Electricity - Class X - Paper Set 2

1. In a series circuit, the total resistance is:

   a) The average of all resistances
   b) The highest of the resistances
   c) The sum of all resistances
   d) The lowest of all resistances

2. When two resistors are connected in parallel, the total resistance:

   a) Increases
   b) Decreases
   c) Remains the same
   d) Becomes zero

3. Which of the following is NOT a unit of electrical power?

   a) Watt
   b) Joule
   c) Volt-Ampere
   d) Kilowatt

4. The device used to measure potential difference is:

   a) Ammeter
   b) Rheostat
   c) Voltmeter
   d) Galvanometer

5. A resistor of 10 Ω is connected to a 5 V battery. The current through the resistor is:

   a) 0.5 A
   b) 1 A
   c) 2 A
   d) 5 A

6. If a 100 W bulb operates at 220 V, the resistance of the bulb is:

   a) 44 Ω
   b) 220 Ω
   c) 484 Ω
   d) 1000 Ω

7. The commercial unit of electrical energy is:

   a) Watt-hour
   b) Kilowatt-hour
   c) Joule
   d) Volt

8. When a potential difference of 12 V is applied across a resistor, the current is 4 A. The resistance is:

   a) 48 Ω b) 8 Ω

   c) 3 Ω d) 12 Ω

9. The heat produced in a resistor is given by:

   a) I^2R b) V^2/R

   c) IR d) VR

10. Which material is commonly used for electric heater elements due to its high resistivity and high melting point?

    a) Copper b) Aluminium

    c) Tungsten d) Nichrome

Answers for Set 2: 1-c, 2-b, 3-b, 4-c, 5-b, 6-c, 7-b, 8-c, 9-a, 10-d