

Name: \_\_\_\_\_

Student Number: \_\_\_\_\_

Signature: \_\_\_\_\_

The University Of New South Wales

Practical Exam

November 2005

**COMP1721**

**Higher Computing 1B**

Time allowed: **2 hours**

Total number of questions: **5**

Total number of marks: **30**

**No** examination materials permitted.

Calculators may **not** be used.

Questions are worth equal marks.

Answer **all** questions.

Assigned Work Station:

Actual Work Station:

1) I certify that I have read the exam instructions.

2) I certify that I am in a fit condition to sit this exam.

Signature: . . . . .

## Special Consideration

- If you are unwell do not commence this exam - contact an exam supervisor.
- If you become unwell contact an exam supervisor immediately.
- Special consideration requests made after this exam will be **ignored**

## Answering Questions

- Functions from the standard C library and the maths library (-lm) are available unless prohibited by the question. No other libraries are available.
- You will be able to compile programs using dcc or gcc. Answers which when compiled with dcc, produce compile-time or run-time errors may be penalized.
- Note, some questions prohibit use of certain C constructs (e.g. arrays) and/or prohibit use of some or all functions from the standard C library and the maths library . **Read each question carefully**. Failure to follow such conditions may result in a mark of zero for the question.
- You may choose to construct additional functions in answering a question. You are permitted to do this even if the question only asks for a particular function. However, make sure you provide a function with the name and parameters the question requests.
- Most questions provide examples illustrating how your answer should behave. It is not sufficient that your answer performs correctly for the examples given. Your answer should behave correctly for all possible inputs.
- Note: an answer may be penalised if it is difficult to read and understand. Normal good programming practises should be followed to make your answer easy to read and understand. However it is **not** necessary to provide standard comments, e.g don't include your name, date etc in comments.
- You may choose to provide **short** comments to make your answers easier to understand. You should certainly do this where it provides assistance in understanding complex parts of an answer.

Below is an indicative guide to the marking of questions.

- **90%** Answer is correct but difficult to read and understand.
- **80%** Largely correct answer with minor errors.
- **60%** Largely correct answer with one significant error.
- **30-50%** Partly correct answer where significant progress has been made to solving the problem.
- **0%** No significant progress made to answering question. No marks will be given unless significant progress is made towards answering the question.

## Before You Receive this Exam Paper

- First go to your assigned seat. If you are uncertain which seat you have been assigned ask a supervisor.
- Exam conditions apply. No talking. No assistance of any sort from others.
- Place any bags out of your reach. This exam is **closed book**. You are not allowed any blank paper, books, notes or other materials.
- Get your student card out and place it on your desk. Leave it there until the end of the exam.
- **Do not** login into your normal account.
- A supervisor should have already logged your workstation into the exam account.
- There should be a window asking for your CSE account name.
- You will then be asked for your password, this is your regular CSE password.
- A message should appear stating that the exam environment has been started.
- Now wait for an exam supervisor to bring you the exam.
- You are not allowed to type anything while you wait.

## After You Receive this Exam Paper

- Fill in your student number and other details on the front page of this exam.
- There will be 5 minutes reading time after you have been given the exam.
- You cannot type anything or write anything (except filling in your details) during this time
- Exam conditions apply. No talking. No assistance of any sort from others.

## After the Exam Starts

- If you have problems with your workstation or other computer problems report them immediately to an exam supervisor. You may be given extra time to compensate for any time lost.
- The exam environment will only allow you to run a limited set of commands.
- The exam environment logs all your actions.
- The exam environment does not allow access to files in your CSE account or any other CSE account. It does not allow access to the web or other network access
- You can view Unix (Linux) manual entries. No other documents or files will be available to you.
- Enter each question in a separate file. Each question specifies the name of the file to use.
- Make sure you use **exactly** this file name.
- You are not be allowed to leave during the first hour of the exam or in the last 15 minutes.
- If you need to go to the toilet ask a supervisor.
- If any problem occurs or you have a question notify a supervisor, but continue working if possible.

## Submitting Answers

- When you have finished working on a question, use the `submit` command.
- You must specify the question number and the filename.
- Make sure you get the question number right and that you use the filename specified by the question.
- For example, the command `submit 3 q3.c` would submit the file `q3.c` as your answer to question 3.
- You may *submit* what you have done multiple times. The last submission will replace earlier submissions.
- A simple test may be run on you program when you submit.
- Passing this test does not indicate your program is correct or that it will receive any marks.
- You must submit an answer during the exam to receive any marks for it.

## When the Exam Finishes

- Make sure you have submitted answers to all questions you attempted.
- Make sure you have filled in your details on the front of this exam.
- Now wait while an exam supervisor collects your exam.
- If you take this exam with you, you will receive 0 for the exam.





**Question 3**

*(6 marks)*

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**Question 5**

*(6 marks)*

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