

## CMSC 440 - Homework Assignment #3

**Due Date: Saturday November 5<sup>th</sup>, 2022 - 11:59pm**

### Questions:

You are required to answer the following questions from the attached document:

Question	Question
P.6	P.27
P.15	P.37
P.17	P.40
P.22	P.44
P.25	

### Notes

- The GBN protocol refers to Go-Back-N protocol
- For P.15, assume the bandwidth and the one-way propagation delay of the cross-country link is 100Mbps and 25ms, respectively.
- For P.37, only consider the comparison between GBN and TCP protocols (do not consider SR protocol)
- The following figures are referred to by the questions:

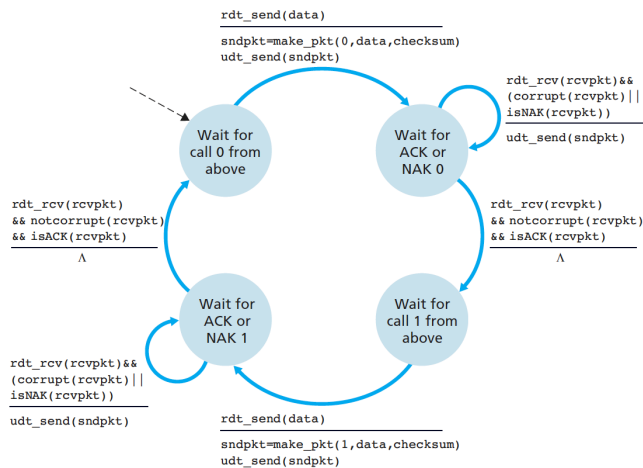


Figure 3.11 ♦ rdt2.1 sender

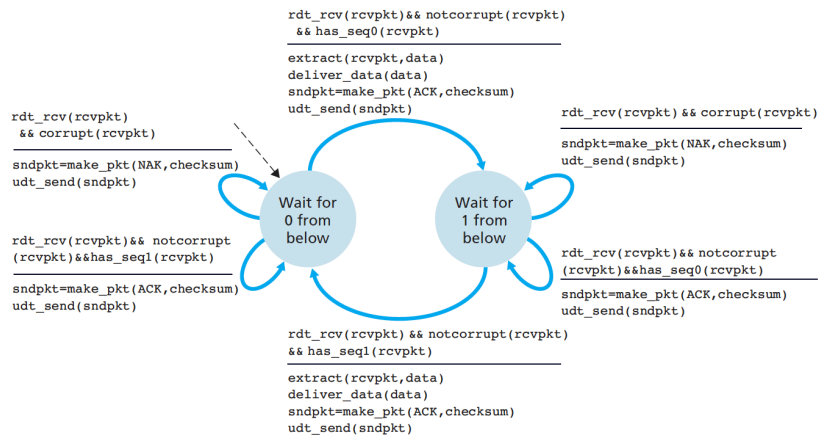


Figure 3.12 ♦ rdt2.1 receiver

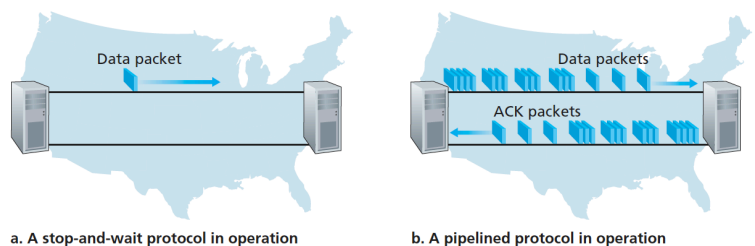


Figure 3.17 ♦ Stop-and-wait versus pipelined protocol

### **Submission Materials:**

- Submit your answers through Canva as a single PDF file

### **Submitting Assignments using Canva**

#### **- Instructions from the official Canvas help pages**

- <https://community.canvaslms.com/t5/Student-Guide/How-do-I-submit-an-online-assignment/ta-p/503>

#### **- Step-by-step instructions:**

1. Log in to the course Canvas page
2. Click the **Assignments** link on the left sidebar
3. Click the name of the intended assignment under the **“Hands-On Assignment”** group
4. To submit an assignment, click the **Start Assignment** button.
5. To upload a file from your computer as your assignment, select the **File Upload** tab.
6. You may upload as many files as needed.
7. When you've finished adding all files needed for the assignment, click **Submit Assignment**.
8. After you have submitted your work, you will see information on the Sidebar about your submission with a link to your submission to download if necessary.

**Important:** *If you submit your assignment and later realize you have made a mistake, you can resubmit another version of your assignment using the **New Attempt** button. The time of your last attempt will be counted as your submission date. You will only be able to view the details of your most recent submission on the Sidebar.*