These are sample types of questions like the ones that may be found on the final exam.

1. Give a solution to the weak-reader preference reader-writer problem.

2. Given a reusable resource graph such as the one below (omitted here), determine whether it represents a deadlock state.

3. Given a current state of processes and resources represented by an allocation matrix, a maximum claim matrix, and an availability vector, determine whether the state is a safe state by showing a safe sequence or showing how no such sequence exists.

4. Given a reference string generated by a process, compute the number of page faults with N frames if page replacement is by LRU, or FIFO, or the optimal algorithm.

5. Given a reference string, if the working set window is of size N, how many page faults will occur?

6. Show how a logical address is translated in a two-level paging system with a TLB.

7. Explain the differences between paging and segmentation.

8. Given a paging system with 4KB pages and a 32-bit logical address space, if physical memory is of size 4GB, show how logical addresses are translated.