

COMSATS University Islamabad Sahiwal Campus

(Department of Computer Science)

| Course Title: | Data Structures and Algorithms | | | Course Code: | CSC211 | Credit Hours: | 4 | |
|---------------------------|--------------------------------|----------|--|-----------------|----------------|---------------|------------|-----|
| Course Instructor: | Ms. Tahreem Saeed | | | | Programm | BSCS | | |
| Semester: | 3 | Batch: - | | Section: | - | Deadline: | 18-12-2023 | |
| Time Allowed: | | | | | Maximum Marks: | | 10 | |
| Student's Name: | | | | | Reg. No. | CUI/ | / | SWL |

Important Instructions / Guidelines:

Read the question paper carefully and answer the questions according to their statements. Mobile phones are not allowed. Calculators must not have any data/equations etc. in their memory.

Assignment 3 Fall 2023

Question 1: Discuss recursion in brief and write down its generic algorithm.

Question 2: Code the following algorithms and simulate (dry-run) these by taking an unsorted array with 05 elements:

- i. Insertion Sort
- ii. Selection Sort
- iii. Merge Sort
- iv. Quick Sort