These questions are provided to you to help you study material covered in CS 241 that may appear on the final exam. These exact questions may or may not appear on the final exam, but the topics they cover will almost certainly be on the final exam.

1. What are the four conditions of deadlock?

2. Choose two of the conditions of deadlock you identified in (1). For each method chosen, provide a set or rules for the philosophers in the Dinning Philosophers Problem that removes the deadlock condition you picked. Explain how the rule you gave eliminated deadlock.

3. What is a Wait-For Graph? What kind of graph is needed in order to generate a WFG?

4. What are the three primary methods of dealing with (and not ignoring) deadlock?

5. Run the Banker's Algorithm to determine if a request made by P1 for (A: 2, B: 2, C: 2) can be allocated. The maximum available resources in the system are **(A: 10, B: 5, C: 5)** and the current and maximums (written as current / maximum) resources for each process in the system are as follows:

	A	B	C
P1	0 / 7	1 / 5	0 / 3
P2	2 / 3	0 / 2	0 / 2
P3	3 / 9	0 / 0	0 / 2
P4	2 / 2	1 / 2	1 / 2
P5	0 / 4	0 / 3	2 / 3