$$E_{net} = E_1 + E_2$$

$$= 1.8 \times 10^3 + 1.8 \times 10^3$$

$$\boxed{= 3.6 \times 10^3 \, N/c}$$

④

$$E_{ring} = \frac{-dV}{dz}$$

$$= -k\left(\frac{-\frac{1}{2}(2z)\, q}{(R^2 + z^2)^{3/2}}\right) = k\left(\frac{qz}{(R^2 + z^2)^{3/2}}\right)$$

$$E_{point} = \frac{kQ}{z^2}$$

$$|E_{ring}| = |E_{point}|$$

$$Q = \frac{q z^3}{(R^2 + z^2)^{3/2}}$$

$$= \frac{5.8 \times 10^{-7} C \times (0.73m)^3}{(0.71 + 0.73)^{3/2}} = 2.14 \times 10^{-7} C = \boxed{-210}$$