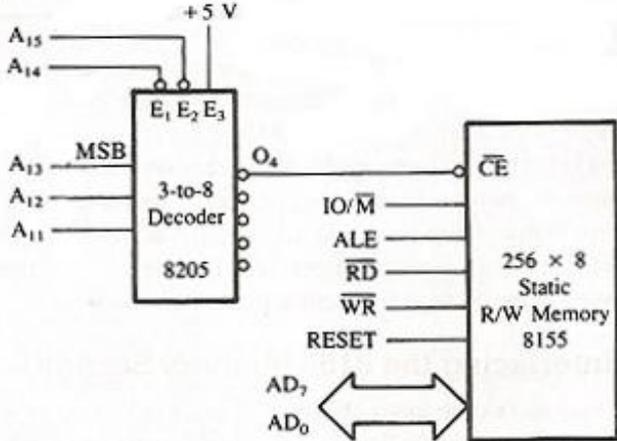
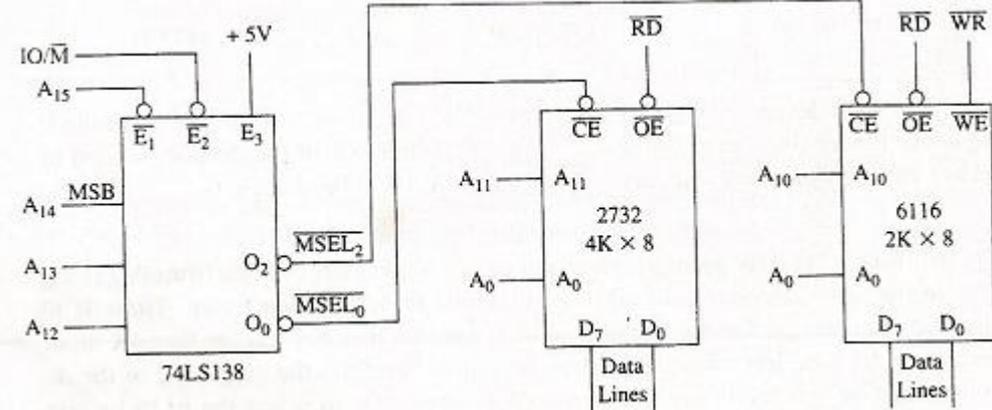


Microprocessor and Interfacing

Assignment: 4

1	<p>Explain the decoding logic and memory address range of the following 256x8 memory.</p> 
2	<p>Find out address range (memory map) of following memory with explanation in detail.</p> 
3	<p>Draw the diagram for interfacing 8KB of ROM and 8KB of RAM with microprocessor 8085. How much number of pins is used for such interfacing? The starting address for ROM should be 0000H and starting address for RAM should be 8000H.</p>
4	<p>State the difference between absolute decoding and partial decoding. Also explain foldback (mirror) memory address with example.</p>
5	<p>What is an input port? Explain the design of input port with an example.</p>
6	<p>What is an output port? Explain the design of output port with an example.</p>
7	<p>Design a seven segment LED output port with the device address FH, using a 74LS138 3 to 8 decoder, a 74LS20 4-input NAND gate, a 74LS02 NOR gate, and a common anode seven segment LED. Also write instruction to display digit 7 at the port.</p>
8	<p>Find out delay of following program. Assume time of one clock cycle is 0.5 microsecond.</p> <pre> MVI B,25H L3: MVI C,1AH L2: MVI D,40H L1: DCR D JNZ L1 DCR C </pre>

	JNZ L2 DCR B JNZ L3
9	What is stack and stack pointer? Explain working of PUSH and POP instruction with suitable example.
10	What is subroutine? How it is called? State advantage of subroutine. Write a 20ms time delay subroutine using register pair BC.
11	Explain execution of CALL instruction with all machine cycles.
12	Explain execution of RET instruction with all machine cycles.
13	State similarities and difference between CALL, RET and PUSH, POP instruction.
14	List and explain all steps of 8085 interrupt process.
15	Explain clearly the interrupt arrangement in 8085 microprocessor with appropriate diagram. How the interrupts are activated? To which memory location an interrupt points? How the priority is arranged? How the interrupts can be cleared?