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], a, b, op;
    printf("Enter a Prefix expression:");
    gets(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] == '0'))
            {
                a = pop();
                    c[j++] = pop();
            }
                push('0');
        }
    }
    c[j] = '\0';
    printf("%s",c);
    printf("\n");
}
```

```
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/+