

Hand in a stapled, printed copy with your answers.

**Homework: /SI110/The Cyber Battlefield/Networks & Protocols 2**

1. **Match** these service descriptions with the protocol stack layer it is associated with:

- \_\_\_ a. moves bits over wires or through radio waves, etc. (1) Application Layer
- \_\_\_ b. moves bytes from a process running on one host to a process running on another host. (2) Transport Layer
- \_\_\_ c. Layer no yet covered! (3) Internet Layer
- \_\_\_ d. moves packets from one host to another host. (4) Link Layer
- \_\_\_ e. services for users (5) Physical Layer

2. TCP and UDP are two different transport layer protocols. For each sentence below, **circle** which (or both) of the two is described:

- TCP / UDP a. Establishes a connection, then communicates via the connection.
- TCP / UDP b. Provides communication between processes (i.e., executing programs) on different hosts.
- TCP / UDP c. Is unreliable, i.e. some data may be lost in communication.
- TCP / UDP d. Protocol used largely for online gaming, Skype, and online TV.

3. Using the list of service-to-ports mappings link in the lecture notes, answer the following questions:

- a. What port is used for Websites? Answer:
- b. Does Web use TCP or UDP? Answer:
- c. What service runs on port 23399? Answer:

4. Putting this URL `http://www.w3.org/` in your browser's address bar is the same as putting in: Answer:

- a. `http://www.w3.org:25/`
- b. `http://www.w3.org:15000/`
- c. `http://www.w3.org:80/`
- d. none of the above
- e. all of the above

**Explain in the box to the right why.**