Chap . 6 Design of EHV-AC lines

Multiple Choice Questions

1. Which among these is/are the fundamental economical principles that influence/s the design of transmission lines?
    A. Economic choice of conductor size.
    B. Economic choice of transmission voltage
    C. Both (A) and (B)
    D. Economic choice of transmission line length.

ANS: C

2. Air blast circuit breakers for 400 kV power system are design to operate in
    A. 5 sec
    B. 0.5 sec
    C. 0.1 sec
    D. 50 millisecond

ANS: D

3. Why are the conductors used for higher voltage transmission stranded?
    A. Ease of handling
    B. Cheaper cost
    C. Reduced resistivity
    D. Increase in tensile strength.

ANS: A

4. If the height of the transmission tower is decreased, the capacitance of the line will
    A. Increase
    B. Decrease
    C. Remain same
    D. Decrease exponentially

ANS: A

5. If the height of the transmission tower is decreased, the inductance of the line will
    A. Increase
    B. Decrease
    C. Remain same
    D. Increase exponentially

ANS: C

6. The power loss is important for the design of
    A. Generator
    B. Motor
    C. Feeder
    D. Transmission line

ANS: D

7. Which of the following frequency variation for power frequency is as per IS?
   A. 2.5%
   B. 5%
   C. ±5%
   D. ±2.5%

ANS: C

8. Topmost wire in a transmission line carrying distribution line is
   A. Phase wire
   B. Neutral wire
   C. Earth wire
   D. All of these

ANS: C

9. If the span of a transmission line is increased by 10%, the sag of line increases by about
   A. 7%
   B. 21%
   C. 14%
   D. 28%

ANS: B

10. Transposition of conductors in transmission line system is done when
    A. The conductors are not spaced equilaterally
    B. The conductors are spaced equilaterally
    C. A telephone line runs parallel to power line
    D. None of these

ANS: A

11. Ground wire is used in transmission system
    A. To give good insulation
    B. To avoid overloading
    C. To connect a circuit conductor or other device to an earth plate
    D. None of these

ANS: C

12. The conductors of an EHV line is selected on the basis of
    A. Current carrying capacity
    B. Corona and RI performance
    C. Line voltage
    D. None of these

ANS: B

13. Insulation of the modern EHV lines is designed based on
    A. Lighting voltage
    B. Switching voltage
    C. Corona
    D. RI

ANS: B

14. Which of the following insulator will be selected for high voltage application?
    A. Strain type
    B. Disc type
    C. Suspension type
    D. Pin type

ANS: C

15. The installation of a synchronous motor at receiving end of the transmission line will
    A. Only 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 these

ANS: D