

Examination Aids: One $8.5" \times 11"$ sheet of paper, handwritten on both sides.

Student Number:

Last (Family) Name(s):

First (Given) Name(s):

Do **not** turn this page until you have received the signal to start. In the meantime, please read the instructions below carefully.

This final examination paper consists of 6 questions on 10 pages, printed on one side of each sheet. When you receive the signal to start, please make sure that your copy of the final examination is complete, fill in the identification section above, and write your student number where indicated at the bottom of every page (except page 1).

Answer each question directly on this paper, in the space provided, and use the reverse side of the pages for rough work. If you need more space for one of your solutions, use the reverse side of a page and *indicate clearly the part of your work that should be marked*.

In your answers, you may use without proof any result or theorem covered in lectures, tutorials, homework, tests, or the textbook, as long as you give a clear statement of the result(s)/theorem(s) you are using. You must justify all other facts required for your solutions.

Write up your solutions carefully! In particular, use notation and terminology correctly and explain what you are trying to do — part marks *will* be given for showing that you know the general structure of an answer, even if your solution is incomplete.

If you are unable to answer a question (or part), you will get 20% of the marks for the question (or part) if you write "I don't know" and nothing else — you will *not* get those marks if your answer is completely blank, or if it contains contradictory statements (such as "I don't know" followed or preceded by parts of a solution that have not been crossed off).

You may be charged with an academic offence for possessing the following items during the writing of an exam unless otherwise specified: any unauthorized aids, including but not limited to calculators, cell phones, pagers, wristwatch calculators, personal digital assistants (PDAs), iPODS, MP3 players, or any other device. If any of these items are in your possession in the area of your desk, please turn them off and put them with your belongings at the front of the room before the examination begins. A penalty MAY BE imposed if any of these items are kept with you during the writing of your exam. Please note, students are NOT allowed to petition to RE-WRITE a final examination.

MARKING GUIDE

