

Electricity Chapter 12

Assessment Technique: Diagram Based Worksheet

Objectives: To enable the students to know the

- Basic lay-out design of domestic electric wiring.
- Role of each of the three wires used in domestic electric wiring.
- Correct position of the electricity meter,
- Correct position of the fuse and the switches in the domestic circuit.
- Importance of using the 'earth-wire' while working with metallic body appliances.
- Reasons for arrangement of devices, 'in parallel' with each other, in domestic circuits.

Assessment Time: 15 minutes.

Assessment Task: Individual Worksheet.

Procedure: The teacher may explain to the students.

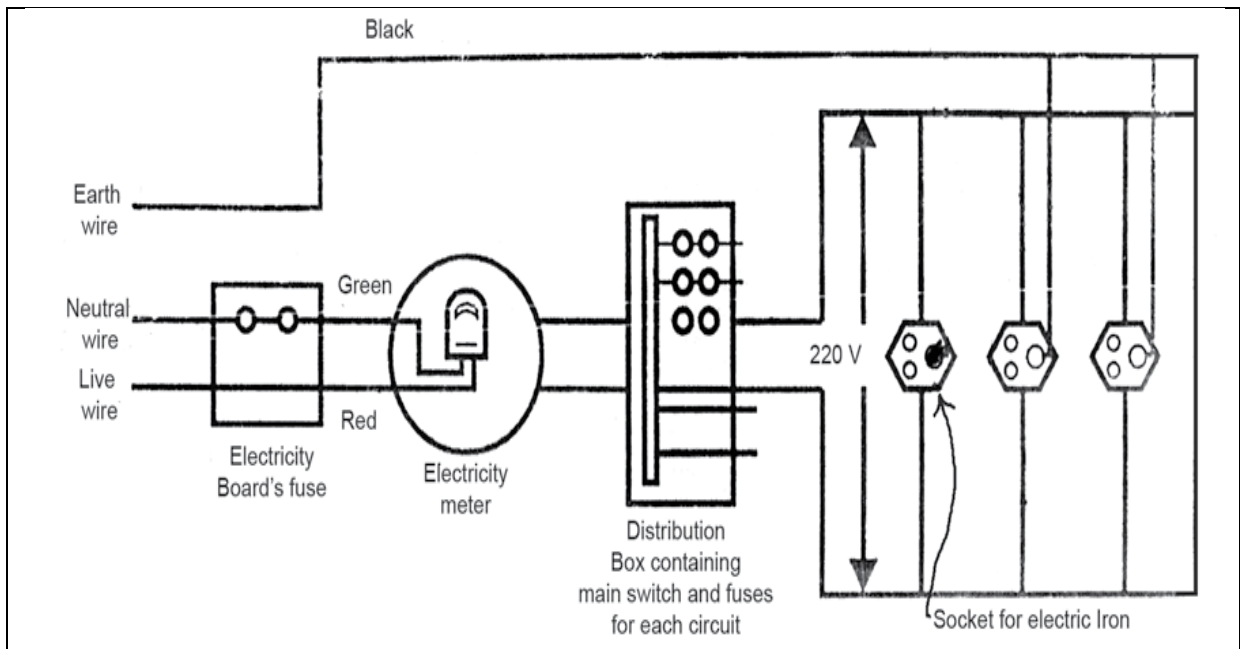
- The basic design of the electric wiring in household circuits clearly underlying the role of the neutral, the live and the earth wires.
- The role of the safety devices like the fuse wire and the earth wire.
- The correct position of the fuse, the main switch and the switches in the circuit.
- The fact that the appliances in the household circuit are connected in parallel so as to provide them the necessary voltage for their proper operation and the facility of switching these on or off independently.

Assessment parameter:

- 1 mark each for finding out each fault in the domestic wiring circuit shown
- 1 mark each for suggesting the correction needed in each of the fault found above.

Student Worksheet

Instructions: A novice electrician designed the following circuit for the 'electric wiring' in a certain household. His senior, however, told him to make five important changes/corrections in this circuit.



Identify five faults in the above circuit and suggest and write the five corrections needed, in brief, that you think the senior electrician must have suggested to this novice.

Suggested Remediation: Some of the students may not be able to understand the use of wire of different colours associated with the live, the neutral and the earth wire. The same should be clearly explained. The facts that electric sockets should always have proper earthing, as also the necessity of fixing the fuse and the switch in live wire, should be clearly explained to the students.