**Gulistan Academy**

Physics (10th) Max.Marks = 40

Chapter No.14 (Current Electricity) Pass Marks = 20

**Time = 1 Hour** Teacher Name: M.Maaz

**Question No.1: Give short answers. (212 = 24)**

1. Define and explain the term Electric Current.
2. What do you mean by the term **e.m.f.**? Is it really a force? Explain.
3. Define resistance and its units.
4. Differentiate between D.C and A.C.
5. Why is the voltage used for the domestic supply much lower than the voltage at which the power is transmitted?
6. What is the difference between a cell and a battery?
7. Can current flow in a circuit without potential difference?
8. How many watt-hours are there in 1000 joules?
9. Does a fuse in a circuit control, the potential difference or the current?
10. A current of **3 mA** is flowing through a wire for **1 minute**. What is the charge flowing through the wire?
11. Reading on voltmeter connected across a heating element is **60 V**. The amount of current passing through the heating element measured by an ammeter is **2 A**. What is the resistance of the heating coil of the element?
12. Differentiate between conductors and insulators?

**Question No.2: (5+3 = 8)**

1. Describe the factors affecting Resistance thoroughly.
2. An incandescent light bulb with an operating resistance of **95 Ω** is labeled “**150 W**”. Is this bulb designed for use in a **120 V** circuit or a **220 V** circuit?

**Question No.3: (5+3 = 8)**

1. How can we combine Resistances in parallel fashion? Find the equivalent resistance of this parallel combination.
2. Two resistances of **2 kΩ** and **8 kΩ** are joined in series, if a **10 V** battery is connected across the ends of this combination, find the following quantities:
3. The equivalent resistance of the series combination.
4. Current passing through each of the resistances.
5. The potential difference across each resistance.

**Best of luck**