

## ITS 323 – QUIZ 7 (CS SPECIAL)

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

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

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

out of 10

### Question 1 [4 marks]

- a) Draw a diagram to illustrate the TCP data transfer between A and B. The TCP connection has already been established, and A chose ISN=64 and B chose ISN=77. First A sends 1000 bytes of data to B, and after B acknowledges this, B sends 500 bytes to A. Show the segment types, sequence and acknowledgement numbers.

### Question 2 [3 marks]

True or false:

- |   |       |
|---|-------|
| a) TCP includes flow control.                         | T / F |
| b) SNMP is used for email transfer                    | T / F |
| c) Given an IP address, DNS will return a domain name | T / F |

**Question 3** [3 marks]

The packet on an internet has the following information in it:

Source IP: 103.16.20.3

Destination IP: 216.155.13.6

Protocol number: 6 (TCP)

Source port number: 50134

Destination port number: 22

Source MAC address: 04:1A:44:B5:43:E7

Destination MAC address: 65:D3:A6:12:87:90

- a) Is the above packet part of the same TCP connection as the packet below: YES | NO

Source IP: 103.16.20.3

Destination IP: 216.155.13.6

Protocol number: 6 (TCP)

Source port number: 50134

Destination port number: 80

Source MAC address: 04:1A:44:B5:43:E7

Destination MAC address: 65:D3:A6:12:87:90

- b) Explain your answer from part (a).

**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 class of address should be used for a network that contains 300 hosts?

Class: \_\_\_\_\_

- b) How many hosts can be on a network with subnet mask 255.255.254.0?

Hosts: \_\_\_\_\_

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

- d) Retransmission schemes can be used at both the data link layer and transport layer. T / F

- e) What is the network address for the classless IP address 190.3.254.16/25?

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