

## CL-1002

### Programming Fundamentals

### Lab # 9

#### Objectives:

- Practice and understanding on basic C++ programs
- 1-D Arrays
- Nested Loops
- Loops with arrays
- Introduction to 2D array

**Note:** Carefully read the following instructions (*Each instruction contains a weightage*)

1. First think about statement problems and then write your program.
2. Write Program in C/C++ compiler/IDE and save source file **for each program**.
3. *Do not copy from any source otherwise you will be penalized with negative marks.*
4. Complete your lab **within given Time Slot**.
5. Add your source code in this word document + Make one ZIP file of your all source codes.
6. Please submit your **Both files** with this naming convention ROLLNO\_SECTION\_LABNO.
7. Submit your lab on Google Classroom.

#### **Problem: 1 (1-D Array, Nested Loop)**

**(Marks = 5)**

Write a C++ program that take 5 elements from the user into an integer array and single integer input n. Print all numbers in array that are not divisible by n.

#### **Problem: 2 (1-D Array, Rand)**

**(Marks = 5)**

Write a C++ program to find 2<sup>nd</sup> minimum and maximum from array. Take 10 inputs as integer from user

#### **Problem: 3 (Loops, 1-D Array)**

**(Marks = 5)**

Write a C++ program that searches a particular number in array inputted by user using only one



loop by ending loop at half of elements. For example if total number of element in array is 10 then you can only run the loop till  $i < 5$

**Problem: 4 (1-D Array)**

**(Marks = 5)**

Write a c++ program to find a subarray in character array

For example

Input characters ; This is my name

Input subarray: name

Output: found

Example 2:

Input characters : This is my name

Input subarray: out

Output: not found

**Problem: 5 (2-D Array)**

**(Marks = 5)**

Write a C++ program to Initialize a 2D array of 3 rows and 3 columns and input values from user and also output the matrix on the screen.

**Problem: 6 (2-D Array)**

**(Marks = 5)**

Write a C++ program to perform following operations on 2D array of 3 rows and 3 columns:

(i) Print sum all elements.

(ii) Print the Largest element on the screen.