**DATA STRUCTURE AND ALGORITHM**

**MID TERM LAB EXAM (12 Marks)**

**Group B**

**Question no 01 ( 06 Marks)-CLO-1**

Write a C++ program to reverse the elements of a queue.

**Output:**

Initialize a Queue.

Insert some elements into the queue:

Queue elements are: 1 2 3 4 5

Reverse Queue elements:

Queue elements are: 5 4 3 2 1

**Question no 02 ( 06 Marks)-CLO-1**

Using one or more stacks, write a code segment to read in a string of characters and determine whether it forms a palindrome. A palindrome is a sequence of characters that reads the same both forward and backward—for example: ABLE WAS I ERE I SAW ELBA. The character `.' ends the string. Write a message indicating whether the string is a palindrome. You may assume that the data are correct and that the maximum number of characters is 80.