JavaScript – Complete Topic List (Detailed)

1. JavaScript Basics

- What is JavaScript

- JavaScript Engine (V8)

- How JavaScript runs

- Comments

- Variables (var, let, const)

- Data Types

- Primitive

- Non-Primitive

- Type Conversion & Coercion

2. Operators

- Arithmetic

- Assignment

- Comparison (==, ===)

- Logical (&&, ||, !)

- Ternary

- Bitwise

- Nullish Coalescing (??)

- Optional Chaining (?.)

3. Control Flow

- if, else, else if

- switch

- Loops

- for

- while

- do...while

- for...in

- for...of

- forEach()

4. Functions

- Function Declaration

- Function Expression

- Arrow Functions

- Parameters vs Arguments

- Default Parameters

- Rest Parameters

- Spread Operator

- Callback Functions

- Higher-Order Functions

- Pure Functions

5. Scope & Hoisting

- Global Scope

- Function Scope

- Block Scope

- Lexical Scope

- Hoisting (var, let, const)

6. Arrays

- Creating Arrays

- Array Indexing

- Array Methods

- push, pop, shift, unshift

- map, filter, reduce

- find, findIndex

- some, every

- sort, reverse

- slice, splice

- includes, concat

7. Objects

- Object Literals

- Dot vs Bracket Notation

- Adding / Deleting Properties

- Methods in Objects

- this Keyword

- Nested Objects

- Object Destructuring

- Object Methods

- Object.keys()

- Object.values()

- Object.entries()

8. Strings

- Template Literals

- String Methods

- length

- toUpperCase, toLowerCase

- trim

- slice, substring

- replace, replaceAll

- split, includes

9. Execution Context

- Global Execution Context

- Function Execution Context

- Call Stack

10. Closures

- Closure Concept

- Use Cases

- Memory Advantages

11. Asynchronous JavaScript

- Synchronous vs Asynchronous

- Callbacks

- Callback Hell

- Promises

- .then(), .catch(), .finally()

- async / await

12. Event Loop

- Call Stack

- Web APIs

- Callback Queue

- Microtask Queue

- Event Loop Flow

13. DOM (Document Object Model)

- DOM Tree

- Selecting Elements

- Manipulating Elements

- Events

- Event Bubbling

- Event Capturing

- Event Delegation

14. ES6+ Features

- let / const

- Arrow Functions

- Template Literals

- Destructuring

- Spread / Rest

- Modules (import, export)

- Classes

- Promises

- Optional Chaining

- Nullish Coalescing

15. Error Handling

- try...catch

- finally

- Custom Errors

16. JSON

- JSON.stringify()

- JSON.parse()

17. OOP in JavaScript

- Constructor Functions

- Classes

- Inheritance

- Encapsulation

- Polymorphism

18. Prototypes

- Prototype

- Prototype Chain

- __proto__

19. Advanced Concepts

- Currying

- Memoization

- Debouncing

- Throttling

- Shallow Copy vs Deep Copy

- Immutability

20. JavaScript Interview Topics

- Hoisting

- Closures

- this keyword

- Event Loop

- Promises

- map vs forEach

- var vs let vs const

- == vs ===