ASCENDING ORDER

EXP NO: 12

AIM: To compute ascending order of an array using 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 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 step 5 and 7 till the value in D register become 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

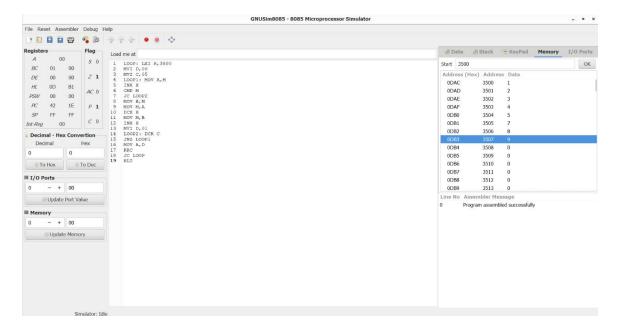
JC LOOP

HLT

INPUT:

			KeyPad	Memory	
Start	3500				OK
Address (Hex)		Address	Data		
0DAC		3500	1		
0DAD		3501	2		
0DAE		3502	3		
0DAF		3503	4		
0DB0		3504	5		
0DB1		3505	7		
0DB2		3506	8		
0DB3		3507	9		
0DB4		3508	0		
0DB5		3509	0		
0DB6		3510	0		
0DB7		3511	0		
0DB8		3512	0		
0DE	39	3513	0		
Line N	lo Assem	bler Mess	age		
)	Program	assemble	d successfull	V.	

OUTPUT:



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