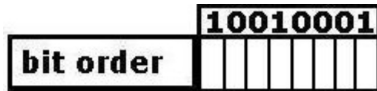1. (2 points) Given a MAC address of $01 - 20 - D0 - 1C - F8 - 02$, circle the part that represents the Organizational Unique Identifier. Give the equivalent binary.

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.

   (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?

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

   (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.