

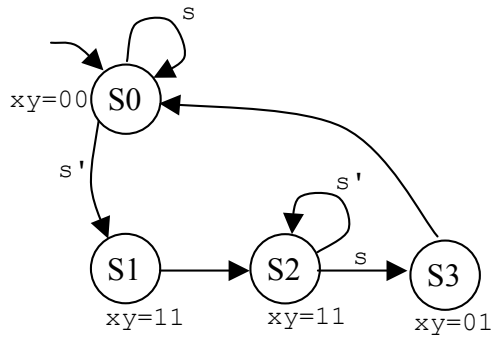
ECE 274 Digital Logic – Fall 2009

Exam 5 – Problem 3 (Take Home)

DUE: Wednesday, December 09, 2009 (beginning of lecture)

Name: _____

3. (6 points) Using the provided output encoding, convert the following FSM to a state register and combinational logic expressed as **OPTIMIZED** Boolean equations in sum-of-products form (you do not need to draw logic gates). Be sure to **OPTIMIZE** your Boolean equations. *Hint: You will likely need to use a K-map with don't cares.*



State Encodings:

S0: 000

S1: 011

S2: 111

S3: 001