#### ADDITION OF TWO 8-BIT NUMBERS

### · OBJECTIVES

- > To add two 8-bit numbers located at 2030H and 2031 H.
- > To store the sum at 2040H.
- · TOOLS
- > 8085 microprocessor kit.

# · ASSEMBLY CODE

LDA 2030H

MOV B, A

LDA 2031H

ADD B

STA 2040 H

HLT

# · OBSERVATION & RESULT

	2030H 2031H	data 1 data 2	
Microprocessor +			
	→ 2040H		SUM
	2050H 2051H 2052H 2053H 2054H 2055H	3A 30 20 47 3A 31	LDA MOVB,A LDA
	2056 H 2057H 2058H 2059H 205AH	20 80 32 40 20	8 QOA ATZ
	205BH	76	HLT

Here, 23H is input as data I and 51H as data 2. After executing the program, the sum was found to be 74H at 2040H.

#### · CONCLUSION

The program to add two 8-bit numbers can be executed using 8085 microprocessor.

### ADDITION OF TWO 16-BIT NUMBERS

### · OBLECLINES

- > To all two 16-bit numbers located at 2030H-2031H & 2032H-2033H
- > To Store the sum at 2040H & 2041H.

#### · TOOLS

> 8085 microprocessor kit.

### · ASSEMBLY CODE

THID 5030H

XCHG

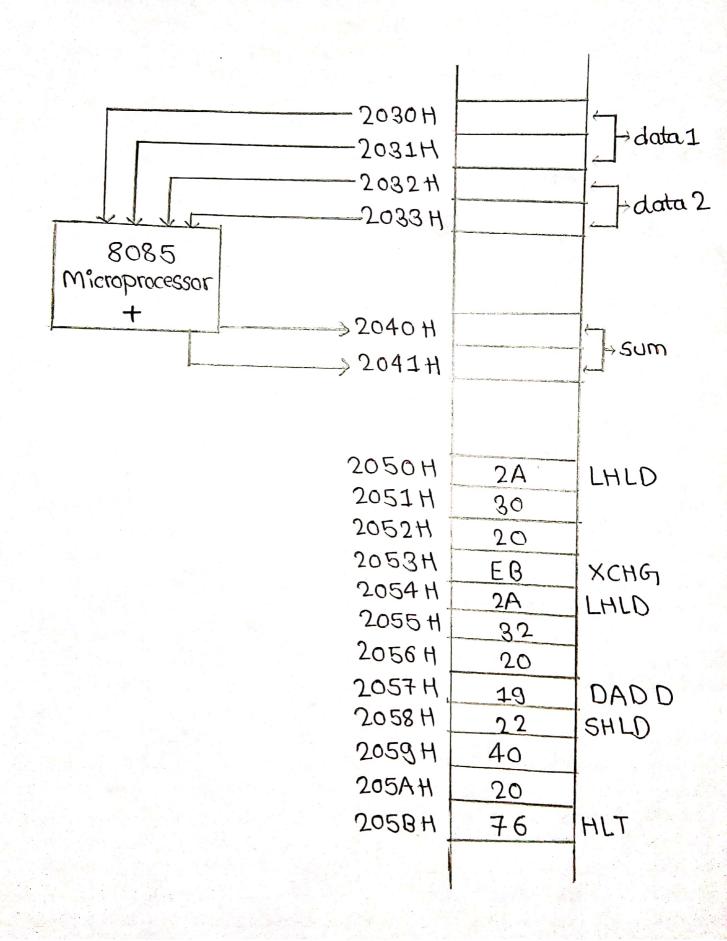
LHLD 2032H

O DAG

SHLD 2040H

HLT

#### · OBSERVATION & RESULT



Here, 1234H is input as data I and 4120H as data 2. After executing the program, the Sum was found to be 5354H at 2040H & 2041H.

#### · CONCLUSION

The program to add two 16-bit numbers can be executed using 8085 microprocessor.

