KING FAHD UNIVERSITY OF PETROLEUM & MINERALS

ELECTRICAL ENGINEERING DEPARTMENT

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EE-306

Key Solution

Quiz 5   Sec.: 4   I.D.:   Ser#:   Name:

Q.1 The armature winding in synchronous machines are alternating-current "AC" 3-phase windings placed on the rotor.   (2-points)
    a. True.
    b. False.

Q.2 When a synchronous generator is connected to an inductive-load, the phase angle ૪ needed to calculate the converted power is .   (3-points)
    a. $૪ = \delta$
    b. $૪ = \theta + \delta$
    c. $૪ = \theta - \delta$
    d. $૪ = 0$

Q.3 In synchronous motors with permanent magnet core, as the field current increases, the power factor becomes less lagging and more leading.   (2-points)
    a. True.
    b. False.

Q.4 A 6-poles synchronous generator is to be connected to another 4-poles 1800 rpm synchronous generator. The speed of the 6-pole generator must be   (3-points)
    a. 1800 rpm
    b. 1500 rpm
    c.   1200 rpm
    d.   1000 rpm