Roll No: 20BCE204

Course Name and Course Code: 2CS701 Compiler Construction

Practical No: 7

Aim: To implement grammar rules for control statements, and Loop control.

Code:

prac7.l file

%{

#include<stdio.h>

#include "y.tab.h"

%}

%%

"if" {return IF;}

"else" {return ELSE;}

"<"|">"|"<="|">="|"=="|"="|"&&"|"||"|"and"|"or" {return OPR;}

[0-9]+ {return NUMBER;}

[A-Za-z][A-Za-z0-9\_]\* {return ID;}

" " {return S;}

[\t] ;

[\n] return 0;

. return yytext[0];

%%

int yywrap()

{

return 1;

}

Prac7.y

%{

#include<stdio.h>

int flag=0;

*extern* int yylex();

void yyerror(*const* char\* msg);

%}

%token IF OPR NUMBER ID ELSE S

%%

IfExpression: E

{

*//printf("\nResult=%d\n", $$);*

return 0;

};

E: IF '('C')''{'C'}' | IF '('C')''{'C'}' ELSE '{'C'}';

C: T OPR T | S |E;

T: NUMBER | ID;

%%

void main()

{

printf("\nEnter Statement\n");

yyparse();

if(flag==0)

printf("\nValid Statement\n\n");

}

void yyerror(*const* char\* msg)

{

printf("\nInvalid Statement\n\n");

flag=1;

}

Output:

