

EEL 5764 Computer Architecture
Fall 2019
Homework 1

Due Date: Sep 25, 4 am ET through Canvas

Note: While discussions in the general topic area are permitted, your submission must be your work.

1. (20 pts) State true or false. Add brief explanations if required (1-2 sentences):
 - a. Write through policies take longer write times.
 - b. Larger cache block sizes reduce the miss penalty.
 - c. Higher associativity means higher conflict misses.
 - d. Miss penalties are always lesser than hit times.
 - e. The choice among different types of mapping in memory hierarchy depends on the cost of miss vs. cost of implementing associativity.
2. (40 pts) Complete the following exercises of Chapter 2 of the referred textbook (Computer Architecture: A Quantitative Approach -- 6th edition) -- 2.20, 2.21, 2.22.
3. (40 pts) Complete the following exercises of Appendix B of the referred textbook (Computer Architecture: A Quantitative Approach -- 6th edition) – B.1, B.2, B.7.