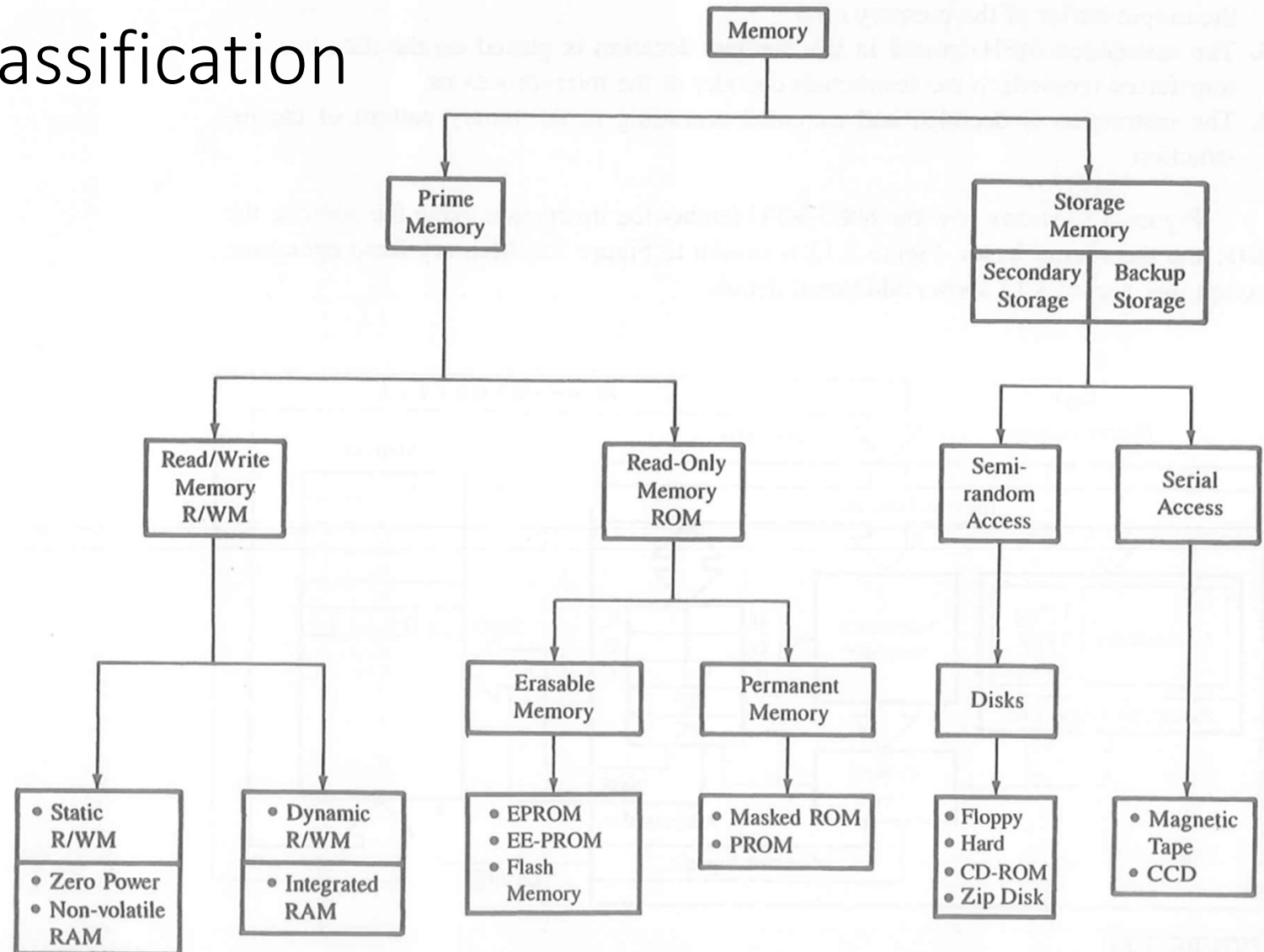


8085 Memory Mapping

Memory Classification



Memory

Stores binary instructions and data for the microprocessors

Primary Memory – R/W and ROM

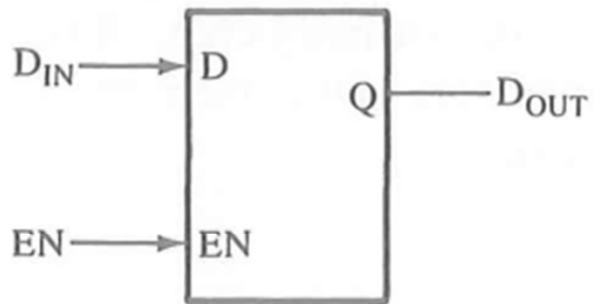
R/W- made of registers

ROM-stores information permanently in the form of diodes

