## Sample Questions of Basic Electrical and Electronics

## Two Marks Question

- 1. State Kirchhoff's law
- 2. Define voltage source.
- 3. Define load.
- 4. Write down the difference between conductor and semiconductor.
- 5. What is the need of biasing?
- 6. Write down the difference between oscillator and amplifier?
- 7. What is modulation and type of modulation?
- 8. What's the function of commutator in DC generator?
- 9. What is passive transducer?
- 10. Write two application of multimeter?
- 11. Define electronic emission?
- 12. Differentiate between AC and DC?
- 13. State Ohm's Law?
- 14. Define power factor?
- 15. What is doping?
- 16. Write different type of wiring in domestic installation?
- 17. Define Knee voltage and breakdown voltage?
- 18. Why filter is needed in rectifier circuit?
- 19. Define RMS and average value of AC?
- 20. Classify the type of DC generator?
- 21. What do you mean by impedance triangle?
- 22. Draw the common emitter transistor configuration?
- 23. State any two use of IC?
- 24. What do you mean by star rating of home appliance?
- 25. What is the advantage of Full wave rectifier?
- 26. What is power?
- 27. Unit of power, voltage, current and charge?
- 28. What is the primary usage of a transistor in an electric circuit?
- 29. What is Form Factor?
- 30. Difference between parallel and series configuration?

## Five marks Question

- 1. Describe the type of electronics emission.
- 2. Difference between intrinsic and extrinsic semiconductor.
- 3. Describe avalanche and Zener breakdown.
- 4. Write down the principle of working of LED.
- 5. What is rectifier? Write down the working principle of different type rectifier.
- 6. Explain type of basic filter circuit with proper circuit diagram.

- 7. Explain the need of biasing.
- 8. Explain fixed biasing of common emitter configuration.
- 9. Derive the relation between  $\alpha$  and  $\beta$  for a transistor.
- 10. Explain the working principle of single phase CE amplifier.
- 11. Explain the working of basic oscillator with block diagram.
- 12. Explain different type of modulation.
- 13. Explain the working of LC filter.
- 14. Discuss the difference between voltage and power amplifier.
- 15. Classify and explain the solid according to electrical conductivity with respect to energy band diagram.
- 16. What is the main parts and operation of DC generator?
- 17. Describe the alternating current (AC) through capacitor with phasor Diagram.
- 18. Explain the operating working LVDT with a neat diagram.
- 19. Write down construction of and principle of filament lamp.
- 20. Write a block diagram and explain the working of unregulated DC power supply system.
- 21. Difference between vacuum tube and semiconductor.
- 22. Describe about the PMMC type measurement briefly.
- 23. Explain the concept of transducer and sensor and state the difference between

## Ten marks Questions.

- 1. Write short notes of Zener break down and Avalance breakdown.
- 2. Describe about amplitude and frequency modulation.
- 3. Explain about thermal power plant in detail with neat diagram.
- 4. Explain about nuclear power plant in detail with neat diagram.
- 5. Explain about hydro power plant in detail with neat diagram.
- 6. Draw and explain the block diagram of CRO and also write down the application.
- 7. Explain the working principle and use of PN junction diode with circuit diagram.