**ASSIGNMENT NO.**

NAME: ROHIT ANIL GUND

CLASS: BE COMP-1 ROLL NO.: 402055

**PROGRAM:**

**CAL.L**

%{

#include "y.tab.h"

#include<stdio.h>

extern int yyerror(char \*e);

%}

%%

[a-zA-Z]+ {yylval.dname=strdup(yytext);

return id;}

[ \t]+

\n return 0;

. return yytext[0];

%%

int yywrap()

{

return 1;

}

**CAL.Y**

%{

#include<stdio.h>

#include<math.h>

#include<stdlib.h>

extern int yylex();

extern int yyparse();

extern int yyerror(char \*e);

struct quadadd

{

char op;

char \*arg1;

char \*arg2;

char \*arg3;

}q[10];

char\* addquad(char ,char \*,char \*,char \*);

char \*returnRes();

int i=0;

int k=0;

%}

%union

{

char \*dname;

}

%token <dname>id

%right '='

%left '+' '-'

%left '\*' '/'

%type <dname>exp

%start S

%%

S :exp { display(); }

;

exp:exp '+' exp {$$ = addquad('+',$1,$3,returnRes());}

|exp '-' exp {$$ = addquad('-',$1,$3,returnRes());}

|exp '\*' exp {$$ = addquad('\*',$1,$3,returnRes());}

|exp '/' exp {

$$=addquad('/',$1,$3,returnRes());

}

|exp '=' exp {$$=addquad('=',$3,"",$1);}

| id {$$ = $1;}

;

%%

char \*addquad(char a,char \*b,char \*c,char \*d)

{

q[i].op=a;

q[i].arg1=b;

q[i].arg2=c;

q[i++].arg3=d;

return d;

}

char \*returnRes()

{

char \*temp;

temp=(char \*)malloc(3\*sizeof(char));

temp[0]='t';

temp[1]=48+k++;

temp[2]='\0';

return temp;

}

void display()

{ printf("| ------------------------ |\n");

printf("| op arg1 arg2 res |\n");

printf("| ------------------------ |\n");

int j=0;

for(j=0;j<i;j++)

{

printf("|%4c ",q[j].op);

printf("%4s ",q[j].arg1);

printf("%4s ",q[j].arg2);

printf("%4s |\n",q[j].arg3);

}

}

int main()

{

yyparse();

}

extern int yyerror(char \*e)

{

printf("Error is %s\n",e);

}

**OUTPUT:**

