

## Homework #2

**(Due on 12:00am, Thursday, Nov. 8th, 2012)**

1. CRC checksums: Please calculate the CRC  $R$  of  $D = 0101\ 1101\ 1010\ 0101\ 1110\ 0000$ . Please use the 4 bit generator  $G = 1101$
2. What is the purpose of the link layer?
3. Please revisit the Address Resolution Protocol (ARP). What happens, if you want to connect to a host that is not in your local area network?
4. Please name a conceptual difference between MAC and IP addresses.
5. Why does Ethernet use exponential backoff after collision detection?