

Physics - ICS Part 2 Physics Chapter 12 Short Questions Preparation

Q1. How can you identify that when plate of capacitor is positively charged?

Ans 1: For the identification of positively charged plate of a capacitor gold leaf electroscope is used, For this purpose the plate of capacitor is brought near the positively charged disc of electroscope. If the divergence of the gold leaves increase then the capacitor will be positively charged and vice versa.

Q2. Does the total flux depend upon the shape or geometry of the closed surface?

Ans 1: No, the total flux does not depend upon the shape or geometry of the closed surface, it depends upon medium and charge enclosed.

Q3. Distinguished between electric field and field intensity.

Ans 1: Electric Field: The space or region around the charge in which it exerts its electric force on other charges is called electric field.

Ans 2: Electric field intensity: At any point in electric field the force experienced by a point charge q is termed as electric or strength at that point.

Q4. A point charge move rectilinear path in an electric field. Explain.

Ans 1: If a point charge q of mass m is placed at any point in the field in the point, it will follow straight or rectilinear path along the field line due to repulsive force.

Q5. Do electrons tend to go region of high potential or low potential?

Ans 1: Electrons tend to go to a region of high potential from low potential because electrons are negatively charged.

Q6. If a point charge q of mass is released in a non-uniform electric field with field lines pointing in the same directions, will it make rectilinear motion?

Ans 1: If a point charge q of mass m is placed at any point in the field, it will follow straight or rectilinear path along the field line due to repulsive force.

Q7. Electric lines of force never cross why?

Ans 1: Electric lines of force never cross each other, This is because that electric field line has only one direction at any given point. If the lines cross, electric field lines could have more than one direction which is not possible.

Q8. Define electron volt.

Ans 1: It is defined as The amount of energy acquired or lost by an electron when it is displaced across two points having potential difference of one volt.It is measure on electrons volts.

Q9. Describe the force or forces on a positive point charge when placed between parallel plate,with similar and equal charges.

Ans 1: When a positive point charge is placed between parallel plates with similar and equal charges,then the electric field intensity due to one plate is equal in magnitude but opposite in direction of electric intensity due to other plate.So the value of resultant electric field intensity E is zero,Hence the net force on the positive charge is zero,Thus is will remain at rest.

Q10. Write down two difference between electric and gravitational force.

Ans 1: Differences:Electrical force is might be attractive as well as repulsive while the gravitational force is only attractive.Electrostatics force is medium dependent while the gravitational force is not.
