



Microprocessors Lap

Lecture: 3

2024 - 2023

EXAMPLE: MOV

Write a program to transfer 40 into reg CX and 52BA into reg BX then put the value of reg BX into M.L 1000 and the value of CX in M.L 1050?

```
MOV    AX , 0000H
MOV    DS , AX
MOV    CX , 40H
MOV    BX , 52BAH
MOV    [1000H] ,
      BX
MOV    [1050H] , CX

HLT
```

Arithmetic instructions:

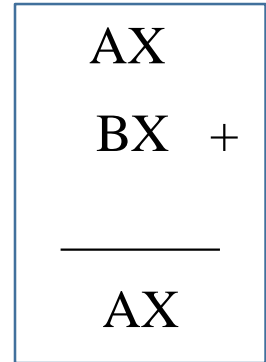
1) ADDITION (ADD) :

First operand = first operand + second operand

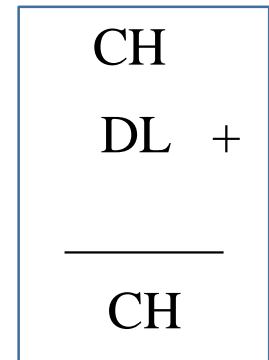
ADD reg, imm
ADD reg, mem
ADD reg, reg
ADD mem, imm
ADD mem, reg

Example:

ADD AX, BX



ADD CH, DL



2) ADDITION WITH CARRY (ADC) :

First operand = first operand + second operand + carry

ADC reg, imm

ADC reg, mem

ADC reg, reg

ADC mem, imm

ADC mem, reg

Example:

ADC DX, BX

DX	+
BX	+
Carry	
<hr/>	
DX	

ADC CH, AL

CH	+
AL	+
Carry	
<hr/>	
CH	