1. Basic Concepts

What is JavaScript?

How is JavaScript different from Java?

What are the primitive data types in JavaScript?

What are the different ways to declare a variable in JavaScript?

What is the difference between var, let, and const?

What are template literals in JavaScript?

Explain the concept of null vs undefined.

How can you convert a string to a number in JavaScript?

How can you check if a value is NaN?

What is the use of typeof operator in JavaScript?

2. Functions and Scope

What is a function in JavaScript?

What is the difference between a function declaration and a function expression?

What are arrow functions?

Explain default parameters in functions.

What is the difference between regular functions and arrow functions in terms of this?

What is a callback function?

What is a higher-order function?

What is function hoisting?

What are anonymous functions?

Explain the concept of IIFE (Immediately Invoked Function Expression).

3. Objects and Arrays

What are objects in JavaScript? How do you create an object in JavaScript? What is the difference between dot notation and bracket notation for accessing object properties? How do you merge two objects in JavaScript? How do you clone an object? What is object destructuring? What are arrays in JavaScript? What is array destructuring? How can you find the length of an array in JavaScript? How do you add/remove elements from the start/end of an array? 4. Prototypes and Inheritance What is a prototype in JavaScript? How is inheritance achieved in JavaScript? What is the Object.create() method? What is a constructor function in JavaScript? What is the hasOwnProperty() method? What is the difference between __proto__ and prototype? 5. Closures What is a closure in JavaScript?

How does a closure work?

Give an example of a closure.

What are the practical uses of closures?

6. Event Handling

What are events in JavaScript?

How do you add an event listener to an element in JavaScript?

What is the event.preventDefault()?

How do you remove an event listener in JavaScript?

Explain what this refers to in an event handler.

7. Asynchronous JavaScript

What is synchronous and asynchronous code?

What are callbacks?

What is a promise in JavaScript?

How do you create a promise in JavaScript?

What is the purpose of the then() and catch() methods in promises?

What is async and await?

What is the difference between async and defer attributes in script tags?

Explain the concept of JavaScript event loop.

What are microtasks and macrotasks in JavaScript?

What is the purpose of setTimeout and setInterval?

8. Error Handling

What is the difference between a runtime error and a syntax error?

How do you handle exceptions in JavaScript?

What is a try-catch-finally block in JavaScript?

How do you create a custom error in JavaScript?

What is the throw keyword used for?

9. DOM Manipulation

What is the DOM?

How can you select an HTML element using JavaScript?

What is the difference between getElementById, getElementsByClassName, and querySelector?

How do you create an element dynamically in JavaScript?

How can you change the text content of an HTML element?

How do you change the style of an HTML element using JavaScript?

How do you add or remove a class from an element in JavaScript?

10. ES6 Features

What is the let keyword and how is it different from var?

What is the const keyword?

Explain block scoping in JavaScript.

What is the spread operator (...) and how is it used?

What is the rest operator (...)?

What are template literals in JavaScript?

Explain destructuring assignment.

What are symbols in JavaScript?

11. JavaScript and the Browser

How do you handle browser storage in JavaScript (localStorage, sessionStorage, and cookies)?

What is the difference between localStorage and sessionStorage?

How can you store and retrieve data from localStorage?

12. Hoisting, Scope, and this

What is hoisting in JavaScript?

Explain the difference between global and local scope.

What is lexical scoping?

What does this refer to in JavaScript?

How is the value of this determined?

What are call, apply, and bind methods in JavaScript?

What is strict mode in JavaScript and how do you enable it?

13. Other Topics

Explain the concept of currying.

What is the difference between deep copy and shallow copy?