Name : Jayant Kumar Gupta
Roll No – 2100290109006
Class Roll No – 69
CSE IV(B)

Experiment No. - 1

Objective :-

Write a program using 8085 Microprocessor for Hexadecimal Addition of two numbers.

Apparatus Required-

8085 Development Kit.

Procedure :-

The following steps are required to implement the program-

1. Enter the numbers at memory location 2501 & 2502.
2. The result is to be stored in the memory location 2503.
3. Numbers are represented in Hexadecimal system.

Hexadecimal Addition Program:-

Memory address	Machine codes	Mnemonics	Operands	Comments
2000	21, 01, 25	LXI	H, 2501 H	Get address of 1st no. in H-L pair.
2003	7E	MOV	A, M	1st no. in Accumulator
2004	23	INX	H	Incr. content of H-L pair.
2005	86	ADD	M	Add 1st & 2nd numbers.
2006	32, 03, 25	STA	2053 H	Store sum in 2503 H
2009	76	HLT		Stop.

Result -

Before Address	Execution	After Execution Address	Values
2501 H	45 H	2501 H	45H
2502 H	92 H	2502 H	92 H
2503 H		2503 H	89 H

Experiment No. - 2

Objective:-

Write a program using 8085 microprocessor for Hexadecimal subtraction of two numbers.

Apparatus Required-

8085 Development Kit.

Procedure-

The following steps are required to implement the program-

1. Enter the numbers at memory location 2501 & 2502.
2. The result is to be stored in the memory location 2503.
3. Numbers are represented in Hexadecimal system.

Hexadecimal Subtraction Program:-

Memory Address	Machine codes	Mnemonics	Operands	Comments
2000	21, 01, 25	LXI	H, 2501 H	Get address of 1st no. in H-L pair.
2003	7E	MOV	A, M	1st no. in Accumulator.
2004	23	INX	H	Incr. content of HL pair.
2005	90	SUB	M	Subtract 1st & 2nd nos.
2006	32, 03, 25	STA	2503 H	Store difference in 250
2009	76	HLT		Stop

Result-

Before Execution Address		After Execution Address	Values
2501 H	92 H	2501 H	92 H
2502 H	45 H	2502 H	45 H
2503 H		2503 H	2F H