1) What are the possible state transitions of a process?

2) What are the differences between a thread and a process?

3) User-level threads vs. Kernel-level threads? Know the pros and cons of each type.

4) Understand the concepts of race condition and mutual exclusion

+ Locked variables, strict alternation, Peterson's algorithm, disabling interrupts, semaphore, monitor. Know which one is software or hardware solution; which one relies on busy waiting.

+ Semaphores. Understand what a semaphore is; its up and down operations; its principles to allow mutual exclusion among several processes or threads.

+ What is the preemption and non-preemption in the context of process scheduling?

+ How the FIFO, SJF (SJRF) and Round-Robin scheduling algorithms work?