

ROTATE RIGHT OPERATION

EXP NO: 19

AIM: To compute rotation of given data in right without carry using 8085 processor.

ALGORITHM:

- 1) Load the base address of the array in HL register pair.
- 2) Move the data from memory location into accumulator.
- 3) Shift right the accumulator content for four times left.
- 4) Store the result in the specified location.

PROGRAM:

```
MVI A,03  
RRC  
RRC  
RRC  
RRC  
STA 2000  
HLT
```

INPUT:

OUTPUT:

The screenshot displays the 8085 processor simulator interface. The main window shows the assembly code being executed:

```
1 MVI A, 03
2 RRC
3 RRC
4 RRC
5 RRC
6 STA 2000
7 HLT
8
```

The registers window on the left shows the following values:

Register	Value
A	03
BC	00 00
DE	00 00
HL	00 00
PSW	00 00
PC	42 0A
SP	FF FF
Int-Reg	00

The flag window on the right shows the following values:

Flag	Value
S	0
Z	0
AC	0
P	0
C	0

The memory window on the right shows the memory contents starting from address 2000:

Address (Hex)	Address	Data
07D0	2000	48
07D1	2001	0
07D2	2002	0
07D3	2003	0
07D4	2004	0
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

The assembler message window at the bottom shows the following message:

```
0 Program assembled successfully
```

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