

**INST 346: Technologies, Infrastructure and Architecture**  
**Quiz 4, September 28, 2017**

**Standard Instructions** (unchanged from the last quiz):

This is a 5 minute quiz, starting promptly at 5:00 and ending promptly at 5:05. You may use any resources (Web, readings, class notes, class slides) that existed before the start of this quiz. You may not communicate with any other person (including the instructor) during the quiz. If you have difficulty interpreting a question, briefly describe that difficulty and any assumptions that you have made to allow you to answer the question and we will consider what you have written when grading your quiz.

Answer all questions. A maximum of 1 point is available.

0. (0 points) What is your name?
  
1. (1 point) TCP achieves reliable data transmission using the techniques we have already discussed in class. Acknowledgement (“ACK”) messages are sent by the host receiving the content (the “receiver”) to inform the host sending the content (the “sender”) that content packets were received with the correct content and in the correct order. Checksums are used to detect corrupt (i.e., garbled) packets, including corrupt content packets and corrupt ACK packets. Explain how the reliable data transmission techniques we have already discussed will accommodate EACH of these potential problems:
  - a. A packet containing content from the sender is lost, and never received by the intended receiver.
  
  - b. An ACK packet that is sent from the receiver back to the original sender of the content is lost, and never received by that sender.

Please **hand write and sign** the honor pledge on this quiz. (For reference, the honor pledge (described at <http://osc.umd.edu/Uploads/OSC/Honor%20Pledge.pdf>) is: “I pledge on my honor that I have not given or received any unauthorized assistance on this quiz.”)