NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

Cachar, Assam

B.Tech. VIth Sem

Subject Code: CS-316

Subject Name: Compiler Design Lab

Submitted By:

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Branch   : CSE – B

1. **Write a YACC program for conversion of Infix to Postfix expression.**

➔ **CODE:**

LEX (lab8.l)

```
%{
    #include <stdio.h>
    #include <stdlib.h>
    #include "lab8.tab.h"
    extern int yylval;
%}

%%
[a-zA-Z]([A-Za-z]|[0-9])* {yylval = yytext [0]; return ALPHACHAR;}
[0-9]+ {yylval = yytext [0]; return ALPHACHAR;}
[ \t] {}
[\n] {return 0;}
. {return yytext [0];}
%%

int yywrap () {
    return 1;
}
```

YACC (lab8.y)

```
%{
    #include <stdio.h>
    #include <stdlib.h>
%}

%token ALPHACHAR
%left '+' '-'
%left '*' '/'
%right NEGATIVE

%%
S:  E {printf ("\n");}
;
E:  E '+' E {printf ("+");}
| E '*' E {printf ("*");}
| E '-' E {printf ("-");}
| E '/' E {printf ("/");}
| '(' E ')'
| '-' E %prec NEGATIVE {printf ("-");}
| ALPHACHAR {printf ("%c", yylval);}
;
```

```
%%

int yyerror (char *msg) {
    fprintf (stderr, "%s\n", msg);
    exit (1);
}

int main () {
    printf ("write something: ");
    yyparse ();
    return 0;
}
```

OUTPUT: