

**KING FAHD UNIVERSITY OF PETROLEUM & MINERALS**  
**ELECTRICAL ENGINEERING DEPARTMENT**  
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**EE-360**

**Key Solutions**

Quiz # 2      Serial #

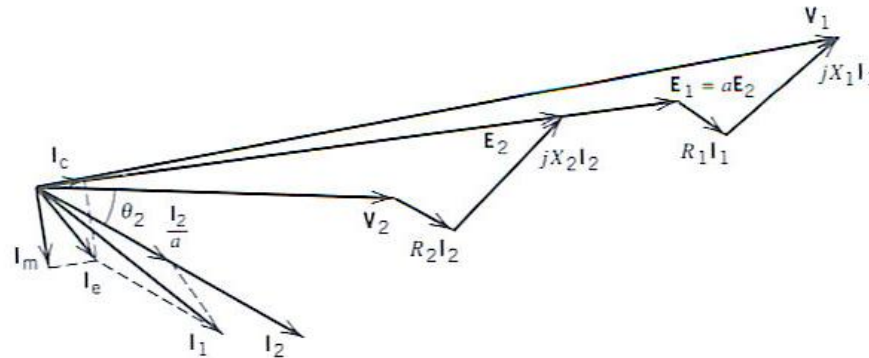
Name:

I.D.#

Circle the correct answer.

1) The phasor diagram shown below is for

(5 Marks)



- a. the exact model of a transformer referred to secondary side.
- b. the approximate model of a transformer with the excitation branch referred to secondary side.
- c. the approximate model of a transformer with the excitation branch referred to primary side.
- d. none of above.**

2) A three-phase transformer bank is to be constructed from three identical single-phase transformers. The bank ratings are 500 kVA and 34.5/11-kV voltage ratio. The ratings of each of the three single-phase transformers are dependent on the type of connections of the bank. The ratings for each of the single-phase transformer in the bank for wye-delta connection are (5 Marks)

- a. 34.5 / 11.0 kV , 167 kVA , Turns Ratio 2.50:1
- b. 34.5 / 6.35 kV , 167 kVA , Turns Ratio 4.33:1
- c. 19.9 / 11.0 kV , 167 kVA , Turns Ratio 1.44:1**
- d. 19.9 / 6.35 kV , 167 kVA , Turns Ratio 2.50:1