

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS
ELECTRICAL ENGINEERING DEPARTMENT
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EE-360

Key Solution

Quiz # 5 Sec: Serial # Name: I.D.#

Circle the correct answer.

- 1) The speed at pullout torque of a polyphase IM occurs is (-----) the speed at full load. (2 Marks)
 - a. larger than
 - b. smaller than**
 - c. same as
 - d. opposite of

- 2) The breakdown torque of a 3-phase, induction motor is factor of the following: (2 Marks)
 - a. rotor resistance.
 - b. supply frequency.
 - c. all above.
 - d. none of above.**

- 3) The rotor frequency of a 60-Hz, 3-phase, induction motor with slip of 5% is: (2 Marks)
 - a. 60 Hz
 - b. 30 Hz
 - c. 12 Hz
 - d. 3 Hz**

- 4) When the applied rated voltage per phase is reduced by 50 %, (2 Marks)
 - a. the starting torque will be reduced by 25 %.
 - b. the maximum torque will be reduced by 25 %.
 - c. all above.**
 - d. None of above

- 5) When the air-gap power and slip of a polyphase IM are known, (2 Marks)
 - a. the input and output powers can be calculated.
 - b. the stator and rotor copper losses can be calculated.
 - c. the converted power and rotor copper loss can be calculated.**
 - d. None of above