The Ohio State University
Department of Electrical Engineering

EE 341

Energy Conversion
Home work Set # 3

Print Your Name

_____

The Last Four Digits of Your OSU I.D. number :

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1. Solve Problem 1-5 (text, page 48)

2. Write a Matlab program and solve Problem 2-2 (page 133). Attach your Matlab program as an appendix. Give your solution on separate sheets.

3. Special Problem:

Consider a single phase transformer rated 1.2kV/120V, 72kVA. Assume the low voltage side is short circuited and the voltage, current and power measured on the high side are:

V= 20 V	I=60 A	P=36 W

a) Determine the short circuit impedance referred to the low voltage side .b) Per unit Impedance from high and low voltage sides. **You must give all your calculation steps.**