

## Electric Machines & Drives

**Homework #7 Answers:** Chapter 20, & Chapter 21

**Due:** 11/21/11

### Chapter 20 of text book - Questions

20-14: a. 2 or 4 b. 1 or 3 c. 4 or 2

20-22: 28s

20-25: a. 345V, 45hz b. 633V, 82.5hz

20-35: a. 4.39pu, 1.32pu b. 14s

### Chapter 21 of text book - Questions.

21-7: a. 3240V b. 200A

21-9: a. 150V b. 3.75A

21-10: 45kW

21-11: a. 0.72kW b. 99.96%

21-13: a. 36A b. 170V c. >65J d. 100mH e. 170V

21-16: a. zero b.  $77.7^\circ$  c.  $102.3^\circ$

21-17: a. 14kV b. 6.3MW c. 367A d. 23.5MVAR

21-21: 6.25mH