

## CS 360 Exam 1 Review

Describe the client/server model of networking.

Explain how BitTorrent operates like the client/server model.

Explain how BitTorrent does not operate like the client/server model.

What do you expect a network protocol specification to contain?

Define packet.

What are the 4 layers used in the TCP/IP model of networking?

Why are network layers useful?

Describe the protocol stack used by Firefox on Windows on a laptop using a wireless network card (on a Thursday).

Explain what is meant by a stateless and stateful protocol. Use DNS and HTTPS as examples.

Explain what is meant by a connection-oriented vs connectionless protocol. Pick two appropriate protocols as examples.

What is the main job of the Network layer?

What is the main job of the Transport layer?

Explain what is meant by a circuit vs packet-switched network.

How many bits in an IPv4 address?

What is an RFC?

Describe the all of the protocols necessary to send an email from your Pacific U email to address to the instructor's Pacific U email address. You are in the CS Lab using the BoxerMail via your laptop and wireless network card, he is in his office using his Thunderbird email client via the wired network card in his desktop Linux machine. On a Monday.

List two well known ports, the number and network application.

You can telnet to the Android Emulator and send a text message that show's up on the Emulator. Why does this work?

Which mail protocol enables spam? Why?

Which layer has the responsibility of sending data around network congestion?

Was the UDPMath protocol stateful? If so, what state was kept?

What are the three multimedia streaming scenarios?

What are the advantages/disadvantages of each? What are the challenges of each?

What is jitter?

Why do some protocols use TCP and emulate HTTP?

What is Forward Error Correction?

What is interleaving of packets? Why is this useful?

The Police won a Grammy most recently for what album?