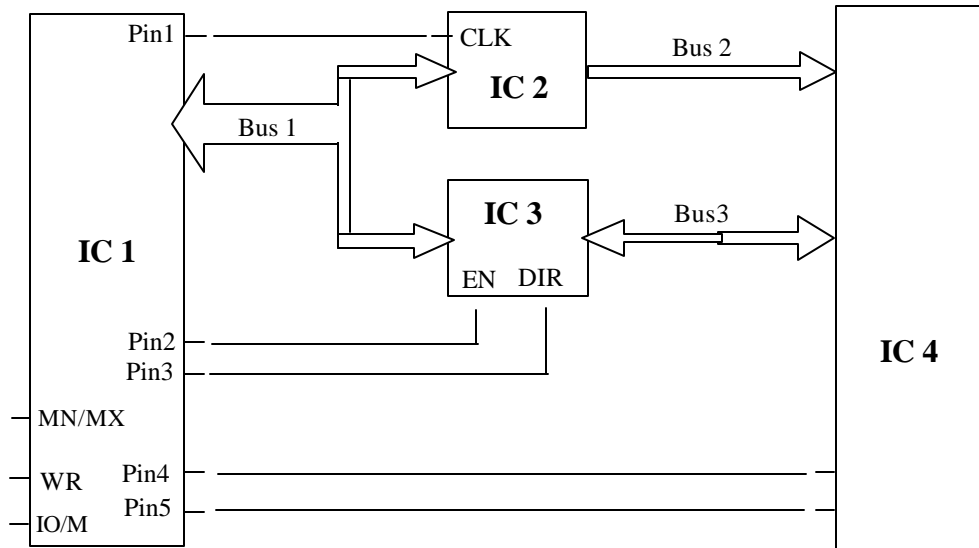


1. The pin connections the 8088 MPU in Min mode (IC1), address bus latch (IC2), data bus transceiver buffer (IC3) and the memory system (IC4) is given in the following figure. For a memory **read** bus cycle, **label** and **name** the required **pins** and **buses**.



(a) Write the name and the Logic-levels of the following pins for above operation;

Pin 1: \_\_\_\_\_ ; Bus 3: \_\_\_\_\_ ;

Pin 4: \_\_\_\_\_ ; Pin 5: \_\_\_\_\_ ;

Pin 2: \_\_\_\_\_ ; Pin 3: \_\_\_\_\_ ;

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(b) Write the steps that are performed by CPU to complete the above operation;

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2. Fill the following questions:

(i) 8086 microprocessor has \_\_\_\_\_ bit address-bus and \_\_\_\_\_ bit data-bus.

(ii) In 8086, the bus cycle consist of at least \_\_\_\_\_ clock pulses and if required wait status can be inserted by using the \_\_\_\_\_ pin of the microprocessor.

3. Define the following functions according to the preceding order (*to occure in 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup>*) during a **write** bus cycly : **DEN, IO/M** and **ALE**.

	Signal name	Function
1 <sup>st</sup> to occure		
2 <sup>nd</sup> to occure		
3 <sup>rd</sup> to occure		

4. Solve the problems of Chapter 8.