

Assignment-2

By G.P Lekhak

1. Draw the timing diagram of MOV A,B , MVI B,45H, IN 01H, OUT40H, LDA 4000H, STA 3000H instructions.
2. Define instruction cycle, machine cycle, and T-states.
3. Describe the instructions according to size with examples.
4. Classify the instructions according to following categories: Arithmetic operation, Logical operation, Data transfer operation, Branching operation, Control operation

Assignment-3

1. WAP to load all register with your class roll number immediately.
- 2) WAP to add 20 bytes of data stored in memory with starting address of 5050H.
- 3) WAP to add 10 bytes of data and store the 16-bit result at the end of memory address
- 4) WAP to transfer the 20 bytes of data stored in memory having starting address of 2012H to the next memory having starting address of 8000H in reverse order.
- 5) WAP to multiply the 10H and 14H and show the 16 bit result through any port.
- 6) WAP to count the positive and negative numbers among 20 bytes of data.
- 7) There are two tables having 10 data each, WAP to add corresponding numbers and show the result through 00H port.
- 8) There are 10 numbers in the memory, WAP to add only positive numbers and show the result at output ports 80H.
- 9) WAP to count the even or odd numbers among 10 bytes of data stored in memory.
- 10) WAP to count the no. of 1 present in a byte, assume any byte.
- 11) WAP to find the largest number among 50 bytes of data stored in memory.
- Q) WAP to find the smallest number among 50 bytes of data stored in memory.
- 12) Explain the 8085 instructions according to the size with examples.
- 13) Data is stored from 4050H to 405AH . Insert 5 data after 4055 taking from 4040H , but do not lose the previous content.
- 14) Transfer ten bytes data from 5050H to 5060H only if data is between 30H and 70H else store 00H in the next table.
- 15) Explain the given instructions with example: LHLD , SHLD, XCHG, RLC, RRC, RAL, RAR.
- 16) There are address of C000H to C009H where data are stored . WAP in 8085A how many times the data 07H is repeated in the given array of data and store the result at address C004H.
- 17) WAP to display data between 50H to 80H.
- 18) What is the value of accumulator and carry flag when following instructions are executed.

MVI A, C5H

ORA A

RAL

RRC

MVI A, A7H

ORA A

RAR

RAL

19) What is the value of register and flag as the following instructions are being executed.

MVI A, 80H

ORA A

RAR

20) What will be the content of C registers show each step clearly.

MVI A, 08H

MVI B, 07H

ADD B

ANI 40H

ORI FEH

ADI 01H

INR A

MOV C, A

HLT

MVI A, 7FH

MVI B, 08H

MVI D, 00H

BACK: RLC

JNC NEXT

INR D

NEXT: DCR B

JNZ BACK

MOV C, D

HLT