

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS

ELECTRICAL ENGINEERING DEPARTMENT

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EE-306

Key Solution

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

Circle the correct answer.

- 1) Projecting-pole rotors in synchronous machines are used in high-speed applications. (2 Marks)
- a. True.
 - b. False.**
- 2) The synchronous reactance X_S represent (3 Marks)
- a. The leakage reactance of the armature winding and field winding.
 - b. The leakage reactance of the armature winding and field resistance.
 - c. The leakage reactance of the armature and reactance due to armature-reaction.**
 - d. The reactance-reaction of the armature winding and field winding
- 3) The number of poles of a 50-Hz synchronous motor running at 1000 rpm is (3 Marks)
- a. 2-poles
 - b. 4-poles
 - c. 6-poles**
 - d. 8-poles
- 4) A leading power-factor load in synchronous generator will have positive torque angle, while lagging power-factor load will have negative torque angle. (2 Marks)
- a. True.
 - b. False.**