

# Assignment #01

## Data Structures CS218

**Note:** The submission deadline is **21<sup>st</sup> March 2020**. In case of plagiarism in any question, straight zero marks will be assigned for the complete assignment.

**Total Marks: 30**

**Question#01:** Reverse the order of elements on stack S

- a. using two additional stacks
- b. using one additional queue

**Question#02:** Given an infix expression  $(A+B^C)*D+E^5$ . Your task is to convert the given expression into prefix notation. The final result should be  $+*+A^BCD^E5$ . (Note: Make use of stack data structure only. However the underlying implementation should be an array).

**Question#03:** Given an infix expression  $2*3/(2-1)+5*3$ . Your task is to convert the given expression in to postfix notation. The final result should be  $23*21-/53*+$ . Evaluate the resultant postfix notation and show the final result. The final result should be 21. (Note: Make use of stack data structure only. However the underlying implementation should be an array).

Good Luck ☺