

6b. Write YACC program to recognize valid identifier, operators and keywords in the given text (C program) file.

Lex

```
%{
#include<stdio.h>
#include "y.tab.h"
extern int yylval;
}%
%%
[\\t] ;
[+|-|*|/|=|<|>] {printf("operator is %s\\n",yytext);return OP;}
[0-9]+ {yylval=atoi(yytext);printf("number is %d\\n",yylval);return DIGIT;}
int|char|bool|float|void|for|while|if {printf("keyword is %s\\n",yytext);return KEY;}
[a-zA-Z0-9]+ {printf("Identifier is %s\\n",yytext);return ID;}
. ;
%%
```

yacc

```
%{
#include<stdio.h>
#include<stdlib.h>
int id=0,dig=0,key=0,op=0;
}%
%token ID,DIGIT,KEY,OP
%%
input:
DIGIT input{dig++;}
| ID input{id++;}
| KEY input{key++;}
| OP input {op++;}
| DIGIT {dig++;}
| ID {id++;}
| KEY {key++;}
| OP {op++;}
%%
extern FILE *yyin;
main(int argc, char *argv[])
{
yyin=fopen(argv[1],"r");
yyparse();
printf("digit=%d\\n,id=%d\\n,key=%d\\n,op=%d\\n",dig,id,key,op);
}
yyerror()
{
printf("error\\n");
exit(0);
}
```

```
$ lex 6b.l
```

```
$ yacc 6b.y -d
```

```
$ cc lex.yy.c y.tab.c -ll
```

```
%./a.out input.c
```