

# Programm to write Bubble sort :-

Ans: 1)

• model Small

Display MACRO MSG

LEA DX, MSG

MOV AH, 09H

INT 21H

ENDM

• DATA

N 0B 5

LIST DB 02H, 01H, 34H, 0F4H, 09H, 05H

MSG1 DB 0DH, 0AH, "1>>ASCENDING ORDER"

MSG2 DB 0DH, 0AH, "2>>DESCENDING ORDER"

MSG3 DB 0DH, 0AH, "3: EXIT"

MSG4 DB 0DH, 0AH, "Enter your choice :: 1"

MSG5 DB 0DH, 0AH, "INVALID CHOICE ENTERED"

• CODE

MOV AX, @DATA

MOV DS, AX

MOV CL, N

DEC CL

DISPLAY MSG1

DISPLAY MSG2

DISPLAY MSG3

DISPLAY MSG4

MOV AH, 01H

INT 21H

SUB AL, 30H

CMP AL, 01H

JE AS

CMP AL, 02H

JE DES

CMP AL, 03H

Date

JE FINAL

AS:

OUTLOOP<sub>1</sub>: MOV CH, CL  
MOV SI, 00H

INLOOP<sub>1</sub>: MOV AL, LIST[SI]  
INC SI  
CMP AL, LIST[SI]  
JC NO\_EXCHG<sub>1</sub>  
XCHG AL, LIST[SI]  
MOV LIST[SI-1], AL

NO\_EXCHG<sub>1</sub>: DEC CH  
JNZ INLOOP<sub>1</sub>  
DEC CL  
JNZ OUTLOOP<sub>1</sub>  
MOV AH, 4CH  
INT 21H

DES:

OUTLOOP<sub>2</sub>: MOV CH, CL  
MOV SI, 00H

INLOOP<sub>2</sub>: MOV AL, LIST[SI]  
INC SI  
CMP AL, LIST[SI]  
JNC NO\_EXCHG<sub>2</sub>  
XCHG AL, LIST[SI]  
MOV LIST[SI-1], AL

NO\_EXCHG<sub>2</sub>: DEC CH  
JNZ INLOOP<sub>2</sub>  
DEC CL

Date \_\_\_\_/\_\_\_\_/\_\_\_\_

JN2 OUTLOOP2

MOV AH, 4CH

INT 21H

FINAL : MOV AH, 4CH

INT 21H

END