Electrostatics and Capacitors Solved Practice Questions for JEE Main 2026 Success

1. If the electric flux through a closed surface is zero, which of the following statements is always true?

a. No charge is enclosed within the surface
b. The net charge enclosed is zero
c. The electric field is zero everywhere
d. The surface is an equipotential

Solution: The net charge enclosed is zero

2. A conductor placed in an external electric field-

a. Allows the field to penetrate inside it
b. Has zero electric field inside it in electrostatic equilibrium
c. Accumulates charges uniformly on its surface
d. Always becomes negatively charged

Solution: Has zero electric field inside it in electrostatic equilibrium

3. Electric field lines never intersect because-

a. They represent direction of electric force
b. At intersection, two directions of field are possible, which is impossible
c. They represent equipotential lines
d. None of these

Solution: At intersection, two directions of field are possible, which is impossible

4. If an electric field is zero in a certain region, which of the following statements must be true?

a. The potential is zero in the region
b. The potential is constant in that region
c. The charge density is zero in that region
d. All of the above

Solution: The potential is constant in that region

5. The work done in movo=ing a test charge between two points in an equipotential surface is:

a. Maximum
b. Minimum
c. Zero

d. Infinite

Solution: Zero

6. The potential at a point due to a positive charge decreases when the point is moved-
   a. Towards the charge
   b. Away from the charge
   c. On a perpendicular bisector
   d. Around the charge in a circle

Solution: Away from the charge

7. Electric lines of force due to a negative charge-
   a. Originate from the charge
   b. Terminate on the charge
   c. Are circular around the charge
   d. Are perpendicular to the field

Solution: Terminate on the charge

8. A positive charge is placed at the centre of a hollow conducting sphere. The electric field inside the conducted is-
   a. Zero
   b. Constant
   c. Infinite at the centre
   d. Depends on distance from centre

Solution: Zero

9. In a combination of capacitors, potential difference across each capacitor is the same when they are connected-
   a. In series
   b. In parallel
   c. Either series or parallel
   d. None

Solution: In parallel

10. The capacitance of a parallel plate capacitor does not depend on-
   a. Distance between plates
   b. Area of plates
   c. Material between plates
   d. Charge on plates

Solution: Charge on plates