# ITS323 – Quiz 1

Name: _____

ID: _____ Mark: _____ (out of 10)

Email address: _____ @ hotmail/gmail/other (that you used on Mailist)

**Question 1** [2 marks]

a) Draw the Internet protocol stack, giving the names of each layer. [1 mark]

b) For the following examples addresses, indicate which layer they correspond to. [1 mark]

i. Port 80 Layer: _____

ii. www.google.com Layer: _____

**Question 2** [3 marks]

True or False – circle the most accurate answer:

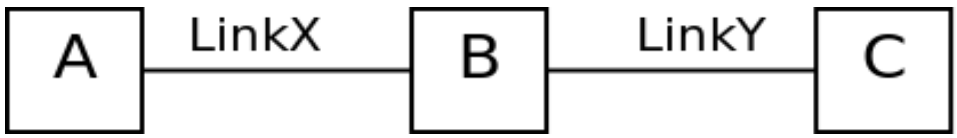
a) All protocols are implemented as part of the operating system. T F

b) Considering the performance requirements of different types of traffic, audio traffic and video traffic have the same requirements. T F

c) With a point-to-multipoint link, the transmission of A can be received by both B and C at the same time. T F

**Question 3** [3 marks]

Consider the network below with source A sending a message to destination C. The message passes via B.



Calculate the delay for the message for conditions in the table below. Assume both processing delay and queuing delay for all devices is 0.

| | |
|---|---|
| Message size | 1000 Bytes |
| Link X | |
| - Signal speed | 2.00E+008 m/s |
| - Data rate | 1 Mb/s |
| - Distance | 10000 m |
| Link X | |
| - Signal speed | 2.00E+008 m/s |
| - Data rate | 2 Mb/s |
| - Distance | 10000 m |

**Question 4** [2 marks]

To send a 1KB file from A to B, the layers within a protocol architecture contribute an additional 200B of overhead. If the data rate of the link from A to B is 6Kb/s, what is the maximum throughput achieved when sending the file?