

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS

ELECTRICAL ENGINEERING DEPARTMENT

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EE-306

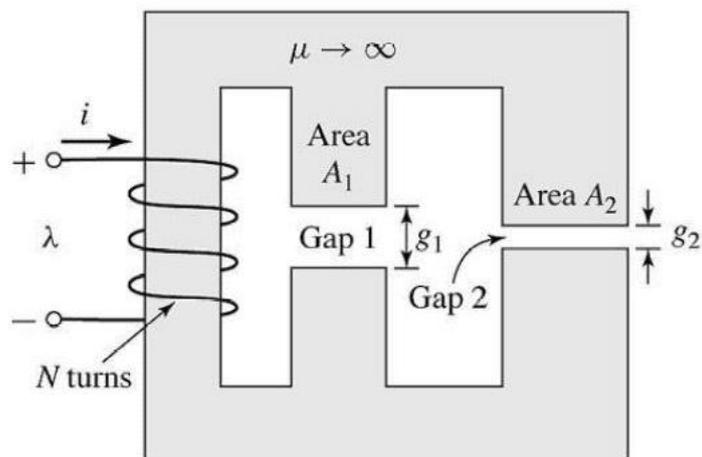
Key Solution

Quiz 2 Sec.: 4 I.D.: Ser#: Name:

Q.1 Choose either True or False (3-points)

In magnetic circuits, one can increase the circulating flux in the core by increasing the excitation current, as long as the core is unsaturated. True False

Q.2 Circle the best answer (3-points)



The minimum number of reluctances for the magnetic core shown above is

- a. 2.
- b. 3.
- c. 4.
- d. 5.

Q.3 A magnetic circuit has hysteresis loss of 100 W at rated voltage and frequency. If the frequency is reduced by 10 % (assuming constant magnetic flux density), the hysteresis loss will be (4-points)

- a. 81 W
- b. 90 W
- c. 110 W
- d. 121 W