Final Exam Review Notes

Exam Date: December 16 5:45-7:45PM on**CANVAS**

**Make sure your Laptop has stable Internet connection with Lockdown Browser installed**

* Reference video on detailed topics in each chapter is[here (Links to an external site.)](https://www.youtube.com/watch?v=Jka348AZnzk&feature=youtu.be)[](https://www.youtube.com/watch?v=Jka348AZnzk&feature=youtu.be)
* 40 points total for 2 hours
* Format (designed for 90-105 minutes work)
  + Multiple Choices (5 points for 10 problems)
  + True/False (3 points for 6 problems)
  + Filling in Blanks (4 points for 4 problems)
  + Short Problems (12-14 points for 4-6 problems)
  + Comprehensive Comprehensive (14-16 points for 3 problems)
* Ask questions if you have to assume something
* Covers chapters 4,5,6
* Important topics
  + Chapter 4
    - Longest Prefix Match
    - Addressing format a.b.c.d/x based on requirement
    - Fragmentation
    - IPv6 vs IPv4
    - Routing with distance vector
    - Bad news travels slowly and count to infinity
    - Hierarchical routing (slide chapter 4-60)
    - MST for broadcasting
  + Chapter 5
    - CRC calculation
    - Slotted aloha (probability) - proof of efficiency not covered
    - CSMA/CD (detailed steps and exponential backoff for collision resolution)
    - taking turnings (throughput, delay calculation)
    - ARP (detailed procedure and MAC addresses used for frames)
  + Chapter 6
    - RTS/CTS and Network Allocation Vector
    - Focus on differences between CSMA/CD and CSMA/CA protocols