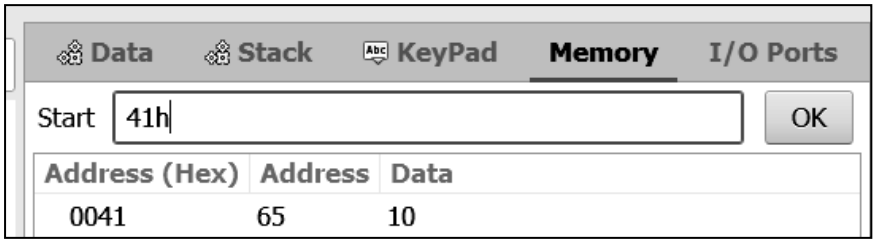
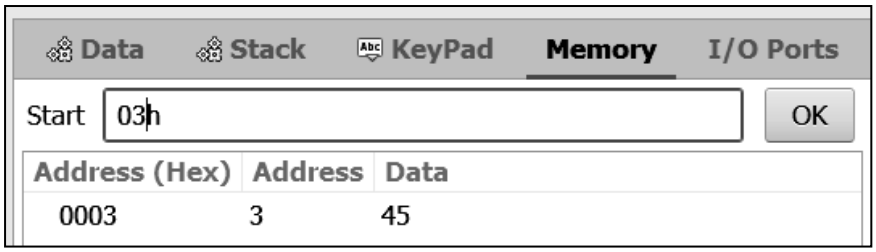
Practical-9

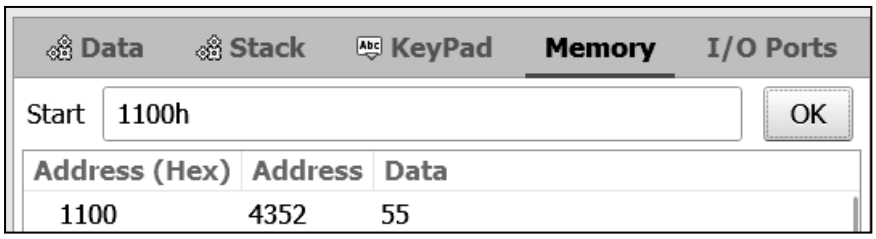
Aim: Program Related to ARITHMETIC Instruction.

1. Load 41H in Accumulator and 03H in Register C. Add these two numbers and store result at the memory location 1100H.

```
1
2   ;<Program title>
3
4   jmp start
5
6   ;data
7
8
9   ;code
10  start: nop
11
12  lda  03H
13  mov  c, a
14  lda  41H
15  add  c
16  sta  1100H
17
18  hlt
```







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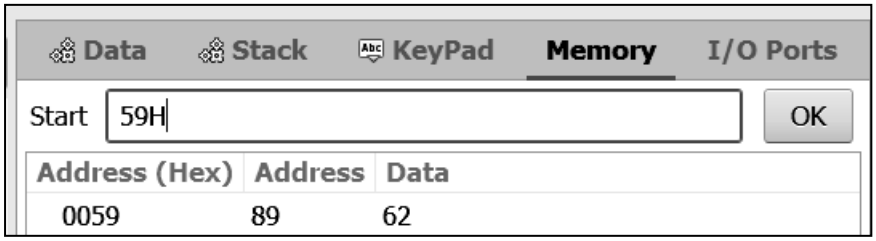
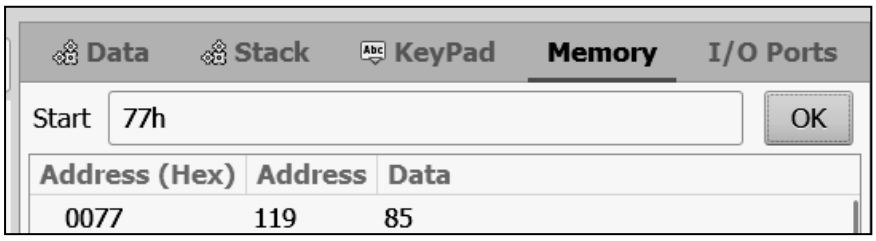
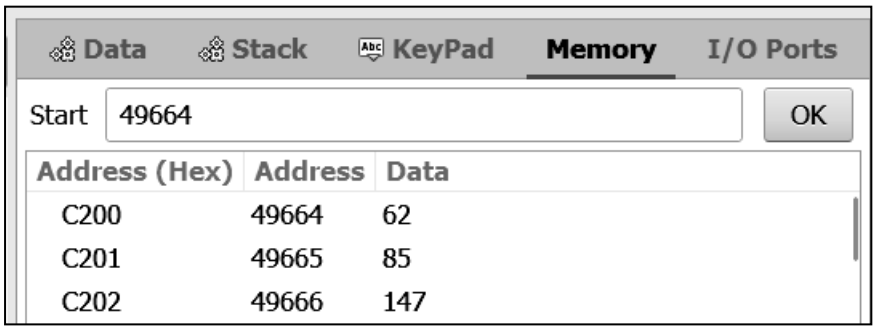
2. Store two numbers in memory locations C200H and C201H. Add these two numbers and store result on memory location C202H(numbers are 59H and 77H).

```
 1
 2   ;<Program title>
 3
 4   jmp start
 5
 6   ;data
 7
 8
 9   ;code
10   start: nop
11
12   lda  59H
13   sta  49664
14   mov  c, a
15   lda  77H
16   sta  49665
17   add  c
18   sta  49666
19
20
21   hlt
```







