KING FAHD UNIVERSITY OF PETROLEUM & MINERALS

ELECTRICAL ENGINEERING DEPARTMENT

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EE-360 (151)

Key Solution

Quize # 1 Sec. Serial # Name: I.D.#

Circle the correct answer.

1) The ferromagnetic materials that are best suited for making the core of electromechanical devices are those which have (...) permaince and (...) amount of hysteresis loss in the core. (3 Marks)

a. high, high
b. low, high
c. low, low
d. high, low

2) The eddy-current loss of a ferromagnetic material core, at power frequency, is 40% of its core losses. If the frequency is reduced by 20 % (assuming constant magnetic flux density), the eddy-current loss will be ---- percent of its original core lossess. (4 Marks)

a. 0.040
b. 0.256
c. 0.320
d. 0.800

3) The strength of the magnetic flux produced in a regtangular core made of a ferromagnetic material and warrped by a coil around one of its leg depends on (3 Marks)

a. The permaibility of the ferromagnetic material.
b. The dimensions of the core.
c. The excitation of the coil.
d. All of above.