



# National University of Computer and Emerging Sciences

## Lab Quiz 1

### Computer Organization and Assembly Language

**Time Allowed:** 30 Minutes

**Maximum Marks:** 20

**Lab Instructors:** Rida, Amna

**Student Name :**

**Roll Number :**

**Date:** 22-09-2023 :

#### NOTE:

1. **Submit Code on GCR with attached screenshots of resulting outputs where needed**
2. **Do not submit Zip/archive files. Submit only ASM files and screenshots**
3. **Quiz is Open Book and Open Notes. Any other source will result in plagiarism.**
4. **The Internet is strictly prohibited and usage of the internet during the quiz will return ZERO marks in the quiz exam.**

**Q 1:** You are given two arrays, array1 and array2 along with their sizes, size1 and size2, respectively. Both arrays are sorted already, but array1 is sorted ascending order while array2 is sorted in descending order. You have to merge the two arrays in place, so that the resulting array looks sorted in descending order and contains elements from array1 and array2.

For this activity:

- You cannot use any sorting algorithm.
- You cannot use any extra memory location/variable.
- Use registers only.

Sample input/output:

State of data variables before running the code:

array1: db 1,2,3,4,5,6,7

array2: db 9,6,4,1

size1: db 7

size2: db 4

State of data variables after running the code:

array1: db 9,7,6,6,5,4,4

array2: db 3,2,1,1

size1: db 7

size2: db 4