

8-BIT ADDITION

AIM:

To write an Assembly Language Program for addition of two 8-Bit Numbers and execute using 8085 simulator.

ALGORITHM:

Step 1: Start the Program

Step 2: Load first value into an address (8500)

Step 3: Move the first value into B Register

Step 4: Load the Second Value into another address (8501)

Step 5: Add the B value with Accumulator (A Register)

Step 6: Store the Result into the resultant address (8502)

Step 7: Stop the Program

PROGRAM:

ADDRESS	MNEMONICS	COMMENTS
8100	LDA 8500	Load 8500 address in accumulator
8103	MOV B,A	Move Accumulator value in B register
8104	LDA 8501	Load 8501 address in Accumulator
8107	ADD B	Add - B register with Accumulator
8108	STA 8502	Store the content of the Accumulator into 8502
810B	RST 1	Break point

INPUT:

8500 13H

8501 14H

OUTPUT:

8502 14H

RESULT:

Thus the Program to add two 8-bit numbers is executed successfully and the output is verified.