**National University of Computer and Emerging Sciences**



**Laboratory Exercise**

**Computer Programming Lab**

**Spring 2018**

**Lab # 4**

**(CL 103)**

**Department of Computer Science**

**PLEASE READ CAREFULLY THE FOLLOWING INSTRUCTIONS:**P

1. Make a word document with the convention “ROLLNO\_SECTION\_LABNO” and put all your C++ source code in it.
2. After every question paste a screenshot of your working code below the source code in the document file.
3. At the end, when you are done with your lab tasks, make your submission.

**Problem 1:**

Write a code to add two 2D Matrices. The user will be asked for the dimensions of the matrices and then the values for the Matrices. You will be using Pointer to pointer 2D array in it with pointer notations.

**NOTE:**

(NO MARKS WILL BE AWARDED WITHOUT USING POINTER NOTATION).

**Problem 2:**

Write a code to first get an input into pointer to pointer 2D Array which you will call your 2D matrix. Then calculate the transpose of that 2D Matrix. The result of the transpose should be stored into another new matrix and then delete the input matrix.

**NOTE:**

(NO MARKS WILL BE AWARDED WITHOUT USING POINTER NOTATION).

**Problem 3:**

Print the reverse of a String “Hello World” with using one pointer.

**NOTE:**

(NO MARKS WILL BE GIVEN WITHOUT USING POINTER NOTATION).

**Problem 4:**

### Write a code to explicitly cast a Character pointer to an Integer pointer and explain the output you get.

**Problem 5:**

By using C++ pointer, write a C++ program to find the max of an integral data set. The program will ask the user to input the values. The user can enter any number of inputs. Then your program will show the max of the data set. Your C++ program will use a function that accepts the array of data values and its size. The return from the function is the pointer that points to the max value.

Upon each new entry a new array would be made.

You are done with your exercise; submit.