

### LAB PROGRAM-3 Infix to postfix

Pseudocode:

```
#define SIZE 50;
```

```
int top = -1;
```

```
push(char ele)
{
    stack[++top] = ele;
}
```

```
char pop()
{
    return (stack[top--]);
}
```

```
int pr(char symb)
{
    if (symb == '^')
        return (3);
    else if (symb == '*' || symb == '/')
        return (2);
    else if (symb == '+' || symb == '-')
        return (1);
    else
        return (0);
}
```

```
main()
{
    int i=0, k=0;
    char infix[50], postfix[50], ch, ele;
    printf("Enter expression in");
    scanf("%s", infix);
    push("#");
}
```

NA.

```
while ((ch = infix[i++]) != '\0')
```

```
{
```

```
    if (ch == 'c')
```

```
        push(ch);
```

```
    else if (isalnum(ch))
```

```
        postfix[k++] = ch;
```

```
    else if (ch == ')')
```

```
    {
```

```
        while (stack[top] != 'c')
```

```
            postfix[k++] = pop();
```

```
        ele = pop();
```

```
    }
```

```
    else
```

```
        while (pr[stack[top]] > pr(ch))
```

```
        {
```

```
            postfix[k++] = pop();
```

```
        }
```

```
        push(ch);
```

```
    }
```

```
}
```

```
while (stack[top] != '#')
```

```
    postfix[k++] = pop();
```

```
    postfix[k] = '\0';
```

```
    printf("postfix: %s", postfix);
```

```
}
```