Spring Semester 2017-18

Practical -3

1. Define STACK to be a stack class of characters with Push. Pop and emptyStack operations. Write main to invert the string. Write main to check whether a given string is a palindrome?

2. Write class STACK to implement stack of floating point numbers as an array of size Max. Initialize top to Max. Include following functions in the class:

underflow( )	//	To check if the stack is empty
overflow( )	//	To check if stack is full
push( )	//	To insert an item in the stack
pop( )	//	To retrieve single item from stack

3. Write a class TwoStack to manage two stacks in given array.

4. Implement the function peep in the class STACK which gives the ith item from the top of the stack without altering the stack.

5. Write class Queue of integers in contiguous memory. Include fWrite class Queue of integers in contiguous memory. Include following functions :

underflow( )	//To check if the queue is empty
overflow( )	//To check if the queue is full
add( ) and remove( )	//To add and remove single information in queue

   Write function main( ) to test the queue

6. Give an example to show the underflow and overflow simultaneously.

7. Repeat question 5 for queue of characters and strings.

8. Write a class Cqueue of integers to implement circular queue

9. Write a class Deque to implement deque of integers. Test the class in main.