CTA-ASSIGNMENT

Course Code: 22UCSC300   Course Title: Data Structures and Applications

Max Marks: 5   Sem:3 A

1.	Write a C program to convert a valid parenthesized infix expression to prefix expression. (Expression includes operators +, -, * and /)
2.	Write a C program to evaluate a given valid prefix expression. (Expression includes operators +, -, * and /)
3.	Write a C program to convert a given postfix expression to infix expression. (Expression includes operators +, -, * and /)
4.	Define an input restricted deque as a Deque[A deque is an ordered set of items from which items may be deleted at either end, (remvleft,remvright) and into which items may be inserted at either end(insertleft,insertright)] for which only the operations remvleft,remright and insertleft are valid. Show how each of this can be used to represent both stack and queues respectively.
5.	Write a C program to implement descending priority queue. **Note:** An descending priority queue is a collection of elements where an element is inserted such that the largest value element is always at the front of the queue.