

Balika Vidyapith Lakhisarai

Class 12 Subject Physics(Unit 1 Chap. 2) Dt 27 07 XX

Question-Answer

1 How much work is done in moving 1 C of charge on an equipotential surface?

Ans-Zero

2 What is SI unit of potential gradient?

Ans-V/m

3 What is direction of electric field intensity on an equipotential surface?

Ans -always perpendicular to the surface.

4 What is electric potential inside a hollow charged conductor?

Ans-Zero

5 What is minimum potential energy of an electric dipole of dipole moment p in an electric field E ?

Ans- $-pE$

6 The electric field at a point is not zero. Can the electric potential be zero at that point?

Ans-No. It may be constant but not zero.

7 What is relation between electric field and potential gradient?

Ans-No $E=-dV/dr$

8 How does positive charge flow in an electric field?

Ans-From a point at higher potential to a point at lower potential.

9 F/m is the SI unit of which physical quantity?

Ans – absolute Permittivity.

10 What is net charge on a charged capacitor?

Ans-Zero

11 Where does the energy of a charged capacitor reside?

Ans- between the plates of capacitor in the form of electric field.

12 What is the radius of a spherical conductor of capacitance 1 microF?

Ans- 9 km.

13 How does capacitance of a parallel plate capacitor change on inserting dielectric between the plates of capacitor?

Ans- Capacitance will increase.

14 A parallel plate capacitor has capacitance of 6 micro-F in air and 60 Micro- F when a dielectric medium is introduced. What is dielectric constant of the medium?

Ans- 10

15 What is SI unit of dielectric constant?

Ans No unit.

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