



Quiz 3: October 23, 2014

Left Neighbor: _____

Right Neighbor: _____

This is a closed book quiz



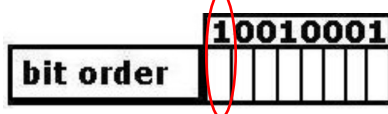
CE80N Larrabee Fall '14

Name: _____

1. (2 points) Given a MAC address of 01 – 20 – D0 – 1C – F8 – 02, circle the part that represents the Organizational Unique Identifier. Give the equivalent binary.

0000 0001-0010 0000-1101 0000- 0001 1100- 1111 1000- 0000 0011

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



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

- (a) (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.

- (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 "multiple access" is.

Multiple mahcine can have access to this media.

- (d) (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.