

## Current Electricity

1. An electric heater is connected to the voltage supply. After few seconds, current gets its steady value then its initial current will be
- (a) equal to its steady current
  - (b) slightly higher than its steady current
  - (c) slightly less than its steady current
  - (d) zero

▼ Answer

Answer: b

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2. In the series combination of two or more than two resistances
- (a) the current through each resistance is same.
  - (b) the voltage through each resistance is same.
  - (c) neither current nor voltage through each re-sistance is same.
  - (d) both current and voltage through each resistance are same.

▼ Answer

Answer: a

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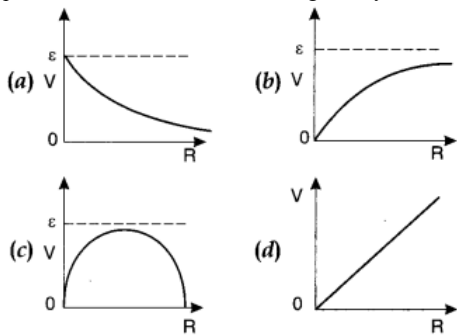
3. Combine three resistors 5  $\Omega$ , 4.5  $\Omega$  and 3  $\Omega$  in such a way that the total resistance of this combination is maximum
- (a) 12.5  $\Omega$
  - (b) 13.5  $\Omega$
  - (c) 14.5  $\Omega$
  - (d) 16.5  $\Omega$

▼ Answer

Answer: a

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4. A cell having an emf  $E$  and internal resistance  $r$  is connected across a variable external resistance  $R$ . As the resistance  $R$  is increased, the plot of potential difference  $V$  across  $R$  is given by



▼ Answer

Answer: b

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5. In parallel combination of  $n$  cells, we obtain

- (a) more voltage
- (b) more current
- (c) less voltage
- (d) less current

▼ **Answer**

Answer: b

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6. If  $n$  cells each of emf  $\epsilon$  and internal resistance  $r$  are connected in parallel, then the total emf and internal resistance will be

- (a)  $\epsilon, \frac{r}{n}$
- (b)  $\epsilon, nr$
- (c)  $n\epsilon, \frac{r}{n}$
- (d)  $n\epsilon, nr$

▼ **Answer**

Answer: a

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7. In a Wheatstone bridge if the battery and galvanometer are interchanged then the deflection in galvanometer will

- (a) change in previous direction
- (b) not change
- (c) change in opposite direction
- (d) none of these.

▼ **Answer**

Answer: b

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8. When a metal conductor connected to left gap of a meter bridge is heated, the balancing point

- (a) shifts towards right
- (b) shifts towards left
- (c) remains unchanged
- (d) remains at zero

▼ **Answer**

Answer: a

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9. In a potentiometer of 10 wires, the balance point is obtained on the 7<sup>th</sup> wire. To shift the balance point to 9th wire, we should

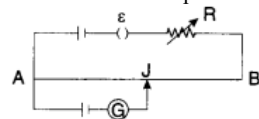
- (a) decrease resistance in the main circuit.
- (b) increase resistance in the main circuit.
- (c) decrease resistance in series with the cell whose emf is to be measured.
- (d) increase resistance in series with the cell whose emf is to be determined.

▼ **Answer**

Answer: d

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10. AB is a wire of potentiometer with the increase in the value of resistance  $R$ , the shift in the balance point J will be



- (a) towards B
- (b) towards A
- (c) remains constant
- (d) first towards B then back towards A.

▼ **Answer**

Answer: a

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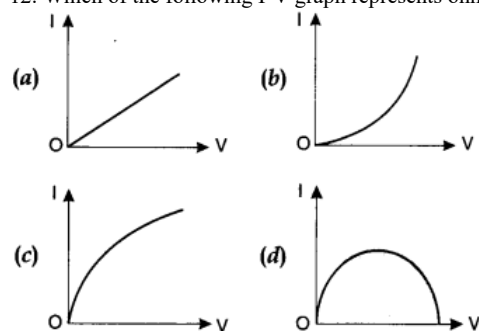
11. A charge is moving across a junction, then

- (a) momentum will be conserved.
- (b) momentum will not be conserved.
- (c) at some places momentum will be conserved and at some other places momentum will not be conserved.
- (d) none of these.

▼ Answer

Answer: d

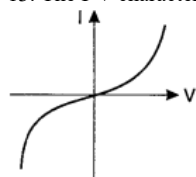
12. Which of the following I-V graph represents ohmic conductors?



▼ Answer

Answer: a

13. The I-V characteristics shown in figure represents

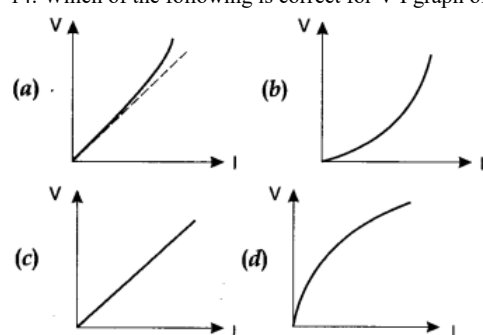


- (a) ohmic conductors
- (b) non-ohmic conductors
- (c) insulators
- (d) superconductors

▼ Answer

Answer: b

14. Which of the following is correct for V-I graph of a good conductor?



▼ Answer

Answer: a

15. The resistivity of alloy manganin is

- (a) Nearly independent of temperature
- (b) Increases rapidly with increase in temperature
- (c) Decreases with increase in temperature
- (d) Increases rapidly with decrease in temperature

▼ Answer

Answer: a