

Homework 2
Computer Systems Organization II, V22.0202.003 Spring 2005, Professor Yap

Due: Thu Feb 10, in class

INSTRUCTIONS:

- Please read questions carefully. All handed in work must your independent writing (even if you have discussed the solution with other students)
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1. (20 Points)
 - (a) Prove that Peterson's Solution [p.106] is correct. "Correctness" is relative to the criteria we require – for this purpose, assume that four criteria in p.102.
 - (b) Generalize the solution in Figure 2-21 [p.106] to an arbitrary number of processes, not just two.
2. (15 Points)

Problem 31 [p.155]. Modeling a fast food restaurant.
3. (10 Points)

Problem 32 [p.155]. Modifying the dining philosophers's solution.
4. (10 Points)

Problem 39 [p.156]. Scheduling to minimize average response time.
5. (20 Points)

Problem 40 [p.156]. Determining mean process turnaround time under different scheduling policies.
6. (10 Points)

Problem 43 [p.156]. The aging algorithm.