Midterm review

Caution: These are points you should pay particular attention to. Please review ppt, lecture notes, labs and multiple choice question sets.

What happens when packet moves from top layer (application) to bottom layer (Physical)? what does physical layer transmit? What happens when a packet moves from bottom to top layer? What are peer layers on the receiving and sending machines? Be able to name 7 layers of OSI and what each layer does. What are the connectors used for twisted pair and telephone. Crossover cable, null modem, hub, switch, bridge, router, repeater. Achieving 10, 100, 1000 Mb/s on twisted pair

Circuit vs packet switching

Know parts of an email system and which part is used by the end user, used for transmission and storage, protocols, port numbers and associated DNS records.

Know: domain server, zone server, root server, secondary server, generic, country, inverse, hierarchical, iterative, recursive

FTP ports, active, passive, UDP, TCP, HTTP, SOCKET PROGRAM

Data communication theory and practical use, digital to digital, digital to analog, modulation. Etc. various multiplexing techniques

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| Description: http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif |  |

Fiber optic, light propagation, light sources, detectors

Virtualization

Public vs private IP addresses

Big data analysis, Hadoop, IoT, datamining

Default netmasks an their purpose. How routers extract classes? Binary math related to subnetting