

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS

ELECTRICAL ENGINEERING DEPARTMENT

Dr. Ibrahim O. Habiballah

EE-306

Key Solution

Quiz 5 Sec.: 6 I.D.: Ser#: Name:

Q.1 A synchronous generator running at leading power-factor load is underexcited.

True False

Q.2 A synchronous motor, with negligible armature resistance, running at lagging power-factor load will have negative speed regulation.

True **False**

Q.3 The synchronous reactance is the vector summation of the leakage reactance and the reactance due to armature-reaction .

True False

Q.4 A synchronous motor can absorb reactive power if the field current is increased.

True **False**

Q.5 Two synchronous machines are to run in parallel. The first one has 6-poles and runs at a speed of 1200 rpm. If the second one has 8-poles, its speed should run at

- a. 1200 rpm.
- b. 1000 rpm.
- c. 900 rpm.**
- d. 750 rpm.