**Lab-6 Assignments**

**6.1** Write a menu driven program to create a stack using array and perform the following operation using function

a. Push

b. Pop

c. check stack is empty or not

d. check stack is full or not

e. display stack elements

**Sample Input/Output:**

Main Menu

1. Push

2. Pop

3. IsEmpty

4. IsFull

5. Traverse

6. Exit

Enter option: 1

Enter element to be pushed into the stack: 22

Enter option: 1

Enter element to be pushed into the stack: 33

Enter option: 1

Enter element to be pushed into the stack: 44

Enter option: 1

Enter element to be pushed into the stack: 88

Enter option: 1

Enter element to be pushed into the stack: 66

Enter option: 5

Stack: 66 88 44 33 22

Enter option: 2

66 deleted from Stack

Enter option: 3

Stack empty: False

**Note: Other menu choices are similarly needs to verify.**

**6.2** Write a menu driven program to create a stack using linked list and perform the following operation using function

a. Push

b. Pop

c. IsEmpty

d. display the stack elements

**Sample Input/Output:**

Main Menu

1. Push

2. Pop

3. IsEmpty

4. Traverse

5. Exit

Enter option: 1

Enter element to be pushed into the stack: 12

Enter option: 1

Enter element to be pushed into the stack: 35

Enter option: 1

Enter element to be pushed into the stack: 24

Enter option: 1

Enter element to be pushed into the stack: 8

Enter option: 1

Enter element to be pushed into the stack: 41

Enter option: 4

Stack: 41 8 24 35 12

Enter option: 2

41 deleted from Stack

**Note: Other menu choices are similarly needs to verify.**

**6.3** Write a program to convert infix expression to postfix operation using stack.

**Sample Input:**

Enter infix expression: (a+b)/c\*d-e^f

**Sample Output:**

Postfix: ab+c/d\*ef^-