Code: A-E616116-M	**I SEMESTER EXAM – 2025-26**	2 x 75
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) _____ effect of electric current is used in an electroplating.

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

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

i. Left hand ii. Right hand iii. Top

d) The fuse is connected in _____ wire.

i. phase ii. neutral iii. earth

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

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

f) Fuses, MCBs are _____ devices.

i. Safety ii. Controlling iii. Consuming

Q.2 **Attempt any two** 4

a) Draw symbols of the following:
   i. Horn
   ii. Socket outlet, 3 pin 15A
   iii. Main fuse board with switches, power
   iv. Earth

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

c) Draw a neat and labelled circuit diagram of one-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. Single phase Energy Meter
   ii. AC Motor
   iii. Buzzer
   iv. Fixed Resistance

Q.4 **Attempt any four** 12

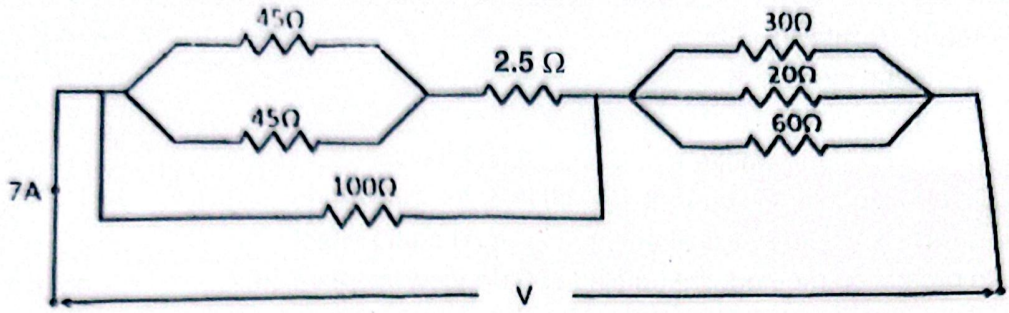
a) Define:
   i. Terminal Voltage
   ii. Electric Energy
   iii. Conductance

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

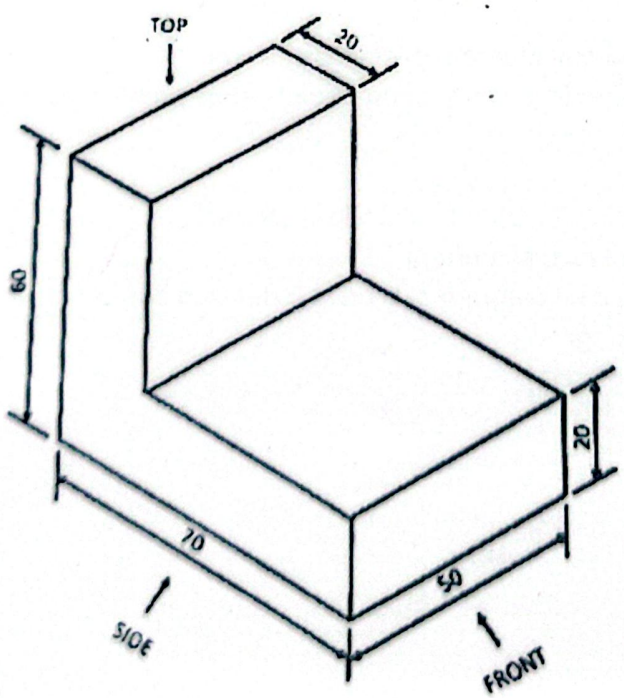
d) Find the equivalent resistance of the circuit below. If the current passing through it is 7A, find the voltage, of supply.



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.