JavaScript Topics and Points

1. Introduction to JavaScript
2. Variables and Data Types
3. Operators (Arithmetic, Comparison, Logical, Assignment)
4. Control Structures (if, else, switch)
5. Loops (for, while, do...while)
6. Functions and Scope
7. Arrays and Array Methods
8. Objects and Object Methods
9. String Methods
10. Date and Time in JavaScript
11. Math Object
12. DOM Manipulation
13. Events and Event Handling
14. Error Handling (try, catch, finally)
15. JavaScript ES6+ Features (let, const, arrow functions, template literals, destructuring)
16. Callback Functions and Promises
17. Async/Await
18. JSON and Local Storage
19. Classes and Inheritance
20. Modules and Imports/Exports
21. JavaScript in the Browser (BOM - Browser Object Model)
22. Regular Expressions
23. Debugging and Developer Tools
24. Hoisting, Closures, and Lexical Environment
25. Event Loop and Asynchronous JavaScript
26. JavaScript Frameworks Overview (React, Angular, Vue - Intro Only)
27. JavaScript Best Practices
28. JavaScript Interview Questions (Basics)

**COING QUESTION AND ANSWER**

**EASSY LABEL QUESTION**

**✅ 1. Introduction to JavaScript (Q1–Q10)**

1. Write a program to display "Hello, World!" using console.log.
2. Show an alert box that says “Welcome to JavaScript!”.
3. Write a script that adds two numbers and displays the result.
4. Use prompt() to take user input and display it in an alert.
5. Create a simple calculator using +, -, \*, and /.
6. Write a script that displays your name in the browser console.
7. Use document.write() to show "This is my first JS program".
8. Create a program that displays the current date and time.
9. Write a program that logs the type of a variable.
10. Use JavaScript to dynamically change the content of a paragraph in HTML.

**✅ 2. Variables and Data Types (Q11–Q25)**

1. Declare variables using var, let, and const, and log their values.
2. Create a program that checks the data type of 5 different variables.
3. Write a program to store a user's name, age, and city in variables and display them.
4. Change the value of a let variable and show the updated value.
5. Attempt to reassign a const variable and observe the error.
6. Write a script that defines a string and logs its length.
7. Create an object representing a student with properties: name, age, course.
8. Create an array of 5 numbers and log the second element.
9. Write a program to swap the values of two variables.
10. Check if a variable is an array using Array.isArray().
11. Convert a string number "123" into a number using Number() and log the result.
12. Create a variable with undefined value and log its type.
13. Create a variable with a null value and log its type.
14. Write a program that concatenates two strings.
15. Create variables for name (string), marks (number), passed (boolean) and display all.

**✅ 3. Operators (Arithmetic, Comparison, Logical, Assignment) (Q26–Q40)**

1. Add, subtract, multiply, divide two numbers entered by the user.
2. Find the remainder when a number is divided by 5.
3. Check if two numbers are equal using == and ===.
4. Use != and !== to wcompare a string and a number.
5. Write a program that checks if a number is greater than 10.
6. Use the && operator to check if age is between 18 and 60.
7. Use the || operator to check if a number is less than 10 or greater than 100.
8. Use the ! operator to invert a boolean value.
9. Write a program to increase a number by 5 using +=.
10. Decrease a number by 3 using -= and display the result.
11. Multiply a number by 10 using \*= operator.
12. Divide a number by 2 using /= operator.
13. Use \*\* operator to find 2 raised to the power 5.
14. Demonstrate prefix and postfix increment with an example.
15. Use assignment operators to update multiple variables and log all values.

**✅ 4. Control Structures (if, else, switch) (Q41–Q50)**

1. Write a program to check if a number is even or odd.
2. Check if a number is positive, negative, or zero.
3. Find the greatest of two numbers using if-else.
4. Find the largest among three numbers using if-else if.
5. Check whether a given year is a leap year or not.
6. Write a program to assign grades based on marks using if-else.
7. Use a switch statement to print the name of the day (1–7).
8. Use switch to print the season based on month number.
9. Use nested if statements to check if a number is in a specific range.
10. Use the ternary operator to check if a number is divisible by 2.