CSCI-P 538 Fall 2016 Homework 1

A Deadline

September 23 2016 23:59:59 EDT. This is a hard deadline and no extension will be given. Any clarification queries should be sent to `p538fall16-l@list.indiana.edu`.

B Homework Guideline

1. Describe the reasoning process of how you reach your final solution. You receive no credit by only submitting a final answer. Please refer to a sample solution in §D.
2. Write down the problem number (**Ch*x* P*y***, which means the y-th problem in Chapter x) before each of your solutions.
3. Submit a single document to Canvas before the deadline. Acceptable formats are PDF (preferred), Microsoft Word, and text. Only electronic submission is allowed.
4. Note we are using the 6th edition of the textbook instead of the 7th edition.

C Problem Description

Please work on the following problems in the "Problem" section of Chapter 1 (from page 70 to 78 in the textbook):

- **Ch1 P10** (10 pts).
- **Ch1 P13** (10 pts).
- **Ch1 P21** (10 pts).
- **Ch1 P23** (15 pts).
- **Ch1 P29** (15 pts). [Hint: the geostationary satellite is 36,000 kilometers away from earth surface.]

Please then work on the following problems in the "Problem" sections of Chapter 2:

- **Ch2 P1** (10 pts). [Only write down True or False.]
- **Ch2 P6(d)** (5 pts). [The goal of this question was to get you to retrieve and read an RFC. You can directly quote texts in RFC 2616.]
- **Ch2 P10.** (10 pts).

D Sample Solution

Below is a sample solution to Problem **Ch1 P2** on page 71.

Ch1 P2

At time N(L/R) the first packet has reached the destination, the second packet is stored in the last router, the third packet is stored in the next-to-last router, etc. At time N*(L/R) + L/R, the second packet has reached the destination, the third packet is stored in the last router, etc. Continuing with this logic, we see that at time N*(L/R) + (P-1)*(L/R) = (N+P-1)*(L/R) all packets have reached the destination.*

E Honor Code

Students must follow the IU honor code (`http://www.iu.edu/~code/code/responsibilities/academic/index.shtml`). This homework is an individual assignment, and no collaboration among students is allowed. In no case may your solution be copied from another student or a third-party source. Any violations of the honor code will be dealt with strictly, including but not limited to receiving no credit for the entire homework.