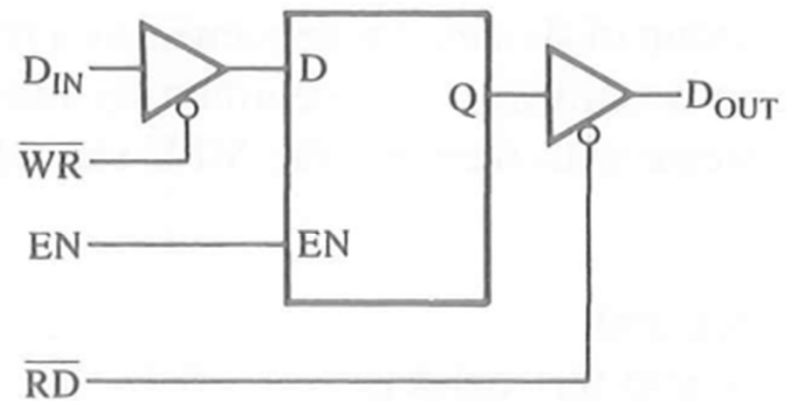
To communicate with the memory, MPU should be able to

- Select the chip
- Identify the register
- Read from or to write into the register

Latch as a storage element

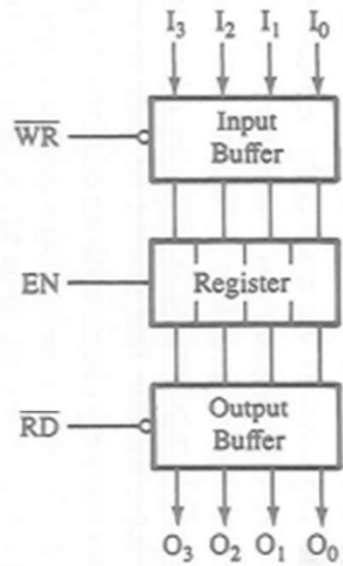
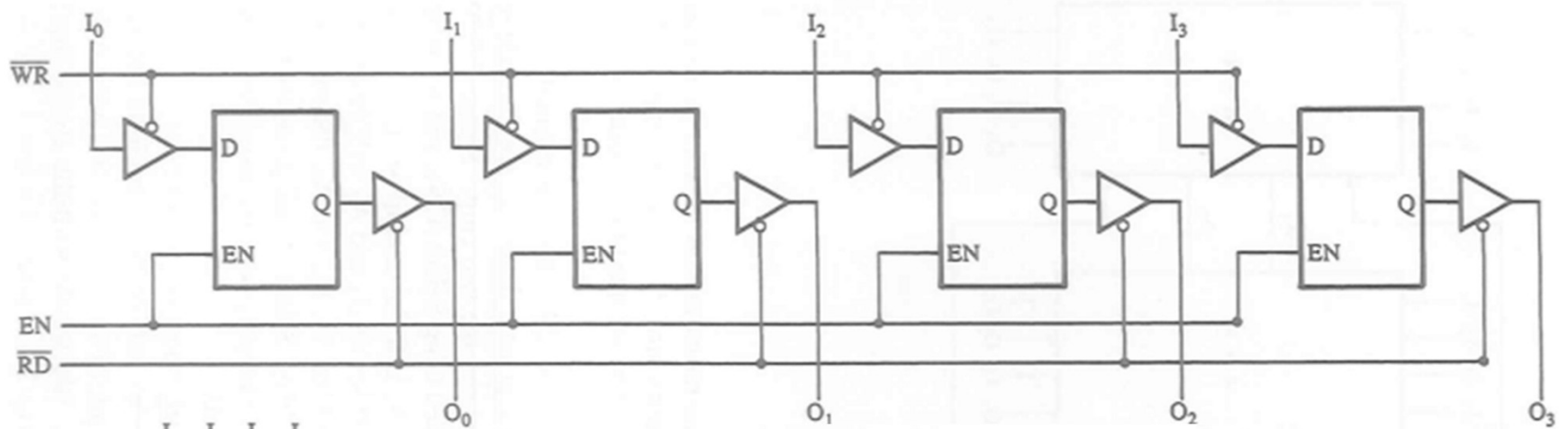


