

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

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

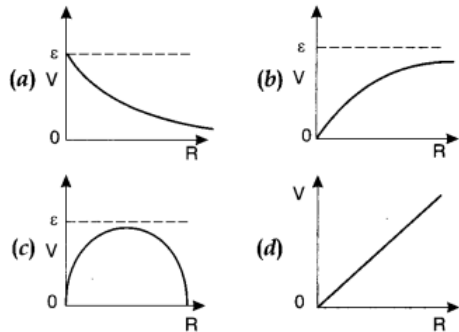
Answer: a

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

▼ Answer

Answer: a

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

5. In parallel combination of n cells, we obtain

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

▼ Answer

Answer: b

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

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

▼ Answer

Answer: a

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

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

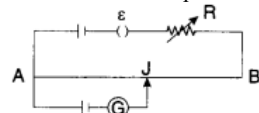
9. In a potentiometer of 10 wires, the balance point is obtained on the 7th wire. To shift the balance point to 9th wire, we should

- (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

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

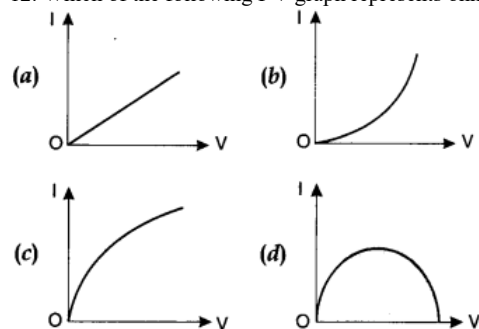
11. A charge is moving across a junction, then

- (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

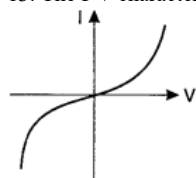
12. Which of the following I-V graph represents ohmic conductors?



▼ Answer

Answer: a

13. The I-V characteristics shown in figure represents

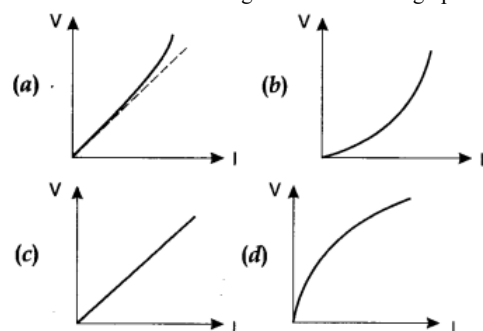


- (a) ohmic conductors
- (b) non-ohmic conductors
- (c) insulators
- (d) superconductors

▼ 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