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

Dr. Ibrahim O. Habiballah EE-306 (Sec.2)

## **Key Solutions**

Quize # 4 Serial # Name: I.D.#

Circle the correct answer.

1) The series field winding of a short-shunt cumulatively compounded DC generator is excited by its (.....) current. (3 Marks)

## a-load

b- shunt field

c- armature

d- external

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

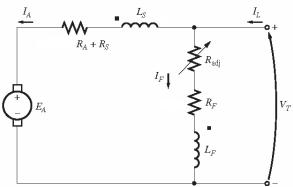
a- 
$$n \uparrow \Rightarrow E_A \downarrow \Rightarrow V_T \uparrow$$

$$b\text{-}\ R_{\scriptscriptstyle F}\downarrow \Rightarrow I_{\scriptscriptstyle F}\uparrow \Rightarrow E_{\scriptscriptstyle A}\downarrow \Rightarrow V_{\scriptscriptstyle T}\uparrow$$

$$\mathbf{c-} \ R_{\scriptscriptstyle F} \uparrow \Longrightarrow I_{\scriptscriptstyle F} \downarrow \Longrightarrow E_{\scriptscriptstyle A} \downarrow \Longrightarrow V_{\scriptscriptstyle T} \downarrow$$

d- None of above

2) 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 differntial compound dc motor.
- d. a short-shunt differntial compound dc motor.