Outline for CS5220 Final Coverage/Review

Final is comprehensive, focusing on materials after the midterm.

Chapter 2: Layered architectures

Chapter 6: Medium Access Control Protocols and LANs
   6.1 multiple access communications
   6.2 random access and efficiency analysis
   6.3 Scheduling (6.3.1 reservation systems)
   6.6 LAN protocols
   6.7 Ethernet
   6.10 Wireless LANs (6.10.1 Ad Hoc and Infrastructure networks; 6.10.3 MAC)
   6.11 LAN bridges and Ethernet switches
      6.11.1 Transparent Bridges; (spanning tree algorithm not required)

Chapter 7: Packet-Switching Networks
   7.1 Services and operations and
   7.2 Topology
   7.3 Datagrams (7.3.1 packet switching)
   7.4 Routing in packet networks
   7.5 shortest path routing
   7.7 traffic management
      7.7.1 FIFO and priority queues
      7.7.2 Fair queueing
      7.7.4 RED
   7.8 Traffic management at flow level; (QoS guarantees; service scheduling not required)
      Traffic shaping/policing by leaky bucket and token bucket
   7.9 Traffic management at flow-aggregate level

Chapter 8: TCP/IP
   8.1 TCP/IP architecture
   8.2 IP (8.2.7 (R-ARP), 8.2.9 (ICMP) not required)
      Subnetting
      CIDR;
   8.4 UDP
   8.5 TCP: 8.5.1 Operations
      8.5.2 TCP protocol
         (TCP connection termination & TCP state transition diagram not required)
      8.5.3 Congestion control
   8.7 Multicast routing
      8.7.1 Reverse-path broadcasting
   8.8.2 NAT

* Refer to Lecture Notes and the textbook for reviewing (particularly the concepts in Bold).
* Reviewing homework assignments is very important.
* Thank you for with me in CS522 and good luck to the final and your career!