KING FAHD UNIVERSITY OF PETROLEUM & MINERALS

ELECTRICAL ENGINEERING DEPARTMENT

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EE-306

Key Solution

Quiz 6   Sec.: 3   I.D.:   Ser#:   Name:

Circle the correct answer.

1) The rotor speed of three-phase induction machines operating at full-load is always less than the synchronous speed.   (2 Marks)
a. TRUE
b. FALSE

2) The breakdown torque in polyphaser induction motor take place when the rotor is revolving in the opposite direction of its synchronous speed.   (2 Marks)
a. TRUE
b. FALSE

3) The air-gap power can be obtained from the power flow diagram as   (2 Marks)
a. $P_{AG} = P_{in} + P_{SCL} + P_{core}$.
b. $P_{AG} = P_{in} - P_{SCL} - P_{core}$.
c. $P_{AG} = P_{conv} + P_{SCL} + P_{core}$.
d. $P_{AG} = P_{conv} + P_{SCL}$.

4)) A 4-pole, 50-Hz, polyphase induction motor has a full-load speed of 1440 rpm. The speed of the stator rotating magnetic field B_S (4 Marks)
a. 1500   rpm
b. 1440   rpm
c. 60   rpm
d. 0   rpm