

University of Illinois at Urbana-Champaign  
Department of Electrical and Computer Engineering

ECE 362/CS 362/MATH 391 : LOGIC DESIGN

Spring 2002

**Problem Set 9**

**Fundamental Mode Sequential Circuits, Synchronous Sequential Circuits**

**Issued:** Thursday, March 28th.

**Due:** Never.

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**Reading from McCluskey:** Chapter 7, Chapter 8 (Sections 8.1–8.2).

**Announcement 1:** To account for the two evening mid-semester exams, the lectures on Thursday, April 4 and Tuesday, April 9 are *cancelled*.

**Announcement 2:** The second Mid-Semester Exam will be held on Tuesday, April 9th, from 7:00 to 9:00pm in Room 141 Loomis Laboratory. The exam will cover all material from the beginning of the term *up to and including* the lecture on Tuesday, April 2nd. The corresponding material includes (but is not limited to) Problem Sets 1 through 9 and the following material from McCluskey:

- *Before Exam 1:* Chapter 2 (2.1-2.8), Chapter (3.1-3.6), Chapter 6 (6.1-6.10);
- *After Exam 1:* Chapter 3 (3.6), Chapter 6 (6.10-6.13), Chapter 5, Chapter 7, Chapter 8 (8.1-8.2).

During the exam, you can bring *two* 8.5 × 11-inch double-sided sheets of *handwritten* notes. Calculators are allowed but will not be necessary.

A copy of an old exam can be downloaded from <http://courses.ece.uiuc.edu/ece362>. This exam does not necessarily resemble this year's exam (also notice that the material covered in this old exam is slightly different from the material covered in this year's exam).

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**Problem 9.1**

Problem 7.11 from McCluskey.

**Problem 9.2**

Problem 7.2 from McCluskey.

**Problem 9.3**

Problem 7.5 (parts (a), (b), (c) and (d) only) from McCluskey.

**Problem 9.4**

Problem 8.1 from McCluskey.