

# Extra High Voltage AC Transmission

## Chap . 1 Introduction and Calculation of line and ground parameters

### Multiple Choice Questions

1. Third mode of propagation is called as
  - A. Line to ground
  - B. Phase to phase
  - C. Homopolar
  - D. Inter-phase

ANS: D

2. The positive sequence reactance per phase in ohms/km in 750 kV transmission line is
  - A. 0.272
  - B. 0.227
  - C. 0.722
  - D. None of these

ANS: A

3. The function of steel wire in an ACSR conductor is to
  - A. Compensate for skin effect
  - B. Take care of surges
  - C. Provide additional mechanical strength
  - D. Reduce inductance

ANS: C

4. The conductor used in EHV transmission in recent development is
  - A. ACSR
  - B. ACAR
  - C. AAAC
  - D. All of the above

ANS: C

5. For Aeolian vibration the frequency of vibration is usually limited to \_\_\_\_\_ Hz and the amplitudes less than \_\_\_\_\_ cm.
  - A. 20 Hz, 2.5 cm
  - B. 25 Hz, 2.5 cm
  - C. 50 Hz, 2.5 cm
  - D. 50 Hz, 3.5 cm

ANS: A

6. The high voltage recognized in India are as per
  - A. IS 2022
  - B. IS 2024
  - C. IS 2026
  - D. IS 2028

ANS: C

7. The percentage power loss in 750 kV transmission line is nearly equal to
- A. 3.27
  - B. 4.76
  - C. 0.78
  - D. 2.5

ANS: D

8. By increasing transmission line voltage to double of its original value the same power can be despatched keeping the line loss
- A. Equal to original value
  - B. Half of original value
  - C. One fourth of original value
  - D. Double the original value

ANS: C

9. Galloping in transmission line conductors arises due to
- A. Asymmetrical layers of ice formation
  - B. Vortex phenomenon in light winds
  - C. Heavy weight of the line conductors
  - D. Adoption of horizontal conductor configuration

ANS: A

10. The main drawback of overhead system over underground system is
- A. Underground system is more flexible than overhead system
  - B. More charging current
  - C. Surge problem
  - D. High initial cost

ANS: C

11. First mode of propagation is called as
- A. Line to ground
  - B. Line to line
  - C. Homopolar
  - D. Both A) and C)

ANS: D

12. Second mode of propagation is called as
- A. Line to ground
  - B. Phase to phase
  - C. Homopolar
  - D. Inter-phase

ANS: B

13. As the transmission voltage increases the percentage resistance drop
- A. Increases
  - B. Decreases
  - C. Will not change
  - D. Will increase in random manner

ANS: B

14. As the transmission voltage increases the volume of the conductor
- A. Increases
  - B. Decreases
  - C. Will not change
  - D. Will increase proportionally

ANS: B

15. The bundle conductors are preferred for EHV transmission line because
- A. It is easy to fabricate thin conductors and combine them to make a bundle
  - B. Overall inductance of the line is reduced and corona loss and radio influences are minimum
  - C. Height of the tower is reduced and hence cheap transmission
  - D. Fabrication of the conductor is cheap

ANS: B