

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS
ELECTRICAL ENGINEERING DEPARTMENT
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EE-306 (Sec. 1)

Key Solutions

Quiz # 5 Serial # Name: I.D.#

Circle the correct answer.

Two synchronous generators are to run in parallel. The first one runs at a speed of 3000 rpm. If the second one has four-poles, the speed at which it should run is (4 marks)

- a. 1200 rpm.
- b. 1500 rpm.**
- c. 1800 rpm.
- d. 3000 rpm.

2. If the synchronous generator is overexcited, (3 marks)

- (a) it will absorb P and Q.
- (b) it will deliver P and Q.**
- (c) it will absorb P and deliver Q.
- (d) it will deliver P and absorb Q.

3. The speed regulation of a 3-phase synchronous motor having 0.8 leading power factor load, no-load induced EMF of 2400 V, and rated terminal voltage of 3000 V is: (3 marks)

- a. +20%
- b. -20%
- c. +25%
- d. none of the above**