Computer-aided IC Design/VLSI I Spring 2009 (Prof. David Pan)

Homework #7: Assigned 4/7, due 4/14, 2009

- 1. Problem 11.1 from the Exercises for Chapter 11.
- 2. Problem 11.2 from the Exercises for Chapter 11.
- 3. Problem 11.9 from the Exercises for Chapter 11.
- 4. Problem 11.10 from the Exercises for Chapter 11.
- 5. Problem 11.12 from the Exercises for Chapter 11.
- 6. Draw the state transition diagram of a Finite-State-Machine with one input and one output, which produces an output of 1 when the input sequence has an even number of 0s and an odd number of 1s. (It is assumed that, in the starting state, the number of 0s and 1s is even.)

Shown below is a partially drawn state diagram, with the state producing the output of 1 represented as a double circle (the machine is said to "accept" the string and the state is called an "accepting state").

Complete the state diagram for the above specification.

