FEW, Dept. of W&I
Vrije Universiteit

Operating Systems 16 August 2004

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Every correctly answered question yields at most 1 point. The final grade is the sum of the grades for the questions. The midterm exam does not count.

- 1. Timesharing and multiprogramming did not exist before about 1960. What essential hardware facility was missing before that? Why was it needed?
- 2. Give a short description of what each of the following UNIX system calls do:
 - exec
 - brk
 - pause
 - getuid
 - sync
- 3. Give a short explanation of the difference between policy and mcchanism with respect to CPU scheduling. Give an example.
- 4. With respect to scheduling, a process can be in one of three states. Make a drawing of these and name every state. Show the valid transitions and explain what each transition means.
- 5. What is the difference between DMA and programmed input/output?
- 6. Name three functions of the MINIX clock task.
- 7. What is an inverted page table. Under what circumstances is it used?
- 8. Give 5 different names for '/etc/passwd' that all refer to '/etc/passwd'.
- 9. In Windows, small files can be stored entirely in the Windows equivalent of the i-node. What is the use of doing this?
- 10. What is a covert channel? Give an example.