

## 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:

Address (Hex)	Address	Data
07CF	1999	3
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

## OUTPUT:

GNUSim8085 - 8085 Microprocessor Simulator

File Reset Assembler Debug Help

Registers

Register	Value
A	30
BC	00 00
DE	00 00
HL	1F 40
PSW	00 00
PC	42 0A
SP	FF FF
Int-Reg	00

Flag

Flag	Value
S	1
Z	0
AC	0
P	0
C	0

Decimal - Hex Conversion

Decimal	Hex
0	0

I/O Ports

Port	Value
0	00

Memory

Address	Value
0	00

Load me at

```
1 LDA 8501
2 MOV B,A
3 LDA 8500
4 MVI C,00
5 LOOP: CMP B
6 JC LOOP1
7 SUB B
8 INR C
9 JMP LOOP
10 STA 8503
11 DCR C
12 MOV A,C
13 LOOP1: STA 8502
14 RST 1
```

Start 1999 OK

Address (Hex)	Address	Data
07CF	1999	3
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

Line No Assembler Message

```
0 Program assembled successfully
```

Simulator: Idle

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