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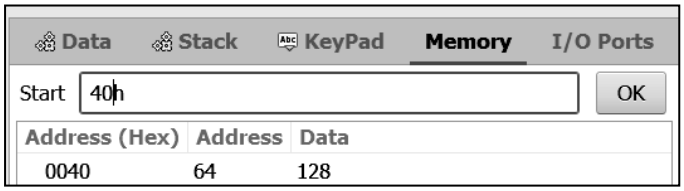
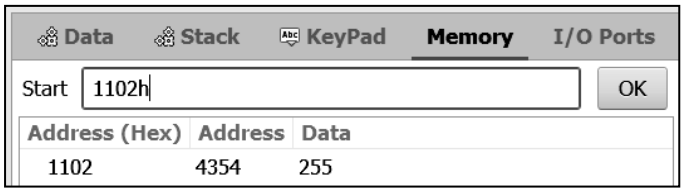
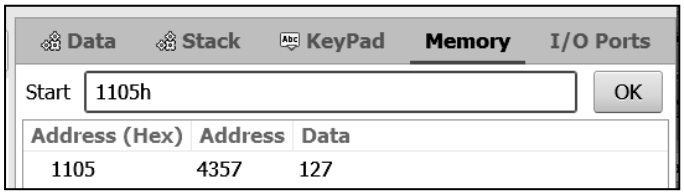
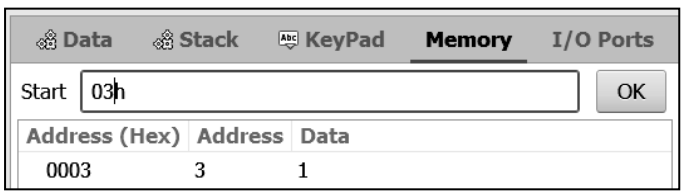
3. Load the accumulator by 40H and get another number from memory location 1102H 03H) and add the two numbers. Store the result to location 1105H check the carry flag.

```
1
2   ;<Program title>
3
4   jmp start
5
6   ;data
7
8
9   ;code
10  start: nop
11
12  lda  1102H
13  mvi  c, 00H
14  mov  b, a
15  lda  40H
16  add  b
17  jnc  loop
18  inr  c
19  loop:  sta  1105H
20  mov  a, c
21  sta  03H
22
23  hlt
```









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4. Load a numbers 49H in register B and number 12H in register A. perform subtraction and store result to memory location C200H.

```
1
2   ;<Program title>
3
4   jmp start
5
6   ;data
7
8
9   ;code
10  start: nop
11
12  lda 49H
13  mov b,a
14  lda 12H
15  sub b
16  sta 49664
17
18  hlt
```