

## Test 3 for 196 on Thursday Dec. 11

updated Dec. 7, 2008

There will be **three 30-point problems** on the test. **You will choose two to complete.** There will be **nine 10-point problems** to choose from. **You will choose six to complete.**

I will supply all equations. No extra credit will be allowed.

*This document may change ever so slightly. . .*

### Chapter 31- Faraday's Law

Faraday's Law of Induction, Motional Emf, Lenz's Law, Generators and Motors, Eddy Currents

Figures: 1, 2, 4, 5, 7, 8, 11, 15, 22

Examples: 3, 5, 6, 7

Basic Problems: *WebAssign* - 1, 2, 15, 16, 17, 21, 23, 35, 36

Medium Problems: *WebAssign* - 22, 43, 44, 45

### Chapter 32- Inductance

Self-Inductance, RL Circuits, Energy in Mag-Field, Osc in an LC Circuit, RLC Circuit

Figures: 1, 2,3, 4, 10, 11, 15, 16

Examples: 1, 2, 6

Basic Problems: *WebAssign* - 1, 2, 3, 4, 5, 14, 15, 17, 29, 30, 32

Medium Problems: *Web Assign* - 20, 21, 33, 34, 35, 41, 42, 50

### Chapter 33- AC Circuits

AC Sources, Resistors, Inductors and Capacitors in an AC Circuit, RLC Series Circuit, Resonance, Transformers

Figures: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 13, 14, 15, 17, 19

Examples: 1, 2, 3, 4, 6

Basic Problems: *WebAssign* - 1, 2, 3, 4, 5, 6, 9, 10, 11, 13, 14, 17, 38, 39, 40

Medium Problems: *Web Assign* - 19, 20, 22, 22, 23, 25, 26, 44, 45

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## Final Test for 196 on Thursday Dec. 18 at (10:30-12:30)

The same problems from both editions are shown below. **120 points**

There will be **three 30-point problems** on the test. **You will choose two to complete.**

There will be **nine 10-point problems** to choose from. **You will choose six to complete.**

I will supply all equations. No extra credit will be allowed. *This document may change ever so slightly. . .*

Chapter 23 Electric Fields	7 <sup>th</sup> (6, 8, 27, 40)	6 <sup>th</sup> (6, 10, 34, 49)
Chapter 24 Gauss's Law	7 <sup>th</sup> (4, 9, 18, 21, 23, 44)	6 <sup>th</sup> (4, 11, 24, 37, 25, 55)
Chapter 25 Electric Potential	7 <sup>th</sup> (4, 16, 42)	6 <sup>th</sup> (9, 22, 50)
Chapter 26 Capacitance	7 <sup>th</sup> (4, 23, 27)	6 <sup>th</sup> (6, 27, 31)
Chapter 27 Current and Resistance	7 <sup>th</sup> (1, 2, 13, 42)	6 <sup>th</sup> (1,2, 17, 55)
Chapter 28 Direct Current Circuits	7 <sup>th</sup> (11, 55, 61)	6 <sup>th</sup> (14, 67, 71)
Chapter 29 Magnetic Fields	7 <sup>th</sup> (4, 29, 23, 55)	6 <sup>th</sup> (4, 15, 35, 63)
Chapter 30 Sources of Mag Fields	7 <sup>th</sup> (10, 17, 25)	6 <sup>th</sup> (12, 17, 23)

**No material from Chapters 31-32-33-34**