

Midterm 2011 Scope

- This exam will have five questions.
- Question 1 (OS organization)
 - Know monolithic, layered and micro-kernel scheme.
 - Be able to differentiate between them
 - Know pros and cons of each
- Question 2 (Process States)
 - Know state diagrams of processes: ready, wait, blocked, etc.
 - Understand the roles of various queues and how processes move from one queue to another
- Question 3 (Concurrency and Race Conditions)
 - Know the semantics of cobegin/coend
 - Understand what race conditions are, how they arise, and implications of race condition.
 - Understand how executions of statements can be interleaved when run in parallel.
- Question 4 (Concurrency and Synchronization)
 - Know semaphores and how they can be used to implement synchronization among processes.
 - Understand monitors and how they can be used to implement synchronization among processes.
 - Know livelock, deadlock, and conditions under which they can occur.
- Question 5 (Scheduling): Know various scheduling algorithms, and how they can be applied.