

Electrical Engineering

- 1.
2. Corona occurs between two transmission wires when they
 - a) Are they closely-spaced
 - b) are widely-spaced
 - c) Have high potential difference
 - d) carries d.c. Supply
3. Suspension insulators are used when transmission voltage is
 - a) High
 - b) low
 - c) fluctuating
 - d) steady
4. Overhead system can be designed for operation up to
 - a) 11 kV
 - b) 33 kV
 - c) 66kV
 - d) 400 kV
5. The phenomenon of rise in voltage at the receiving end of the open-circuited or lightly loaded line is called the
 - a) Seekback effect
 - b) Ferranti effect
 - c) Raman effect
 - d) none of these
6. The charging current in the cables
 - a) Leads the voltage by 180
 - b) leads voltage by 90
 - c) lags the voltage by 90
 - d) lags the voltage by 180
7. A train weighing 490 tones and running at 90 Km/h has a mass of..... Kg and a speed ofm/s.
 - a) 50,000, 25
 - b) 490,000, 25
 - c) 490, 25
 - d) 50, 324
8. A steel mill requires a motor having high starting torque, wide speed range and precise speed control. Which one of the following motors will you choose?
 - a) d.c. shunt motor
 - b) synchronous motor

d) energy consumption will increase

16. Hysteresis loss and eddy current loss are used in

- a) Induction heating of steel
- b) dielectric heating
- c) Induction heating of brass resistance heating
- d) resistance heating

17. A weld bead of wineglass design is produced in welding.

- a) Plasma arc
- b) electron beam
- c) laser
- d) MAG.

18. Electric arc welding process produces temperature up to

- a) 1000⁰C
- b) 1500⁰C
- c) 3500⁰C
- d) 5550⁰C

19. A seamless pipe has

- a) steam welded joint
- b) spot welded joint
- c) arc welded joint
- d) no joint

20. In D.C. arc welding

- a) Electrode is made positive and workpiece negative
- b) Electrode is made negative and workpiece positive
- c) Both electrodes as well as workpiece are made positive
- d) Both electrodes as well as workpiece are made negative

21. Which of the following lamp has minimum initial cost of installation but maximum running cost?

- a) Incandescent
- b) fluorescent
- c) mercury vapour
- d) sodium vapour

22. Candela is the unit of which of the following?

- a) Wavelength
- b) Luminous intensity
- c) Luminous flux
- d) Frequency

23. For normal reading the illumination level required is around

- a) 20-40 lumens/m²
- b) 60-100 lumens/m²
- c) 200-300 lumens/m²
- d) 400-500 lumens/m²

24. The number system 1001012 is equivalent to octal

- a) 54
- b) 45
- c) 37
- d) 25

25. An XOR gate produces an output only when its two inputs are

- a) high
- b) low
- c) different
- d) same

26. A NOR gate is ON only when all its inputs are

- a) ON
- b) positive
- c) high
- d) OFF

27. CMOS circuits are extensively used for on-chip computers mainly because of their extremely

- a) Low power dissipation
- b) large packing density
- c) high noise immunity
- d) low cost

28. A J-K flip-flop is a device to

- a) Divide the frequency by 2
- b) divide the frequency by 4
- c) generate the waveform of same frequency as that of the input
- d) cannot be used for frequency division

29. Which of the following circuit is used for production delays?

- a) astable multivibrator
- b) bistable multivibrator
- c) monostable multivibrator
- d) Schmitt-trigger

30. A 555 IC timer can be used to operate as
- a) As monostable multivibrator b) an astable multivibrator
c) A voltage controlled oscillator d) all of these
31. The current sensitivity of a meter is expressed in
- a) Ampere b) ohm/ampere c) ohm/volt d) ampere/division
32. The basic movement can be converted into an ohmmeter by connecting awith it.
- a) High resistance in series b) low resistance in parallel
c) Battery in series d) battery and a variable resistance in series.
33. A spectrum analyser can be described as
- a) Voltage selective frequency meter b) current selective frequency meter
c) Frequency meter d) none of these
33. An inductor has an inductance of 0.5 mH current flowing through inductor is 5 A. If this inductor' is switched off in one "millisecond what is the back EMF in inductor ? Inductance of Inductor = 0.5. mH
- A. 25 volts B. 2.5 volts C. 5 volts D. 10 volts
34. In a substation the most commonly used type of arrester is———— arrester
- A. Thyrite B. Horn gap. C. Thorn gap D. Rod gap
35. Balanced earth fault protection is generally provided for----- generation.
- A. small size B. medium size
C. large size , D. None of the above.
36. B class insulation is used for maximum temperature rise of
- A. 180 °C B. 130 °C C. 155 °C D. 90 °C
37. The inductance of coil can be increased by

