University of Göttingen, Germany

## Homework #2

## (Due on 12:00am, Thursday, Nov. 02<sup>nd</sup>, 2017)

- 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?