## **16-BIT DIVISION**

EXP NO: 8

**AIM:**To write an assembly language program to implement 16-bit divided by 8-bit using 8085 processor.

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- 1) Read dividend (16 bit)
- 2) Read divisor
- 3) count <- 8
- 4) Left shift dividend
- 5) Subtract divisor from upper 8-bits of dividend
- 6) If CS = 1 go to 9
- 7) Restore dividend
- 8) Increment lower 8-bits of dividend
- 9) count <- count 1
- 10) If count = 0 go to 5

<ul><li>11) Store upper 8-bit dividend as remainder and lower 8-bit as quotient</li><li>12) Stop</li></ul>	
PROGRAM:	
LDA 8501	
MOV B,A	
LDA 8500	
MVI C,00	
LOOP:CMP B	
JC LOOP1	

INR C

SUB B

JMP LOOP

STA 8503

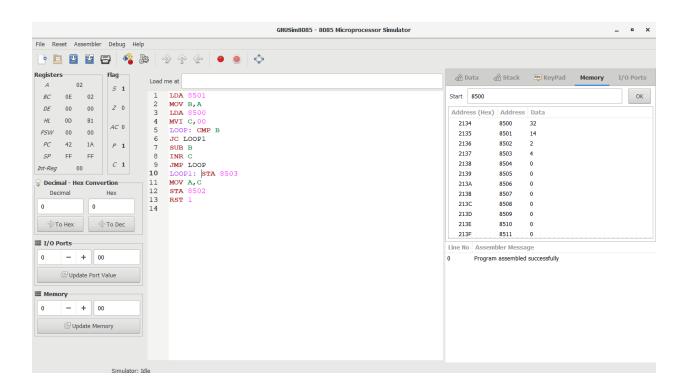
DCR C

MOV A,C

LOOP1: STA 8502

RST<sub>1</sub>

## **INPUT&OUTPUT:**



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