MTE Preparation Sheet(AAPS)

S.No	Question	Topic	Problem Link	Video link	Reading Material
1	Prefix Sum Array: Find the sum of elements in a given range [L, R]	Prefix Sum	leetcode	Video Video2	GFG Medium
2	Equilibrium Index: Find an index where the sum of left elements equals right elements	Prefix Sum	leetcode	Video 1 Video 2	GFG tutorial TUF
3	Split Array into Equal Sum Prefix and Suffix	Prefix Sum	GFG	algoMonster	GFG
4	Maximum Subarray of Size K	Sliding Window / Prefix Sum	leetcode	Video	Medium tutorial
5	Longest Substring Without Repeating Characters	Sliding Window	leetcode	Video	GFG TUF
6	Find two numbers in a sorted array that add up to a target	Two Pointers	leetcode	Video	GFG TUF
7	Majority Element: Find the element that appears more than n/2 times	Voting Algorithm	leetcode	video	TUF algomonster
8	Next Permutation: Rearrange numbers into the lexicographically next greater permutation	Permutations	leetcode	Video	GFG TUF
9	Sliding Window Maximum: Find the maximum value in every window of size K	Sliding Window / Deque	leetcode	Video	TUF Algomonster Medium
10	Maximum Subarray: Find the contiguous subarray with the largest sum (Kadane's algorithm)	Kadane's algorithm	leetcode	Video	TUF interviewbit
11	Trapping Rainwater: Calculate how much water can be trapped between histogram bars	Prefix+suffix max/Two pointer	leetcode	Video	GFG w3resource

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12	Counting Bits: Count the number of 1s in the binary representation of numbers from 0 to n	Bit Manipulation	leetcode	video Video 2	GFG tutorial
13	Power of Two: Check if a number is a power of two using bit manipulation	Bit Manipulation	leetcode	Video Medium	GFG Medium
14	Maximum XOR of Two Numbers in an Array	Bit Manipulation / Trie	Leetcode	Video	GFG TUF
15	Maximum Product Subarray	Dynamic Programming	leetcode	Video Video2	TUF Algomonster
16	Count Numbers with Unique Digits	Combinatorics	leetcode	Video	GFG
17	Longest Palindromic Substring	Dynamic Programming / Expand Around Center	leetcode	Video Video2	GFG Medium
18	Longest Common Prefix	String Manipulation	leetcode	Video1 Video2	GFG interviewbit
19	Merge Two Sorted Linked Lists	Linked List	leetcode	Video1 Video2	TUF GFG
20	Remove N-th Node from End of List	Linked List	leetcode	VIdeo1 Video2	TUF GFG
21	Palindrome Number	Math	leetcode	Video	TUF GFG
22	Intersection of Two Linked Lists	Linked List	leetcode	Video	GFG TUF
23	Implement Two Stacks in a Single Array	Stack	GFG	Video	GFG TUF Medium
24	Next Greater Element	Stack / Monotonic Stack	GFG	Video1 Video2	GFG TUF
25	Largest Rectangle in Histogram	Stack	leetcode	Video1 Vidoe2	GFG TUF

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26	Permutations: Generate all permutations of an array/string	Backtracking	leetcode	Video_1 Video2 Video3	TUF GFG algomonster
27	Subsets: Generate all subsets of an array	Backtracking	leetcode	Video1 Video2	GFG TUF
28	Combination Sum: Find unique combinations that sum to a target	Backtracking	leetcode	Video1 Video2	GFG1 GFG2 TUF1 TUF2
29	Find the Element with Maximum Frequency	Hashing	GFG	Video	TUF GFG
30	Median of Two Sorted Arrays	Binary Search	leetcode	Video1 Video2	GFG TUF
31	Kth Smallest Element in a Sorted Matrix	Binary Search / Heap	leetcode	Video1 Video2	GFG algomonster
32	Top K Frequent Elements	Heap	leetcode	Video1	GFG
33	Two Sum: Find two numbers in an array that add up to a target using hashing	Hashing	leetcode	Video	GFG TUF
34	Subarray Sum Equals K: Find the number of subarrays with a sum equal to k	Hashing	leetcode	Video1 Video2	GFG TUF