COMPSCI 314 S1 C

Study Guide

Format of the exam

- Short-answer questions:
  answer all of them
  on the exam paper (as for the terms test)

- Question style similar to assignments and terms test:
  - Some questions are in one part
  - Others have several parts (a), (b), …

Exam technique

- Mark values for questions are different for each question – the paper tells you how many marks each question (or section of question) is worth

- Total marks = 100,
  two hours (120 minutes) for the paper
  - that's about 1 minute per mark, with time left to go back to the 'hard' questions

Course Material

Week starting	Monday	Wednesday	Friday	
28 Feb 2005	1 Introduction	2 Introduction	3 Introduction	
7 Mar 2005	4 Comm Basics	5 Comm Basics	6 Comm Basics	
14 Mar 2005	7 Protocols	8 Protocols	9 Protocols	
21 Mar 2005	10 Protocols	11 Physical	– Easter –	***Ass 1 due 23 Mar***
28 Mar 2005	– Easter –	12 Physical	13 Physical	
4 Apr 2005	14 Parity & CRC	15 Parity & CRC	16 Parity & CRC	
11 Apr 2005	17 Ethernet	18 Ethernet	19 Ethernet	***Ass 2 due 13 Apr***
18 Apr 2005	— Mid Semester Break —			
25 Apr 2005	– Anzac Day –	20 IEEE 802.2	21 LAN Connect	***Ass 3 due 27 Apr***
2 May 2005	22 Physical	23 Routing, VCs	24 Routing, VCs	**TEST: Mon 2 May**
9 May 2005	25 Routing, VCs	26 Routing, VCs	27 IP Addressing	
16 May 2005	28 IPv4, IPv6	29 IPv4, IPv6	30 TCP	
23 May 2005	31 TCP	32 Applications	33 Applications	***Ass 4 due 25 May***
30 May 2005	34 Network Mgmt	35 Sprd Spect, ATM	36 Revision	
6 Jun 2005	*No lectures – time to study*		*Note: Spread Spectrum / ATM is not examinable*	

Slides vs Textbook

- The lecture *slides* (on the course web *lectures* page) tell you what was covered
- The slides are meant to direct you to the important parts of the textbook – the *textbook* provides more detail for you

- Material from the slides and their related textbook material may be in the exam
- Material from assignments or terms tests may also be in the exam

Arithmetic

- Closed-book exam – no calculators
- But we do expect you to do some simple arithmetic, as for the terms test
- *Simplify* expressions wherever you can!

e.g. $(2 \times 1.5 \times 10^{8)} / (3 \times 10^{8)} = 1$ *!!!*

Logarithms

if $a^x = b$, then $\log_a(b) = x$

e.g., *base 10:* $10^{0.3010} = 2$, $\log_{10}(2) \approx 0.3$

base 2: $2^3 = 8$, $\log_2(8) = 3$

deciBels: $dB = 10 \log_{10}(\text{ ratio })$

therefore $\text{ratio} = 10^{(dB / 10)}$

Least Significant Bits

- In a register:
  always the rightmost bit
- In a memory byte:
  almost always the rightmost bit
- On a wire:
  the *first* bit *sent*

- e.g. *Ethernet group address* bit
  - In memory*:* *rightmost* bit of *first* byte
  - On a wire: *first* bit sent