REVISION ASSIGNMENT
PHYSICS (CLASS XII)
UNIT 2 - CURRENT ELECTRICITY

1. **The electron drift speed in a metallic conductor is only a few mm s^{-1} for currents in the range of the few amperes. How then is the current established almost at the instant the circuit is closed?**

2. **When electrons drift in a metal from lower to higher potential, does it mean that the free electrons of the metal are moving in the same direction?**

3. **Two conducting wires X and Y of same diameter but different materials are joined in series across a battery. If the number density of electrons in X is twice that in Y, find the ratio of drift velocity of electrons in the two wires.**

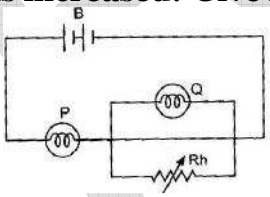
4. **Two wires on e of manganin and the other of copper have equal length and equal resistance. Which one of these wires will be thicker?**

5. **Two 120 V light bulbs, one of 25 W and the other of 200 W were connected in series across a 240 V line. One bulb burnt out almost instantaneously. Which one was burnt and why?**

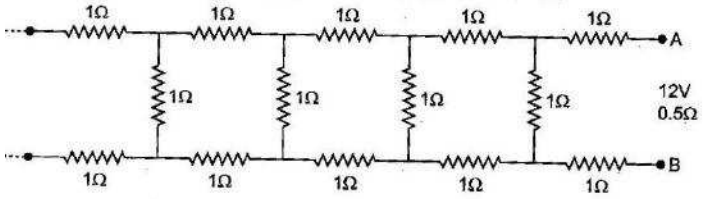
6. **A cell of emf E and internal resistance r is connected across an external resistance R. Plot a graph showing the variation of P.D. across R, verses R.**

7. **Draw the graphs showing the variation of resistivity with temperature for (i) nichrome and (ii) silicon.**

8. **The circuit shown in the diagram contains a battery 'B', a rheostat 'Rh' and identical lamps P and Q. What will happen to the brightness of the lamps, if the resistance through the rheostat is increased? Give reasons.**



9. **Determine the current drawn from a 12 V supply with internal resistance 0.5 Ω by the infinite network shown in fig. Each resistor has 1 Ω resistance.**



10. **In a meter bridge, the null point is found at a distance of 40 cm from A. If a resistance of 12 Ω is connected in parallel with S, the null point occurs at 50.0 cm from A. Determine the values of R and S.**