```
Lab program 2:-
#Include (Stdio.h)
# include < string. h>
int F (char symbol)
   switch (symbol)
     case (+):
     Cose -: return 2;
     case (* ':
   Cose / : roturn 4;
   (ose 'x':
   case '$': return 5;
    cose (C): return 0;
    (age 4": return (-1;
   int (or (char symbol)
(ladmys) Attions
 (ase 1 + ):
   case '-1: return 1;
 cose '*': Des
 case (/): return 3;
  Cose (1).
  Cose ($ ': return 6;
   (age ('(): hetum 9;
   (ase ')' roturn 0;
  default: return 7;
```

```
void infix postfix (chos infix[], pelos postfix[])
    ii, i, qot bui
    char s[30], symbol;
    top = -1;
    s[++top] = '#';
    i=0;
    for (i=0; i< stalen(infix)) i++)
     Symbol = infix [i];
      while (F(s[top]) > (r(symbol))
       postfix[i]=5[top--];
       <u>j++j</u>
      ib (F(s[top])! = (c(symbol))
         sle++top] = Symboli
     else
        top -- i
   while (s[+op] != #1)
    postfix [)++]=s[top--];
   postfix[j]=101;
void main()
char infin[20];
then postfix [20];
printf (" Enter the valid infix expression: ");
   scanf (" /. s ", xinfix);
   intix_postfix (infix, postfix);
  printf ("The postfix expression is: $ 15 m, postfix);
```

```
#include<stdio.h>
#include<string.h>
int F(char symbol)
{
    switch(symbol)
        case '+':
        case '-': return 2;
        case '*':
        case '/': return 4;
        case '^':
        case '$': return 5;
        case '(': return 0;
        case '#': return -1;
        default : return 8;
int G(char symbol)
    switch (symbol)
    {
        case '+':
        case '-': return 1;
        case '*':
        case '/': return 3;
        case 'A':
        case '$': return 6;
        case '(': return 9;
        case ')': return 0;
        default : return 7;
```

```
void infix_postfix(char infix[],char postfix[])
{
    int top,i,j;
    char s[30], symbol;
    top=-1;
    s[++top]='#';
    j=0;
    for(i=0;i<strlen(infix);i++)
    {
        symbol=infix[i];
        while (F(s[top])>G(symbol))
            postfix[j]=s[top--];
            j++;
        if(F(s[top])!=G(symbol))
            s[++top]=symbol;
        else
            top--;
    while(s[top]!='#')
        postfix[j++]=s[top--];
    postfix[j]='\0';
void main()
{
    char infix[20];
    char postfix[20];
    printf("\nEnter the valid infix Expression:");
    scanf("%s",&infix);
    infix_postfix(infix,postfix);
    printf("\nThe postfix expression is: %s\n",postfix);
}
```

```
Enter the valid infix Expression:((A+(B-C)*D)^E+F)

The postfix expression is: ABC-D*+E^F+
PS D:\C Programs> cd "d:\C Programs\"; if ($?) { gcc

Enter the valid infix Expression:a^b*c-d+e/f/(g+h)

The postfix expression is: ab^c*d-ef/gh+/+
PS D:\C Programs> cd "d:\C Programs\"; if ($?) { gcc

Enter the valid infix Expression:X^Y^Z-M+N+P/Q

The postfix expression is: XYZ^M-N+PQ/+
```