

1. A) What are the steps involved in the three-way TCP handshake? (Specify the two hosts as **A** and **B**)

- 1.
- 2.
- 3.

B) What feature allows the SYN and ACK flags to be transmitted simultaneously?

2. If you want to listen to Pandora internet radio, what transport layer protocol will you use? (circle)

TCP

UDP

3. A) There are several great services that the google.com server offers (ie. Email, Web Pages, File Sharing). What transport layer element allows you to specify which service you are interested in when you make a connection?

Open Vsphere and connect to your Linux terminal. Then search for the word 'mail' in the services file by typing the command:

```
grep mail /etc/services
```

B) Which ports does your system use to send and receive mail?

C) Which of these use TCP and which use UDP? What is the difference?

4. Look at Figure 15-9 on page 585.

A) How many bits are used to identify a port on a host?

B) How many total ports are available on a host? Show your work.

5. How many total headers are affixed to a TCP/IP packet? What are their names?

6. To send an email, which of the following data must I know about the remote email server to properly create the associated network packets?

- Domain Name
- Port Number
- IP Address
- MAC Address
- Physical Medium