Chap . 5 Power frequency voltage control and over voltages

Multiple Choice Questions

1. The dimensions of constants B and C are respectively _____ and _____ are
   A. Ohm, Siemen
   B. Mho, Siemen
   C. Both are dimensionless
   D. Siemen, Ohm

ANS: A

2. For the same voltage boost, the reactive power capacity is more for a
   A. Shunt capacitor
   B. Series capacitors
   C. It is same for both series and shunt
   D. None of these

ANS: A

3. The entire line performance can be determined by
   A. Sending end power circle diagram
   B. Receiving end power circle diagram
   C. Universal power circle diagram
   D. A or C

ANS: C

4. If the shunt admittance of the transmission line is neglected, the maximum power will occur when torque angle
   A. 45°
   B. -90°
   C. 90°
   D. 180°

ANS: C

5. Series capacitors are used to
   A. Improve line voltage
   B. Compensate for line inductive reactance
   C. Compensate for line capacitive reactance
   D. None of the above

ANS: B

6. Which of the following statement is true?
   A. Shunt reactors are used for power factors improvement
   B. Shunt reactor are used to control the line voltage
   C. Shunt reactors are used to reduce the line impedance
   D. Shunt reactors are used to eliminate line to ground capacitance

ANS: A

7. Series reactors should have

A. High resistance
B. Low resistance
C. High impedance
D. Low impedance

ANS: B

8. Which of the following device will be preferred to control the power system voltage?
   A. Transformers
   B. Shunt capacitors
   C. Series capacitors
   D. Synchronous conductors

ANS: D

9. The sending end voltage of the transmission line controls the
   A. active power
   B. reactive power
   C. Both A & B
   D. None of the above

ANS: B

10. The frequency of the power system control the
    A. Active power
    B. Reactive power
    C. Both A & B
    D. None of the above

ANS: A

11. The installation of a synchronous motor at receiving end of the transmission line will
    A. Improve the p.f. of the line under large loads
    B. Keep same voltage at sending and receiving ends
    C. Help in transmitting larger power
    D. All of the above

ANS: D

12. The difference between sending end voltage and receiving end voltage of transmission line controls
    A. Active power
    B. Reactive power
    C. Frequency
    D. None of the above

ANS: B

13. Which of the following method may be used to inject reactive power in the transmission line?
    A. Series capacitor
    B. Synchronous capacitors
    C. Both A & B
    D. None of these

ANS: C

14. Series acapacitors on transmission lines are of little use when the required reactive voltamperes are
    A. Small
    B. Large
    C. fluctuating
    D. any of these

ANS: A

15. Transfer reactance of a line is reduced by
    A. Series compensation
    B. Shunt compensation
    C. Mixed series & shunt compensation
    D. It cannot be compensated

ANS: A

16. For 100% series compensation, resonance occur at
    A. Power frequency
    B. 50% of Power frequency
    C. 40% of Power frequency
    D. None of the above

ANS: A