

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS

ELECTRICAL ENGINEERING DEPARTMENT

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EE-306

Key Solution

Quiz 1 Sec.: 3 I.D.: Ser#: Name:

Q.1 In a star-connected three-phase circuit, the line voltage V_{ac} lags the phase voltage V_{an} by (5-points)

- a. 30° .
- b. 90° .
- c. 180° .
- d. 210° .

Q.2 A three-phase motor consumes 200-MVA at 0.6 power factor lagging. The motor absorbs (---) active power, and (---) reactive power. (5-points)

- a. 160 MW, 160 MVAR
- b. 120 MW, 160 MVAR
- c. 120 MVAR, 160 MW
- d. 120 MW, 120 MVAR