object that is executing the current function or method. It allows access to object properties and methods within the context of that object.

6. What is the difference between == and === operators in JavaScript? compr type

7. What are closures in JavaScript?

8. What is event delegation in JavaScript?

   Event delegation is a technique where you attach a single event listener to a parent element, and that event listener handles events occurring on its child elements. It helps optimize performance and reduce memory consumption.

9. What is the difference between "**let**", "**const**", and "**var**"?

10. What is implicit type coercion in JavaScript?

    Automatic conversion of a value from one type to another. Follows priority order that begins with strings, then numbers, and finally booleans.

11. Explain the concept of prototypes in JavaScript.

    Helps define methods and properties for JS Objects which are shared in multiple instances of the objects. Can also add custom methods to built in JS objects.

12. What is a callback function in JavaScript?

13. How can you clone an object in JavaScript? Object.assign() , or newObj = { ...obj1 }

14. What are higher-order functions in JavaScript?

    Can accept other functions as arguments or return them a results.

```
function multiplyByTwo(num) {
    return num * 2;
}

function applyOperation(num, operation) {
    return operation(num);
}

const result = applyOperation(5, multiplyByTwo);
console.log(result); // Output: 10
```

15. What is the purpose of the bind() method in JavaScript?

Used to create a new function with a specified this. Allows you to set the context of a function permanently.

16. What is the difference between function declarations and function expressions?

defined using the function keyword, while other is defined by assigning a function to a variable. Declarations are hoisted while other is not.

17. What are the different types of errors in JavaScript? Syntax, Logical, Runtime

18. What is memoisation in JavaScript?

Improve the performance, efficiency of JavaScript code by storing the results of expensive calculations in a cache. Can avoid re-performing the expensive calculations if the same input is provided again.

19. What is the use of a constructor function in JavaScript?

Traditional way used to define and instantiate objects, now we use ES6 classes. It is used to define the properties and methods of the object.

20. What is a callback function in JavaScript?

A callback function is a function passed as an argument to another function, which is then invoked inside the outer function. It allows asynchronous or event-driven programming.

21. What are promises in JavaScript?

Promises are objects used for asynchronous operations. They represent the eventual completion or failure of an asynchronous operation and allow chaining and handling of success or error cases.

22. What is the purpose of the setTimeout() function in Javascript?

The setTimeout() function is used to delay the execution of a function after a specified amount of time in milliseconds.

23. How can you check if an array includes a certain value?

24. How can you remove duplicates in an array?

25. What is the purpose of async and await in JavaScript?