(a)

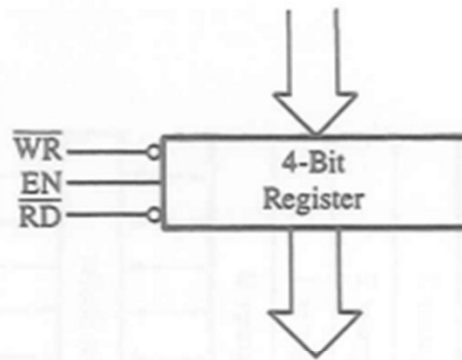


(b)

Latches as Storage Element: Basic Latch (a) and Latch with Two Tri-State Buffers (b)

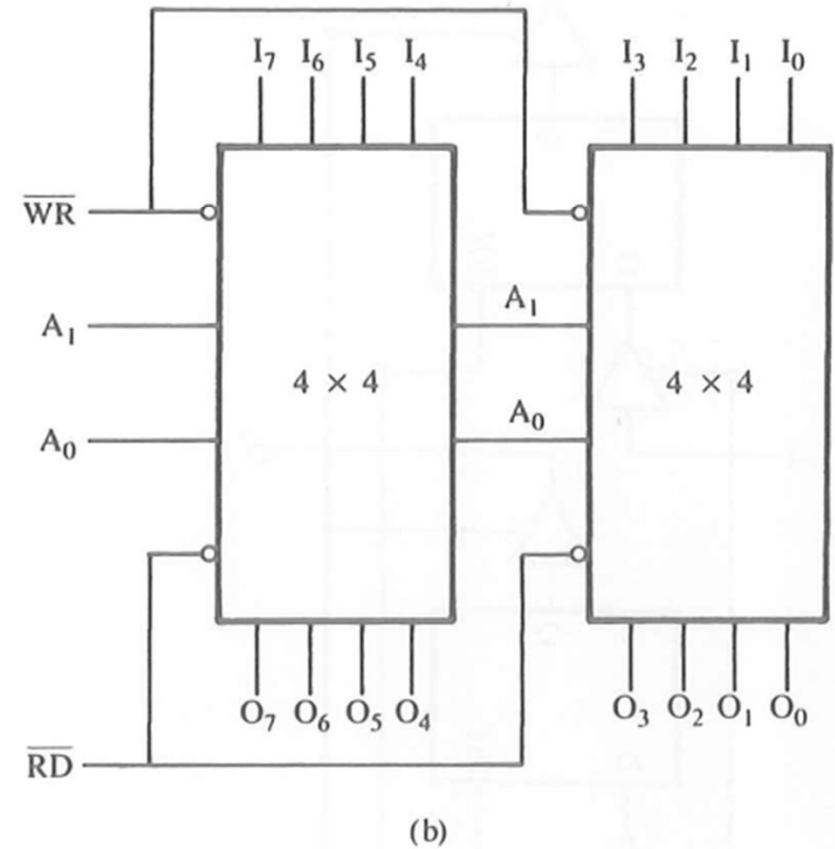
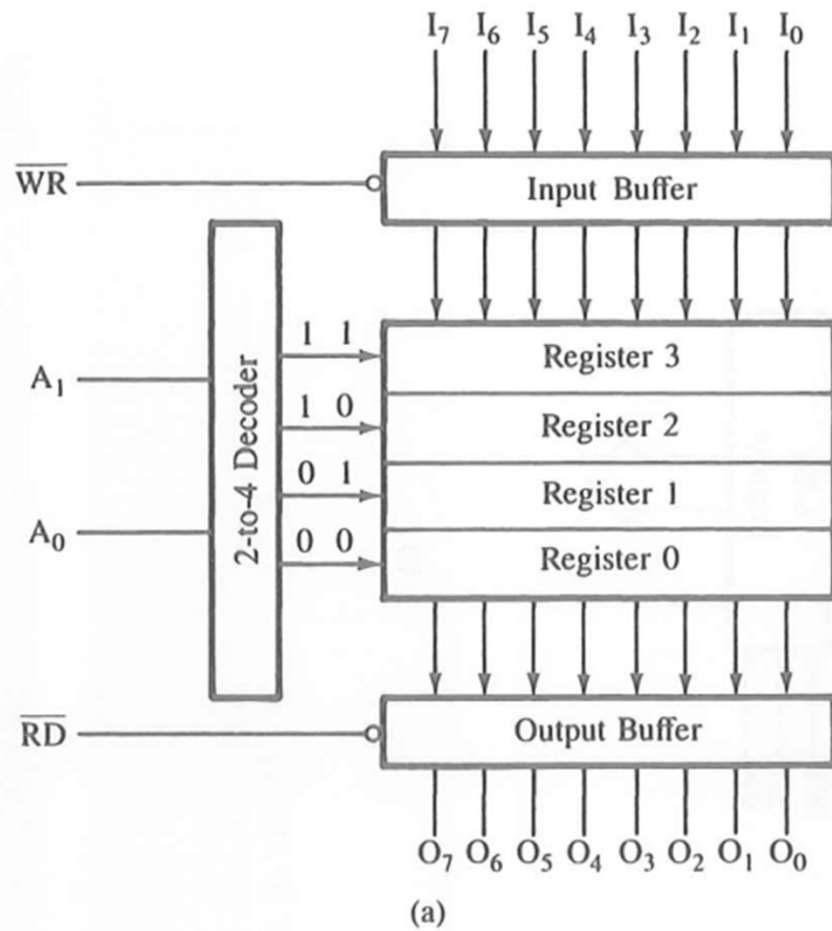


