COALP_Worksheet

1. What are program memory addressing mode and their type.

2. What is register addressing mode describe their types .

3. Explain about instruction set, program counter and micro operations.

4. Data is stored at 02000h specific memory location and offset 0100h. Compute the starting address of the memory location.

5. Memory access base address is @ 4000d and the exact memory location is also @ 00500q. Compute the distance from the base address to physical address?

6. let: MOV Al, 111 ; MOV Bl, 9 ; DIV Bl;   What is the final value of Ax and values of status flag registers?

7. Next data to be executed is located at 5000:2000. Compute the exact memory location of the instruction.

8. Describe the functions of BIU and EU in detail.

9. The next data and instruction to be processed is stored in the 0300:0050 and 2000:X respectively. The exact memory location of the instruction is @ 00400q.

    A.   Compute the specific memory location of the data

    B.   Compute the value of x

    C.   The function of shift in the segment register.

10. MOV AL, 7AH   MOV BL, 8FH   XOR AL, BL; What is the value of Al after execution?

11. Explain the difference between Absolute and Relative Addressing.

12. The difference between level and edge triggered?

13. How does IF (Interrupt Flag) impact INTR and NMI?

14. How can you explain the difference between minimum mode and maximum mode of microprocessor operation

15. Assume: MOV AL, 20q and MOV BL,30o, CMA, XCHG AL, BL SUB BL, CMA Compute the final value of AL, AH and Ax.

16. How much memory can be active at a given time in the 8086 microprocessors?

17. Suppose that DS = 0200H, BX = 0200H and DI = 0300H. Determine the data memory address accessed by each of the following instructions:

    A. MOV AL,[2000H]   B.MOV AL,[BX]   C.MOV [DI], AL   D.MOV [BX+DI],AX

18. Helen is working on assembly code, and she stores the data used by the program at 4500:FDFEH. Compute the lower range, upper range, physical address, and logical address of the temporary data.

19. If AX=0000, BX=0010, CX=0020, DX=3034, CS=1200, DS=1000, ES=1030, SS=1060, BP=0040, SP=0400, DI=0060, SI=0050, IP=0100, Find:

    A. Start and end of each segment

    B. physical address of top and bottom of stack

    C. Physical address of next instruction