

EEL 5764 Computer Architecture
Fall 2019
Homework 4

Note: Discussion is allowed, but your submission must be your own work.

Q1) [10,10,10] Complete the following problems at the end of Chapter 5 of the textbook(Hennessey Patterson 6th Edition): **5.4(a), 5.4(b), 5.4(c).**

Q2) [20] Draw state table for MSI, MESI & MOESI for the following set of instructions for a 3 processor configuration. Consider that every bus transaction takes 120 cycles and 1 cycle for a hit. Your state table should have the following structure:

| Mem. Access | State P1 | State P2 | State P3 | Bus Action | Cycles |
|-------------|----------|----------|----------|------------|--------|
|-------------|----------|----------|----------|------------|--------|

Sequence:

Processor 1 reads

Processor 1 writes

Processor 2 reads

Processor 3 reads

Processor 2 writes

Processor 1 reads

Processor 3 writes

Processor 1 writes

Processor 1 reads