Code: A-E616113-A

I SEMESTER EXAM – 2025-26

2 x 90

Std.: XI | Sub: ELECTRICAL MAINTENANCE-I | Marks: 40

Date: | Roll No.: _____ | Time: 2½ Hrs.

Q.1 **Fill in the blanks. (any four)** 4

a) —| |— is the symbol of _____ .

i. Capacitor ii. Choke iii. Inductor

b) If any one of the supply wires is disconnected, then the circuit is called _____ .

i. An open circuit ii. A short circuit iii. A leakage circuit

c) In First angle projection method, the Right Hand Side View is drawn on _____ side of the Front View.

i. Left hand ii. Right hand iii. Top

d) The switch is connected in _____ wire.

i. phase ii. neutral iii. earth

e) _____ is defined as the capacity of doing work.

i. Electrical Power ii. Electrical Energy iii. Electrical work done

f) _____ effect of electric current is used in an electroplating.

i. Chemical effect ii. Physical effect iii. Heating effect

Q.2 **Attempt any two** 4

a) Draw symbols of the following:

i. Hooter

ii. Socket outlet, 3 pin 15 A with switch

iii. Main fuse board with switches, Lighting

iv. Fault

b) Draw a neat and labelled circuit diagram of staircase wiring,

c) Draw a neat and labelled circuit diagram of two-point series parallel testing board.

Q.3 **Attempt any three** 6

a) Draw a neat and labelled circuit diagram of Godown wiring,

b) State the different effects of electric current,

c) Draw a neat and labelled circuit diagram of 2-point Extension board,

d) Draw symbols of the following:

i. Tachometer

ii. DC shunt Motor

iii. Buzzer

iv. Variable Inductor

Q.4 **Attempt any four** 12

a) Define:

i. Terminal Voltage

ii. Electric Power

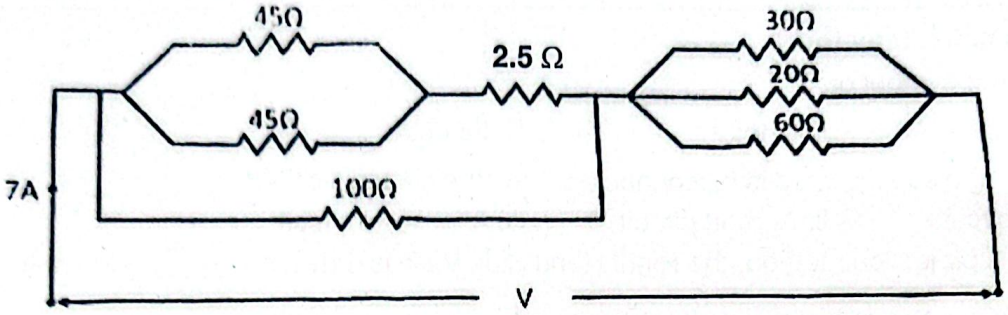
iii. Conductance

b) Compare Series and Parallel circuits.

c) Two lamps of 200 W each are connected in i) parallel & ii) series to a 220 Volt supply. Calculate the power taken in each case.

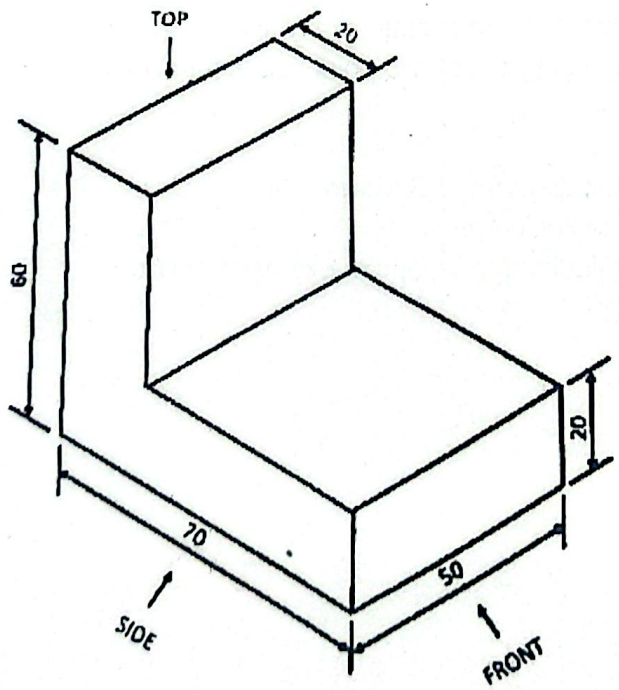
P.T.O

d) Find the equivalent resistance of the circuit below. If the current passing through it is 7A, find the voltage of supply.



e) State and explain the laws of resistance.

Q.5 **The electrical installation in a house is used in the following manner.** 5

i) Lamp 100 W each, 12 nos. 8 hrs a day
ii) Fan 60 W each, 8 nos. 7 hrs a day
iii) Electric cooker 1 KW each, 2 nos. 5 hrs a day
iv) Electric Geyser 1.5 KW each, 2nos. 3 hrs a day
Calculate the cost of electric energy for the month of October, @ Rs.4.50 per unit.

Q.6 Draw the Front View, Top View and Side View of the figure given below, in First Angle Projection Method. 9