

- Q.27 Describe working of induction motor.
  - Q.28 Describe concealed conduit of wiring.
  - Q.29 Explain various types of earthing.
  - Q.30 What is P-N junction? Explain the formation of potential barrier in a P-N junction.
  - Q.31 Define SCR and its characteristics.
  - Q.32 Define transistors and its types.
  - Q.33 Explain the factors affecting the electric shock.
  - Q.34 Define four applications of single phase induction motor.
  - Q.35 State working principle of a transformer.

## **SECTION-D**

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Give difference between alternating and direct current.

Q.37 Discuss :

  - Impedance of a circuit
  - Peak value

Q.38 Explain :

  - Zener diode
  - Distribution system with block diagram

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**4th Sem / Plastic Engineering**  
**Subject:- Basic of Electrical and Electronics Engg.**

Time : 3Hrs.

M.M. : 100

## **SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 RMS stands for \_\_\_\_\_

a) Root Mean Square    b) Root Mean Sum  
c) Root Maximum sum d) Root Minimum Sum

Q.2 The resistance of a conductor varies inversely according to \_\_\_\_\_

a) length                          b) area of cross-section  
c) temperature                      d) resistivity

Q.3 Out of the following which is an insulating material?

a) Copper                         b) Gold  
c) Silver                            d) Plastic

Q.4 A battery converts \_\_\_\_\_. .

a) electrical energy to chemical energy  
b) chemical energy to electrical energy  
c) mechanical to electrical energy  
d) none of these

Q.5 The P-type semiconductor impurities are also called as \_\_\_\_\_.

- a) Acceptor impurities b) Donor impurities  
 c) Either (a) or (b) d) None of these
- Q.6 The full form of LED is \_\_\_\_\_.  
 a) Liquid emitting diodes  
 b) liquid energy display  
 c) Light emitting diode  
 d) Light emitting display
- Q.7 In case of an inductance, current is proportional to \_\_\_\_\_.  
 a) Voltage across the inductance  
 b) Magnetic field  
 c) Both (a) and (b)  
 d) Neither (a) nor (b)
- Q.8 Correct form of ohm's law  
 a)  $I=VR$       b)  $V\propto I$   
 c)  $V=IR$       d) Both b and c
- Q.9 Which of the following is a universal gate?  
 a) NAND gate      b) OR gate  
 c) AND gate      d) All of them
- Q.10 A transistor is device which converts \_\_\_\_\_.  
 a) d.c power into a.c power  
 b) a.c. power into d.c power  
 c) d.c into resistance  
 d) none of the above

## SECTION-B

**Note:** Objective type questions. All questions are compulsory.  $(10 \times 1 = 10)$

- Q.11 What is extrinsic semiconductor?  
 Q.12 Draw symbol for NOT gate.  
 Q.13 Give application of MCB.  
 Q.14 Define fuse.  
 Q.15 Earthing is done to prevent \_\_\_\_\_ to the user.  
 Q.16 What is starter?  
 Q.17 Expand ACSR.  
 Q.18 Name different types of cores used in transformer.  
 Q.19 What is power factor?  
 Q.20 frequency of D.C supply is \_\_\_\_\_.

## SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions.  $(12 \times 5 = 60)$

- Q.21 What are the advantages of electric energy over other form of energy?  
 Q.22 Explain RLC series circuit.  
 Q.23 Explain RMS value of an alternating quantity.  
 Q.24 Define :  
     a) Frequency      b) Amplitude  
 Q.25 What are the advantages of three phase system over single phase system?  
 Q.26 Define phase voltage and line voltage.