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Courses » Power System Dynamics, Control and Monitoring

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Unit 2 - Week 0

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Assignment 0

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2019-02-04, 23:59 IST

1) A synchronous generator in lagging power factor works in: 1 point

- a. Under-excited mode
- b. Over-excited mode
- c. Normally excited mode
- d. Cannot be ascertained from the given information

- a
- b
- c
- d

No, the answer is incorrect.

Score: 0

Accepted Answers:

b

2) The nature of the armature reaction of an under-excited synchronous generator is: 1 point

- a. Magnetizing
- b. De-magnetizing
- c. Cross-magnetizing
- d. Cannot be ascertained from the given information

- a
- b
- c
- d

No, the answer is incorrect.

Score: 0

Accepted Answers:

a

3) The power factor of a grid-connected synchronous generator can be controlled by: 1 point

- a. Governor control

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- c
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

b

4) 1 point

The relation between the direct axis reactance (X_d) and the quadrature axis reactance X_q) of a salient-pole synchronous machine is as follows:

- a. $X_d < X_q$
b. $X_d = X_q$
c. $X_d > X_q$
d. Depends on the rating of the machine

- a
 b
 c
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

c

5) 1 point

A power system stabilizer is used to improve:

- a. Transient stability
b. Dynamic stability
c. Steady-state stability
d. Voltage stability

- a
 b
 c
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

b

6) 1 point

The damping in a salient-pole synchronous generator is provided by:

- i. Eddy current induced in rotor iron
ii. Eddy current induced in damper winding
iii. Field flux variation
a. Only ii
b. ii & iii
c. i & ii
d. i, ii & iii

- a
 b
 c
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

d

- 7) 1 point
- The transient stability of a system can be improved by :
- i. Auto-reclosing
 - ii. Fast valve control
 - iii. Load rejection
 - iv. Fast circuit breakers
- a. i & ii
 - b. ii & iii
 - c. ii, iii & iv
 - d. i,ii, iii & iv
- a
- b
- c
- d

No, the answer is incorrect.

Score: 0

Accepted Answers:

d

- 8) 1 point
- If the load of the system is suddenly increased, the frequency of the system will (assu no control action has been initiated)
- a. Decrease
 - b. Increase
 - c. remain same
 - d. first decrease and then increase
- a
- b
- c
- d

No, the answer is incorrect.

Score: 0

Accepted Answers:

a

- 9) 1 point
- If N_s denotes the number of states in a system and N_m the number of measurements available, then the estimated value (X^{est}) is known as the maximum likelihood estimate the state variable x given the measurements (Z^{meas}) if :
- a. $N_s > N_m$
 - b. $N_s = N_m$
 - c. $N_s < N_m$
 - d. Independent of the relation between N_s & N_m
- a
- b
- c
- d

No, the answer is incorrect.

Score: 0

Accepted Answers:

c

- 10) 1 point

The relative speed between the rotor and the negative sequence magnetic field induced by negative sequence current in the armature on the stator winding) of a 8 pole, Hz synchronous generator is :

- a. 0 rpm
- b. 750 rpm
- c. 1500 rpm
- d. 3000 rpm

- a
- b
- c
- d

No, the answer is incorrect.

Score: 0

Accepted Answers:

c

End