

# Final Exam Notes

- Same format as midterm
  - Open notes
    - You can bring your quizzes, class notes, homework and programming assignments, and Piazza posts
    - No books allowed (they won't help anyway)
  - Start time exactly 8am; end time exactly 10am
  - The exam will have six questions on five double-sided pages
    - Do not forget to do the last problem
  - **When a variable has no values, please write an X instead of leaving it blank.**

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- Problem 1: Pre-midterm material (20 points)
  - No surprises: concurrency, locks, and semaphores
  - 12 subproblems
  - You can expect some of the subproblems to look like some of the subproblems on Quiz 13, problem 2

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- Problem 2: Monitors (12 points)
  - Four subproblems
  - One of the subproblems is identical to one of your monitor quiz questions
    - So that you do not need to thumb through many quizzes, I give you the answer to the identical subproblem (yes, that is three free points)

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- Problem 3: Monitors (12 points)
  - Six subproblems
  - To help guide your studying, recall that because there cannot be a race condition on any variable inside a monitor, testing you on the final values of variables is rather boring

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- Problem 4: Basic Message Passing (16 points)
  - Four subproblems
  - Nothing surprising here: can you follow the logic in message passing programs when all receive operations specify a particular sender?

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- Problem 5: Message Passing with Wildcard Receives (24 points)
  - Six subproblems
  - Four of the six are related
  - One of the six will resemble the hard problem from Quiz 13

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- Problem 6: Dealer's Choice (16 points)
  - You'll just have to study multiple topics

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- Topics that are **not** covered on the final exam
  - Scientific parallel programming
    - This means that there are no questions about how grid computations work, and no questions about how to implement barriers
  - Paradigms
  - Interacting peers