**Microprocessor Systems**

**Homework 1**

1. Design the following memory structure using the available resources. You should not use any extra memory chips. Show the connections of the instructional CPU. (Data bus is 8bits, address bus is 16bits.)

* 1. Using the available 4Kx8 R/W memory chips, design a 16Kx8 R/W memory that starts from memory address $0000. Later on, extend the overall capacity of the memory to 32Kx8.
  2. Using the available 4Kx4 R/W memory chips, design a 16Kx8 R/W memory that starts from memory address $7000.