Tips for examinations

220 exam papers = 40cm of reading Caveat: Booklets aren't filled or typed
Mark in slightly less than one week + other commitments
On average, your paper will be in the middle & 100+ exam papers (2 courses) all trying to say the same thing → short term memory is taxed (long term memory is suppressed)
⇒ write clearly and concisely (example coming)
Marking scheme:
* subjective alignment of student answers to written guide
⇒ potential for variation
✓ no time for bias (no desire either)
The last thing a lecturer wants after a week of marking: remark & supps

Rough marking guide for individual questions

0%: No attempt, answered wrong question, answer shows no evidence of knowledge from course (e.g. just restated question).
20%: Tried: Answer is basically wrong, but contains something relevant.
50%: Satisfactory. Not completely correct, but rights outweigh wrongs.
70-80%: Right, but not complete. Correct answer without working out/justification.
100%: Perfect: Captures key points + nuances, without errors.
• Penalties for making irrelevant or incorrect statements.
Marking approach: 1st couple of lines should indicate if they are on track. May decide there to give full marks, or if not full marks, wade through remainder trying to find redeeming features.

Example

Q: Someone at the Opera House asks “Where in Sydney is UNSW?”. How should you answer?

100%:
• A1a (If Q is worth 2% of exam): “Kensington, primarily, with other campuses in Paddington and other places.”
• A1b (If Q is worth 10% of exam): “The main campus is in Kensington, near Randwick, between ANZAC Pde and Botany, High and Barker Streets. The Fine Arts campus is in Paddington, and there are smaller campuses elsewhere (Coogee, Randwick). Parts of UNSW are outside Sydney, e.g. ADFA in Canberra, and shortly a Singapore campus.”
80%–20%: “Kensington”
60%–10%: “UNSW is Australia’s finest university, offering degrees in engineering, law .... In 1949, the Kensington campus was expanded ....”
45%–15%: “I ate donuts for breakfast, before brushing my teeth and catching the bus to UNSW .... in Kensington ....”
30%–30%: “I ate donuts for breakfast, before brushing my teeth and catching the bus to UNSW. The grass was blue and the sky was green. The bus was crowded and there was this person .... in Kensington ....”
0%: “Earth”, “TELE 4363 lectures were held in WebsterA and G25.”

Realistic example

Q: “What is the basic reason why traditional TCP performs poorly when used across wireless networks? (5 marks)”

A: Slows down in response to loss, assuming that loss is due to congestion, but more likely due to transmission error in wireless network.

Answers in order of decreasing merit follow:
5: Correct + insight about transience

The basic reason TCP performs poorly across wireless networks is that the loss of packets is due to the transmission medium, not due to congestion of the network. The transmission medium may result in temporary errors for single packets, not affecting future data. TCP assures that the address compression and slows down accordingly. This slowdown results in poor performance, as it is not required.

4 (generous): Correct + extraneous info

TCP (Transmission Control Protocol) notices small intervals in which the sender understands that the local packet has been lost. TCP refuses further sending, not detecting whether congestion exists or transmission error due to packet loss.

This roundtrip delay sets in which the monitoring of the congestion window will match with the software would adjust accordingly and so on this case.

3: Roundabout answer + irrelevant info

Due to the nature of wireless networks, TCP will never be able to maintain its performance. TCP will drop packets, leading to congestion and reduced bandwidth.

Due to the nature of wireless networks, TCP will never be able to maintain its performance. TCP will drop packets, leading to congestion and reduced bandwidth.

2: Allusions to correct answer, interspersed with incorrect information

Wireless networks generally have high latencies. Over time, messages or packets are lost. This results in a decreased throughput. With the data rate reducing, TCP resends packets due to congestion, and the network slow down due to latency. TCP uses slow start to adjust the transmission window size. This can be further increased by the adaptive transmission window between routers and mobile hosts so as to maintain high throughput.
2: Brevity sacrifices details needed to demonstrate technical understanding

TCP is designed for wired networks, whereas 802.11wireless networks suffer mostly from error, a different problem.

2: half the answer

1: Answer is buried amidst junk

TCP is a connection-oriented protocol, designed to provide performance guarantees. It is not a virtual circuit.

Although wireless networks have different transmission and routing factors, schedules, and protocols, compared with fixed-size routes, this means that the same TCP design does not apply.

0: Stabbing blindly

TCP is not designed around TCP error transmission, and circumstances may likely lead to that conclusion. That problem can be addressed by special protocols such as clock error, which operates on single nodes. Single protocols, such as clock error, can help improve TCP error transmission by making the default TCP re-transmission interval more effective, thus solving problems.
Lessons learned

Presentation matters:
- Most important/relevant info first
- Underline main points? Risk of highlighting the wrong points
- Neat writing?! But content is even more important. Sound structure to answers should overcome problems from language barriers.

No 2 answers are identical – descriptive conceptual subject matter
- Yet marks are quantized and can be identical.
- Could argue that one answer is better than another with the same mark.
- Could argue that one answer deserves ± 1 mark
- Could spend whole life arguing...
- Subjectivity in marking individual questions should even out over multiple questions.

Other tips

- Answers that exactly repeat what has been presented in lectures rarely receive full marks: they demonstrate memorisation, but not understanding. Express things in your own words.
- Your answers should contain technical detail that you have learned from the course.
  e.g. “Difference between MAC protocols for wired and wireless networks” don’t answer: “wireless requires no wires”, but describe specific techniques used, e.g. hidden terminal problem and RTS/CTS, collision avoidance

After the exam

Use proper communication channels – e.g. course email address teleff##admin@ee.unsw.edu.au – you won’t get a response from emails sent to other addresses.

Special Consideration: “You must make formal application for Consideration for the course/s affected as soon as practicable after the problem occurs and within three working days of the assessment to which it refers.” [UNSW regulations]

Supplementaries:
- Note previous warning about reluctance to remark/grant supplementaries.
- “If any supplementary exams are offered, then they will definitely be no easier than the primary exam. Supplementary exams are generally only offered when there is a significant case for Special Consideration. Any supplementary exams will likely be held in the week 20 (6 weeks after the last week of session).” [course outline]
• And now to review the course...