

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS
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EE-306

Key solutions

Quiz # 3

Serial #

Name:

I.D.#

Choose either True or False: (2 points each)

- i. DC flux circulating in a core of a transformer is capable of inducing voltage across a coil wound around one of its legs. True **False**

- ii. Consider an oil transformer, at which the magnetic core is surrounded by oil. When excited, most of the flux tends to circulate in the ferromagnetic core and only little flux leaks out to the oil. This is because the reluctance of the core is much higher than that of oil.
 True **False**

- iii. Open-circuit test is used to determine the equivalent impedance of the transformer, while short-circuit test is used to determine its core resistance and magnetizing reactance.
 True **False**

- iv. In transformers, energy can be transferred from primary-side to secondary-side by conduction.
 True **False**

- v. The voltage regulation of an ideal transformer connected to an inductive load has negative percentage.
 True **False**