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**INDIAN EXCELLENT Pvt. SCHOOL, SHARJAH**

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| **Worksheet [2024-2025]** | **Date:** |  |

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| **Subject:** | **PHYSICS** | **Topic:** | **ELECTRICITY** |
| **Name of the Student:** |  | **Class/Div** | **X A and B** |

**WORKSHEET-1**

**ELECTRICITY**

1. Name and define SI unit of resistance. Calculate the resistance of a resistor if the current flowing through it is 200mA, when the applied potential difference is 0.8V.
2. A piece of wire of resistance 6Ω is connected to battery of 12 V. Find the amount of current flowing through it. Now, the same wire is redrawn by stretching it to double its length. Find the resistance of the new (redrawn) wire.
3. A wire of length L and resistance R is stretched so that the length is doubled and area of cross- section is halved. How will its:
4. Resistance change?
5. Resistivity change?
6. A nichrome wire has a resistance of 10 Ω. Find the resistance of another nichrome wire, whose length is three times and area of cross- section four times the first wire.
7. Draw the nature of V-I graph for a nichrome wire. (V- Potential difference, I – Current)A metallic wire of 625 mm length offers a 4Ω resistance. If the resistivity of the metal is 4.8 x 10-7 ohm- meter, then calculate the area of cross – section of the wire.