

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS
ELECTRICAL ENGINEERING DEPARTMENT

Dr. Ibrahim O. Habiballah

EE-306 (Sec.1)

Key Solution

Quiz # 4 Serial #

Name:

I.D.#

Circle the correct answer.

1) The back EMF (i.e., E_A) of a shunt DC motor is (3 Marks)

a- $E_A = V_T + I_L R_A$

b- $E_A = V_T - I_A R_F$

c- $E_A = V_T + I_A R_A$

d- $E_A = V_T - I_A R_A$

2) The terminal voltage of a series DC generator can be controlled as follows: (4 Marks)

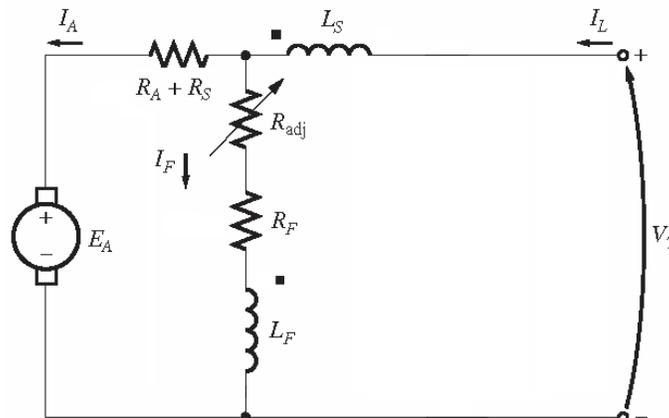
a- $n \uparrow \Rightarrow E_A \downarrow \Rightarrow V_T \uparrow$

b- $R_F \downarrow \Rightarrow I_F \uparrow \Rightarrow E_A \downarrow \Rightarrow V_T \uparrow$

c- $R_F \uparrow \Rightarrow I_F \downarrow \Rightarrow E_A \downarrow \Rightarrow V_T \downarrow$

d- None of above

3) The equivalent circuit shown below is for (3 Marks)



- a. a long-shunt cumulative compound dc motor.
- b. a short-shunt cumulative compound dc motor.
- c. a long-shunt differential compound dc motor.
- d. a short-shunt differential compound dc motor.**