

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:

Start

2000

Address (Hex)	Address	Data
07D0	2000	

OUTPUT:

The screenshot displays the GNUSim8085 - 8085 Microprocessor Simulator interface. The main window is divided into several sections:

- Registers:** A table showing the current values of the 8085 registers. The Accumulator (A) contains 20. Other registers (BC, DE, HL, PSW, PC, SP, Int-Reg) are at 00. Flags (S, Z, AC, P, C) are all 0.
- Decimal - Hex Conversion:** A section with input fields for Decimal (0) and Hex (0), and buttons for conversion.
- I/O Ports:** A section with input fields for I/O ports (0) and buttons for updating values.
- Memory:** A section with input fields for memory address (0) and buttons for updating memory.
- Assembly Code:** A central area showing the assembly code being executed. The code includes a title, a jump to start, data, code, and instructions like MOV A, 02, STA 2000, and hlt.
- Memory Table:** A table showing memory addresses (Hex) and data. The start address is 2000. The data at 2000 is 32. Other addresses (07D1 to 07DD) contain 0.
- Assembler Message:** A section showing the message "Program assembled successfully".

The status bar at the bottom indicates "Simulator: Idle". The Windows taskbar is visible at the bottom of the screen.

RESULT:

Thus the program was executed successfully using 8085 processor simulator.