

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS
ELECTRICAL ENGINEERING DEPARTMENT

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EE 360

Key Solution

Quiz # 6 Serial # Name: I.D.#

1) The back EMF (i.e., E_A) of a short-shunt differentially compounded DC motor is

a- $E_A = V_T + I_A (R_A + R_S)$

b- $E_A = V_T - I_A R_A - I_L R_S$

c- $E_A = V_T - I_A R_A - I_A R_S$

d- none of the above

2) A 25 hp, 240 V DC shunt motor has an armature resistance of 0.2 ohm and a field resistance of 120 ohm. The brush voltage drop is 4 V. At no-load, the motor draws 14 A and has a speed of 1700 rpm. At full load, the motor draws 82 A. The developed power at full load is.

a- 19.7 kW

b- 19.2 kW

c- 18.04 kW

d- 17.6 kW