CE12 Spring 2014

Left Neighbor: ____________  Right Neighbor: ____________
Quiz 3: April 17, 2014

This is a closed book, no calculator quiz.

1. (4 points) For the memory below, what is the address space (1 point)? What is the addressability (1 point)? What is the data at address 2 (2 points)?

![Memory Diagram]

2. (6 points) You wish to express -64 as a 2’s complement number.

   (a) (2 points) How many bits do you need (the minimum number)?

   (b) (2 points) With this number of bits, what is the largest positive number you can represent as a 2’s complement number (give binary and decimal)?

   (c) (2 points) With this number of bits, what is the largest positive number you can represent as an unsigned integer (give binary and decimal)?