 **BAHRIA UNIVERSITY (KARACHI CAMPUS)**

**ASSGINMENT # 1 - FALL 2019**

Data Structures and Algorithm (CSC-221)

Class: **BSE 3 A&B** Submission Deadline: 30**/31 October, 2019**

Course Instructor: **Engr. Bushra Fazal**

Lab Instructor: **Engr. Saniya Sarim** Max Marks: **10**

1. Write an algorithm that finds the smallest and largest number in a list (an array) of n numbers.
2. Write an algorithm that prints out all the subset of four elements of a set of n elements the elements of this set are sorted in a list that is input to the algorithm.
3. Design a program where user gives one string argument and generate result.

Example:

* If input is “**abc**” then output should be “**klm**”.
* If input is “**xyz**” then output should be “**HIJ**”
* If input is “**gsm**” then output should be “**qCw**”
* If input is “**XYZ**” then output should be “**hij**”

1. Take 10 inputs from the user and assign them into two string arrays (make 2 unsorted string arrays of 5 lengths each), merge those arrays and obtain the result in the sorted manner.
2. Delete the string (taken from the user) from the array of strings that was inserted by the user. Use searching algorithm.
3. Write a program which takes two input values from user and sums up all the even numbers between these numbers. Using recursion.

**Note**:

* If you submit your assignment after the given deadline then **2 Marks** will be deducted for the late submissions.
* Copied assignment will be marked **zero**.

If you have any query, feel free to contact at: saniyashaikh\_31@outlook.com