

Physics - 10th Class Physics English Medium Chapter 13 Preparation

Q1. Differentiate between fixed and variable capacitors.

Ans 1: Fixed capacitor: Fixed capacitor is a capacitor whose capacitance remains fixed. For example; Paper capacitor and Mica capacitor.

Ans 2: Variable capacitor : Variable capacitor is a capacitor whose capacitance can be changed. for example : Electrolytic capacitor.

Q2. Difference between Electric potential and Potential energy.

Ans 1: Electric potential :

Electric potential is a characteristic of the field of source charge and is independent of a test charge that may be placed in the field.

Ans 2: Potential energy: P.E. is characteristic of both the field and test charge. It is produced due to interaction of the field and the charge placed the field.

Q3. Define volt.

Ans 1: If the potential energy of one coulomb of charge at a point in the electric field is one joule. the potential of that point will be one volt.

Q4. Define Farad.

Ans 1: If one coulomb of charge given to the plates of a capacitor produces potential difference of one volt between the plates of the capacitor then its capacitance would be one farad.

Farad is a large unit, usually we use a smaller unit called micro farad and pico farad etc.

Q5. Define coulomb?

Ans 1: If one ampere current flow from a wire in one second then its charge will be one coulomb.

Q6. What the body of an aeroplane get charged during flight?

Ans 1: During flight, body of an aeroplane gets charged due to frictional forces.

Q7. What is meant by electric field and electric intensity?

Ans 1: Electric field. The electric field is a region around a charge in which it exerts electrostatic force on another charges.

Ans 2: Electric field intensity: The strength of electric field at any point in space is known as electric field intensity.

Q8. What is meant by electrostatic induction?

Ans 1: In the presence of charge body an insulated conductor develop positive charge at one end and negative charge at the other end this process is called electrostatic induction.

Q9. How would you define potential difference between two points?

Ans 1: Potential difference between two points as the energy supplied by a unit charge as it moves from one point to the other in the direction of the field. Its unit is volt.

Q10. What is the unit of electric potential or electric energy?

Ans 1: Electron volt is another and more useful unit of electric potential or electric energy.
