INTERVIEW CODING QUESTIONS

ARRAYS

🟢 **Easy**

- Find largest/smallest element in array
- Sum between i and j
- Rotate array by k elements
- Sort 0's, 1's and 2's
- Remove duplicates (sorted array)
- Remove duplicates (unsorted array using set)
- Two Sum
- Check if array is palindrome
- Reverse array
- Find missing number
- Count frequency of elements

🟡 **Medium**

- Subarray sum equals K
- Kadane's Algorithm (Maximum Subarray Sum)
- Merge Intervals
- Rearrange positive & negative numbers alternatively
- Next Permutation
- Stock Buy and Sell (Multi-Transaction/Single-Transaction)
- Leaders in an Array
- Trapping Rain Water
- Product of Array Except Self

🔴 **Hard**

- Maximum Product Subarray
- Longest Consecutive Sequence
- Median of Two Sorted Arrays
- Merge K Sorted Arrays
- Count Inversions
- Minimum Swaps to Sort
- Sliding Window Maximum

INTERVIEW CODING QUESTIONS

STRINGS

🟢 **Easy**

- Check Palindrome String
- Remove Vowels / Spaces
- Find ASCII value of a character
- Capitalize first & last character of each word
- Find frequency of characters
- Reverse words and characters
- Splitting string into words

🟡 **Medium**

- Longest Common Prefix
- Longest Substring Without Repeating Characters
- Valid Anagram
- Group Anagrams
- Reverse Words in a Sentence
- Longest Palindromic Substring
- Count and Say Problem

🔴 **Hard**

- Minimum Window Substring
- Regular Expression Matching
- Word Break (DP + Backtracking)
- Edit Distance (Levenshtein Distance)
- Rabin Karp / KMP String Matching

INTERVIEW CODING QUESTIONS

SORTING

🟢 **Easy**

- Bubble Sort
- Insertion Sort
- Selection Sort

🟡 **Medium**

- Merge Sort
- Quick Sort
- Heap Sort

🔴 **Hard**

- Counting Sort
- Bucket Sort
- Radix Sort
- External Merge Sort (Conceptual)

INTERVIEW CODING QUESTIONS

TWO POINTERS / SLOW & FAST POINTERS

🟢 **Easy**

- Reverse Array Using Two Pointers
- Check Palindrome (String / Array)

🟡 **Medium**

- Two Sum (Sorted Array using 2 pointers)
- Remove Duplicates from Sorted Array
- Container with Most Water
- Intersection of Two Sorted Arrays

🔴 **Hard**

- 3Sum / 4Sum Problem
- Trapping Rain Water
- Linked List Cycle Detection (Floyd's Cycle Algo)

INTERVIEW CODING QUESTIONS

SLIDING WINDOW

🟢 **Easy**

- Maximum Sum Subarray of Size K

- Count Occurrence of Anagram

🟡 **Medium**

- Longest Substring Without Repeating Characters

- Minimum Size Subarray Sum

- Longest Repeating Character Replacement

🔴 **Hard**

- Sliding Window Maximum

- Minimum Window Substring

INTERVIEW CODING QUESTIONS

BINARY SEARCH

🟢 **Easy**

- Binary Search (Iterative & Recursive)
- Lower Bound / Upper Bound
- First and Last Occurrence in Sorted Array

🟡 **Medium**

- Search in Rotated Sorted Array
- Find Peak Element
- Square Root using Binary Search
- Aggressive Cows / Allocate Books

🔴 **Hard**

- Median of Two Sorted Arrays
- Painter Partition Problem
- Find kth element in two sorted arrays

INTERVIEW CODING QUESTIONS

RECURSION & BASIC MATHS

🟢 **Easy**

- Factorial (Iterative & Recursive)
- Fibonacci (Iterative & Recursive)
- Prime Number Check
- Armstrong Number
- Count Digits / Sum of Digits

🟡 **Medium**

- Power of Number (Recursive Fast Exponentiation)
- Tower of Hanoi
- Generate All Subsequences / Subsets

🔴 **Hard**

- N-Queens Problem
- Sudoku Solver
- Word Search

INTERVIEW CODING QUESTIONS

GREEDY ALGORITHMS

🟢 **Easy**

- Activity Selection Problem
- Fractional Knapsack

🟡 **Medium**

- Job Sequencing Problem
- Minimum Coins for Change
- Huffman Encoding

🔴 **Hard**

- Dijkstra's Algorithm
- Kruskal's Algorithm
- Prim's Algorithm

INTERVIEW CODING QUESTIONS

BACKTRACKING

🟢 **Easy**

- Print All Subsequences
- Generate Parentheses

🟡 **Medium**

- N-Queens Problem
- Rat in a Maze
- Subset Sum

🔴 **Hard**

- Sudoku Solver
- Word Search II
- Combination Sum / Permutations

INTERVIEW CODING QUESTIONS

TREES

🟢 **Easy**

- Preorder / Inorder / Postorder Traversal
- Level Order Traversal (BFS)

🟡 **Medium**

- Height of Tree
- Diameter of Tree
- Lowest Common Ancestor
- Mirror Tree
- Check Balanced Tree

🔴 **Hard**

- Serialize and Deserialize Binary Tree
- Construct Tree from Inorder & Preorder
- Boundary Traversal

INTERVIEW CODING QUESTIONS

GRAPHS

🟢 **Easy**

- BFS / DFS
- Representation (Adjacency List / Matrix)

🟡 **Medium**

- Topological Sort
- Detect Cycle (BFS/DFS)
- Connected Components
- Shortest Path in Unweighted Graph (BFS)

🔴 **Hard**

- Dijkstra's Algorithm
- Bellman-Ford Algorithm
- Floyd-Warshall Algorithm
- Kruskal's Algorithm
- Prim's Algorithm

INTERVIEW CODING QUESTIONS

DYNAMIC PROGRAMMING (DP)

🟢 **Easy**

- Fibonacci (DP)
- Climbing Stairs
- Minimum Cost Climbing Stairs

🟡 **Medium**

- 0/1 Knapsack Problem
- Longest Increasing Subsequence (LIS)
- Longest Common Subsequence (LCS)
- Subset Sum Problem
- Coin Change

🔴 **Hard**

- Matrix Chain Multiplication
- Edit Distance
- Partition Equal Subset Sum
- Maximum Profit in Job Scheduling
- Palindromic Subsequence Problems

INTERVIEW CODING QUESTIONS

BIT MANIPULATION

🟢 **Easy**

- Check if Number is Power of 2
- Count Set Bits
- Single Number (Find Element Appearing Once)

🟡 **Medium**

- Subset Generation using Bits
- XOR of All Subarrays
- Find 2 Non-Repeating Elements

🔴 **Hard**

- Divide Two Integers (without / operator)
- Maximum XOR Pair
- Count Total Set Bits from 1 to N

INTERVIEW CODING QUESTIONS

MIXED / COMPANY FAVORITE PROBLEMS

- Two Sum

- Merge Intervals

- Longest Palindromic Substring

- Kadane's Algorithm

- Dijkstra's Algorithm

- Topological Sort

- 0/1 Knapsack

- LIS (Longest Increasing Subsequence)

- Floyd Cycle Detection

- Merge Sort

- Quick Sort

- String Reversal and Palindrome

- Word Break (DP + Trie)