SR NO	Question 1	Question 2 (Optional)
1	Write a program in C to accept n elements from the user, sort those elements and find its median and display it.	
2	Write a program to sort a set of names stored in an array in alphabetical order.	
3	Write a program that generates a square matrix of size n x n (1 ≤ n ≤ 20), where each element is an integer. Use nested loops and the following rules to fill the matrix: The diagonal elements (from top-left to bottom-right) should be filled with the square of their 1-based index (e.g., 1, 4, 9, ...). For elements above the diagonal, assign the value as (i + j), where i and j are the 0-based row and column indices. For elements below the diagonal, assign the value as (i * j). If any value is divisible by 7, skip assigning it and replace it with -1. Finally, display the matrix with proper formatting, and count how many -1 values are present in the matrix.	Write a program in C++ to perform the following operations on a 2D matrix of integers (size $N \times M$, where $1 \le N, M \le 10$): Take input for the matrix and display it. Transpose the matrix in place (if $N = M$), or create a new matrix for the transpose (if $N \ne M$). Sort each row of the matrix in ascending order. Calculate the sum of all diagonal elements (both primary and secondary diagonals). Your program should handle edge cases like non-square matrices and empty matrices.
4	write C program using array. the X and Y coordinates of 10 different points are entered through the keyboard. Write a program to find the distance of last point from the first point (sum of distance between consecutive points).	
5	Write a program to rotate an array to the left by a given number of positions.	Write a program in C to count a total number of duplicate elements in an array.
6	Write a C program that checks 2 elements in the array such that the difference between them is the largest. Input array[] = {10, 15, 90, 200, 110} and output: Maximum difference between 10 and 200 is 190.	Write a C program to insert the character/word in any desired location in a string. Input: enter the string: Fun to learn C Programming. enter the word to insert: PIC enter the position you like to insert:4 Output : the string after modification is : Fun to learn PIC C Programming.
7	Write a program in C to accept n integers from the user, sort them in ascending order, and find the median. Display the sorted array and the median value. Ensure your program works for both odd and even values of n.	Write a program in C to generate a square matrix of size n x n (where 1≤n≤20) based on the following rules: • Diagonal elements (from top-left to bottom-right) should contain the cube of their index (e.g., 1, 8, 27, ...). • Elements above the diagonal should be the sum of their row and column indices. • Elements below the diagonal should contain the absolute difference between their row and column indices. • Replace any element divisible by 5 with -1. Display the matrix in a well-formatted style and count how many -1 values are present.
8	Write a C program that takes an array and an integer element as input, and counts how many times the element appears in the array.	Write a C program that rotates the elements of an array to the left by N positions. For example, if the array is {1, 2, 3, 4, 5} and N = 2, the result should be {3, 4, 5, 1, 2}.
9	Twenty-five numbers are entered from the keyboard into an array. The number to be searched is entered through the keyboard by the user. Write a program to find if the number to be searched is present in the array and if it is present, display the number of times it appears in the array.	A 6 x 6 matrix is entered through the keyboard and stored in a 2-dimensional array mat[7][7]. Write a program to obtain the Determinant values of this matrix.
10	Write a program to find the sum and average of elements in a one-dimensional array.	Write a program to find the largest element in a two-dimensional array.
11	Write a program in C to accept two strings from the user and check if they are anagrams. Two strings are anagrams if they contain the same characters in any order, ignoring spaces and case sensitivity.	Write a program in C to accept an array of integers and find the largest and smallest elements in the array. Display both the largest and smallest elements along with their positions in the array.
12	In a small company, there are 5 salesmen. Each salesman is supposed to sell 3 products a,b,c. Write a program using two dimensional array to print 1) the total sales by each salesman and 2) total sales of each item.	

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13	Write a C program that takes a string and two integers (n1, n2). Now reverse the sequence of characters in the string between n1 and n2. Sample Date: ("abcdxyabcd", 5, 6) -> "abcdyxabcd" ("Exercises", 1, 3) -> "exErcises"	
14	Write a program in C to count the total number of duplicate elements in an array.	Write a program in C to merge two arrays of the same size sorted in descending order.
15	Write a C program to simulate the sorting of a deck of 52 playing cards. The program should first sort the cards based on their suits (e.g., Spades, Hearts, Diamonds, Clubs) and then within each suit, sort the cards by their rank (Ace, 2, 3, ..., King).	
16	Thirty numbers are entered from the keyboard into an array. Write a program to find out how many of them are positive, how many are negative, how many are even and how many odd.	
17	Write a C program to count how many times each element appears in an array	Write a C program to perform matrix multiplication of two 2*2 matrices
18	Implement a program to rotate a one-dimensional array of size N to the right by K positions. Example: Input: arr = {1, 2, 3, 4, 5}, K = 2 Output: {4, 5, 1, 2, 3}	
19	Write a program in C to check whether a given matrix is an identity matrix.	
20	Design a C program to categorize a student's grade based on their percentage: Use an else-if ladder to categorize percentages into grades (e.g., 90-100: A, 75-89: B, 50-74: C, <50: Fail). Include a do-while loop to allow the user to input grades for multiple students. Use a break statement to terminate the loop when a user enters a negative percentage.	
21	Write a program to input a sentence (character array) of at most 100 characters and perform the following: Count the frequency of each vowel (case insensitive). Identify the most frequently occurring character in the sentence. Replace every vowel in the sentence with the next vowel in cyclic order (e.g., 'a' → 'e', 'e' → 'i', ..., 'u' → 'a'). Reverse the words in the sentence while preserving their order (e.g., "Hello World" becomes "olleH dlroW").	Write a program to input a 2D array of size $N \times M$ (where $1 \le N, M \le 10$) and display its elements in spiral order (clockwise). For example, the input: 1 2 3 4 5 6 7 8 9 Should output: 1, 2, 3, 6, 9, 8, 7, 4, 5. Ensure that your program works for rectangular matrices as well.
22	Write a program in C to make such a pattern like a right angle triangle with a number which will repeat a number in a row. 1 22 333 4444	
23	Write a program to print the following pattern of numbers: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	

SR NO	Question 1	Question 2 (Optional)
24	Write a C program to take an MxN matrix as input and find the row with the highest sum.	Write a program that checks if two strings are anagrams (i.e., rearrangement of the same characters). Example: "listen" and "silent" are anagrams.
25	In a class there are 10 students.Each student is supposed to appear in 3 tests.write a program using two dimentional arrays to print.1)the marks obtasined bt each student in diffenet subject. 2)Total amrks and average obtained by each student. 3)store the average of each student in a separate iD array so that it can be used to calculate the class average.	write a program to read sentence .then count the number of words in the sentence
26	Program to print the multiplication table as given below: 1 2 3 4 5 _____ 1 1 2 3 4 5 2 2 4 6 8 10 3 3 6 9 12 4 5 6 7 8 9 10	Write a C program to compare two strings without using any string function.
27	Write a program to find the frequency of each element in an array.	Write a program to concatenate two strings using arrays.