

## ITS 323 – QUIZ 7 (ITA)

First name: \_\_\_\_\_ Last name: \_\_\_\_\_

ID: \_\_\_\_\_

Total Marks: \_\_\_\_\_

out of 10

### Question 1 [2 marks]

Match the address/identifier types to their correct meaning (write either the letter or the full name). You can select from the following address/identifier types:

- a. Port number
- b. Hardware address
- c. Protocol number
- d. Domain name
- e. IP address

	User-friendly identifiers for IP interfaces
	Logical addresses identifying a network interface
	Physical addresses specific to a LAN or WAN technology
	Identify application protocols

### Question 2 [3 marks]

- a) Draw a diagram to illustrate the TCP connection setup process between A and B. You must include the segment types as well as any other important information carried in the segments. Assume A chooses an initial sequence number of 47, and B chooses 63.

- b) After the connection is setup, if the first data sent from B to A is a segment containing 1000 bytes of data, then what is the acknowledgement number sent from A to B in response?

**Question 3** [3 marks]

True or false:

- a) UDP provides a full duplex connection. T / F
- b) A single TCP segment may contain data, as well as an acknowledgment T / F
- c) DNS maps IP addresses to hardware addresses T / F

**Question 4** [2 marks]

List the four addresses that identify a unique TCP connection:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

**Bonus Questions** (marks from these questions are added to your overall quiz score from the five best quizzes; each part is worth 1 mark)

- a) What is the broadcast address for the classless IP address 160.14.12.8/25?

Broadcast address: \_\_\_\_\_

- b) What subnet mask should be used to create a network with a maximum of 62 hosts?

Subnet mask: \_\_\_\_\_

- c) An IP router will change the IP address in an IP datagram before forwarding to the next router. T / F

- d) The following hexadecimal address is an example of an Ethernet (or MAC) address:  
00:17:31:E5:89 T / F

- e) What is the network address for the classful IP address 190.3.254.16?

Network address: \_\_\_\_\_