



Department of Electrical and Electronics Engineering

EE 8402 – Transmission and Distribution

Unit II - MCQ Bank

1. The power transmitted will be maximum when
 - (A) **Corona losses are minimum**
 - (B) Receiving end voltage is high
 - (C) Reactance is high
 - (D) Sending end voltage is high

Answer: (A)

2. Corona discharge occurs more in
 - (A) **Humid Weather**
 - (B) Hot weather
 - (C) Cold Weather
 - (D) Any of the above

Answer: (A)

3. Which of the following voltage regulations is considered best?
 - (A) 10%
 - (B) 20%
 - (C) 100%
 - (D) **4%**

Answer: (D)

4. Skin effect is proportional to
- (A) Directly proportional to (Diameter of conductor)^{1/2}
 - (B) Inversely proportional to (Diameter of conductor)^{1/2}
 - (C) Directly proportional to (Diameter of conductor)²**
 - (D) Inversely proportional to (Diameter of conductor)²

Answer: (C)

5. The current drawn by the line due to corona losses is

- (A) Non-sinusoidal**
- (B) Triangular
- (C) Square
- (D) Sinusoidal

Answer: (A)

6. Skin effect not depends upon

- (A) Frequency of the current
- (B) Resistivity of the conductor material
- (C) Size of the conductor
- (D) Type of insulator**

Answer: (D)

7. In which of the following transmission lines capacitance effect is negligible?

- (A) Long transmission lines
- (B) Short transmission line**
- (C) Medium transmission line
- (D) Any of the above

Answer: (B)

8. The chances of corona are maximum in
- (A) Domestic wiring
 - (B) Distribution lines
 - (C) Transmission lines**
 - (D) All of the above
- Answer: (C)**
9. The rated voltage of a 3 phase power system is given by
- (A) RMS peak voltage
 - (B) Peak phase voltage
 - (C) RMS line to line voltage**
 - (D) Peak line to line voltage
- Answer: (C)**
10. SLDC Means
- (A) Station Load Dispatch center
 - (B) State Load Dispatch center**
 - (C) Source Load Dispatch center
 - (D) Static Load Dispatch center
- Answer: (B)**
11. Voltage regulation can be negative when power factor will be
- (A) Lagging
 - (B) Leading**
 - (C) Unity
 - (D) Zero
- Answer: (B)**

12. When Length of transmission line is 100km then it is said to be
- (A) Short Transmission Line
 - (B) Medium Transmission Line**
 - (C) Long Transmission Line
 - (D) Any of the above
- Answer: (B)**
13. What is the value of shunt capacitance of medium transmission line?
- (A) Very high
 - (B) Medium**
 - (C) Zero
 - (D) very low
- Answer: (B)**
14. Series inductance and series resistance of medium transmission lines are taken as:
- (A) Distributed and Lumped
 - (B) Lumped and Distributed
 - (C) Distributed
 - (D) Lumped**
- Answer: (D)**
15. Performance analysis of medium transmission line is done _____
- (A) By reactance diagram
 - (B) By symmetrical component analysis method
 - (C) By neglecting line inductance
 - (D) On per phase basis**
- Answer: (D)**

16. In long transmission lines Resistance and Capacitance parameters of lines are connected in _____

- (A) Series, shunt
- (B) Series, series
- (B) Shunt, shunt
- (D) Shunt, parallel**

Answer: (D)

17. Range of surge impedance for an overhead transmission line is _____

- (A) $12 \Omega - 144 \Omega$
- (B) $40 \Omega - 60 \Omega$
- (C) $400 \Omega - 600 \Omega$**
- (D) $300 \Omega - 900 \Omega$

Answer: (C)

18. Synchronous phase modifiers are installed at which of the following position of the transmission line?

- (A) Receiving End
- (B) Sending End**
- (C) Between Receiving End And Sending End
- (D) Near Receiving End

Answer: (B)

19. The voltage rating of long transmission line is _____

- (A) 20 KV to 100 KV
- (B) Upto 20 KV
- (C) Above 100 KV**
- (D) 60 KV to 80 KV

Answer: (C)

20. The shunt capacitive susceptance in long transmission line is greater than that in medium and short transmission line.
(A) True
(B) False
Answer: (A)
21. What is the value of characteristics impedance for loss free transmission line?
(A) $\sqrt{L/C}$
(B) $\sqrt{R/C}$
(C) \sqrt{Lc}
(D) $\sqrt{C/L}$
Answer: (A)
22. The leakage current through the shunt admittance is _____
(A) **Maximum at sending end**
(B) Maximum at receiving end
(C) Uniform over length of line
(D) Maximum at centre of line
Answer: (A)
23. Value of leakage current at receiving end of transmission line is zero.
(A) True
(B) False
Answer: (A)
24. A transmission line of 200 Km is supplying at 50Hz frequency. What is the percentage rise in voltage at receiving end?
(A) 20%
(B) 1.2%

(C) **2.19%**

(D) 20.8%

Answer: (C)

25. Which of the following equipment is not used for voltage control?

(A) Tap changing transformer

(B) Induction generators

(C) Series compensators

(D) Synchronous phase modifiers

Answer: (B)

26. What happens in a long transmission lines under no load?

(A) The receiving end voltage is less than the sending end voltage.

(B) The sending end voltage is less than receiving end voltage.

(C) The sending end voltage is equal to receiving end voltage.

(D) None of these

Answer: (B)

27. What are the A and D parameters in case of medium transmission line (nominal T method)?

(A) $A = D = 1 + (YZ / 2)$

(B) $A = D = 1 + (YZ / 2) * Z$

(C) $A = D = (YZ / 2)$

(D) $A = D = (YZ / 2) * Y$

Answer: (A)

28. What are the values of A, B, C, D parameters of a short transmission line?

(A) Z, 0, 1, 1

(B) 0, 1, 1, 1

(C) 1, Z, 0, 1

(D) 1, 1, Z, 0

Answer: (C)

29. A single phase transmission line of impedance $j0.8$ ohm supplies a resistive load of 500 A at 300 V. The sending end power factor is

(A) Unity

(B) 0.8 lagging

(C) 0.8 leading

(D) 0.6 lagging

Answer: (D)

30. What is the power factor angle of the load for maximum voltage regulation?

(A) $\tan^{-1} (X/R)$

(B) $\cos^{-1} (X/R)$

(C) $\tan^{-1} (R/X)$

(D) $\cos^{-1} (R/X)$

Answer: (A)