Data Communications Quiz 1 Solutions

2018.11.13

☞ You can answer either **in English or in 한글**.

Student ID: _____ Name: _____

1. What are the three operations of the datalink layer that commonly apply to the two different types of links?

   A. _____framing____, B. ____flow control_____, C. _____error control_____

2. What is the protocol sublayer that is necessary for only the broadcast link type? _____MAC_____

3. Cyclic code is a special type of the linear block code. What two properties does it have?

   A. ____Addition of two codes is a code_____

   B. ____Rotating a code makes a code_____

4. Give two conditions under which the Banyan network is non-blocking.

   A. _____Data are input in the increasing order of destination port number___

   B. _____There is no "hole" (empty input ports) between the sorted inputs _____

5. Answer the following questions about MAC addresses.

   A. What is the broadcast address? (in hexadecimal)___ff-ff-ff-ff-ff-ff_____

   B. 90-9f-33-fc-3d-40 is not a multicast address. Briefly explain why. (Hint: the broadcast address is a special case of the multicast address) The least significant bit in the first byte is 0, which means unicast