**Gulistan Academy**

Physics (10th) Max.Marks = 32

Chapter No.13,14 Pass Marks = 32

**Time = 38 min**

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

1. *How the Electroscope is helpful in identifying the Conductors and Insulators?*
2. *How does electrostatic induction differ from charging by friction?*
3. *In what direction will a positive charged particle move in an electric field?*
4. *The capacitance of a parallel plate capacitor is* ***100 pF****. If the potential difference between its plates is* ***50 V****, find the quantity of charge that capacitor can store. What will be the charge on each plate?*
5. *What is the difference between a cell and a battery?*
6. *Differentiate between Direct and Alternating Current.*
7. *How many watt-hours are there in 1000 joules?*
8. *Differentiate between conductors and insulators?*

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

1. *Explain Coulomb’s law of electrostatic and derive its mathematical form.*
2. *Two capacitors of capacitances* ***6 µF*** *and* ***12 µF*** *are connected in series with* ***12 V*** *battery. Find the equivalent capacitance of the combination. Find the charge and the potential difference across each capacitor.*

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

1. *Describe the factors affecting Resistance thoroughly.*
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.*