

Quiz 3 – EECS 270, Spring '04

Name: _____ unique name: _____

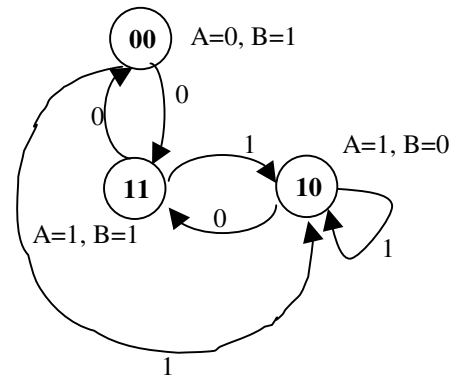
Honor code:

I have not given or received aid on this quiz, nor have I observed anyone else doing so:

Sign here: _____

This quiz is graded out of 30 points and is worth about 4% of your class grade. You will have **25** minutes for this quiz. **Closed everything including calculators!** To receive partial credit, work must be shown.

1. Design the *complete* state machine for the following state transition diagram. There is one input, “I” and two outputs (A and B). You may provide logic equations rather than drawing out the gates for the combinational logic block(s). Your combinational answers should be in minimal sum-of-products form. Use D flip-flops to store the state and use as few flip-flops as possible. Show your work. [23]



2. Draw a D-**latch** using only ANDs, ORs, and NOTs (you may represent a NOT as a bubble, but you must do so clearly). [7]