**Addition and Subtraction**

**Ex.No: 2**

**Data:**

1a. Adding two single byte numbers. Add two 1 Byte number stored in memory location num1 and num2.

;Adding two single byte numbers stored in memory location num1 and num2.

.MODEL small

.STACK

.DATA ; variable declaration section

num1 db 01h

num2 db 02h

; code section

.CODE

.STARTUP

mov bh,num1

add bh, num2

.EXIT

END ; end of the program

1b. Subtracting two single byte numbers. Subtract two 1 Byte number stored in memory location num1 and num2.

2a. Adding N single byte numbers starting with memory location num

;Adding N single byte numbers stored as a array with num as starting memory location

.MODEL small

.STACK

.DATA ; variable declaration section

N db 4h

num db 5h,3h,2h,4h

; code section

.CODE

.STARTUP

mov cx,00h

mov cl,N

mov bx, offset num

addition: add al,[bx]

inc bx

loop addition

.EXIT

END ; end of the program

2b. Subtracting N single byte numbers starting with memory location num

3a. Adding N 1 byte numbers stored in array num1 and num2. Store the result in memory location sum

;Adding N single byte numbers stored as a array with num as starting memory location

.MODEL small

.STACK

.DATA ; variable declaration section

N db 4h

num1 db 0c0h,2h,3h,4h

num2 db 40h,6h,7h,8h

sum db ?

; code section

.CODE

.STARTUP

mov cx, 00h

mov cl,N

clc

addition: mov al,num1[si]

mov ah,num2[si]

adc al,0h

clc

add al,ah

mov sum[di],al

inc si

inc di

loop addition

.EXIT

END ; end of the program

3b. Subtracting N 1 byte numbers stored in array num1 and num2. Store the result in memory location sum

Assignment:

1. Add numbers from 1-10 and store it in the memory location result.

2. Add all the numbers stored in odd memory location of a given array of numbers stored in num.

Assume num = {2h,4h,5h,7h,9h,10h,1h,4h,8h,7h}