Lectures Covered: Lessons 20 to 25

Show all relevant steps. Don’t just write down the answers.

**Late HWs will not be accepted.** Lecture Students: turn in your HW in class. Recitation students: turn in your HW at the ECE Office Front Desk. **HWs turned-in anywhere else will not be accepted.**

Show your work on these pages, attach additional pages if necessary.

- Be sure to organize the pages in order and staple them all together, otherwise you will lose one point

- Fill out the following section. **You will lose an additional point if you fail to provide these details**

Your Last Name_____________________________   Your First Name______________________________

1. Lecture Student __________ or Recitation Student__________ (check one)

2. If Recitation then fill out the following
   Name of recitation instruction_______________________ Date/time of recitation______________

Problems start from next page. Both the problems will be graded, each graded problem is worth 5 points.
1) Implement the state table shown on page 6 of Lesson 24 by using a PROM and D-Flip Flops. Do not use AND or OR gates. Use Grey Scale encoding of states. No need to simplify the logic expressions.
2) Implement the state machine diagram shown on Page 5 of Lesson 26 by using a Programmable Logic Array and D-Flip Flops. Do not use AND or OR gates. Use one hot coding to encode the states. No need to simplify the logic expressions.
1) Continued ...
2) Continued...