University of Canterbury
Department of Computer Science and Software Engineering

Summer Lab Tests 2005

Prescription Number(s): `Cosc121`

Paper Title: `Introduction to Computer Science 1A`

Time Allowed: `TWO hours`

Number of Pages: `3`

- Answer *all* questions.
- Check carefully the number of marks allocated to each question. This suggests the degree of detail required in each answer, and the amount of time you should spend on the question.
- Two A4 pages (two sides of an A4 sheet of paper) of *hand-written* notes may be used.
- You *are* permitted to use calculators.
- Use the separate *Answer Booklet* for answering *all* questions.
- No form of collaboration is permitted.
- This item of assessment is worth 46 marks.

1. **[10 marks for whole question]** How much wood would a woodchuck chuck, if a woodchuck could chuck wood?
2. **[15 marks for whole question]** Consider a woodchuck that is chucking wood.
   (a) **[5 marks]** If working alone, how much wood would the woodchuck chuck?
   (b) **[5 marks]** If two woodchucks were chucking wood, would the woodchucks chuck more wood?
   (c) **[5 marks]** Discuss the relationship between the number of woodchucks avaliable to chuck wood, and the ammount of wood that is chucked. You should note
      i. Weather the relationship is linear, and
      ii. If there is a maximum number of woodchucks that can chuck wood.
3. **[16 marks for whole question]** Foo
   (a) **[4 marks]** Bar
   (b) **[9 marks]** Wibble
      i. **[4 marks]** Qux
      ii. **[4 marks]** Quux
   (c) **[4 marks]** Blarg
4. **[5 marks for whole question]** $P = NP$. Comment.

End of Paper