

1. Write an assembly language program for adding two 8-bit data A7 A6 A5 A4 A3 A2 A1 A0 and B7 B6 B5 B4 B3 B2 B1 B0 using 8085 processor.

AIM:

To perform addition of two 8 bit numbers using 8085.

ALGORITHM:

- 1) Start the program by loading the first data into Accumulator.
- 2) Move the data to a register (B register).
- 3) Get the second data and load into Accumulator.
- 4) Add the two register contents.
- 5) Check for carry.
- 6) Store the value of sum and carry in memory location.
- 7) Terminate the program

PROGRAM:

LDA 2000

MOV B,A

LDA 2004

ADD B

STA 2008

HLT

GNUSim8085 - 8085 Microprocessor Simulator

File Reset Assembler Debug Help

Load me at

1 LDA 2000
2 MOV B,A
3 LDA 2004
4 ADD B
5 STA 2008
6 HLT
7

Registers

Register	Value
A	0F
BC	05 00
DE	00 00
HL	00 00
PSW	00 00
PC	42 0C
SP	FF FF
Int-Reg	00

Flag

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

Decimal - Hex Conversion

Decimal: Hex:

I/O Ports

Memory

Memory Table

Address (Hex)	Address	Data
07D0	2000	5
07D1	2001	0
07D2	2002	0
07D3	2003	0
07D4	2004	10
07D5	2005	0
07D6	2006	0
07D7	2007	0
07D8	2008	15
07D9	2009	0

Line No Assembler Message

Line No	Assembler Message
0	Program assembled successfully

OBSERVATION:

Input: 5 (2000)
10 (2004)

Output: 15 (2008)

RESULT:

Thus the program to add two 8-bit numbers was executed