



Department of Electrical and Electronics Engineering

EE 8402 – Transmission and Distribution

Unit I - MCQ Bank

1. The power loss in an overhead transmission line is mainly due to

- (A) **line conductor resistance**
- (B) Line conductor Inductance
- (C) Line conductor Capacitance
- (D) None of these

Answer:(A)

2. If the length of a transmission line increases, its inductance is

- (A) **increased**
- (B) Decreased
- (C) No Change
- (D) Zero

Answer:(A)

3. The d.c. resistance of a line conductor is _____ than its a.c. resistance.

- (A) **Less**
- (B) High
- (C) Same
- (D) Zero

Answer:(A)

4. If capacitance between two conductors of a 3-phase line is 4 Micro F, then capacitance of each conductor to neutral is

- (A) **8 Micro F**

- (B)6 Micro F
- (C)2 Micro F
- (D)1 Micro F

Answer:(A)

5. If the length of the line is decreased, its capacitance is

- (A)decreased**
- (B)Increased
- (C)No Change
- (D)Zero

Answer:(A)

6. Transposition of a 3-phase transmission line helps in

- (A)equalizing inductance and capacitance of the three phases**
- (B)Increase the inductance
- (C)Increase the capacitance
- (D)Improve power factor.

Answer:(A)

7. A neutral plane is one where _____ is zero.

- (A)electric intensity**
- (B)electric flux
- (C)magnetic intensity
- (D)magnetic Reluctance

Answer:(A)

8. In a single phase overhead line, the neutral plane lies at

- (A)the centre of the distance between the conductors**
- (B)Bottom of the conductor.
- (C)Main conductor

(D) Earthing conductor

Answer:(A)

9. If the supply frequency increases, then skin effect is

(A) Increased

(B) Decreased

(C) Zero

(D) 1

Answer:(A)

10. An overhead transmission line has appreciable inductance because the loop it forms has ____ X-sectional area.

(A) Large

(B) small

(C) Zero

(D) One

Answer:(A)

11. If the spacing between the conductors is increased, the inductance of the line

(A) Increases

(B) Decreases

(C) Same

(D) No change

Answer:(A)

12. The skin effect is for stranded conductor than the solid conductor.

(A) Less

(B) More

(C) Zero

(D)Infinity

Answer:(A)

13. If the conductor diameter decreases, inductance of the line is

(A)Increased

(B)Decresed

(C)Same

(D)No change

Answer:(A)

14. Which of the following transmission line have more initial cost?

(A)Overhead Transmission

(B)Underground transmission

(C)Both have almost the same initial cost

(D)None of the above

Answer:(B)

15. Which of the following materials are not used for the transmission and distribution of electrical power?

(A)Copper

(B)Aluminum

(C)Tungsten

(D)Steel

Answer:(C)

16. Bundled conductors in EHV transmission system provide

- (A) Reduced capacitance
- (B) Increased capacitance**
- (C) Increased inductance
- (D) Increased voltage gradient

Answer:(B)

17. The phenomenon of rising in voltage at the receiving end of the open-circuited or lightly loaded line is

- (A) Skin Effect
- (B) Corona Effect
- (C) Ferranti Effect**
- (D) Roman Effect

Answer:(C)

18. When bundle conductors are used in place of single conductors, the effective inductance and capacitance will respectively

- (A) Increase and decrease
- (B) Decrease and increase**
- (C) Decrease and remain unaffected
- (D) Remain unaffected and increase

Answer:(B)

19. Which one of the following statements is not correct for the use of bundled conductors in transmission lines ?

- (A) Control of voltage gradient
- (B) Reduction in corona loss**

- (C) Reduction in radio interference
- (D) Increase in interference with communication lines**

Answer:(D)

20. The conductors of the overhead lines are

- (A) Stranded conductors**
- (B) Solid conductors
- (C) Both solid and stranded
- (D) None of the above

Answer:(A)

21. Which of the following characteristics should the line supports for transmission lines possess?

- (A) High mechanical strength
- (B) Longer life
- (C) Low cost
- (D) All of the above**

Answer:(D)

22. The presence of earth in case of overhead lines

- (A) Increases the capacitance**
- (B) Increases the inductance
- (C) Decreases the capacitance
- (D) Decreases the inductance

Answer:(A)

23. Self GMD method is used to evaluate

- (A) Inductance of the overhead transmission lines**
- (B) Capacitance of the overhead transmission lines

- (C) Inductance and capacitance both of the overhead transmission lines
- (D) None of above

Answer:(A)

24. The inductance of single-phase, two-wire transmission line per kilometer gets doubled when the

- (A) Distance between the wires is doubled
- (B) Distance between the wires is increased four fold
- (C) Distance between the wires is increased as square of original distance**
- (D) Radius of the wire is doubled

Answer:(C)

25. If the effect of earth is taken into account, then the capacitance of line to ground

- (A) Decreases
- (B) Increases**
- (C) Remains unaltered
- (D) Becomes infinite

Answer:(B)

26. What happens in case of capacitance of line to ground, if the effect of earth is taken into account?

- (A) Capacitance of line to ground decreases
- (B) Capacitance of line to ground increases**
- (C) The capacitance remains unaltered
- (D) The capacitance becomes infinite

Answer:(B)

27. What is the value of capacitance to neutral for the two wire line?

- (A) Twice the line to line capacitance**
- (B) Equal to line to line capacitance

- (C) Thrice the line to line capacitance
- (D) Half of line to line capacitance

Answer:(A)

28. The current distribution may not be uniform in a conductor, which effect is this?

- (A) Skin effect
- (B) Proximity effect**
- (C) Ferranti effect
- (D) Non of these

Answer:(B)

29. Proximity effect is due to the current flowing in the _____.

- (A) Earth
- (B) Sheath
- (C) Nearby conductors**
- (D) All of these of these

Answer:(C)

30. What is the total resistance in a single phase or 2 – wire dc line?

- (A) Equal to the resistance of either conductor
- (B) Double the resistance of either conductor**
- (C) Half of the resistance of either conductor
- (D) None of these

Answer:(B)