Lab 7: Arrays
10:45 am to 12:45 pm

Total marks: 35

General instructions

- **No compensation or makeup lab**
- **Don't discuss with peers.**
- **Cheating cases will be given ZERO.**
- **You can ask only relevant queries from TAs.**
- **Strictly follow the instructions of TAs. Any misconduct will be dealt strictly.**
- **Complete your tasks by 11:45am. Last hour is reserved for evaluation**

Task 1: (10 marks)

Write a C++ program that takes input in an int array and finds the index where the second smallest value is found.

Task 2: (10 marks)

Suppose you have to maintain three arrays for three students with the following data:

Iqra 90,74,60

Usama 87,77,61

Osama 88,75,60

The three entries are the marks (out of 100) for the following subjects: 1) Basic electronics, 2) PF, and 3) Digital

Logic design. Write a program that finds the student that has scored highest marks in 1) Basic electronics, 2) PF,

and 3) Digital Logic design. Hint: You can use relational operator > and && operator to check the condition.

Task 3: (15 marks)

Write a program that declares an array of size 10. Now ask user to enter positive numbers and store only the unique numbers in the array. Stop taking input when the array fills. At the end, display the array and also how many numbers are entered by user.

Example:

Enter number: 5

Unique_data => 5

Enter number: 6

Unique_data => 5 6

Enter number: 9

Unique_data => 5 6 9

Enter number: 6 // data is not unique (already in array)

Unique_data => 5 6 9

Enter number: 5 // data is not unique (already in array)

Unique_data => 5 6 9

Enter number: 12 // data is not unique (already in array)

Unique_data => 5 6 9 12

Enter number: 2 // data is not unique (already in array)

Unique_data => 5 6 9 12 2

And so on