**S.Y. B. Tech. Academic Year 2022\_23 Semester: III**

**Fundamentals of Data Structures**

**LABORATORY WRITE UP**

###### Experiment Number: 01

### **TITLE: Matrix operations**

**PROBLEM STATEMENT**:

Write a C program to perform the following computation on the matrix: a) Addition of two matrices b) Subtraction of two matrices c) Multiplication of two matrices d) Transpose of a matrix

**OBJECTIVE:**

1. To Study memory representations and operations associated with arrays.
2. To understand the implementation of formal parameters and actual parameters.

**THEORY: *//To be Written by Students***

***// Write theory by elaborating below points***

* One dimensional and two dimensional arrays
* Matrix operations with one example each
* formal and actual parameters.

**IMPLEMENTATION:**

* **PLATFORM:** 
  + 64-bit Open source Linux or its derivatives.
  + Open Source C Programming tool like gcc/Eclipse Editor.
* **PSEUDO CODE: *//To be Written by Students***

Write pseudo code for addition or subtraction, multiplication and transpose

* **TIME COMPLEXITY: *//To be Written by Students***

Find out time complexity of above operations

* **CONCLUSION:**

Thus, implemented matrix operations using different functions.

* **FAQs *//To be Written by Students***

1. What’s the difference between pass-by-value and pass-by-reference in C functions?
2. What is the difference between single quoted and double quoted declaration of char array?

* **PRACTICE ASSIGNMENTS**

**Codechef assignments**