

## Electric Machines & Drives

**Homework #5 Answers:** Chapter 15, 16 & Chapter 17

**Due:** 10/03/11

### Chapter 15 of text book - Answers.

15-2: a. 5.05 W, 82° b. 811 RPM, c. 45.4 A, d. 332 N\*m

15-4: 26.7 W, 202 W

15-5: 0.4 W, 0.5 W, 1.48 W, 268 N\*m

### Chapter 16 of text book - Answers

16-12: a. 150A, b. 50A

16-13: 2400V

16-15: 807 mm

16-16: a. 145 W, b. 192 W, c. 144 W, d. 10A e. 1750V, f. 3.031V, g. 57. kW, h. 36.9°

### Chapter 17 of text book - Answers.

17-7: 2300 HP

17-9: a. 2217 kVA, b. 90.2%, c. 956 kvar d. 32 poles

17-14: a. 36.9°, b. 2.16 MW, c. 100%, d. zero

17-15: a. 300A, 0°, b. 720 kvar delivered