CSc 450/550: Computer Networks (Summer 2006)

Self-test Questions 1

This list, by no means thorough, is compiled from "This lecture" on the lecture slides.

- Network architectures, applications, services, and protocols (example: OSI, Internet)

- Communication networks (e.g., circuit switching, packet switching, virtual circuit, datagram)

- Internet access technologies (e.g., through phone, cable, LAN, WLAN, cellular, etc)

- Nyquist's limit and Shannon's limit (e.g., bandwidth, baud, symbol rate, data rate)

- Internet backbone technologies (e.g., multiplexing) and structures

- Link characteristics (e.g., data rate, delay, loss)

- Client-server model and other alternatives

- Socket interface

- URL, HTTP (e.g., GET, HEAD, PUT, etc) and HTML basics (e.g., anchors and objects)

- DNS name and server hierarchy (e.g., root, top-level, authoritative, local)

- DNS queries (e.g., recursive, iterative)

- Web caching and content delivery

- CDN server selection techniques (e.g., through HTML, HTTP, DNS)

- Email basics (e.g., UA, MTA, SMTP, POP3)

- TCP packet header

- TCP connection management (e.g., packet handshake, establishment/release, state machine)

- TCP flow control (e.g., sliding variable window)

- TCP error control (e.g., TCP checksum, TCP timeout, duplicate acknowledgment)

- TCP congestion control (e.g., slow-start, congestion avoidance, fast retransmit, fast recovery)

- TCP variants (e.g., Tahoe, Reno, NewReno, SACK)