QUIZ # 2

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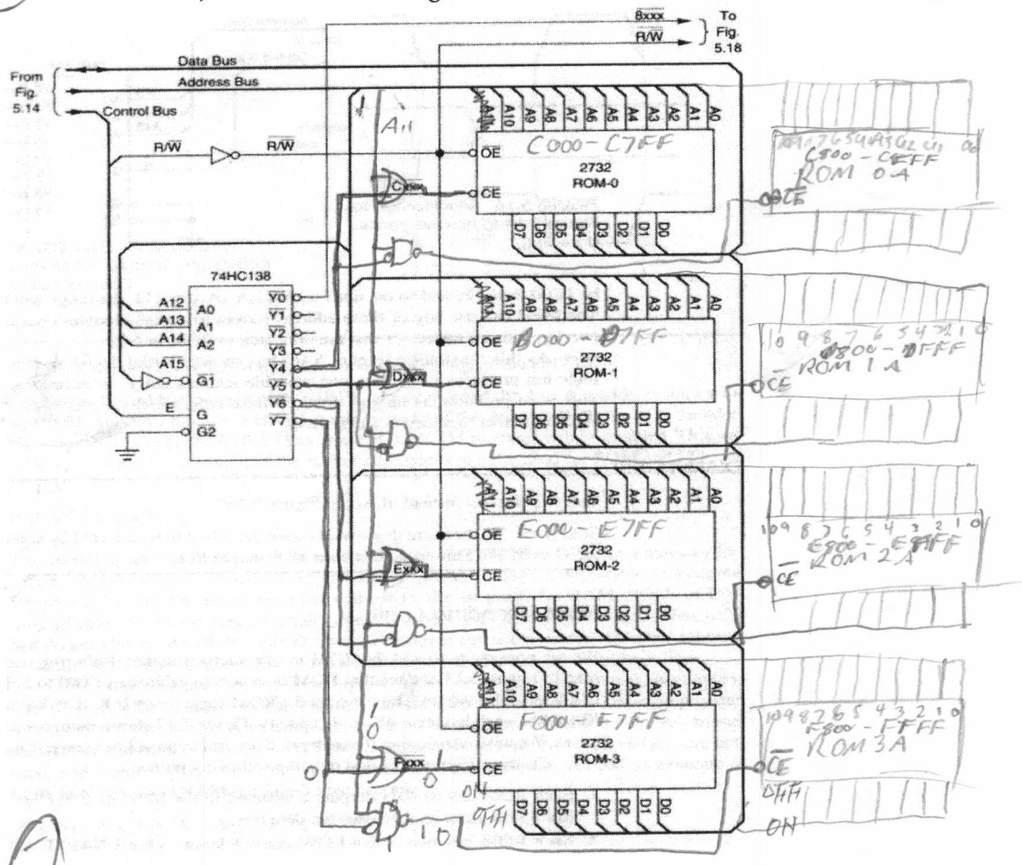
8.5 7.5 /10

- *45 Minutes, No materials are allowed. [Number] indicates weighting.*

1. 68HC11 has 4 different operating modes. Which one is not one of them? [0.5]
   a)single chip mode b)normal expanded mode c)bootstrap mode d)special test mode e)interrupt mode
2. Which port functions as an output port (through A0-A7) and an input/output port (through D0-D7)? [0.5]
   a)port A b)port B c)port C d)port D e)port E
3. Explain why 68HC11 does not increment [PC] on the rising edge of every PH2 clock? [0.5]
   Because the PC & PH2 are used in write operations, and the write operation needs the PC to stay the same.
4. The circuit of Figure 5.17 uses 2732 EPROMs, each of which is organized as 4K × 8. Modify the circuit so that it uses 2716 EPROMs, each of which is organized as 2K × 8. The total ROM address space is still to be C000 to FFFF. [1]



5. Modify the RAM decoding logic of Figure 5.14 as shown in Figure 5.16. Then determine the address ranges for RAM module-2. [1]

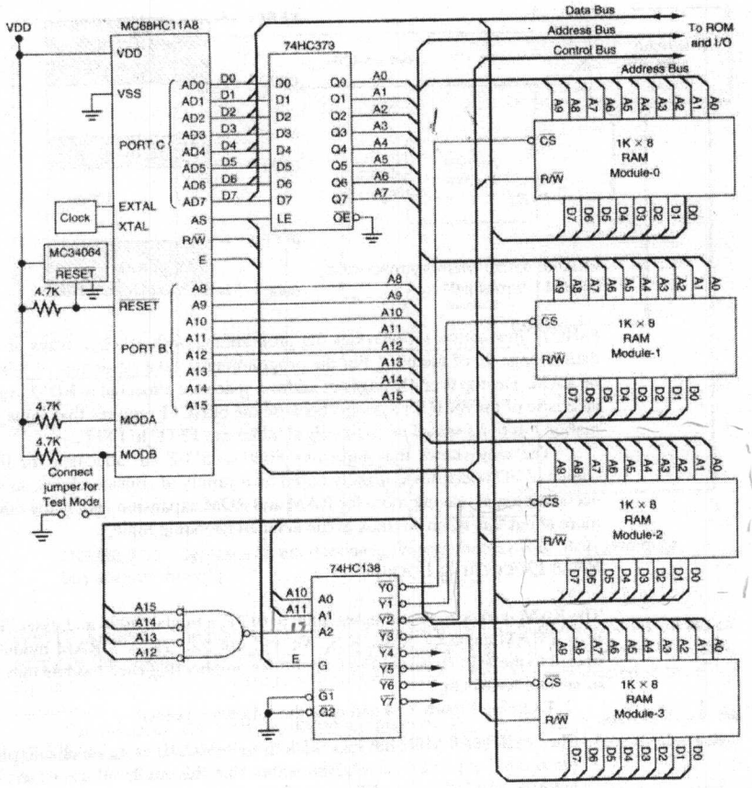


FIGURE 5.14 Typical RAM decoding logic in a 68HC11-based MPU.