ECSE 4670: Computer Communication Networks
Summer 2018

Homework Set 1
(Introduction)

Due: Fri, June 1

Problems: (50 pts)

1. Answer the following questions in brief: (2 × 2 = 4 pts)
   a. Explain the rationale behind using *circuit switching* for voice transmission but *packet switching* for data transfer.
   b. Explain what is meant by the term *protocol*? Why is it important to have standardized protocols for communication over the Internet?

2. From the book do R13 (on page 68) (5 pts)

3. From the book do R18 (on page 68) (5 pts)

4. From the book do P10 (on page 72) (10 pts)

5. From the book do P14 (on page 73) (10 pts)
   The book is sometimes bad about fractions, queueing delay is:
   
   \[
   \frac{IL}{R(1-I)}
   \]

6. From the book do P15 (on page 73) (6 pts)

7. From the book do P18 (on page 73) (10 pts)