

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS
ELECTRICAL ENGINEERING DEPARTMENT
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EE-306

Key solutions

Quiz # 2 Sec. 2

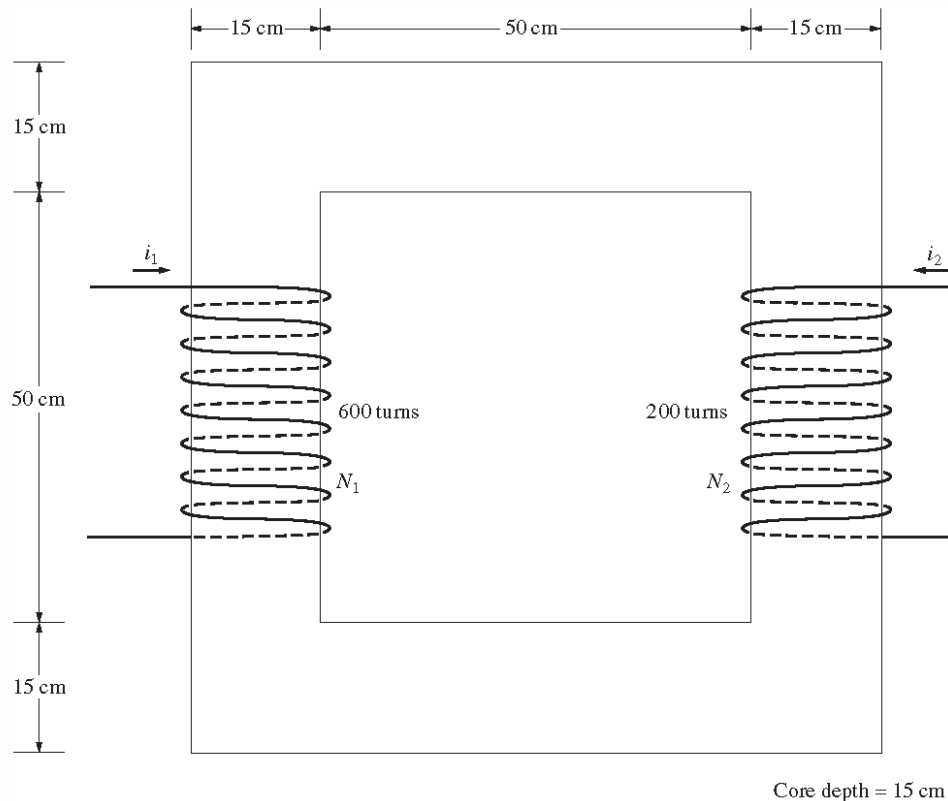
Serial #

Name:

I.D.#

Circle the correct answer.

1) A two-legged core is shown below. If $i_1 = 0.1$ A and $i_2 = -2.0$ A, and the relative permeability of the core is 2000. What would be the magnetic flux produced in the core. (5 Marks)



- a. 7.4 mWeber (flowing clockwise)
- b. 10 mWeber (flowing clockwise)
- c. 7.4 mWeber (flowing counter-clockwise)**
- d. 10 mWeber (flowing counter-clockwise)

2) In order to demagnetize the above core (i.e., the magnetic flux flow in the core is zero), i_2 must be (5 Marks)

- a. - 3.0 A.
- b. + 3.0 A.
- c. - 0.3 A.**
- d. + 0.3 A.