**Exp 6: Write Lex and Yacc Program to evaluate arithmetic expression.**

**Lex code**

%{

#include "y.tab.h"

extern yylval;

%}

%%

[0-9]+ {yylval=atoi(yytext);return num;}

[\+\-\\*\/] {return yytext[0];}

[)] {return yytext[0];}

[(] {return yytext[0];}

. {;}

\n {return 0;}

%%

**Yacc code**

%{

#include<stdio.h>

#include<stdlib.h>

%}

%token num

%left '+''-'

%left '\*''/'

%%

input:exp {printf("%d\n",$$);exit(0);}

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

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

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

|exp'/'exp {if($3==0){printf("Division by zero exception\n");exit(0);}

else

$$=$1/$3;}

|'('exp')' {$$=$2;}

|num {$$=$1;};

%%

int yyerror()

{ printf("error");

exit(0); }

int main()

{ printf("Enter the expression:\n");

yyparse(); }

Output:

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AI-generated content may be incorrect.