

**CSCI 373: Computer Networks**  
**Final Exam -- closed book section**

The entire exam is to be turned in at 11:55 AM. Work the closed book section first and turn it in before you consult your books and notes to work on the open book section.

Name: \_\_\_\_\_

**Section 1. (24 points)**

There are twelve questions. Each is worth two points. Choose the most appropriate phrase for terminating each sentence. Circle your choice.

The most common type of local area network at UNCA is

- A: Ethernet.
- B: token ring.
- C: Internet Protocol.
- D: twisted pair.

The "CD" in CSMA/CD means

- A: Carrier Detection.
- B: Circuit Direction.
- C: Collision Detection.
- D: Carrier Deflection.

Special signals that appear on a token ring that are neither 0 or 1 are

- A: ring jams.
- B: monitor frames.
- C: code violations.
- D: high-impedance states.

The speed of an FDDI network in bits per second is

- A: 1,000,000.
- B: 4,000,000.
- C: 10,000,000.
- D: 100,000,000.

The popular TCP/IP application for transferring files is

- A: FTP.
- B: FTAM.
- C: RCOPY.
- D: NFS.

The popular TCP/IP application for remote login is

- A: RSH.
- B: DLOGIN.
- C: TELNET.
- D: XOPEN.

Generally, a local area network is contained in

- A: a single computer.
- B: a room.
- C: a building.
- D: a telephone exchange.

The small black devices in 004 that attach the workstations to the thinwire are called

- A: transceivers.
- B: transducers.
- C: transponders.
- D: transmitters.

The number of layers in the ISO reference model is

- A: 3.
- B: 5.
- C: 7.
- D: 9.

The BSD socket call that assigns a port number to a socket is

- A: bind.
- B: connect.
- C: setport.
- D: setsockopt.

The BSD socket call that is usually used to send data over a connected TCP socket is

- A: sendto.
- B: send.
- C: write.
- D: transmit.

When the operating system cannot create a socket, the socket system call returns

- A: -1.
- B: 0.
- C: 1.
- D: errno.

**Section 2 (16 points)**

*Briefly* explain the role of the following two fields of the Ethernet packet header.

Preamble

Frame check sequence

*Briefly* explain the role of the following three fields of the Internet Protocol header.

Fragment offset

Time-to-live

Source IP address

*Briefly* explain the role of the following three fields of the Transmission Control Protocol segment header.

Source port

Sequence number

Urgent pointer