

## 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
```

The left sidebar contains several panels:

- Registers:** Shows the state of the 8085 registers. The Accumulator (A) contains 03. The Program Counter (PC) is at 42. The Stack Pointer (SP) is at FF. The Interrupt Register (Int-Reg) is at 00.
- Flag:** Shows the state of the flags. The Zero flag (Z) is set to 1. The Carry flag (C) is 0.
- Decimal - Hex Conversion:** A panel for converting between decimal and hexadecimal values.
- I/O Ports:** A panel for monitoring and controlling I/O ports.
- Memory:** A panel for monitoring and controlling memory.

The right sidebar shows the **Memory** window, which displays the contents of memory locations from 07D0 to 07DD. The value 48 is stored at address 2000, which is the location specified in the STA instruction.

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 bottom status bar indicates "Simulator: Idle".

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