LEX AND YACC PROGRAMS:

Execute the following programs using LEX:

1) a. Program to count the number of characters, words, spaces and lines in a given input file.

```
%{
#include<stdio.h>
int c=0,w=0,s=0,l=0;
%}
%%
[A-Za-z]+ {w++; c+=yyleng;}
[ ] s++;
["\n"] l++;
. ;
%%
int main(int argc,char **argv)
{
FILE *f1;
if(argc>1)
{
f1=fopen(argv[1],"r");
if(!f1)
{
printf("file error \n");
exit(1);
}
yyin=f1;
yylex();
printf("words=%d \n",w);
printf("characters=%d \n",c);
printf("spaces= %d \n",s);
printf("lines= %d \n",l);
}
return 0;
}
int yywrap()
{
return 1;
}
```

OUTPUT:

root@localhost ~]# vi c.c
THE CONTENTS OF c.c
welcome to great cit
hi everyone
[root@localhost ~]# lex pg1.l
[root@localhost ~]# cc lex.yy.c -ll
[root@localhost ~]# ./a.out c.c
words=6
characters=27
spaces= 4
lines= 2