

COM-503
TUTORIAL - 1

1. Specify the contents of the registers and the flag status as the following instructions are executed.

	A	B	C	D	S	Z	CY
MVI A,00							
MVI B,F5							
MOV C,A							
MOV D,B							
HLT							

2. Specify the contents of the registers and the flag status as the following instructions are executed.

	A	B	S	Z	CY	
	08	XX	0	0	0	Initial Contents
SUB A						
MOV B,A						
DCR B						
INR B						
SUI 01						
HLT						

3. Specify the register contents and the flag status (S, Z, CY) after the instruction ORA A is executed.

MVI A, A9
MVI B, 57
ADD B
ORA A

4. Specify the contents of the registers and the flag status as the following instructions are executed.

	A	B	A	Z	CY
	02	05	0	1	0
XRA A					
MVI B, 4A					
SUI 4F					
ANA B					
HLT					

5. Explain the following instructions w.r.t . their working, addressing mode, word length, storage capacity, flags affected,.

```
MOV A,MLHLD 9500  LXI D, 314B  ANA M    MVI M, 8C  STAX D
LDA 9600          ADC M    SUI 09    ORA B    JMP 8000  JC 9400
XCHG  RAL        NOP      DAD B      DCX B    LDAX D
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6. WAP to count the no. of zero's and one's in a given 8-bit data stored in memory location 5000h
7. WAP to swap the nibbles of 10 data items stored in memory location XX50H onwards.
8. WAP to search a given no. in a list of 10 data items stored in memory location XX50H onwards. Store 01 in memory location 5000 if found otherwise store 00.
9. WAP to add even data items in a set of 10 data items stored in memory location XX50H onwards. Also count the no. of even data items.
10. WAP to shift the contents of 10 data items stored in memory location XX50H onwards to XX70H onwards.