12 ELECTRICITY

WORKSHEET-151

Name	Class.....	Roll No.....	Time 20 Min.	Max. Marks 12	Marks Obtained

TOPIC-1
Electric Current

A **Q. 1.** A given length of a wire is doubled of itself and this process is repeated once again. By what factor does the resistance of the wire changes ? **[Board Term I, Set (16), 2011] (1)**

Ans. .....

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A **Q. 2.** 400 J of heat is produced in 4 s in a 4 W resistor. Find potential difference across the resistor. **[Board Term I, Set (17), 2011] (1)**

Ans. .....

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A **Q. 3.** (i) Calculate the electrical energy consumed by a 1200 W toaster in 30 minute.

(ii) What will be the cost of using the same for 1 month if one unit of electricity costs ₹ 4 ?

[Board Term I, Set (37), 2012] (2)

Ans. .....

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A **Q. 4.** The resistance per metre length of a wire is 10W. It the resistivity of the material of the wire is 50×10^{-8} ohm metre, find the area of cross-section of the wire. **[Board Term-I, Set-JYNE6XG, 2015] (3)**

Ans. .....

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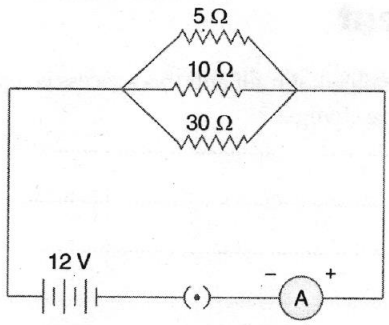
A **Q. 5.** (i) How will you convert a given set of resistors so that the equivalent resistance is increased ? Give reason for your answer.

(ii) In the given circuit diagram, calculate :

(a) the value of current through each resistor

(b) the total current in the circuit

(c) the total effective resistance of the circuit. **[Board Term I, Set (40), 2012] (5)**



Ans.

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