

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS

ELECTRICAL ENGINEERING DEPARTMENT

Dr. Ibrahim O. Habiballah

EE-306

Key Solution

Quiz 6 Sec.: 8 I.D.: Ser#: Name:

Q.1 A 4-pole, 50-Hz polyphaser induction motor has a full-load rotor speed 1440 rpm. It's shaft torque when running at 1485 rpm is 100-N.m. Its full-load shaft torque is (4-points)

- a. 400-N.m.
- b. 104.2-N.m.
- c. 103.1-N.m.
- d. 101-N.m.

Q.2 Armature and field windings in induction machines are 3-phase AC windings. (2-points)

- a. TRUE.
- b. FALSE.

Q.3 A three-phase, 50-Hz induction motor has a full-load speed of 950 rpm. The number of poles of the motor is: (2-points)

- a. 2-pole
- b. 4-pole
- c. 6-pole
- d. 8-pole

Q.4 The pushover torque of a 3-phase induction machine occurs when the slip is (2-points)

- a. $s > 1.0$
- b. $s = 1.0$
- c. $s < 1.0$
- d. $s < 0.0$