1. What is a deadlock?

2. When a deadlock occurs, will the system remain in the deadlocked state permanently or just temporarily for a limited amount of time?

3. Can deadlock happen if there is only one process? why?

4. What is the difference btw the coding in Fig.3-2a and Fig.3-2b?

5. Consider Fig. 3-4. Suppose that in step (0) *C* requested *S* instead of requesting *R and S*. Would this lead to deadlock?

6. Students working at individual PCs in a computer laboratory send their files to be printed by a server which spools the files on its hard disk. Under what conditions may a deadlock occur if the disk space for the print spool is limited? How may the deadlock be avoided?

7. In the preceding question (Question 6) which resources are preemptable and which are nonpreemptable?

8. Understand the graph algorithm for detecting deadlocks in case there is only resource of each type

9. Understand the matrix algorithm for detecting deadlocks in case there are multiple resources of each type

10. What is an unsafe state?

11. Understand Dijkstra's Banker algorithm for avoiding deadlocks

12. What is the weakness of the Banker algorithm?

13. What is the idea of spooling to prevent deadlocks?