ASCENDING ORDER

EXP NO: 12

AIM:
To compute ascending order of an array
using an 8085 processor.

ALGORITHM:

1)   Initialize HL pair as memory pointer.

2)   Get the count at memory and load it into C register

3)   Copy it in D register (for bubble sort (N-1)) times
required).

4)   Get the first value in A register.

5)   Compare it with the value at the next location.

6)   If they are out of order, exchange the contents of A register
and memory.

7)   Decrement D register content by 1

8)   Repeat steps 5 and 7 till the value in D register becomes zero.

9)   Decrement the C register content by 1.

10) Repeat steps 3 to 9 till the value in C register becomes
zero.

PROGRAM:

LOOP: LXI H,3500

MVI D,00

MVI C,05

LOOP1: MOV A,M

```
INX H

CMP M

JC LOOP2

MOV B,M

MOV M,A

DCX H

MOV M,B

INX H

MVI D,01

LOOP2: DCR C

JNZ LOOP1

MOV A,D

RRC
JC LOOP

HLT
```
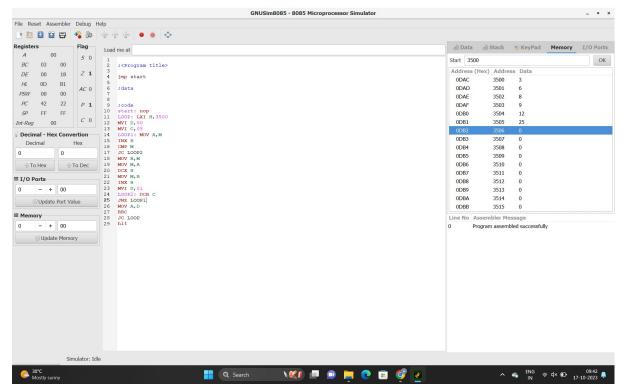
INPUT:

0DAC	3500	6
0DAD	3501	3
0DAE	3502	8
0DAF	3503	12
0DB0	3504	25
0DB1	3505	9

OUTPUT:

RESULT: Thus
The program was executed successfully using an 8085 processor simulator.