



TCS NQT IMPORTANT CODING QUESTION 2025

TOPIC

Coding Section Topics in TCS NQT

1. Arrays

- **Key Problems:**

- Non-Repeating Element
- Program for Array Rotation
- Equilibrium Index of an Array
- Print Array After it is Right Rotated K Times
- Array is a Subset of Another Array
- Find All Symmetric Pairs from a Pair of Arrays
- Counting Rock Samples
- Reverse an Array or String
- Mean and Median of an Unsorted Array
- Smallest and Second Smallest Elements in an Array
- Largest Element in an Array
- Second Largest Element in an Array
- Counting Frequencies of Array Elements
- Program for Addition of Two Matrices
- Sort a K-Increasing-Decreasing Array
- Sum of Elements in a Given Array
- Remove Duplicates from the Sorted Array
- Program to Check if an Array is Sorted or Not
- Remove Duplicates from an Unsorted Array Using Map Data Structure
- Block Swap Algorithm for Array Rotation
- Average of an Array (Iterative and Recursive)
- Add an Element to an Array
- Find Duplicates in $O(n)$ Time and $O(1)$ Extra Space
- Find Maximum Possible Stolen Value from Houses
- Replace Each Element of the Array with Its Corresponding Rank

- Sort Elements by Frequency
- Sort an Array According to the Order Defined by Another Array
- Maximum Product Subarray

2. Strings

- **Key Problems:**

- Count Vowels, Consonants, Digits, and Special Characters in a String
- Given String is Palindrome or Not
- ASCII Value of a Character
- Remove Vowels from a String
- Remove Spaces from a Given String
- Remove Character
- Remove All Characters Other Than Alphabets
- Reverse a String
- Sum of Numbers in String
- Capitalize First and Last Character of Each Word
- Frequency of Characters in a String
- Non-Repeating Character
- Smallest and Largest Word in a String
- Strings are Anagrams of Each Other
- Sort String of Characters
- Convert Characters of a String to Opposite Case
- Count Words in a Given String
- Encrypt the String
- Remove Duplicates from a Given String
- Duplicates in the Input String
- Lexicographically Next String
- Remove Brackets from an Algebraic Expression
- Check if a String is Substring of Another
- Reverse Words in a Given String
- Common Subsequence in Two Strings
- One String Contains Wildcard Characters

3. Number Series

- **Key Problems:**

- Prime Numbers
- Sum of Arithmetic Series
- Sum of Geometric Series
- All Divisors of a Natural Number
- Replace All '0' with '5' in an Input Integer
- Number is Positive, Negative, Odd, Even, Zero
- Harshad (Or Niven) Number
- Program to Find GCD or HCF of Two Numbers
- LCM of Two Numbers
- Check if a Number is a Strong Number or Not

- Check if a Given Year is Leap Year
- Reverse Digits of a Number
- Program to Add Two Fractions
- Sum of Digits of a Number
- Find All Factors of a Natural Number
- Prime Factors of a Given Number
- Kth Largest Factor of Number N
- Given Number is Even or Odd
- Perfect Number
- Palindromes in a Given Range
- Armstrong Numbers
- Abundant Number
- Sum of First N Natural Numbers
- Sum of All Natural Numbers in Range L to R
- Primitive Abundant Number
- Count Ways to Reach the N'th Stair
- Count Prime Numbers Expressed as Sum of Consecutive Prime Numbers
- Fibonacci Numbers
- Check if a Number is Palindrome
- Largest and Smallest Digit of a Number
- Square Free Number
- Permutations to Arrange N Persons Around a Circular Table
- Can a Number Be Expressed as a Sum of Two Prime Numbers
- Area of a Circle
- Roots of Quadratic Equation

4. Conversions

- **Key Problems:**

- Convert Binary to Decimal
- Convert Binary to Octal
- Decimal to Binary Conversion
- Convert Decimal to Octal
- Convert Octal to Binary
- Convert Octal to Decimal
- Convert a Given Number to Words

5. Sorting Algorithms

- **Key Problems:**

- Bubble Sort
- Selection Sort
- Insertion Sort
- Quick Sort
- Merge Sort
- Radix Sort
- Counting Sort

