Cpt S 465/564 Homework #4

Given: Wednesday, November 29, 2000

Due: Monday, December 11, 2000, at beginning of class

Weight: 9 percent of final grade (564)

4 percent of final grade (464)

Notes:

- Hand in hardcopy, please do not email to instructor or TA
- You **must not turn in handwritten homework** (it is too hard to read in most cases). Therefore, type in your homework in MS Word, LaTeX, or even ASCII text, but print out a hardcopy and turn that in.
- Please put your name and if you are taking 464 or 564 on it (or 483 and 580 if you insist on the formal numbering)

1. [10 pts] Exercise 9.5 in the text.
2. [20 pts] Exercise 9.10 in the text.
3. [20 pts] Exercise 9.12 in the text.
4. [10 pts] Exercise 10.6 in the text.
5. [20 pts] Exercise 10.11 in the text.
6. [80 pts; 564 only] First read the paper given out in class, "Practical Uses of Synchronized Clocks in Distributed Systems" by Barbara Liskov. The choose any one CORBA service, or any kind of distributed systems service in use today that you believe does not typically use synchronized clocks for coordination but could be improved in one or more ways by the use of . Then write a concise one-page discussion of how that service could be thus improved, any practical issues you would see in deploying synchronized clocks for that service. Any writeup that gets more than 50 points will have to have both a thoughtful, unique example service and a concise, to-the-point writeup. Alternately, if you cannot think of such an example service, you can write up a service that can not be improved noticeably by synchronized clocks, and still get up to 50 points.