**PRACTICAL-11**

# AIM : Create YACC and LEX specification file to recognize arithmetic expression involving +,-,\*, /

# LEX Program(sample.l)

%{

#include<stdio.h> #include "y.tab.h" extern int yylval;

%}

%%

[0-9]+ {

yylval=atoi(yytext); return NUMBER;

}

[\t] ;

[\n] return 0;

. return yytext[0];

%%

int yywrap()

{

return 1;

}

**YACC Program(sample.y)**

%{

#include<stdio.h> int flag=0;

%}

%token NUMBER

%left '+' '-'

%left '\*' '/'

%%

ArithmeticExpression: E{ printf("\nResult=%d\n",$$); return 0;

}

E:E'+'E {$$=$1+$3;}

|E'-'E {$$=$1-$3;}

|E'\*'E {$$=$1\*$3;}

|E'/'E {$$=$1/$3;}

| NUMBER {$$=$1;}

;

%%

void main()

{

printf("\nEnter Any Arithmetic Expression which can have operations Addition, Subtraction, Multiplication and Divison:\n");

yyparse(); if(flag==0)

printf("\nEntered arithmetic expression is Valid\n\n");

}

void yyerror()

{

printf("\nEntered arithmetic expression is Invalid\n\n"); flag=1;

}

**OUTPUT :**