(b)

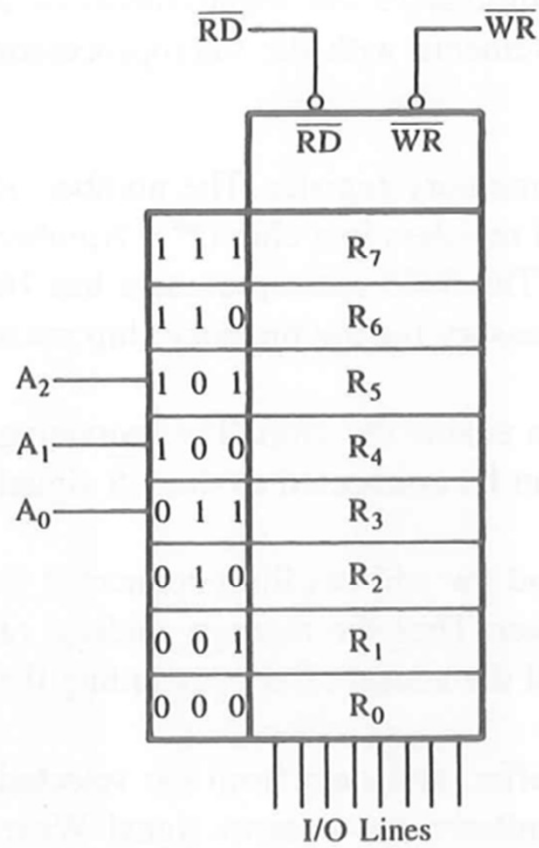


(c)

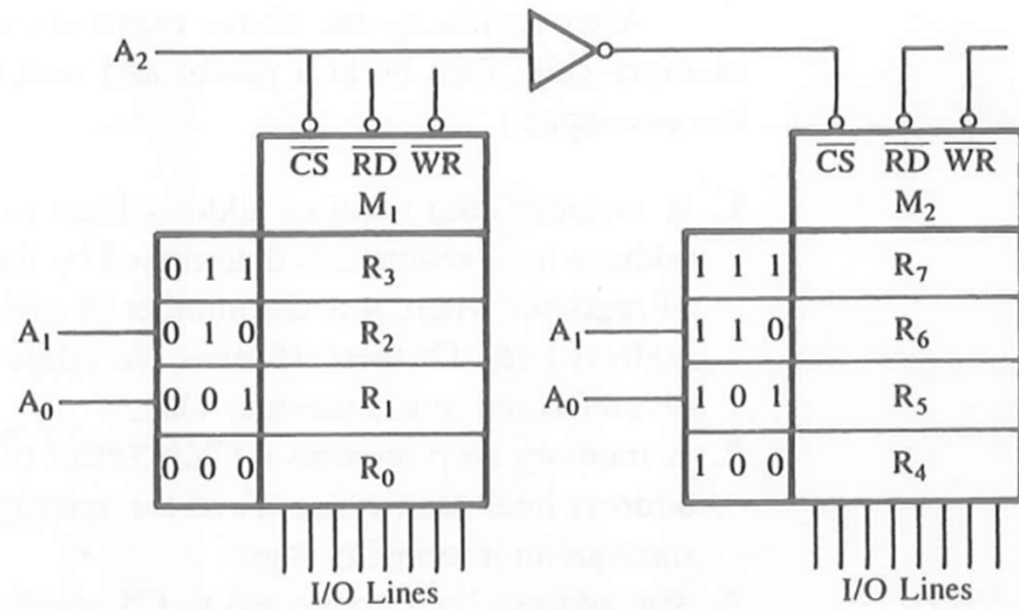
Four Latches as a 4-Bit Register (a) and Block Diagrams of a 4-Bit Register (b and c)



