

Experiment 4

Aim : write a program to convert infix to postfix expression.

Lab outcome :

select appropriate data structure and apply it in various problem.

Practice Question.

1. What is reverse polish notation.

Polish notation is a way of expressing arithmetic expressions that avoids use of brackets to define priorities for evaluation for of operations.

Types of notation.

1. Prefix
2. Infix
3. Postfix.

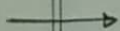
Postfix (reversed polish) notation

→ It is the way to write ~~an~~ arithmetic expression in which operators are placed after operands

Example

ab+

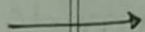
Q2. convert infix to postfix.



$$\frac{(A-B) * C + C * D}{E-C}$$

characters from infix	stack	Postfix
C	C	
A	C	A
-	C-	A
B	C-	AB
)	C	AB-
+	C	AB-
C	C*C	AB-
C	C*C	AB-C
*	C*C*	AB-C
D	C*C*	AB-CD
)	C*	AB-CD*
/	C/	AB-CD*
E	C/	AB-CD*
-	C-	AB-CD*E/
C	C	AB-CD*E/C
	-	AB-CD*E/C-

Equivalent postfix expression is.



$AB-CD*E/C-$