Microprocessor System Design

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Memory Interfacing

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Class Work #4

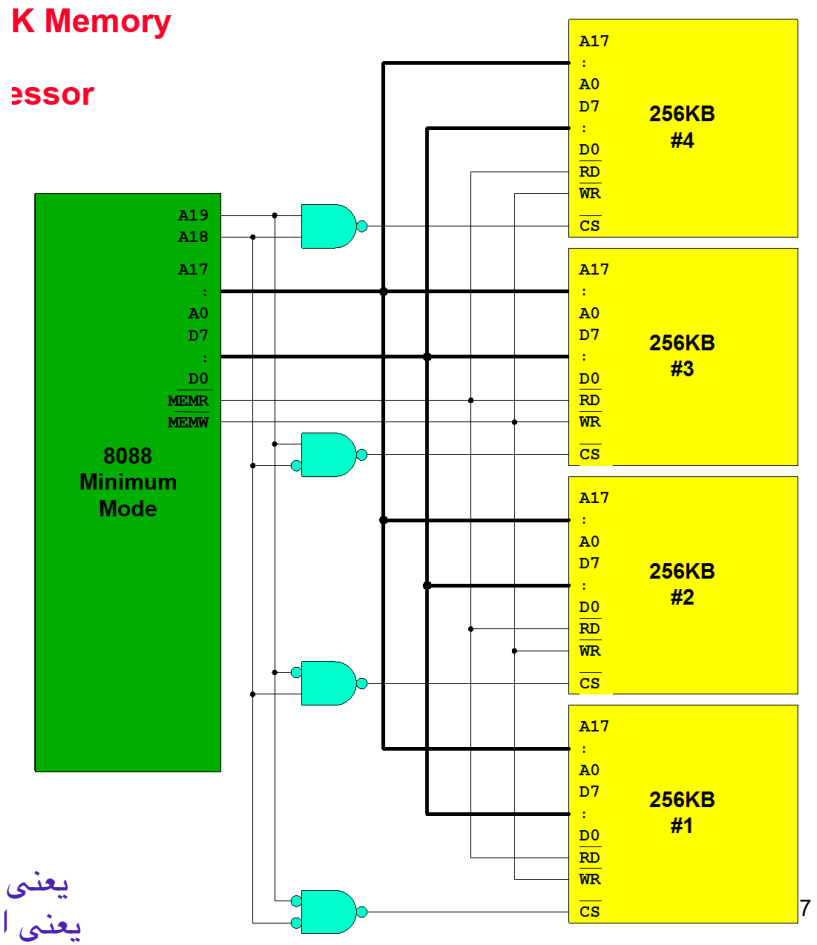
Memory Interfacing – 8088, 8086

First Part – Closed-Book

SRAM and DRAN - SRAM is faster
but DRAM has more storage space

Questions

1. Explain two kinds of RAM variations.
2. What is the address range that memory #1 mapped in this design?
3. What is the difference between DRAM and SRAM?
4. What is word aligned memory?



یعنی زوج زوج کنار هم قرار گرفته اند
یعنی از آدرس‌های زوج باید شروع کنیم

Second Part – Open-Note

Problems

1. There are three types of memory modules:
   - 16k x 4 bit SRAM for 20000-27FFF
   - 256k x 8 bit ROM for 80000-FFFFF
   - 512k x 4 bit SRAM for 00000-0FFFF

   1. How many modules are required from each type for an 8088 processor.
   2. Design the circuit.
   3. Repeat the problem for 8086.

کل رنج آدرس سی‌پی‌یو را پر نکردیم
یعنی برنامه نویس باید حواسش باشه یه جاهایی خالی عه
و الزامی نداره همه‌ی بخش‌ها پر باشه

Problems

1. There are three types of memory modules:
   - 32k x 2 bit SRAM for 40000-47FFF
   - 64k x 8 bit ROM for 20000-3FFFF
   - 128k x 4 bit SRAM for E0000-EFFFF

   1. How many modules are required from each type.
   2. Design the circuit.