Ques 1. By which of the following method electric power may be transmitted from one location to another location?

1. UnderGround System
2. Overhead system
3. Both 1 and 2
4. None of the above

Ques 2. Which of the following transmission line have more initial cost?

1. Overhead Transmission
2. Underground transmission
3. Both have almost the same initial cost
4. None of the above

Ques 3. Name the cable or conductor which connects the distributor to the consumer terminals.

1. Service Mains
2. Distributor
3. Feeders
4. None of the above

Ques 4. Which of the following materials are not used for the transmission and distribution of electrical power?

1. Copper
2. Aluminium
3. Tungsten
4. Steel

Ques 5. The usual spans with R.C.C. poles are

1. 40—50 metres
2. 60—100 metres
3. 200 – 300 meters
4. 80 – 150 meters

Answer 4. 80 – 150 meters

- The Reinforced concrete pole (R.C.C) is usually called as Concrete pole and they are used for system voltage up to 33kV.
- The minimum overall length of the R.C.C pole should be six meters.
- The span length of R.C.C is between 80 – 200 meters because they are stronger and more durable.

- They are free from corrosion hence poles have a longer life but these are very bulky in sizes.

Ques 6. Which of the following are the constants of the transmission lines?

1. Inductance
2. Capacitance
3. Resistance
4. Conductance
5. All of the above

Ques 7. The phenomenon of rising in voltage at the receiving end of the open-circuited or lightly loaded line is called as

1. Roman Effect
2. Skin Effect
3. Corona Effect
4. Ferranti Effect

Ques 8. Low tension cables are meant for use up to

1. 1 kV
2. 5 kV
3. 10 kV
4. 33 kV

Ques 9. The operating voltage of high tension cables is up to

1. 1 – 11 kV
2. 11 – 20 kV
3. 11 – 33 kV
4. above 33 kV

Ques 10. The operating voltage of super tension cable is

1. 1 – 11 kV
2. 11 – 33 kV
3. 33 – 66 kV
4. Above 66 kV

Ques 11. The operating voltage of **Extra high tension cable** is upto

1. 11 kV
2. 33 kV
3. 66 kV
4. Above 66 kV

Ques 12. Which of the following methods is used for laying of underground cables?

1. Direct laying
2. Solid system
3. Draw-in-system
4. All of the Above

Ques 13. Which of the following is the source of heat generation in the cables?

1. Dielectric losses in cable insulation
2. Conductor losses
3. Sheath loses
4. All of the above

Ques 14. Due to which of the following reasons the cables should not be operated too hot?

1. The oil may lose its viscosity and it may start drawing off from higher levels
2. Expansion of the oil may cause the sheath to burst
3. Unequal expansion may create voids in the insulation which will lead to ionization
4. Unequal expansion may create voids in the insulation which will lead to ionization
5. All of the above

Ques 15. Besides a method of trial and error, which of the following methods is employed for the solution of network problems in an interconnected system?

1. Kirchhoff's laws
2. Superposition of currents
3. Thevenin's theorem
4. All of the above

Ques 16. A booster is a

1. Synchronous generator
2. Shunt-wound generator
3. Series wound generator
4. None of the above

Ques 17 The spacing between phase conductors of a 220 kV line is approximately equal to

1. 2 m
2. 3 m
3. 6 m
4. 10 m

Ques 18. The minimum clearance between the ground and a 220 kV line is about

1. 1 m
2. 7 m
3. 10 m
4. 5 m

Ques 19 . In a D.C. 3-wire distribution system, balancer fields are cross-connected in order to

1. Boost the generated voltage
2. Equalize voltages on the positive and negative outers
3. Balance loads on both sides of the neutral
4. Make both machines run as unloaded motors

Ques 20. In a D.C. 3-wire distributor using balancers and having unequal loads on the two sides

1. Balancer connected to lightly- loaded side runs as a motor
2. Balancer connected to heavily- loaded side runs as a motor
3. Both balancers run as motors
4. Both balancers run as generators

Ques 21. A uniformly-loaded D.C. distributor is fed at both ends with equal voltages. As compared to a similar distributor fed at one end only, the drop at the middle point is

