

Class 12 Physics Chapter 3 Current Electricity MCQs

1. What is the resistance of a human body?

- (a) $12\ \Omega$
- (b) $120\ \text{k}\Omega$
- (c) $12\ \text{k}\Omega$
- (d) $2\ \Omega$

2. A silver wire has a resistance of $2.1\ \Omega$ at $27.5\ ^\circ\text{C}$, and a resistance of $2.7\ \Omega$ at $100\ ^\circ\text{C}$. What is the temperature coefficient of resistivity of silver?

- (a) 0.0059
- (b) 0.0039
- (c) 0.0129
- (d) 0.0159

3. The rate of flow of electric charge through any cross-section of a conductor is known as

- (a) Electric flux
- (b) Electric potential
- (c) Electric current
- (d) Electric field

4. Mobility is denoted by

- (a) η
- (b) α
- (c) μ
- (d) ρ

5. Which of the following is non-ohmic resistance?

- (a) Lamp filament
- (b) Copper wire
- (c) Carbon resistor
- (d) Diode

6. Unit of conductance is

- (a) Dyne
- (b) Siemen
- (c) Ohm
- (d) Volts

7. Current density is a

- (a) Scalar
- (b) Vector
- (c) Dimensionless quantity
- (d) None of the options

8. The resistivity of certain metals or alloys drops to zero when they are cooled below a certain temperature; this phenomenon is known as

- (a) Conductivity
- (b) Partial conductivity
- (c) Superconductivity
- (d) Non-conductivity

9. State true or false: The total resistance in the series combination is more than the greatest resistance in the circuit.

- (a) True
- (b) False

10. The opposition offered by the electrolyte of the cell to the flow of current through itself is known as

- (a) External resistance
- (b) Internal resistance
- (c) Non-resistance
- (d) None of the option

*****Answer Key*****

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|-------|-------|-------|-------|--------|
| 1-(c) | 2-(b) | 3-(c) | 4-(c) | 5-(d) |
| 6-(b) | 7-(b) | 8-(c) | 9-(a) | 10-(b) |