

# KING FAHD UNIVERSITY OF PETROLEUM & MINERALS

## ELECTRICAL ENGINEERING DEPARTMENT

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EE-306

### Key Solution

Quiz 3      Sec.: 3      I.D.:      Ser#:      Name:

Circle the best answer

Q.1 DC flux circulating in a core of a transformer is capable of inducing voltage across a coil wound around one of its legs. (2-points)

- a. True
- b. False

Q.2 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. (2-points)

- a. True
- b. False

Q.3 A 50 -kVA, 200/2000-V, single-phase distribution transformer has the following test results: (3-points)

Tests	Voltage (V)	Current (A)	Power (W)
O.C. Test	200 (rated)	5	500
S.C. Test	50	25 (rated)	625

During O.C. test, the measuring instruments are connected to

- a. The high-voltage side of the transformer
- b. The low-voltage side of the transformer

Q.4 A transformer has copper loss at full-load = 1000 W. The copper loss at 80 % of full-load is (3-points)

- a. 200-W
- b. 640-W
- c. 800-W