

Problems on Arrays & Strings

- 1) Write a C program to search an element in an array using **Linear Search Technique**.
- 2) Write a C program to add two matrices of order $m \times n$.
- 3) Write a C program to multiply two matrices of order $m \times n$ and $p \times q$ respectively.
Appropriate error message should be printed if matrix multiplication is not possible.
- 4) Write a C program to print the sum of secondary diagonal elements of a square matrix.
Appropriate error message should be printed if matrix is non-square.
- 5) Write a C program to print the transpose of a matrix.
- 6) Write a C Program to find the **median** of a list of elements. Median is the middle number in a sorted list of numbers. Method for determining Median:
 - a) Arrange the list in ascending order using any of the sorting techniques.
 - b) If there is an odd number of elements in the list, then the median is the number that is in the middle of the array elements.
 - c) If there is an even number of numbers in the list, then the median is the average of the two middle values.
- 7) The ESE results of n students for 6 subjects are tabulated as follows:

	subject-1	subject-2	subject-3	subject-4	subject-5	subject-6
student-1						
student-2						
.....						
student-n						

Write a C Program to read the data and determine the following:

- a) Total marks obtained by each student
 - b) Highest marks in each subject and the students who secured it
 - c) The student who obtained the highest total mark
- 8) Write a C program to read the recorded temperatures of n cities for m days, and perform the following operations:
 - a) Compute and display the average temperature recorded for a city
 - b) Compute and display maximum and minimum temperatures of all cities
 - 9) Write a C program to concatenate two strings s_1 and s_2 .
 - 10) Write a C program to copy one string into another.