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

## TOPIC-1
### Electric Current

A Q. 1. Calculate the number of electrons constituting one coulomb of charge. (charge on 1 electron = $1{\cdot}6 \times 10^{-19}$ C) **[Board Term I, Set-3R6QRQL, 2013] (1)**

**Ans.** .....

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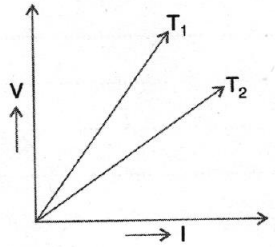
A Q. 2. The voltage-current (V-I) graph of a metallic conductor at two different temperatures $T_1$ and $T_2$ is shown below. At which temperature is the resistance higher ? **[Board Term I, Set (13), 2011] (1)**




**Ans.** .....

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A Q. 3. A battery of 12 V is connected to a series combination of resistors 3 W,4 W, 5 W and 12 W. How much current would flow through the 12 W resistor ? **[Board Term I, Set (37), 2012] (2)**

**Ans.** .....

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A Q. 4. The resistance of a wire of 0.01 cm radius is 10Ω. If the resistivity of the material of the wire is 50 $\times 10^{-8}$ ohm meter, find the length of the wire. **[Board Term I, Set-5X7289R, 2014] (3)**

**Ans.** .....

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U **Q. 5.** (a) Two identical resistors each of resistance 10 ohm are connected in :
(i) series, (ii) parallel.
in turn to a battery of 6V. Calculate the ratio of power consumed by the combination of resistor in the two cases.

(b) List two factors on which the resistance of a conductor depends.

(c) Write a difference between an ammeter and voltmeter. **[Board Term I, Set (45), 2012] (5)**

**Ans.**

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