

**Shri G. S. Institute of Technology and Science**  
**Department of Computer Engineering**  
**CO 10504: Introduction to Computer Programming**  
**(Section F)**  
**Lab Assignment No. #03**

**Learning Objectives:**

- To develop the program using array, character array and strings.
- To develop the program using the concepts of pointers and functions.

**Questions:**

1. Write a program in C to count a total number of duplicate elements in an array.
2. Write a program in C to merge two arrays of same size sorted in descending order.
3. Write a program in C to count the frequency of each element of an array.
4. Write a program in C to separate odd and even integers in separate arrays.
5. Write a program in C to insert New value in the array (sorted list ).
6. Write a program in C for addition of two Matrices of same size.
7. Write a program in C to find sum of right diagonals of a matrix.
8. Write a program in C to print or display the lower triangular of a given matrix
9. Write a program in C to calculate determinant of a 3 x 3 matrix.
10. Write a program in C to rotate an array by N positions.
11. Write a program in C to find the minimum distance between two numbers in a given array.

**Learning Outcomes:**

- Able to write a program that implements string and array
- Understood the requirement of function.
- Understood the concept pointers using programming