

## Program :-

```
#include <stdio.h>
#include <string.h>
#include <ctype.h>
#define N 100
char stack[N];
int top = -1;
int prec (char a) {
    if (a == '^') {
        return 3;
    }
    if (a == '*' || a == '/') {
        return 2;
    }
    if (a == '+' || a == '-') {
        return 1;
    }
    return 0;
}
int isRightAssociative (char op) {
    return op == '^';
}
void push (char n) {
    if (top < N - 1) {
        stack[++top] = n;
    }
}
```

```
char pop() {
    if (top == -1) {
        return '10';
    } else {
        return stack[top--];
    }
}

char peek() {
    if (top == -1) {
        return '10';
    } else {
        return stack[top];
    }
}
```

```
void infixToPostfix (char exp[], char res[]) {
    int j = 0;
    for (int i = 0; i < strlen(exp); i++) {
        char p = exp[i];
        if (isalnum(p)) {
            res[j++] = p;
        } else if (p == ')') {
            while (top != -1 && peek() != '(') {
                res[j++] = pop();
            }
            if (top != -1) {
                pop();
            }
        } else {
            while (top != -1 && peek() != '(' &&
                prec(peek()) > prec(p) || prec(peek()) == prec(p) &&
                !isRightAssociative(p))) {

```

```

    res[j++] = pop();
}
push(p);
}

while (top != -1) {
    res[j++] = pop();
}
res[j] = '\0';
}

int main() {
    char exp[N];
    char res[N];
    printf("Enter the expression : \n");
    scanf("%s", exp);
    infixToPostfix(exp, res);
    printf("The postfix is : %s \n", res);
    return 0;
}

```

Output :-

Enter the expression :

~~(A+B)\*C+(D^M)+(E-F).~~

~~The postfix is : AB+\*CDM^+EF-+.~~

wk  
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