

WORKSHEET- 1.2

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Branch: BE-CSE

Section/Group-716“A”

Semester: 4th

Date:04/03/22

Subject Name: MPI

Sub Code: 20CSP-253

1. Aim/Overview of the practical:

Add two 16 bit number.

2. Task to be done:

We have to add two 16 bit number and store them in a memory.

3. Apparatus/Simulator used

1. JUBIN
2. JAVA

4. Algorithm/Flowchart (For programming based labs):

LHLD 5000H //LOAD THE DATA FORM MEMORY
PAIR



```
XCHG                // EXCHANGE THE DATA OF HL WITH DE
LHLD 5004H          // LOAD DATA FROM THE MEMORY PAIR
                    IN HL
MVI C, 00H          // MOVE 00HH TO C
DAD D               // ADD THE NUMBERS
JNC LABLE           // IF THERE IS NO CARRY THEN JUMP TO THE
                    LABLE
INR C               // IF ANY CARRY IS THERE THE INC
                    THE CARRY
MOV A,C             // MOVE CARRY TO THE
ACCUMULATOR STA 5006H // STOR THE ACCUMULATOR
VALUE AT 1006h LABLE: SHLD 5004H          // STORE
THE ANS AT 1004H
HLT                 //STOP TO CHECK FURTHER INSTRUCTIONS
```


5. Result/Output/Writing Summary:

8085 Simulator

File Edit Tools Settings Simulation Subroutine View Load Sample Program Help

Editor Assembler Registers Memory Devices

Assembler

*	Address	Label	Mnemonics	Hexcode	Bytes	M-Cycles	T-States
✓	0000		LHLD C050	2A	3	5	16
	0001			50			
	0002			C0			
✓	0003		XCHG	EB	1	1	4
✓	0004		LHLD C052	2A	3	5	16
	0005			52			
	0006			C0			
✓	0007		MVI C,00	0E	2	2	7
	0008			00			
✓	0009		DAD D	19	1	3	10
✓	000A		JNC LABEL	D2	3	3	10
	000B			12			
	000C			00			
✓	000D		INR C	0C	1	1	4
✓	000E		MOV A,C	79	1	1	4
✓	000F		STA C054	32	3	4	13
	0010			54			
	0011			C0			
✓	0012	LABEL	SHLD C052	22	3	5	16

Simulate

Start From → 0000

Run all At a Time Step By Step

Memory Editor

Memory Range: 0000 ---- FFFF

Memory Address	Value
0000	2A
0001	50
0002	C0
0003	EB
0004	2A
0005	52
0006	C0
0007	0E
0009	19
000A	D2
000B	12
000D	0C
000E	79
000F	32
0010	54
0011	C0

☐ Show entire memory content
☒ Show only loaded memory location
☐ Store directly to specified memory location

Created by : Jubin Mitra

Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			
3.			