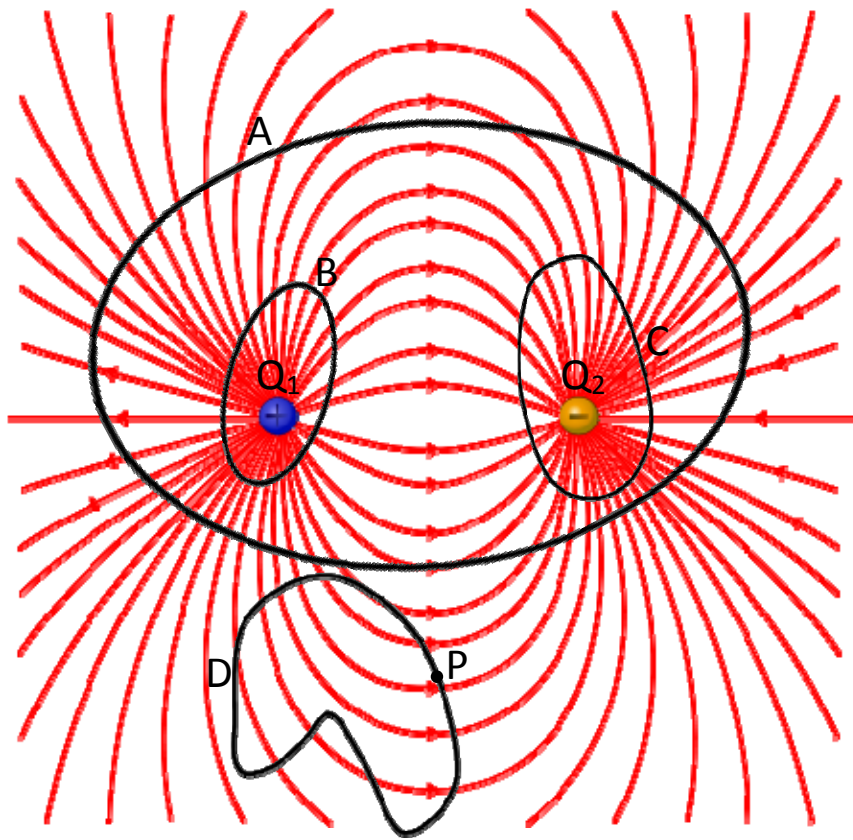


PHY 232 Summer 2016 Class Work
Class 6. Applications of Gauss's Law



(a) What are the electric flux through surfaces A , B , C , and D :

$$\Phi_A = \underline{\hspace{2cm}}$$

$$\Phi_B = \underline{\hspace{2cm}}$$

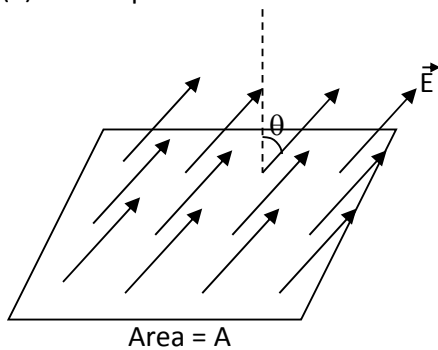
$$\Phi_C = \underline{\hspace{2cm}}$$

$$\Phi_D = \underline{\hspace{2cm}}$$

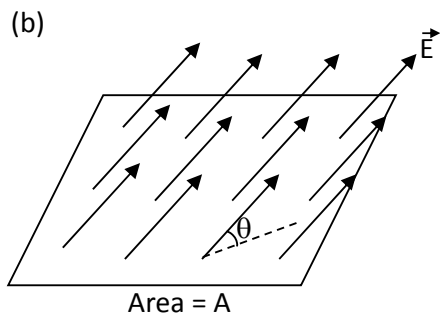
(b) Can you tell the electric field at point P easily from Φ_D ? If yes, what is its value? If not, why?

Write down the electric flux through the surface for each of the following cases:

(a) Perpendicular to flat area

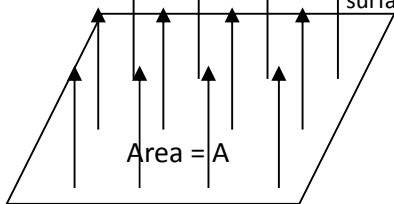


$\Phi_E =$ _____



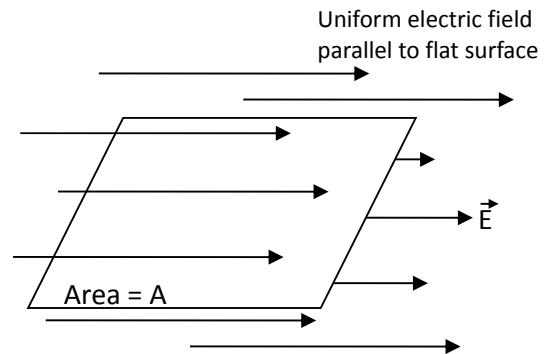
$\Phi_E =$ _____

(c) Uniform electric field perpendicular to flat surface



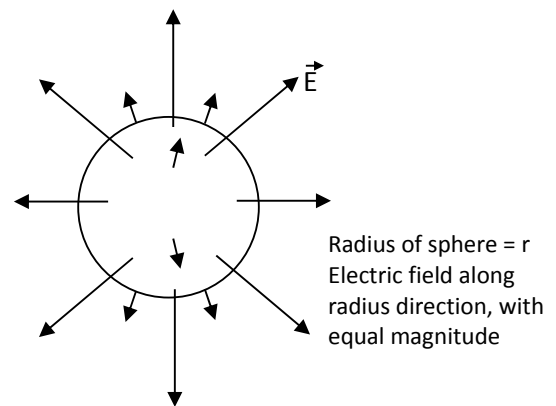
$\Phi_E =$ _____

(d)



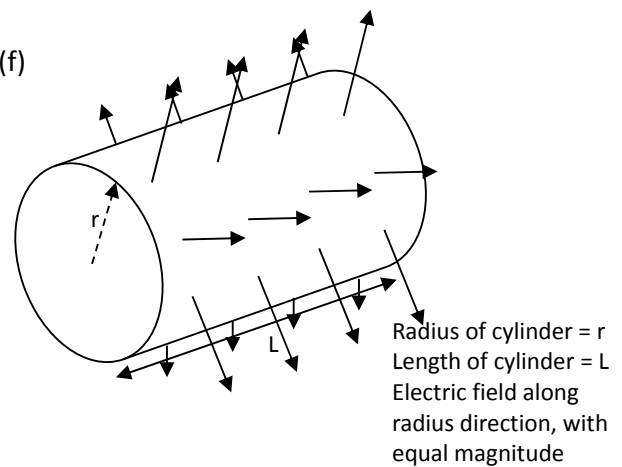
$\Phi_E =$ _____

(e)



$\Phi_E =$ _____

(f)



$\Phi_E =$ _____