

ELECTRICITY

SECTION-A

$$8 \times 1 = 8$$

1. Which of the given is the SI Unit of Electric Current?

A. Ohm B. Ampere C. Volt D. Faraday

2. The instrument used for measuring electric current is

- A. Ammeter
- B. Galvanometer
- C. Voltmeter
- D. Potentiometer

3. The relation between potential difference (V) and current (I) is

- A. $V \propto I^2$
- B. $V \propto 1/I$
- C. $V^2 \propto I$
- D. $V \propto I$

4. The relation between potential difference (V) and current (I) was discovered by

- A. Newton
- B. Ampere
- C. Ohm
- D. Volta

5. The device used for measuring potential difference is known as:

- A. Potentiometer
- B. Ammeter
- C. Galvanometer
- D. Voltmeter

6. In SI unit, JC^{-1} is equal to

- A. Volt
- B. Newton's law
- C. Pascal

D. Omega

7. Which of the given statements is true regarding ammeter and voltmeter?

- A. Ammeter is connected in series with the required device, Voltmeter in parallel
- B. Both ammeter and voltmeter are connected in series with required device
- C. The voltmeter is connected in series with the device, Ammeter in parallel
- D. They can be connected in any way

8. How the charge will flow?

- A. By heating them
- B. By applying potential difference
- C. Both
- D. None of these

Section-B

5 X 5 = 25

9. When a 12V battery is connected across an unknown resistor, there is a current of 2.5mA in the circuit. Find the value of the resistance of the resistor.

10. A battery of 9 V is connected in series with resistor of 0.2 ohm, 0.3 ohm, 0.4 ohm, 0.5 ohm and 12 ohm, respectively. How much current would flow through the 12 ohm resistor?

11. How much current will an electric bulb draw from a 220V source if the resistance of the bulb filament is 1200 ohm? And How much current will an electric heater coil draw from a 220V source, if the resistance of the heater coil is 100 ohm?

12. Resistance in series?

13. Resistance in parallel?