

ECE370 POWER & ENERGY SYSTEMS

Hints & Answers for HW # 7

- 7.1 b) 0.04 c) 2.4 Hz e) 1800 rpm
- 7.2 Between 75% and 77%
- 7.3 a) Slightly over 274 W/ph b) Slightly under 30 hp d) Slightly over 36 A
- 7.4 $R_2 = 0.15 \Omega$, $R_C = 565 \Omega$, $X_M = 225$, $X_1 = X_2 = 1.2 \Omega$
The efficiency is slightly over 89%
- 7.5 a) Slightly under 99A b) Slightly over 0.9 lag e) Close to 92½%
f) Slightly under 310 A