

# KING FAHD UNIVERSITY OF PETROLEUM & MINERALS

## ELECTRICAL ENGINEERING DEPARTMENT

Dr. Ibrahim O. Habiballah

EE-306

### Key Solution

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

Q.1 A 4-pole, 50-Hz polyphase induction motor has a full-load rotor speed 1440 rpm. It's torque loading-percentage when running at 1485 rpm is (4-points)

- a. 99 %.
- b. 97 %.
- c. 96 %.
- d. 25 %.

Q.2 A 3-phase, 60-Hz, induction motor has a full-load speed of 1760 rpm. At half-load, its synchronous speed would be: (3-points)

- a. 1800 rmp
- b. 1770 rmp
- c. 1730 rmp
- d. 870 rmp

Q.3 The power factor of 3-phase induction motor could be lagging or leading depending on its operating condition. (3-points)

- a.TRUE.
- b. FALSE.