

Quiz

- A system consisting of three concentric spherical conductors (the inner conductor is a solid sphere, while the remaining two are spherical shells) is shown below. The charges on the inner and middle conductors are Q_1 and Q_2 , respectively. The space between the conductors is air-filled.
 - (a) Determine the electric field intensity \mathbf{E} in the region;
 - (b) If the outer conductor is grounded, and the potential of the inner and middle conductors with respect to the ground are $V_1 = 15 \text{ V}$ and $V_2 = 10 \text{ V}$, respectively. If $a = 2 \text{ mm}$, $b = 5 \text{ mm}$, $c = 6 \text{ mm}$ and $d = 8 \text{ mm}$, determine the values of Q_1 and Q_2 .

