**Lab 1**

1. Implement the Insertion Sort algorithm.

2. SPAN STOCK PROBLEM: Given a series of n daily price quotes for a stock. The span of the stock's price on a certain day is the maximum number of consecutive days up to the current day that the price of the stock has been less than or equal to its price on that day. Implement the algorithm to find the Span of the stock's price.

3. Write a program that finds the smallest and largest word in a series of words.

4. Write a program to perform the following string manipulation functions without using built-in

functions.

|  |
| --- |
| (i) strlen |
| (ii)strncat |
| (iii)strncmp |

**Lab 2**

1. Write a program to implement stack using array. In this program you have to implement the stack operation by using the arrays. Here the stack operations are push, pop, stacktop etc .

2. SPAN STOCK PROBLEM: Given a series of n daily price quotes for a stock. The span of the stock's price on a certain day is the maximum number of consecutive days up to the current day that the price of the stock has been less than or equal to its price on that day. Write a program to solve SPAN STOCK PROBLEM using stack.

3. Write a program for keeping two stacks within a single array so that neither stack overflows until all of the memory used an entire stack is never shifted to a different location within the array. Write routines push1, push2, pop1 and pop2 to manipulate the two stacks.

4. Write a program to evaluate Postfix expression.