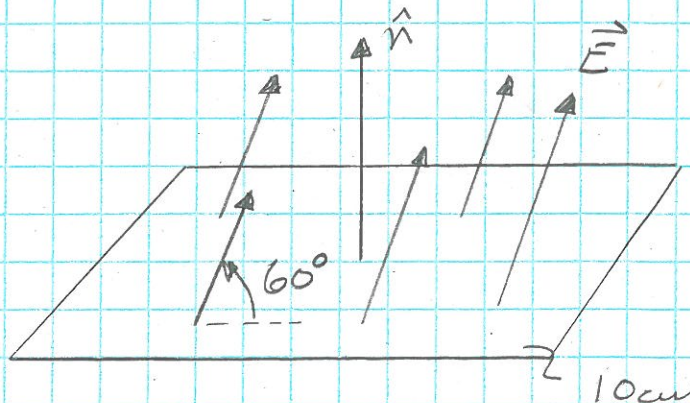

$\Phi_e = 25 \frac{Nm^2}{C}$

$A = 0.02\,m^2$

Uniform $\vec{E}$ & Planar Surface:

$\Phi_e = \vec{E} \cdot \vec{A}$ where $\vec{A} = A\hat{n}$

$= EA\cos\theta$

Now, θ is the angle between $\vec{E}$ & $\hat{n}$,

which is $\theta = 30°$ (Not 60°)

$\therefore E = \frac{\Phi_e}{A\cos\theta} = 1443.0 \frac{N}{C}$