5.14

1）未指明目的操作数的属性

2）DS 作为段寄存器，不应当参加相减操作

3）不得直接使用立即数进行 PUSH

4）目的操作数不得为立即数

5）两个操作数不得皆为存储单元

6）若移位次数大于 1，则使用 CL 寄存器

5.16

37H -> 00110111

1）0F0H=11110000B, 00110111B AND 11110000B = 00110000B = **30H**

2）03H=00000011B,00110111B OR 00000011B = 00110111B = **37H**

3）NOT 00110111B = 11001000B = **C8H**

4）0FH = 00001111B,XOR AL,0FH = 00111000B = **38H**

5.17

首先把用户的程序加载进内存，接着建立程序段前缀 PSP 区，然后用 DS 和 ES 寄存器保存 PSP 区段地址，以及定义代码段。此后设置根据程序代码的段地址 CS 和 IP，再设置堆栈区的段地址 SS 寄存器和堆栈指针 SP;最后将控制权交给用户程序，开始执行内容。

5.22

```
MOV AX,0
XOR AX,AX
AND AX,0
```

5.26

```
DATAS SEGMENT

DATAS ENDS

CODES SEGMENT
    ASSUME CS:CODES,DS:DATAS
START:
    MOV AX,DATAS
    MOV DS,AX

    MOV AH,1
    INT 21H

    SUB AL,30H
    AND AL,1
    CMP AL,0

    ;换行
    MOV AH,2
    MOV DL,0AH
    INT 21H
    MOV DL,0DH
    INT 21H

    JE LET1

    MOV DL,'N'
    INT 21H
    JMP LET2

    LET1:
    MOV DL,'Y'
    INT 21H

    LET2:
    MOV AH,4CH
    INT 21H
CODES ENDS
    END START
```

5.27

```
DATAS SEGMENT
    X DB 5
    Y DB ?
DATAS ENDS
CODES SEGMENT
    ASSUME CS:CODES,DS:DATAS
START:
    MOV AX,DATAS
    MOV DS,AX
    MOV AL,X
    CMP AL,0
    JE LET1

    JL LET2
    MOV AL,X
    ADD AL,3
    MOV AH,0
    MOV BL,2
    IDIV BL
    JMP LETE

    LET1:
    MOV AL,0
    JMP LETE

    LET2:
    MOV AL,X
    MOV CL,2
    SAL AL,CL

    LETE:
    MOV Y,AL
    MOV AH,4CH
    INT 21H
CODES ENDS
    END START
```

5.28

```
DATAS SEGMENT
    X DB -16
    Y DB 0
    Z DB ?
DATAS ENDS
```

```
CODES SEGMENT
    ASSUME CS:CODES,DS:DATAS
START:
    MOV AX,DATAS
    MOV DS,AX

    MOV AH,0
    MOV AL,X
    CMP AL,0
    JGE LET1
    NEG AX
    MOV Y,AL
    JMP LETE

    LET1:
    MOV BL,4
    IMUL BL
    MOV AH,0
    MOV BL,Y
    MOV CL,16
    IDIV CL

    LETE:
    MOV Z,AL

    MOV AH,4CH
    INT 21H
CODES ENDS
    END START
```

5.29

```
DATAS SEGMENT
   W DB 1,-1,0,2,5,-2,0,0,1,9
   POSI DB 0
   NEGA DB 0
   ZERO DB 0
DATAS ENDS

CODES SEGMENT
    ASSUME CS:CODES,DS:DATAS
START:
    MOV AX,DATAS
    MOV DS,AX
```

```
    MOV SI,0

    LET0:
    CMP SI,10
    JE LETE
    CMP W[SI],0
    JL LET1
    JG LET2
    INC ZERO
    INC SI
    JMP LET0

    LET1:
    INC NEGA
    INC SI
    JMP LET0

    LET2:
    INC POSI
    INC SI
    JMP LET0

    LETE:
    MOV AH,4CH
    INT 21H
CODES ENDS
    END START
```

5.30

```
DATAS SEGMENT
    BUF DB 10 DUP(?)
DATAS ENDS

CODES SEGMENT
    ASSUME CS:CODES,DS:DATAS
START:
    MOV AX,DATAS
    MOV DS,AX
    MOV SI,0

    LET0:
    MOV AH,1
    INT 21H
    CMP AL,32      ;空格
```

```
    JE LETE
    MOV BUF[SI],AL
    INC SI
    JMP LET0

    LETE:
    MOV BUF[SI],'$'

    LEA DX,BUF
    MOV BX,SEG BUF
    MOV DS,BX
    MOV AH,9
    INT 21H

    MOV AH,4CH
    INT 21H
CODES ENDS
    END START
```