

# University of Engineering & Management, Kolkata



**Department of Computer Science & Engineering**

**DATA STRUCTURE LAB**

**Subject Code - CS392**

**SESSION- 2018 ODD SEM**

**ASSIGNMENT – VI**

**Objective – To implement some Application of  
Stack & Queue**

**Date of Assignment - 05.09.2018**

**Date of Submission - 12.09.2018**

- 6.1 Write a C program to generate the postfix expression from infix given expression.
- 6.2 Write a C program to evaluate postfix expression.
- 6.3 Write a C program to calculate factorial of a number using STACK.
- 6.4 Write a C program to sort some unsorted data using stack.
- 6.5 Write a C program to implement the concept of double stack.
- 6.6 Write a C program to check whether a given expression is infix or not.
- 6.7 Write a C program to check for balanced symbols ( { } / ( ) / [ ] ) in an expression.
- 6.8 Write a C program to evaluate the following using stack  
 $\sin(\sin(\sin(\sin(\sin(\sin(\sin(\sin(\sin(\sin(\sin(\sin(\sin(\sin(\sin(x))))))))))))))$
- 6.9 Write a C program to check a string is palindrome or not using stack.
- 6.10 Write a C program to implement stack using dynamic memory allocation.
- 6.11 Write a C program to implement the concept of priority queue using array.
- 6.12 Write a C program to implement the concept of priority queue using Linked List.

- 6.13 Write a C program to implement the concept of doubly ended queue using array.
- 6.14 Write a C program to implement the concept of doubly ended queue using linked list.
- 6.15 Write a C program to implement a Queue using stack.