* BUBBLE SORT :-

```
.model small

display macro msg
  lea dx, msg
  int ah, 09h
   int 21h
endm

.data
 n db 5
 a db  05, 07, 04, 03, 06
msg1  db  0dbh 0ah, "1» SORT IN ASCENDING"
msg2  db  0dbh 0ah, "2» SORT IN DESCENDING"
msg3  db  0dbh 0ah, "3» EXIT $"
msg4  db  0dbh 0ah, "Enter your choice $"
msg5  db  0dbh 0ah, "Invalid choices"


.code

mov  ax, @data
mov   ds, ax
display msg1
display msg2
display msg3
display msg4

mov ah, 01h
int  21h
```

```
        sub al, 30h
        cmp al ,01h
        JE assort
        cmp al ,02h
        JE dessort
        cmp aL ,03h
        JE FINAL
        display msg 5
        JMP FINAL


ASSORT:     mov cL, n
            dec cl

outloop :   mov ch, cl
            mov SI, 00

inloop :    mov al, a[SI]
            inc SI
            cmp al, al[SI]
            JC noexchg
            xchg al, a[SI]
            mov al [SI-1], al


noexchg :   dec ch
            JNZ in loop
            dec cl
            Jnz outloop
            JMP FINAL
```

```
dessort :
          mov cl, n
          dec cl

outloop1 : mov ch, cl
            mov SI, 00h

inloop1 :  mov al, al[si]
            inc si
            cmp al, al[si]
           JNC noxch1
           xchg al, a[si]
            mov a[si-1], al


noxch1:    dec ch
           JNZ inloop1
           dec cl
           JNZ outloop1
          JMP FINAL


FINAL :mov ah, 4ch
        int 21h.

END :
```