

Week #3: Memory I
Exam Review Question
CS 241: Fall 2013

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 does it mean to have a virtual address? How does that differ from a physical address?
2. In lecture, several page eviction strategies were discussed. Name three strategies, describe how they work, one advantage, and disadvantage to each.
3. Each Page Table Entry (PTE) has several status bits. In lecture, we focused on five of these bits. Describe the purpose of the five bits discussed in lecture.
4. Three different heap allocation strategies were discussed in lecture: Dictionary, Metadata, and Buddy System.
 - a. What strategy would you use if you were concerned only about speed? Why?
 - b. What strategy would you use if you were concerned about total memory usage? Why?
5. What does the **sbrk ()** system call do?