

Put your name on the back in the upper right-hand corner and fold your quiz lengthwise - Thanks.

## CS 409 Quiz 7

1. If your HTTP browser normally works fine, but on a given day doesn't, what are three things you would check, and how would you do so?

(a) Do you have a network connection? Use `ifconfig` to determine that you have an `eth0` and that it is up and running.

(b) Can you see your local network? Try pinging a local IP address?

(c) If that works, try pinging an address off your local network? If that doesn't work, use `route` or `netstat -r` to display the routing table and insure that you have a gateway router defined.

(d) If all of this works, check your iptables to see if the netfilter is preventing either the outgoing or incoming traffic.

2. For each of the following, specify its use:

(a) `ifconfig` - to set or display MAC-level network parameters such as IP address, network mask, etc.

(b) `/etc/resolv.conf` - this file contains the domain of the system, the list of name servers to use and the list of domain names to search for an address that is not fully qualified.

(c) `/etc/sysconfig/network` - this file contains the boot time configuration data for work, including the gateway address, the hostname of the system, and whether networking should be enabled at boot time.

(d) `traceroute` - a program that returns the path taken to reach a destination from the source host and includes a sample of roundtrip packet times.

(e) `tcpdump src host 192.192.192.192 dst host 202.202.202.202` - this command outputs packets to the interface that has the given IP address.

- (f) `netstat -r` - outputs the routing table for the system.
- (g) `dig bingo.clowns.org mx` - outputs the DNS data for bingo.clowns.org mail server records  
it finds the DNS server for this domain or host and then lists any associated mail (mx) records.
- (h) `/boot/vmlinuz-2.4.20-8` - a kernel image to be loaded into memory at boot time.