

DESCENDING ORDER

EXP NO: 13

AIM:

To compute descending 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

JNC LOOP2

MOV B,M

MOV M,A

DCX H

MOV M,B

INX H

MVI D,01

LOOP2: DCR C

JNZ LOOP1

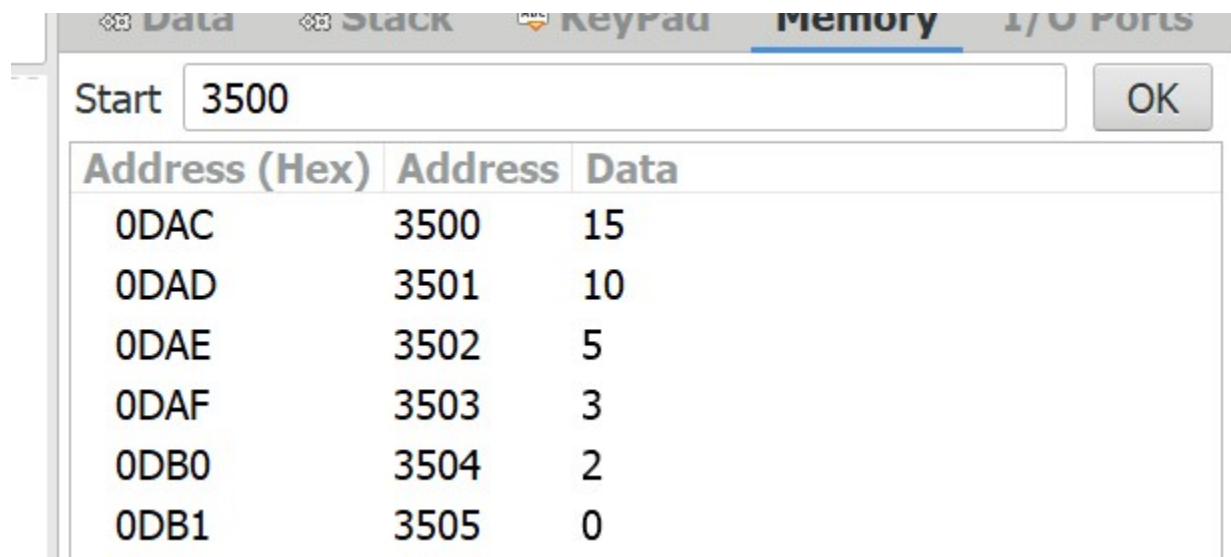
MOV A,D

RRC

JC LOOP

HLT

INPUT:



The screenshot shows a debugger window with tabs for Data, Stack, Keypad, Memory, and I/O Ports. The Memory tab is active, displaying a memory dump. At the top, there is a 'Start' field containing the value '3500' and an 'OK' button. Below this is a table with three columns: 'Address (Hex)', 'Address', and 'Data'. The table contains six rows of memory data.

Address (Hex)	Address	Data
0DAC	3500	15
0DAD	3501	10
0DAE	3502	5
0DAF	3503	3
0DB0	3504	2
0DB1	3505	0

OUTPUT:

RESULT: Thus

the program was executed successfully using 8085 processor simulator.