4x8 Bit register



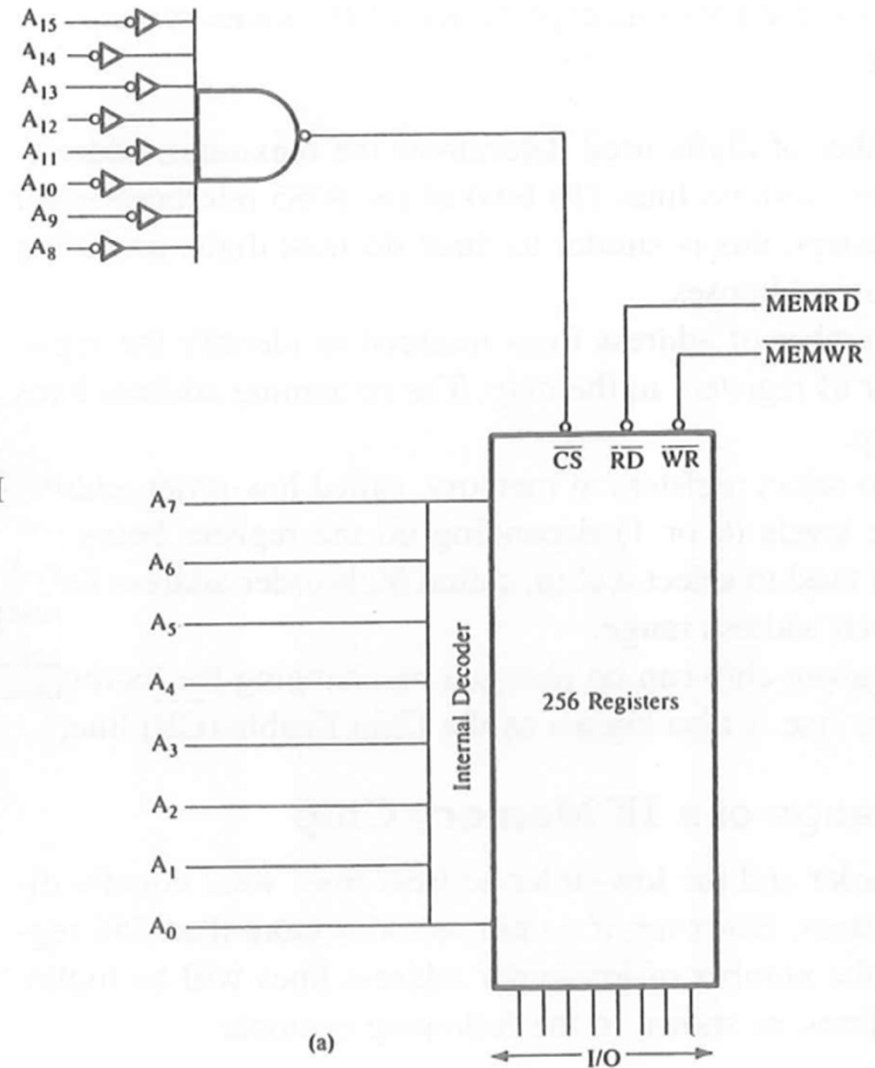
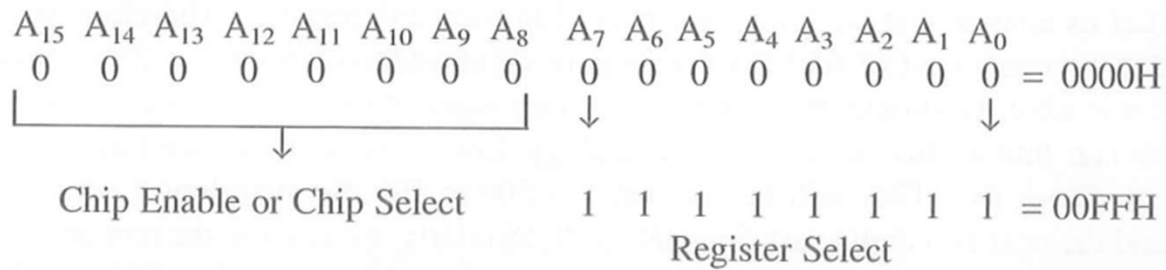
(a)



