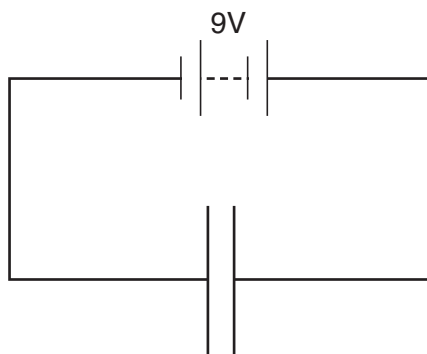


- 37** In the circuit below, the distance between the two parallel plates is $2.0 \times 10^{-3}\text{m}$. An electron is situated between the plates.



What is the force on the electron?

- A** $3.2 \times 10^{-22}\text{ N}$
B $2.9 \times 10^{-21}\text{ N}$
C $8.9 \times 10^{-18}\text{ N}$
D $7.2 \times 10^{-16}\text{ N}$
- 38** Which are the correct descriptions of a γ -ray and a β -particle?

| | γ -ray | β -particle |
|----------|---------------------------|---------------------------|
| A | high-speed electron | electromagnetic radiation |
| B | electromagnetic radiation | Helium-4 nucleus |
| C | electromagnetic radiation | high-speed electron |
| D | high-speed electron | Helium-4 nucleus |

- 39** A certain nuclide, Uranium-235, has nucleon number 235, proton number 92 and neutron number 143. Data on four other nuclides are given below.

Which is an isotope of Uranium-235?

| | nucleon number | proton number | neutron number |
|----------|----------------|---------------|----------------|
| A | 235 | 91 | 144 |
| B | 236 | 92 | 144 |
| C | 237 | 94 | 143 |
| D | 238 | 95 | 143 |