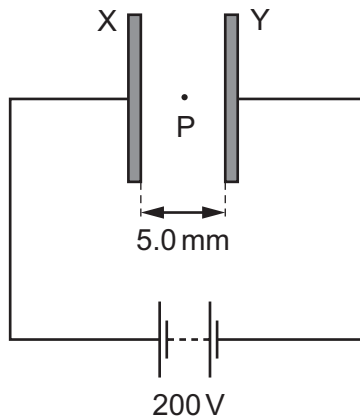


- 29** Two large parallel plates X and Y are placed a distance of 5.0 mm apart and connected to the terminals of a 200 V d.c. supply, as shown.



A small oil drop at P carries one excess electron.

What is the magnitude of the electrostatic force acting on the oil drop due to the electric field between the plates?

- A**  $6.4 \times 10^{-15} \text{ N}$
- B**  $6.4 \times 10^{-18} \text{ N}$
- C**  $1.6 \times 10^{-19} \text{ N}$
- D**  $4.0 \times 10^{-24} \text{ N}$