

30 Practice Questions for Sasken Placement

■ Arrays

- 1. Find the largest and smallest element in an array.
- 2. Reverse an array in place.
- 3. Rotate an array by k positions (left/right).
- 4. Find the missing number in a sequence of $1 \dots n$.
- 5. Find duplicate elements in an array.
- 6. Find the intersection of two arrays.
- 7. Merge two sorted arrays into one sorted array.
- 8. Find the subarray with the maximum sum (Kadane's Algorithm).
- 9. Find the majority element (element occurring $> n/2$ times).
- 10. Find the second largest element in an array.

■ Strings

- 11. Check if a string is a palindrome.
- 12. Find the first non-repeating character in a string.
- 13. Reverse each word in a given string.
- 14. Check if two strings are anagrams.
- 15. Find the longest common prefix among given strings.
- 16. Count vowels, consonants, digits, and spaces in a string.
- 17. Remove all duplicate characters from a string.
- 18. Print all permutations of a string using recursion.
- 19. Find the longest substring without repeating characters.
- 20. Convert a string to an integer (implement atoi).

■ Searching & Sorting

- 21. Implement binary search (iterative & recursive).
- 22. Find the square root of a number using binary search.
- 23. Sort an array using bubble sort.
- 24. Sort an array using quicksort.
- 25. Sort an array using merge sort.

■ Recursion & Math

- 26. Find factorial of a number (recursion & iteration).
- 27. Find nth Fibonacci number (recursion & DP).
- 28. Find GCD and LCM of two numbers.
- 29. Count number of set bits in an integer.
- 30. Generate Pascal's triangle.