ITEC350
Study Guide for Midterm Exam

Please study based on the powerpoint slides which we used in class. All the powerpoint slides are posted on the class calendar and lecture notes in D2L.

- Classification of Interconnected processor by scale
  - PAN
  - LAN
  - MAN
  - WAN

- Difference between Connectionless and Connection oriented

- OSI 7 layer
  - You should memorize the OSI 7 layer protocol stack.
  - You need to understand what each layer does.

- TCP/IP
  - Protocol stack (4 layers: Network Interface, Internet, Transport, Application)

- Segmentation & Reassembly

- Multiplexing
  - What is Frequency Division Multiplexing?
  - What is Time Division Multiplexing?

- Difference between a packet and a frame

- What do the following acronyms stand for?
  - HTTP
  - TCP
  - UDP
  - IP
  - OSI
  - DNS
  - RTP
  - ICMP
  - ARP

- Encapsulation

- What are Domain Name, IP address, MAC address?

- IP addresses
  - Special IP addresses
  - Class A, Class B, Class C
  - Conversion between the dotted decimal representation and the binary representation of IP addresses
  - Subnetting
    - please review your homework 1
    - Why subnets?

- VLSM (Variable Length Subnet Masking)

- Nonroutable addresses

- What is promiscuous mode?

- DNS
  - What is DNS? (You should state that DNS translates Domain name to IP address.)
  - How DNS works? (http://cr.yp.to/djbdns/intro-dns.html)
  - .arpa
  - Why do we need .arpa?
  - What is reverse lookup?
  - How the reverse lookup works? (http://cr.yp.to/djbdns/intro-dns.html#reverse)

- What is difference between a Router and a Gateway?