

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS
ELECTRICAL ENGINEERING DEPARTMENT

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EE-306

Key Solution

Quiz # 2 Sec.: 3

Name:

I.D.#

Circle the correct answer.

1) Although most of the flux produced by an excited coil in a ring core remains inside the core, there are small amount of the flux that do leave the core and known as

- a. The fringing effect.
- b. The flux intensity.
- c. The flux leakage.
- d. The flux residual.

(5 Marks)

2) A ring core has a cross-sectional area of 10 cm^2 and mean length of 40 cm. A coil of 350 turns is placed on its left side. The relative permeability of the core is 50,000. If the magnetic flux density in the core is 1.5 T, the flux flowing in the core is

- a. 0.15 mWb
- b. 6366 Wb
- c. 0.8 mWb
- d. 1.5 mWb

(5 Marks)