

Chapter 2: Hints & Answers

- 2.3 What assumptions can the network layer make about the layer below?
- 2.5 Be careful to distinguish between the definition of the transport layer and the functions normally carried out by the transport layer.
- 2.7 Can we insist that connection release always be confirmed?
- 2.9 For each given layer, show the flow between the point(s) where blocks of information are transferred to/from the layer below to the point(s) where blocks of information are transferred to/from the layer above.
- 2.12 Sketch the path that a packet traverses from Host 1 on the left to Host 2 on the right. Below this sketch, draw the protocol layers that are present at each host and intermediate switch or router.
- 2.16 (b) Can loops occur?
- 2.18 Use the approach suggested for problem 2.12.
- 2.21 Block size = 80 bytes.
- 2.27 (a) 1 HTTP exchange/ $2T$ seconds
- 2.34 The world population has exceeded 6 billion. For the current count go to <http://www.ibiblio.org/lunarbun/worldpop>
- 2.37 Consider what capabilities you gain/lose when you use Internet vs telephone network?
- 2.41 CNN requires subscription to access their video streaming news service. MSNBC at www.msnbc.com provides free news service so you can use this site to do the problem.
- 2.45 If your e-mail server does not allow access to e-mail using telnet, then do an Ethereal packet capture of the interaction between your e-mail program and a POP3 server when you retrieve email.
- 2.46 If you run an Ethereal capture while doing the nslookup command, you will be able to observe the sequence of DNS messages that are exchanged in executing the command.
- 2.52 & 2.53 Not all web servers can be accessed using telnet. We found that www.yahoo.com can be used to carry out this exercise.