KING FAHD UNIVERSITY OF PETROLEUM & MINERALS

ELECTRICAL ENGINEERING DEPARTMENT

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EE-306

Key Solutions

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

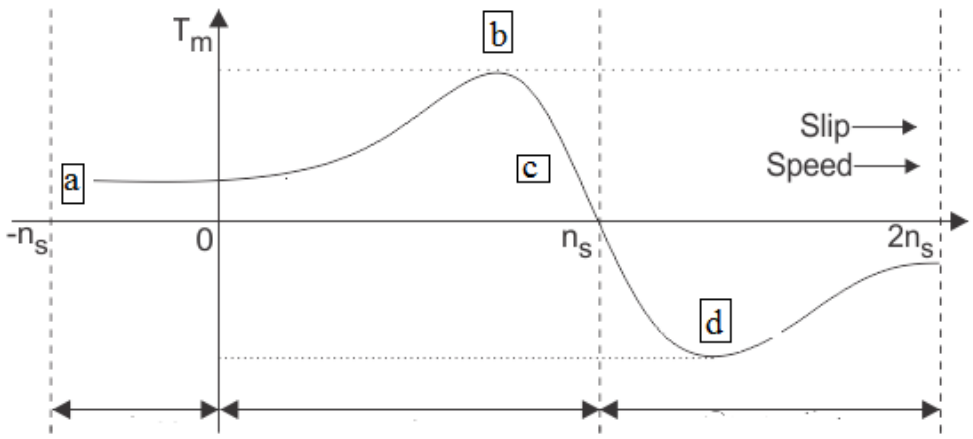
Q.1 The rotor speed of a 6-pole, 60-Hz, 3-phase induction motor at half-load is 1180 rpm. At full-load, the rotor speed would be (4 Marks)

a. 1250 rpm
b. 1200 rpm
c. 1190 rpm
d. 1160 rpm

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

a. 1500 rpm
b. 1440 rpm
c. 60 rpm
d. 0 rpm

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



Answer is "d"