**PROGRAM 10:**

Write a C program to construct recursive descent parsing

CODE:-

#include <stdio.h>

#include <ctype.h>

const char \*input;

char lookahead;

void nextChar() {

lookahead = \*input++;

}

void expr();

void term();

void factor();

void expr() {

term();

while (lookahead == '+' || lookahead == '-') {

nextChar();

term();

}

}

void term() {

factor();

while (lookahead == '\*' || lookahead == '/') {

nextChar();

factor();

}

}

void factor() {

if (isdigit(lookahead)) {

nextChar();

} else if (lookahead == '(') {

nextChar();

expr();

if (lookahead == ')') nextChar();

}

}

int main() {

input = "3+(2\*5)";

nextChar();

expr();

if (lookahead == '\0') {

printf("Parsing successful!\n");

} else {

printf("Parsing failed!\n");

}

return 0;

}

OUTPUT:-