1. One-half
2. One-third
3. One-fourth
4. Twice

Ques 22. As compared to a 2-wire D.C. distributor, a 3-wire distributor with same maximum voltage to earth uses only

1. 31.25 percent of copper
2. 66.7 percent of copper
3. 33.3 percent of copper
4. 125 percent of copper

Ques 23. For an overhead line, the surge impedance is taken as

1. 20-30 ohms
2. 400 – 600 ohms
3. 70—80 ohms
4. 100—200 ohms

Ques 24. The presence of ozone due to corona is harmful because it

1. Corrodes the material
2. Transfer energy to the ground
3. Gives odour
4. Any of the above

Ques 25. The power transmitted will be maximum when

1. Corona losses are minimum
2. Receiving end voltage is high
3. Reactance is high
4. Sending end voltage is high

Ques 26. A 3-phase 4 wire system is commonly used on

1. Primary transmission
2. Secondary transmission
3. Primary distribution
4. Secondary distribution

Ques 27 The skin effect cause

1. Portion of the conductor near the surface carries less current and core of the conductor carries more current
2. Portion of the conductor near the surface carries more current and the core of the conductor carries less current
3. Current flows through the half cross-section of the conductor
4. None of the above

Ques 28 A circuit is disconnected by isolators when

1. Line is on full load
2. Circuit breaker is not open
3. There is no current in the line
4. Line is energized

Ques 29 Current rating is not necessary in case of

1. Circuit breaker
2. Isolator
3. Load break switch
4. None of the above

Ques 30 In a substation, the following equipment is not installed

1. Exciters
2. Series capacitors
3. Shunt reactors
4. Voltage transformers

Ques 31 The voltage drop, for constant voltage transmission, is compensated by installing

1. Capacitors
2. Synchronous motors

3. Inductors
4. All of the above

Ques32 The use of strain type insulators is made where the conductors are

1. Dead End
2. Road Crossing
3. Intermediate anchor towers
4. All of the above

Ques 33 The current drawn by the line due to corona losses is

1. Non-sinusoidal
2. Triangular
3. Square
4. Sinusoidal

Ques 34. Pin type insulators are generally not used for voltages beyond

1. 22 kV
2. 33 kV
3. 11 kV
4. 1 kV

Ques 35 For transmission of power over a distance of 200 km, the transmission voltage should be

1. 66 kV
2. 132 kV
3. 11 kV
4. 33 kV

Ques 36 Which of the following equipment, for regulating the voltage in distribution feeder, will be most economical?

1. Static condenser
2. Tap changing transformer
3. Synchronous condenser
4. Shunt capacitor**Ques 37** Find the total diameter of ACSR conductor with 2 layers and diameter of each strand is 3?

1. 9
2. 10
3. 5
4. 15

Ques 38 Telecommunication lines are transposed to reduce the

1. Voltage level
2. Short circuit current

3. Radio interference in communication line
4. All of the above

Ques 39. Which of the following produces the radio interference in communication lines?

1. Electromagnetic induction
2. Electrostatic induction
3. Both 1 & 2
4. None of the above

Ques 40. Bundled conductors in EHV transmission lines help in

1. Decrease capacitance
2. Decrease Inductance
3. Increase capacitance
4. Increase inductance

Ques 41 If the frequency is increased, then the skin effect will

1. Decrease
2. Remain same
3. Increase
4. None of the above

Ques 42 Proximity effect is more in case of

1. Overhead line
2. Power cable
3. DC transmission
4. None of the above

Ques 43 The distribution constant of the transmission line is

1. Resistance
2. Inductance
3. Capacitance
4. Resistance, Inductance, Capacitance, Conductance

Ques44. In which of the following transmission lines capacitance effect is negligible?

1. Long transmission lines
2. Short transmission line
3. Medium transmission line
4. Any of the above

Ques 45 The fact that current density is higher at the surface when compared to centre is known as

1. Skin effect
2. Proximity effect

3. Corona effect
4. None of the above

Ques 46 The charging current drawn by the cable is

1. Lags voltage by 90^{o}
2. Lead voltage by 90^{o}
3. Lead voltage by 45^{o}
4. None of the above