**EXPERIMENT N0-7**

AIM: Write an ALP to arrange numbers in ascending order

**CODE:**

DATA SEGMENT

MSG1 DB 0DH,0AH,"ENTER A NUMBER : $"

MSG2 DB 0AH,0DH,"NUMBER IN ASCENDING ORDER IS : $"

A DB 10 DUP("$")

DATA ENDS

CODE SEGMENT

ASSUME DS:DATA,CS:CODE

START: MOV AX,DATA

MOV DS,AX

MOV CX,05H

MOV BX,00H

UP:

MOV DX,OFFSET MSG1

MOV AH,09H

INT 21H

MOV AH,01H ;accept input from user

INT 21H

MOV [A+BX],AL

INC BX

DEC CX

JNZ UP ;keeps accepting

MOV CX,05H

LOOP1:

MOV DX,04H

MOV BX,00H

LOOP2:

MOV AL,[A+BX]

CMP AL,[A+BX+1]

JGE ABOVE

CONT:

INC BX

DEC DX

JNZ LOOP2

DEC CX

JNZ LOOP1

JMP LAST

ABOVE:

MOV AL,[A+BX+1]

XCHG [A+BX],AL

MOV [A+BX+1],AL

JMP CONT

LAST:

MOV CL,05H

MOV BX,00H

MOV DX,OFFSET MSG2

MOV AH,09H

INT 21H

MOV DX,00H

LOOP3:

MOV DL,[A+BX]

MOV AH,02H

INT 21H

INC BX

DEC CL

JNZ LOOP3

MOV AH,4CH

INT 21H

CODE ENDS

END START

**OUTPUT:**

