

The University of New South Wales

# COMP2521 Data Structures & Algorithms Final Exam

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## COMP2521 Data Structures & Algorithms Final Exam

**Sat 15 August, 2020**

1. Time Required: ~3 hours
2. Reading Time: as long as you like
3. Total number of questions: 8
4. Total marks available: 60
5. Questions are not of equal value.
6. Marks are shown on each question.

Read **all** of the instructions below before commencing.  
You will need to scroll until *End of Notes* to see everything

### About the Exam duration:

- the exam will be open from 10am AEST Sat 15 August
- the exam will close at 10am AEST Sun 16 August.
- you can work on the exam any time during that period
- you should definitely start *before* 7am AEST Sun 16 August
- anything submitted after 10am AEST on Sunday will be ignored

### About this Exam web-site:

- the Instructions and the Questions use one browser tab
- the C language info sheet has its own tab
- browser tabs are created the first time you access a page
- use the tabs to navigate once they're open

### General Instructions:

- Answer **all** questions.
- Questions are not worth equal marks.
- Questions may be answered in any order.
- Calculator apps (e.g. bc, xcalc) are available on your workstation.
- During the Exam, you must **not** communicate with other students

- Answers to all questions are submitted online
  - for Q1, type your answer into the file `stu.c` (in the `q1` directory)
  - for Q2, type your answer into the file `gist.c` (in the `q2` directory)
  - for Q3..Q8, type your answer into the file with `.txt` suffix (e.g. `q2.txt`)
  - submit your answers using the `give` command
    - either use the Exam Qx pages in Webcms3
    - or copy the files to CSE and use `give` on the command line

If you believe that insufficient information has been provided to answer a given question, then you should write any assumptions that you think are necessary to complete the question and continue work from there. If the assumptions are reasonable, you can still obtain full marks for the question.

Note that marks are awarded for primarily for working, not just for getting the correct final answer. If you get an incorrect final answer in one part of a question and use it in a later part of that question, it is still possible to achieve full marks for the later part if all working is correct.

For the programming questions, you can only receive full marks for a correctly-working program that compiles with no warnings. In all other cases, you receive partial-marks based on how close the program is to being correct. Submitting an unchanged `stu.c` or `gist.c` is worth zero marks.

*End of Notes*