Important: This is an open book test. You can use any books, notes, or paper, but not exchange anything with other students. You are not allowed to use any electronic/communication devices, including a calculator. Do not log into the computer during the test. Any calculations and rough work can be done on the back side of the test pages. You will lose five points for not writing your name.

1. [4 pt] What is the difference between a DoS attack and a flash crowd (also called flash event)?

2. [6 pt] There is a vulnerability noted in tcsh, csh, sh, and ksh from Sun regarding the root user. What is it? What can be done to overcome it?

3. [6 pt] Name two problems with a public Wi-Fi network such as the one used in St. Louis Bread Company.
4. [8 pt] I want incremental backups to be performed such that level 9 backup is performed every weekday (M-F)s. On each Saturday, we perform a backup such that first Saturday of the month is level 3 backup, second Saturday is level 4, third Saturday is level 5, and fourth Saturday is level 6 backup. In addition, we perform a level 0 backup on the first of the month. All the backups are performed at 2:00am. Give me the set of commands for my crontab file to achieve this. What happens if 1st of the month falls on a Saturday?

6. [4 pt] A user approaches you saying that he is unable to run `at` jobs but able to run `cron` jobs. What could be wrong? How can you fix it?

7. [8 pt] Compare IDE and SCSI buses. Under what circumstances will you be forced to use each of those? How do they compare with PCI bus?