Quiz # 3

Phy-106

The respondent's email address (**201370203@gift.edu.pk**) was recorded on submission of this form.

The magnitude of electric filed does not depend upon * 1 point

- [x] Distance from the charged bodies
- [ ] Sign of the charges causing the field
- [ ] Magnitude of the charges causing the field
- [ ] Force a unit positive charge will experience

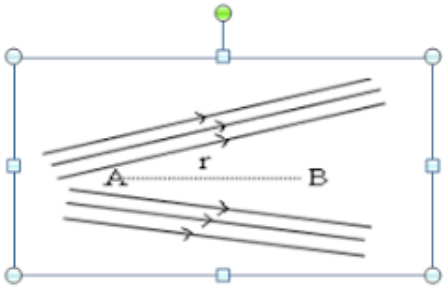
The charge on an isolated conductor always lies * 1 point

- [ ] Within the conductor
- [ ] At the centre of the conductor
- [x] On the surface of the conductor
- [ ] Outside the surface of the conductor

*

1 point

If the electric field at A and B are E_A and E_B and the distance between them is 'r' as shown in the figure given below, then



$E_A > E_B$.

Option 1

$E_A < E_B$.

Option 2

$E_A = \frac{E_B}{r}$.

Option 3

D $E_A = \frac{E_B}{r^2}$.

option 4

*

1 point

A rod lies along the x-axis with one end at the origin and other at x->∞ it caries a uniform charge λ C/m. Find the electric field at the point x=-a on the x-axis

$\frac{-\lambda}{4\pi\epsilon_0 a} i$

Option 1

$\frac{-\lambda}{4\pi\epsilon_0 a^2} i$

Option 2

$\frac{\lambda}{4\pi\epsilon_0 a} i$

Option 3

$\frac{\lambda}{4\pi\epsilon_0 a^2} i$

Option 4

Gauss law cannot be used to find which of the following quantity? * 1 point

- ( ) Electric field intensity
- ( ) Electric flux density
- ( ) Charge
- (•) None of These

Find the flux through a spherical Gaussian surface of radius a = 1 m surrounding a charge of 8.85 pC. * 1 point

- ( ) 1X10^-16 Nm^2/C
- ( ) 1X10^-12 Nm^2/C
- ( ) 1X10^-8 Nm^2/C
- (•) 1 Nm^2/C

Electric flux lines due to an infinite sheet of charge is * 1 point

- ( ) converging
- ( ) radial
- (•) uniform and perpendicular to the sheet
- ( ) uniform and parallel to the sheet

A Gaussian sphere closes an electric dipole within it. Then the total flux through the sphere is * 1 point

- ○ half that due to a single charge
- ○ double due to a single charge
- ◉ zero
- ○ dependent of the position of the dipole

Electric intensity due to an infinitely long plane sheet of a conductor at a point close to its surface is * 1 point

- ◉ independent of r
- ○ proportional to 1/r^2
- ○ proportional to 1/r
- ○ inversely proportional to 1/r

The electric field intensity at a point situated 4 metres from a point charge is 200 N/C. If the distance is reduced to 2 metres, the field intensity will be * 1 point

- ○ 400 N/C
- ○ 600 N/C
- ◉ 800 N/C
- ○ 1200 N/C