Badji Moktar ANNABA university
Faculty of technology
Electronics departement
Microcontrollers and Microprocessors course

Dr. MERABTI Nardjes

TD3

- *Remainder:*

S	Z	-	AC	-	P	C
Sign Flag	Zero flag		Auxilliary carry flag		Parity Flag	Carry flag

■ Ex1 :

A = 0xFF, B = 0x01 → execute ADD B   /   A = 40H, B = 10H → execute SUB B

Which flags are modified in the status register?

■ EX2

Write an assembly program to add three immediate numbers using registers A, B, C

Note the status of flag register and PC register and the total size of program

■ Ex3

At memory address **A000H**, the following instructions are stored and executed **one after another:** [MOV A,B] ; [MVI A,45H]; [LXI H F045h]; [MOV M, A]

For each instruction, you are required to study its operation and draw the corresponding **timing diagram**

■ Ex4

Add two 16-bit numbers : 4A37H and 25C9H.

Use a register pair DE for source and HL for destination.