COURSE: (CL-1004) OBJECT ORIENTED PROGRAMMING LAB

LAB TASK # 2
Functions and Arrays

NOTE:
Only submit .cpp file of each question in a folder. Anyone who submits any other format file will get straight **ZERO.** Each question should have a separate .cpp file. Copy Paste or other UFM will also get **ZERO**. Use the following format for naming the folder Roll#_Name (P18-1234_NAME).

Q No.01: Function

Write a C++ program to print the factorial of a number by defining a function named 'Factorial'.

Calculate factorial of the number using loop.

Hint: Factorial of any number n is represented by n! and is equal to 1*2*3*....*(n-1)*n.

E.g.-

4! = 1*2*3*4 = 24

2! = 2*1 = 2

Also, 1! = 1 0! = 1

Q No.02: Passing by Value & Passing by Reference

Write a C++ program to calculate cube of a number. Define two functions for calculating cube of a number, one for "passing by value" and other for "passing by reference".

Problem (Output)

```
Enter First Number: 5
Enter Second Number: 5


Pass By Value Result: 125
Pass By Reference Result: 125


num1 : 5
num2 : 125
```

Q No.03: Arrays

Write a C++ program that will take 10 integer inputs from user and store them in an array. Pass the array to a function that will return the maximum integer.

Q No.04: 2D Arrays

Write a C++ program that will add two 2D arrays elements. Note display values of 1st, 2nd and their resultant array.

Hints: A will be the 1st array, B will be the 2nd array and C will be resultant array.

Note: Follow Mathematics Matrix Addition Rules