

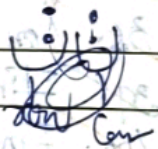
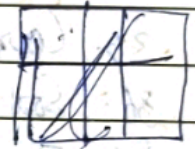
Pattern Printing Questions:

1. Print a pyramid of stars (*) of height n.
2. Print an inverted pyramid of numbers.
3. Print a Floyd's triangle of numbers.
4. Print Pascal's Triangle.
5. Print a diamond pattern using *.
6. Print a hollow square pattern using #.
7. Print an hourglass pattern using numbers.
8. Print a checkerboard pattern of X and O.

str = madam
str[::-1] = madam

String Manipulation Questions:

9. Check if a string is a palindrome.
10. Reverse a string without using built-in functions.
11. Count vowels and consonants in a string.
12. Find the frequency of each character in a string.
13. Remove duplicate characters from a string.
14. Find the longest word in a sentence.
15. Check if two strings are anagrams of each other.
16. Convert a given string into title case.



Numbered Based Questions:

17. Find if number is prime.
18. Generate the first n Fibonacci numbers.
19. Check if a number is an Armstrong number.
20. Find the factorial of a number using recursion.
21. Reverse a given integer without using string conversion.
22. Find the sum of digits of a number until a single digit is obtained.
23. Find the greatest common divisor (GCD) of two numbers using recursion.
24. Convert a decimal number to binary without using built-in functions.
25. Find the sum of all prime numbers up to n.

arr = [1, 2, 5, 7, 2, 5]
arr = arr[::-1]

8, 7, 5

List & Array Based Questions.

26. Find the second largest element in a list.
27. Reverse a list without using built-in functions.
28. Rotate a list K times to the right.
29. Find the intersection of two lists.
30. Remove duplicates from a list.
31. Find all pairs in an array that sum up to a given number.
32. Sort a list using bubble sort.
33. Find the missing number in a given sequence.
34. Merge two sorted lists into one sorted list.

Dictionary & Tuple based questions.

35. Count occurrences of words in a sentence.
36. Sort dictionary by its values.
37. Find most frequent element in list.
38. Convert a list of tuples into a dictionary.
39. Find common keys between two dictionaries.
40. Find the key with the maximum value in a dictionary.

Miscellaneous Questions.

41. Implement a simple calculator using functions.
42. Swap two numbers without using a third variable.
43. Implement a stack using a list.
44. Implement a queue using a list.
45. Check if a given number is a perfect number.
46. Find non-repeating characters in a string.
47. Find the longest common prefix among a list of strings.
48. Convert a Roman numeral to an integer.
49. Generate all permutations of a given string.
50. Solve the Tower of Hanoi problem using recursion.