

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS

ELECTRICAL ENGINEERING DEPARTMENT

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EE-306

Key Solutions

Quiz 6 Sec.: 4 I.D.: Ser#: Name:

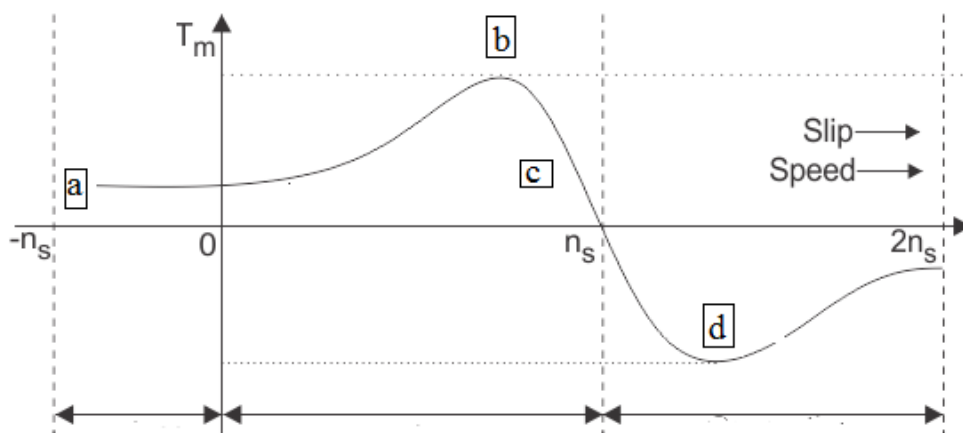
Q.1 The rotor speed of a 6-pole, 60-Hz, 3-phase induction motor at full-load is 1160 rpm. If the load is doubled, the rotor speed should be (4 Marks)

- a. 1250 rpm
- b. 1200 rpm
- c. 1180 rpm
- d. 1120 rpm

Q.2 A 4-pole, 50-Hz, 3-phase, induction motor has a full-load speed of 1440 rpm. The speed of the rotor rotating magnetic field B_r with respect to the rotor is (4 Marks)

- a. 1500 rpm
- b. 1440 rpm
- c. 60 rpm
- d. 10 rpm

Q.3 In the torque-speed characteristic of polyphaser induction machines shown below, the breakdown torque is located in (tick the proper box in the figure). (2 Marks)



Answer is "b"