

- Q.27 What are the difference in PNP and NPN Transistor?
 Q.28 What is Megger give its application?
 Q.29 Explain working principle of induction motor.
 Q.30 Explain earthing and its importance.
 Q.31 What are the advantages of the 3-phase system over single-phase system?
 Q.32 Write a short note on PN junction diode?
 Q.33 What are various difference in Single and Three phase electric voltage supply?
 Q.34 Explain various losses in transformer.
 Q.35 What is the need of a starter in electric?

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. $(2 \times 10 = 20)$
 Q.36 Explain construction, working, principle of single-phase Transformer with diagram?
 Q.37 Write construction, working and uses of a three-phase induction motor.
 Q.38 What is meaning of electric shock and its causes, how to treat the shocked person.

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4th Sem / Plastic
Subject:- Basics of Electrical and Electronics
Engineering

Time : 3Hrs.

M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory $(10 \times 1 = 10)$

- Q.1 The device which converts A.C. into D.C is known as _____
 a) Generator b) Resistance
 c) Rectifier d) None of these
 Q.2 What is responsible for the current to flow?
 a) Protons b) Electrons
 c) Nucleus d) Protons and Electrons
 Q.3 Which is the best conductor of electricity?
 a) Silver b) Iron
 c) Copper d) Carbon
 Q.4 Which of the following is a not a semi-conductor
 a) Silicon b) Germanium
 c) phosphorus d) Gallium arsenide
 Q.5 A P-type semiconductor results when
 a) A pentavalent impurity is added to an intrinsic semiconductor

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- b) Trivalent impurity is added to an intrinsic semiconductor
- c) Either a Penta or trivalent impurity is added to an intrinsic semiconductor
- d) All of the above

Q6 The S.I. unit of power is

- a) Henry
- b) Coulomb
- c) Watt
- d) Watt-hour

Q7 Electric pressure is also called

- a) Resistance
- b) Power
- c) Voltage
- d) Energy

Q8 The substance which have a large number of free electrons and offer a resistance are called _____

- a) Insulators
- b) Inductors
- c) Semiconductors
- d) Conductors

Q9 The property of the conductor due to which it passes current is called

- a) Resistance
- b) Conductance
- c) Reluctance
- d) Inductance

Q10 Full form of MCB is _____

- a) Miniature Circuit Breaker
- b) Miniature Circuit Bond
- c) Mega Circuit Breaker
- d) Miniature Control Breaker

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Write Full form of AC & DC?
- Q.12 What is the full form of PLC?
- Q.13 Define Voltage.
- Q.14 Define emf.
- Q.15 Define resistance.
- Q.16 Define Current.
- Q.17 What is the unit and symbol of electric resistance?
- Q.18 Define Voltage.
- Q.19 What is the use of fuse wire?
- Q.20 Define power factor.

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Write the difference between AC and DC.
- Q.22 Write various uses of Zener diode.
- Q.23 Write applications of Servo motors.
- Q.24 Explain how to calculate the r.m.s. value of Sinusoidal wave.
- Q.25 Explain concept of three phase system.
- Q.26 Explain the working of star delta starter connection in the three-phase motor.