

- Q.29 Discuss advantages of three phase system over single phase system?
- Q.30 How can we improve power factor?
- Q.31 Define : R.M.S. Value and true power.
- Q.32 Name the two coils of wattmeter. Also explain difference between them.
- Q.33 Name various types of earthing systems. Explain any one of them in detail.
- Q.34 What is resistance? On what factors the resistance of a conductor depends?
- Q.35 Define:
 a) Average value b) Form factor

SECTION-D

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

- Q.36 What is resistance? Give difference between resistance and specific resistance and also explain the factors on which resistance of a conductor depends.
- Q.37 Give (at least 08 point) of difference between alternating and direct current.
- Q.38 Discuss:
 a) Zener diode
 b) Distribution system with block diagram

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4th Sem / Plastic Engineering
Subject : Basic of Electrical & Electronics Engg.

Time : 3 Hrs.

M.M. : 100

SECTION-A

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

- Q.1 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.2 The device which converts A.C. Into D.C. Is known as _____.
 a) Generator b) Resistance
 c) Rectifier d) None of these
- Q.3 In street lighting bulbs are connected in _____.
 a) Parallel b) Series
 c) Inverted series d) None of them
- Q.4 In Boolean algebra, the bar sign (-) indicates _____
 a) OR operation b) AND operation
 c) NOT operation d) None of the above
- Q.5 Star connection is also known as _____.
 a) Y-connection
 b) Mesh connection

- Q.6 c) Either Y-connection or mesh connections
d) Neither Y-connection nor mesh connection
The current which does not change its direction is known as _____ current.
a) Alternating b) Direct
c) Indirect d) None of these

Q.7 Starters are used in DC motors because _____
a) These motors have high starting torque
b) These motors are not self starting
c) To restrict armature current
d) None of these

Q.8 In a circuit, electric current is measured by _____
a) Voltmeter b) Ammeter
c) Wattmeter d) Galvanometer

Q.9 The electrical energy consumed is generally expressed in _____
a) Joules b) Watt
c) Kilo watt Hours d) Joules/ Sec.

Q.10 Zener diode can be described as _____
a) A rectifier diode
b) A device with constant - voltage.
c) A device with constant - current
d) A device that works in the forward region

SECTION-B

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

Q.11 1KWH = _____ Joules.

- Q.12 Name two applications of D.C. current.

Q.13 If the length of wire increased, then resistance will also _____.

Q.14 Give an example of trivalent impurity.

Q.15 Expand MCB.

Q.16 Ratio of maximum value of alternating current to the R.M.S. Value is known as _____.

Q.17 Power is measured with a _____

Q.18 In a circuit, current is measured by _____

Q.19 Name the instrument used to measure electrical energy.

Q.20 Domestic installation has _____ loads.

SECTION-C

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

- Q.21 Discuss the behavior of P-N junction under forward biasing.
 - Q.22 How can you reverse the direction of rotation of an induction motor?
 - Q.23 List general safety measures adopted in electric wiring system.
 - Q.24 Define four applications of single phase induction motor.
 - Q.25 Define SCR and its characteristics.
 - Q.26 Explain distribution system with block diagram.
 - Q.27 Define different transistors and its types.
 - Q.28 Discuss the advantages of H.R.C. fuse?