KING FAHD UNIVERSITY OF PETROLEUM & MINERALS

ELECTRICAL ENGINEERING DEPARTMENT

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EE-306

Key Solution

Quiz 4 Sec.: 4 I.D.: Ser#: Name:

Circle the correct answer.

1) Fleming's left-hand rule is used determine the actions of motors. (2 Marks)
a. True
b. False.

2) In separately excited DC machines, the coppers losses are due to (2 Marks)
a. field resistance only.
b. armature resistance only.
c. field and armature resistances.

3) In short-shunt DC generator, the following is TRUE (2 Marks)
a. input-current is same as series field-current.
b. input-current is same as shunt field-current.
c. input-current is same as armature-current.
d. input-current is same as armature-current same as series field-current.

4) The terminal voltage of a long-shunt DC generator is (2 Marks)
a. $V_T = E_A + (R_A + R_S)I_A$.
b. $V_T = E_A - (R_A + R_S)I_A$.
c. $V_T = E_A + V_{BD} + (R_A + R_F)I_A$.
d. $E_A = V_T + V_{BD} + R_A I_A + R_S I_S$.

5) One of the following is True (2 Marks)
a. a long-shunt cumulative motor can be operated as a long-shunt cumulative generator.
b. a long-shunt cumulative motor can be operated as a long-shunt differential motor.
c. a long-shunt cumulative motor can be operated as a short-shunt differential generator.
d. a long-shunt cumulative motor can be operated as a long-shunt differential generator.