

# Homework 7 – Midterm

*Due: Tue, Apr 3 2012, 2:30pm*

**Policy** No collaboration is allowed on this homework. Any question should be sent to cs155tas@cs.brown.edu all answers will be posted on the class email list (cs155.2011-12.s@lists.cs.brown.edu). Copying solutions from any source except the course textbook and slides is not allowed.

For 100 level credit answer 3 of the following 4 problems. For 200 level credit, answer all problems. Please write on the first page if you take the course for 200 level credit. Otherwise we just grade the first 3 answers.

Answers should be *concise* and *clear*.

## Problem 1

Exercise 10.1 from the text book.

## Problem 2

Exercise 10.8 from the text book.

## Problem 3

Exercise 10.11 from the text book. [Hint: a possible solution is to replace the empty set with a randomly chosen node.]

## Problem 4

Exercise 10.13 from the textbook. [Hint: Use Chebyshev bound.]