

SWAPPING OF NUMBERS

EXP NO: 15

AIM: To compute swapping of numbers using 8085 processor.

ALGORITHM:

- 1) Load a 8-bit number from memory location into accumulator.
- 2) Move value of accumulator into register H.
- 3) Load a 8-bit number from next memory location into accumulator.
- 4) Move value of accumulator into register D.
- 5) Exchange both the registers pairs.
- 6) Halt

PROGRAM:

```
LDA 2001
MOV B,A
LDA 2002
MOV C,A
STA 2003
MOV A,B
STA 2004
HLT
```

INPUT:

4

7

OUTPUT:

The screenshot displays the 8085 processor simulator interface. On the left, the **Registers** panel shows the state of various registers: A (04), BC (04 07), DE (00 00), HL (00 00), PSW (00 00), PC (42 10), SP (FF FF), and Int-Reg (00). The **Flag** panel shows S (0), Z (0), AC (0), P (0), and C (0). Below this is a **Decimal - Hex Conversion** section with input 0 and output 0. The **I/O Ports** section shows input 0 and output 00. The **Memory** section shows input 0 and output 00. The central **Assembly** panel shows a list of instructions: 1 LDA 2001, 2 MOV B,A, 3 LDA 2002, 4 MOV C,A, 5 STA 2003, 6 MOV A,B, 7 STA 2004, 8 HLT, and 9. The **Memory** panel on the right shows a table of memory addresses and data: Address (Hex) | Address | Data. The table lists addresses from 07D1 to 07DE with corresponding data values. The **Assembler Message** panel at the bottom shows the message: 0 Program assembled successfully.

Address (Hex)	Address	Data
07D1	2001	4
07D2	2002	7
07D3	2003	7
07D4	2004	4
07D5	2005	0
07D6	2006	0
07D7	2007	0
07D8	2008	0
07D9	2009	0
07DA	2010	0
07DB	2011	0
07DC	2012	0
07DD	2013	0
07DE	2014	0

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