

Static Electric Field - Practice Questions

Multiple Choice Questions:

1. The SI unit of electric field is: (a) Volt (b) Coulomb (c) Newton/Coulomb (d) Ampere - Answer: (c)
2. Electric field around a positive charge is: (a) inward (b) outward (c) circular (d) random - Answer: (b)
3. Electric field inside a conductor is: (a) maximum (b) zero (c) infinite (d) negative - Answer: (b)
4. Electric field lines never: (a) start (b) end (c) intersect (d) curve - Answer: (c)
5. Force on charge q in field E is: (a) q/E (b) qE (c) E/q (d) $q+E$ - Answer: (b)
6. Direction of electric field is direction of: (a) negative charge (b) positive test charge (c) current (d) voltage - Answer: (b)
7. Unit of potential difference is: (a) Coulomb (b) Newton (c) Volt (d) Joule - Answer: (c)
8. Electric field due to point charge varies as: (a) r (b) $1/r$ (c) $1/r^2$ (d) r^2 - Answer: (c)
9. Equipotential surfaces are always: (a) parallel (b) perpendicular to field lines (c) curved (d) infinite - Answer: (b)
10. Work done moving charge on equipotential surface is: (a) maximum (b) zero (c) infinite (d) constant - Answer: (b)

Fill in the Blanks:

1. Electric field is defined as force per unit _____ charge. Answer: positive
2. SI unit of electric field is _____. Answer: N/C
3. Electric field lines start from _____ charge. Answer: positive
4. Electric field lines end at _____ charge. Answer: negative
5. Electric field inside conductor is _____. Answer: zero
6. The force between charges is given by _____ law. Answer: Coulomb's
7. Electric field due to a point charge varies inversely with square of _____. Answer: distance
8. Equipotential surfaces have _____ potential everywhere. Answer: same
9. Work done in moving charge along equipotential surface is _____. Answer: zero
10. Electric field is a _____ quantity. Answer: vector