

# **SET 213 - Data Structures & Algorithms**

## Experiment # 8

<b>Experiment Title</b>	
Sorting Algorithms	

# Assessment of CLO(s): IV

#### **Performed on 29-11-2024**

Student		
Name		
Roll No.	Group	
Semester	Session	

Total (Max)	Criteria 1 (2.5)	Criteria 2 (2.5)	Criteria 3 (2.5)	Criteria 4 (2.5)	Total (10)
Marks Obtained					
Remarks (if any)					

#### **Experiment evaluated by**

Instructor's Name	Engr. Muhammad Asad Husain		
Date		Signature	

# Department of Engineering Technology (UIT University)

Course Code: SET213 Course Title: Data Structures & Algorithms Course Credits: 2+1 Session: Fall 2024

Rubric for assessment criteria to perform experiment number 7.

Level Criteria	UNSATISFACTORY 1	COMPETENT 2	PROFICIENT 3	DISTINGUISHED 4
Capability of writing algorithm/ Procedure	None of the steps are implemented of an algorithm.	Few steps are implemented correctly of an algorithm.	Most of the steps are implemented correctly of an algorithm.	All the steps are implemented correctly of an algorithm.
Capability of writing Program	Programs not completed.	Completeness of code, consistent variable naming and unformatted.	Completeness of code, inconsistent variable naming and well formatted.	Completeness of code, consistent variable naming and well formatted.
Completion of target in Lab	25% target has been completed	50% target has been completed	75% target has been completed	100% target has been completed
Output	None of the outputs are correct.	Few outputs have been found correctly.	Some of the outputs are correct and well formatted.	Most of the outputs are correct and well formatted.

## Practical Objective(s):

1. Learn how to sort an array of numbers using Bubble Sort Algorithm

## Do It Yourself:

- 1. Write the code of algorithm given in reference manual.
- 2. Modify the program in task 1 and add a variable to count the number of passes and interchanges when size of array is 10 in the following cases:
  - a) When the given array is randomly sorted.
  - b) When the given array is in descending order. (Worst case)