



### Quiz 3: October 23, 2014

Left Neighbor: \_\_\_\_\_

Right Neighbor: \_\_\_\_\_

This is a closed book quiz



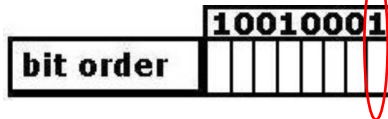
CE80N Larrabee Fall '14

Name: \_\_\_\_\_

1. (2 points) Given a MAC address of 02 – 21 – D1 – 1D – F9 – 03, circle the part that represents the Organizational Unique Identifier. Give the equivalent binary.

0000 0001-0010 0001-1101 0001- 0001 1101- 1111 1001- 0000 0011

2. (1 point) Circle the first bit transmitted below, assuming the bits are transmitted using the Little Endian convention.



3. (7 points) On Tuesday we spent a lot of time talking about the way Ethernet works and what its protocol is for transporting packets.

- (a) (2 points) The Ethernet protocol is referred to as CSMA:CD. Give one short sentence that briefly explains what "multiple access" is.

Multiple machine can have access to this media

- (b) (2 points) The Ethernet protocol is referred to as CSMA:CD. What is exponential backoff, and what part of the previous acronym is affected by that concept?

A device will wait twice the time of last waiting time after a collision, then try again. CD is effected.

- (c) (2 points) The Ethernet protocol is referred to as CSMA:CD. Give one short sentence that briefly explains what "Carrier Sensing" is. Make sure you are clear on which agent is doing the sensing, and how it is doing that.

Carrier sensing means you sense the carrier before you transmit signal, NIC is doing the sensing.

- (d) (1 point) Is this procedure being run by the NIC or the CPU? Make sure you are clear about the relationship between the NIC and the CPU.

NIC is running the procedure, CPU only leave the communication data in memory and NIC will handle the communication.