### MULTIPLICATION OF TWO 8-BIT NUMBERS

## • OBJECTIVES

- > To multiply two 8-bit numbers located at 2030H & 2031H.
- > To Store the product at 2040H & 2041H.

#### · TOOLS

> 8085 microprocessor kit.

# · ASSEMBLY CODE

LDA 2030H

MOV B,A

LDA 2031H

MOY C/A

MVI A, OOH

MUI D, OOH

AGAIN: ADD B

JNC SKIP

INR D

SKIP: DCR C

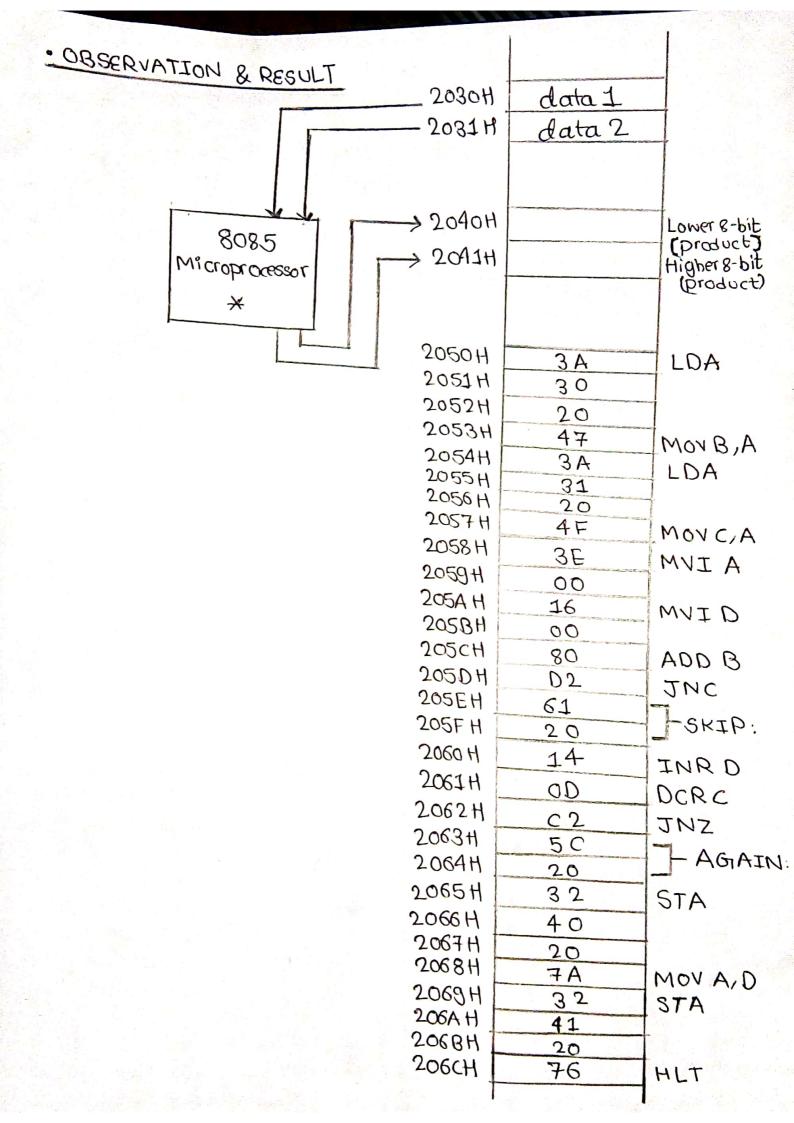
JNZ AGAIN

STA 2040H

MOV A, D

STA 2041H

HLT



Here, 23H is input as data I and 51H as data 2. After executing the program, the product was found to be B13H at 2040H & 2041H.

#### · CONCLUSION

The program to multiply two 8-bit numbers can be executed using 8085 microprocessor.