EX NO 5 :

Develop a lexical analyser to identify,identifiers,constants,operators using c.

PROGRAM :

#include<stdio.h>

#include<ctype.h>

#include<string.h>

int main(){

int i,ic=0,m,cc=0,oc=0,j;

char b[30],operators[30],identifiers[30],constants[30];

printf("enter the string : ");

scanf("%[^\n]s",&b);

for(i=0;i<strlen(b);i++){

if(isspace(b[i])){

continue;

}

else if(isalpha(b[i])){

identifiers[ic] =b[i];

ic++;

}

else if(isdigit(b[i])){

m=(b[i]-'0');

i=i+1;

while(isdigit(b[i])){

m=m\*10 + (b[i]-'0');

i++;

}

i=i-1;

constants[cc]=m;

cc++;

}

else{

if(b[i]=='\*'){

operators[oc]='\*';

oc++;

}

else if(b[i]=='-'){

operators[oc]='-';

oc++;

}

else if(b[i]=='+'){

operators[oc]='+';

oc++;

}

else if(b[i]=='='){

operators[oc]='=';

oc++;

}

}

}

printf(" identifiers : ");

for(j=0;j<ic;j++){

printf("%c ",identifiers[j]);

}

printf("\n constants : ");

for(j=0;j<cc;j++){

printf("%d ",constants[j]);

}

printf("\n operators : ");

for(j=0;j<oc;j++){

printf("%c ",operators[j]);

}

return 0;

}

OUTPUT :

