

# Quiz Guide

## CSC 28 – Discrete Structures for Computer Science

To maximize your quiz performance: attend lectures, do readings, start homework early, ask for help when you need it, review problems and solutions before the quiz. If anything in this assignment does not make sense, please ask for help.

- 1) Make sure you've done the assigned reading and have reviewed your notes. Some people find it useful to rewrite their notes into a second notebook, cleaning them up and correcting them as they go.
- 2) Any problem similar to the ones in the homework may be on the quiz. Study them until you completely understand. Some people find it useful to try to write their own problems and then have their classmates try to solve them.
- 3) Here are some problems from old quizzes. There is no guarantee that the problems on your quiz will be like these, but it may be useful to see what I've asked in the past.

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Design a circuit with inputs  $w, x, y, z$  that outputs 1 if  $wxyz$  is composite when interpreted as a binary number (ie, 4, 6, 8, 9, 10, 12, 14, 15). You don't need to show a truth table or complete sum-of-products if you don't want to, but must show a karnaugh map, optimal sum-of-products, and resulting circuit.

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On the back of this page, design a circuit with inputs  $w, x, y, z$  that outputs 1 if  $wx + yz$  is odd when  $wx$  and  $yz$  are each interpreted as binary numbers 0–3. You don't need to show a truth table or complete sum-of-products if you don't want to, but must show a karnaugh map, optimal sum-of-products, and resulting circuit.

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