

BITT POLYTECHNIC Ranchi-835217
Department of Electrical Engineering

Sub: - Power System-II

Sem- 5th (EE)

A. Objectives Questions.

- 1) Only advantage of corona is that it
 - A. Produces a pleasing luminous glow
 - B. Makes line current sinusoidal
 - C. Works as a safety valve for surges
 - D. Ozone gas is produced

- 2) The chances of occurrence of corona are maximum during
 - A. Humid weather
 - B. Dry weather
 - C. Winter
 - D. Hot summer

- 3) The charging current in a transmission line increases due to corona effect because corona increases
 - A. Line current
 - B. effective line voltage
 - C. Power loss in lines
 - D. Effective conductor diameter

- 4) The effect of corona is
 - A. Increased energy loss
 - B. Increased reactance
 - C. Increased inductance
 - D. All of the above

- 5) Corona losses are minimized when
- A. Conductor size is reduced
 - B. Smooth conductor is used
 - C. Sharp points are provided in the line hardware
 - D. Current density in conductor is reduced
- 6) Corona occurs between two transmission conductors when they
- A. Have high potential difference
 - B. Are closely spaced
 - C. Carry DC power
 - D. Both A and B
- 7) On what factors does the skin effect depend upon?
- A. Cross section of the conductors
 - B. Supply frequency
 - C. Permeability of the conductor
 - D. All of these.
- 8) What are the line constants in a transmission line?
- A. Resistance and series conductance only
 - B. Series and shunt conductance
 - C. Resistance, inductance and capacitance
 - D. Resistance, inductance, capacitance and shunt conductance.
- 9) What is the cause of skin effect?
- A. Supply frequency.
 - B. Self inductance of conductor.
 - C. High sensitive material in the centre.
 - D. Both (a) and (b)

10) The conductor carries more current on the surface in comparison to its core. What is this phenomenon called?

- A. Corona
- B. Ferranti effect.
- C. Skin effect.
- D. Proximity effect.

B. Short Answer Types Questions

1. What is corona effect?
2. Corona effect depends on which factors?
3. What is skin effect?
4. Skin effect depends on which factors?
5. What is proximity effect?
6. Proximity effect depends on which factors?
7. How to minimize the corona effect?
8. What is ACSR conductor?
9. Explain primary and secondary distribution.
10. Explain bundle conductors and its advantage.

C. Long Answer Types Questions

11. Draw and explain the line diagram of a typical transmission and distribution scheme. Indicate clearly the voltage levels used at different stages.
12. Explain about transient in power system and how to protect them.
13. Explain bundle conductors and its advantage.

14. Draw and explain the line diagram of a typical transmission and distribution scheme. Indicate clearly the voltage levels used at different stages.
15. Explain about transient in power system and how to protect them.

Solution:-

A. Objectives Questions.

1. C
2. A
3. D
4. A
5. B
6. D
7. D
8. D
9. D
10. C