Q.28 Define electric energy and draw a circuit to measure it.

Q.29 Write a short note on PN junction diode.

Q.30 Explain earthing and its importance.

Q.31 Explain Fleming's Thumbs rules?

Q.32 Write five difference between three-phase and single-phase supply.

Q.33 Write the name of motors used for driving compressors. Explain its working with sketch.

Q.34 How to change the direction of rotation on a given 3 phase induction motor?

Q.35 Explain the use of fuses and give their classification?

SECTION-D

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

Q.36 Define current and voltage also write the difference between AC and DC.

Q.37 Explain working, principle and construction of single-phase transformer with neat diagram.

Q.38 Discuss :

a) Concept of earthing

b) Starting of three-phase induction motors by star-delta starter

No. of Printed Pages : 4 182242
Roll No. .....

4th Sem.
Branch : Plastic
Sub.: Basics of Electrical & Electronics Engineering

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Multiple type Questions. All Questions are compulsory. (10x1=10)

Q.1 An instrument which is used to measure the voltage is called_____.

a) Voltmeter b) Rheostat

c) Wattmeter d) Galvanometer

Q.2 Conductance is reciprocal of____.

a) Inductance b) Power

c) Resistance d) Energy

Q.3 Which of the following quantities remain the same in all parts of a series circuit?

a) Voltage b) Current

c) Power d) Resistance

Q.4 Electrical pressure is also called____.

a) Resistance b) Power

c) Voltage d) Energy

Q.5 A doped semiconductor is also known as __.

a) Intrinsic semiconductor

b) Extrinsic semiconductor

c) Diffused semiconductor

d) None of the above

Q.6 The insulation on a current carrying conductor is provided

a) To prevent leakage of current

b) To prevent a shock

c) All of the above

d) None of the above

Q.7 Ohm's law is not applicable to

a) D.C. Circuits b) Semiconductors

c) Small resistors d) High currents

Q.8 Correct form of ohm's law

a) I = VR b) V a I

c) V = IR d) Above B & C

Q.9 A step up transformer increases _____.

a) Voltage b) Current

c) Power d) Frequency

Q.10 Specific resistance of a substance is measured in

a) W/m b) W/m^2

c) m/W d) W-m

SECTION-B

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

Q.11 Draw the symbol for Diode.

Q.12 Define faraday's law.

Q.13 What is the full form of CRO?

Q.14 What is the use of multimeter?

Q.15 Define capacitance.

Q.16 Define Voltage.

Q.17 What is the unit current?

Q.18 Define Resistance.

Q.19 What is the use of MCB?

Q.20 What is the use of fuse wire?

SECTION-C

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

Q.21 Differentiate between PNP and NPN transistors.

Q.22 Explain working principle of induction motor?

Q.23 Mention five-application of electricity.

Q.24 Explain various losses in transformer.

Q.25 Give various applications of single-phase motors.

Q.26 Give the principle of measurement of DC voltage.

Q.27 Write five applications of stepper motors or servo motors.