# ITS 323 – QUIZ 1 (IT)

First name:	Last name:

ID:	 	 	

Total Marks: \_

out of 10

Email Address: \_\_\_\_\_\_@hotmail/gmail/other (that you used on Maillist)

Question 1 [1 mark]

Draw the Internet layered model, labelling the name of each layer.

#### Question 2 [1 marks]

Which following three acronyms refer to organisations that create telecommunications and Internet standards (circle the correct letter – only one answer)?

- a) ANSI, IEEE and OSI
- b) IETF, IEEE and IP
- c) IETF, ISO and IP
- d) IEEE, ANSI and IETF
- e) OSI, IEEE and IETF

#### Question 3 [3 marks]

A computer received packets at the following time:

Packet Number	Time sent [ms]	Time received [ms]
1	0	5
2	2	8
3	3	9
4	7	10
5	10	19

- a) What is the average packet delay at the receiver?
- b) What is the jitter at the receiver?

## Question 4 [2 marks]

Name the four different types of addresses used in the Internet layered model, and for each address type, give the layer at which it is used.

## Question 5 [3 marks]

Consider a web browser application on Computer A communicating with a web server application on Computer B. The user at Computer A clicks on a link in the web browser, as a result a 100 byte request is sent to the web server, and the web server responds with a 10,000 byte web page.

Α	В
Browser	Server

Assume:

- Processing delay at Computer A = 0ms
- Processing delay at Computer B = 1ms
- Queuing delay is 0
- Propagation delay from A to B = 20ms (and same from B to A)
- Transmission delay for 100 byte request is 1ms

Starting from when they click the link, how long does the user at Computer A wait for the response?