Aim:

Write a C program to convert a Prefix expression to Postfix expression.

Source Code:

prefixToPostfix.c

```c
#include<stdio.h>
#include<conio.h>
#include<string.h>
#include<stdlib.h>
# define MAX 20
char str[MAX],stack[MAX];
int top=-1;
void push(char c)
{
    stack[++top]=c;
}
char pop()
{
    return stack[top--];
}
void pre_post()
{
    int n,i,j=0;
    char c[20];
    char a,b,op;
    printf("Enter a Prefix expression:");
    scanf("%s", str);
    n=strlen(str);
    for(i=0;i<MAX;i++)
    stack[i]='\0';
    printf("Postfix expression is:");
    for (i=0;i<n; i++){
        if(str[i]=='+'||str[i]=='-'||str[i]=='*'||str[i]=='/')
        {
            push(str[i]);
        }
        else{c[j++]=str[i];
        while((top!=-1)&&(stack[top]=='@'))
        {
            a=pop();
            c[j++]=pop();
        }
        push('@');
        }
    }
    c[j]='\0';
    printf("%s\n",c);
}
void main()
{
```

```
    pre_post();
}
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
Enter a Prefix expression: +AB
Postfix expression is:AB+

Test Case - 2
User Output
Enter a Prefix expression: +/AB/CD
Postfix expression is:AB/CD/+