

**KING FAHD UNIVERSITY OF PETROLEUM & MINERALS**  
**ELECTRICAL ENGINEERING DEPARTMENT**

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EE-306

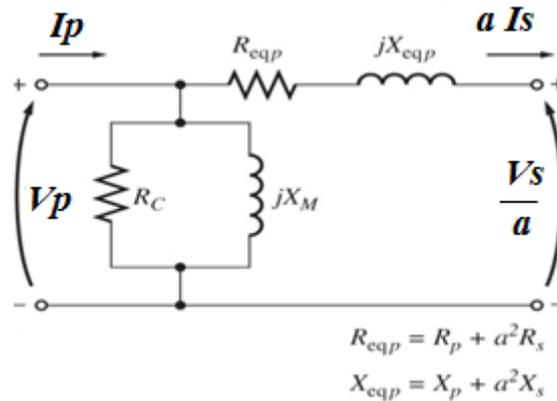
Key Solution

Quiz 3      Sec.: 8      I.D.:      Ser#:      Name:

Q.1 For an ideal transformer connected to a resistive load, (3-points)

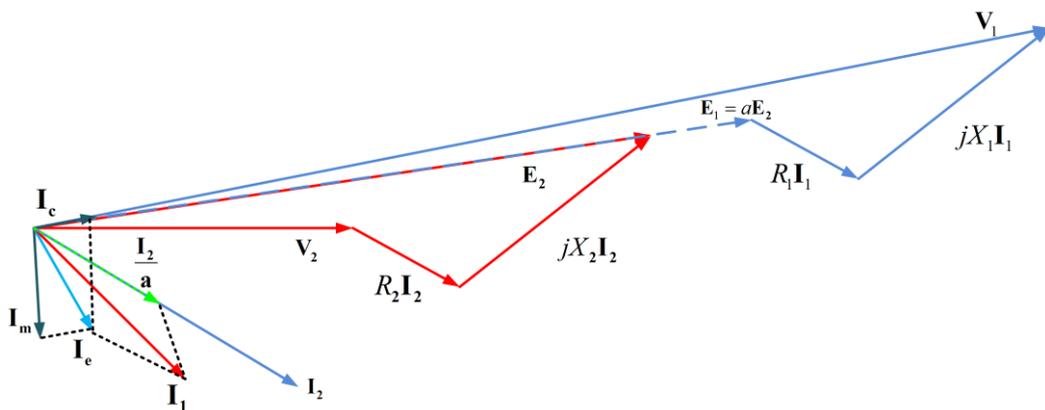
- a. The power factor of the primary is unity.
- b. The power factor of the primary is inductive.
- c. The power factor of the primary is capacitive.

Q.2 The equivalent circuit of a non-ideal transformer shown below is for (3-points)



- a. the exact model referred to the primary side.
- b. the approximate model with excitation branch referred to the primary side.
- c. the approximate model without excitation branch referred to primary side.
- d. Non of the above

Q.3 The transformer's phasor diagram shown below is for (4-points)



- a. the exact model referred to the primary side.
- b. the approximate model with excitation branch referred to the primary side.
- c. the approximate model without excitation branch referred to primary side.
- d. Non of the above