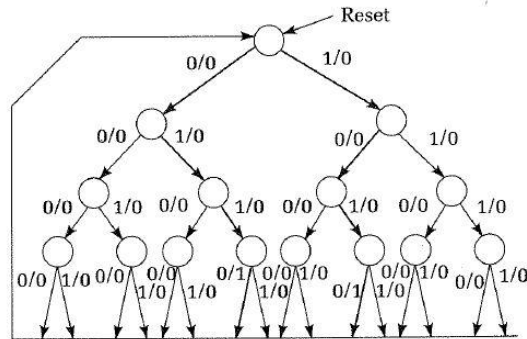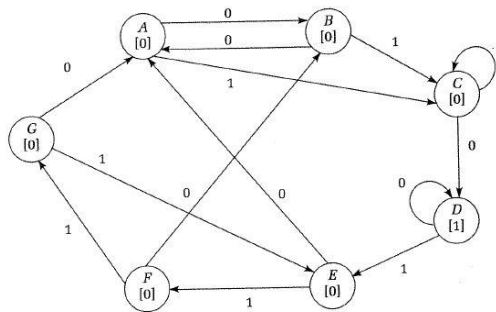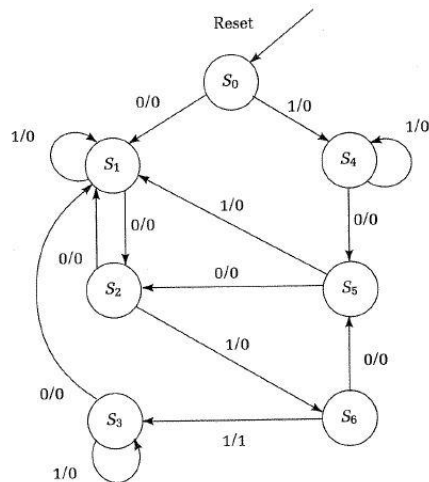# ECE451 Homework #13

8.1 (State Reduction) Use the implication chart method to reduce the 4-bit string recognizer state diagram of the following diagram.

8.2 (State Reduction) Given the state diagram shown below, obtain an equivalent reduced-state diagram containing a minimum number of states. You may use row-matching or implication charts. Put your final answer in the form of a state diagram rather than a state table. Make it clear which states have been combined.

8.4 (State Reduction) Given the state diagram shown below, determine which states should be combined to determine the reduced state diagram. You may use row-matching or implication charts.

8.14 (State Partitioning) Given the state diagram shown below, partition the state machine into two communicating finite state machines, one containing the states: S_0, S_1, S_2, S_3, and the other containing: S_4, S_5, S_6.