

Slide 1

Administrivia

- Reminder (as if you need one!): Exam 2 Wednesday.
- Homeworks 7 and 8 partially graded. I will try to finish by end of my day today and put them in my mailbox.
- Sample solutions to all assignments in Google Drive folder. (Usual caveat about not looking at them if you haven't turned something in and intend to.)

Slide 2

Homework 6 Essays

- A few found problems easier than they looked at first, though sometimes required more reading of textbook(!).
- A few commented on connections between FSMs and automata of theory. Really is true that courses in BS/CS are parts of one body of knowledge, not all separate!
- One who didn't do well in Discrete said Boolean expressions/algebra seemed confusing compared to programming logic(!).
- Many were confused by second problem, especially about getting from FSM diagram to Boolean expressions. Agreed that an(other) example would have been good!

Slide 3

Exam Review — Chapter 3

- Probably conceptual questions only; no detailed questions involving a lot of tedious calculation.
- Review how integers and real numbers are represented, overflow.
- (Questions?)

Slide 4

Exam Review — Appendix B

- Combinational logic: Boolean expressions, truth tables, circuits. Nothing about FSMs.
- Difference between combinational-logic blocks and state elements.
- Design of an ALU: Review Figure B.5.12 and how different values of control inputs control what it does. (Last two bits of control input are input to multiplexor.) (E.g., why does a control input of 0110 mean “subtract”?)
- (Questions?)

Exam Review — Chapter 4

Slide 5

- Design of single-cycle implementation: Review Figures 4.17 and 4.24 and related tables. What do the various control signals do? When can you say a control signal doesn't matter? (Hint: Is that ever true for, say, `RegWrite`?) Review tracing instructions through circuit.
- Single-cycle versus pipelined: Conceptual questions only, possibly true/false or multiple choice; no details.
- (Questions?)

Minute Essay

Slide 6

- Right now you may be focusing on the exam, but any thoughts about what we might do next week? I'm thinking a few more details about caching, possibly something about hardware support for various kinds of parallelism.
- (Though apparently few are interested in parallelism, judging by enrollment in CSCI 3366!)