

CSCI 1320 (Principles of Algorithm Design I), Fall 2007

Review for Midterm Exam

1 Format of the exam

The exam will be in class October 9. You will have 75 minutes. You may use your textbook and any notes or papers you care to bring (with the exception of any materials from this course in previous years), but you may not use other books, each other's papers, or a calculator or computer. (If you think you might want to look at material from the course Web site, please bring printed copies. You can use the printers in Halsell.)

Questions will mostly be similar in format to the ones in quizzes and minute essays — some short-answer or multiple choice, some “what does this program do/print”, some “write a program to do this task” — but probably somewhat longer and/or more difficult.

2 Topics to review

You are responsible for all material covered in class or in the assigned reading, but the focus will be on material presented or at least mentioned in class. (See the schedule for a list of assigned reading.) You should review in particular the following topics.

- Basics of how computers/programs work — source code, object code, executables; text editors and compilers.
- Basic Linux commands.
- Number systems — converting decimal to binary/octal/hexadecimal and vice versa, including fractions.
- Data representation — basic idea of how negative integers and floating point numbers are represented.
- Variables in C (types, declarations).
- Expressions and statements in C.
- Conditional execution in C.
- I/O in C (use of `scanf` and `printf`).
- Use of other C library functions (e.g., `sqrt`).