UNCC, Department of Electrical and Computer Engineering
ECGR 2181, Fall 2008, Quiz #11, 11/25/2008

Name: _____

Follow the five steps of designing a Controller:

1. Create FSM
2. Create the architecture
3. Encode the states
4. Create the state table
5. Implement the combinational logic

Create a controller with one input, *z*, and two outputs, *a* and *b*. *ab* should always follow the following sequence when *z* = 0: 00, 01, 10, 11, repeat. *ab* should go to the previous value (i.e. 01 to 00) when *z*=1. The output should only change on a rising clock edge. Make 00 the initial state.