(b)

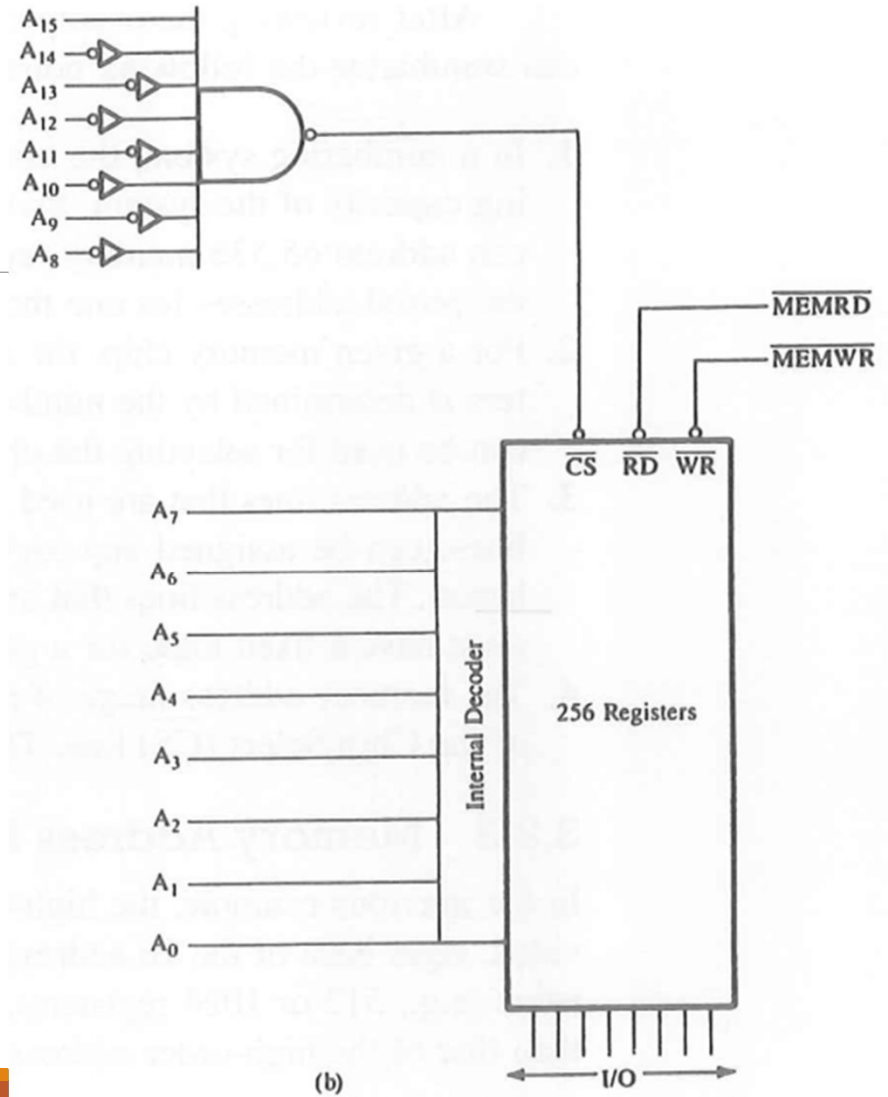
Memory Mapping

256 Bytes of Memory

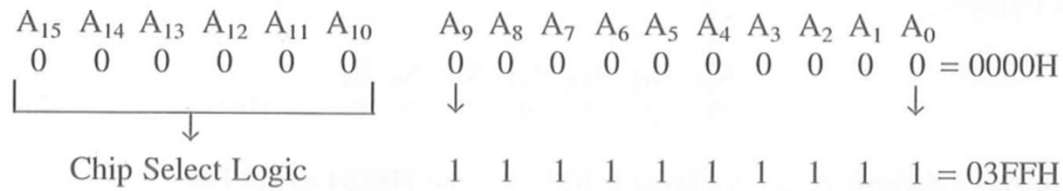


Memory Address ranging from 8000H to 80FFH

$$\begin{array}{cccccccc} A_{15} & A_{14} & A_{13} & A_{12} & A_{11} & A_{10} & A_9 & A_8 \\ 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{array} = 80H$$



Memory Address Range of 1K Memory Chip



The memory addresses range from 0000H to 03FFH.

