

- 20** A wire has a cross sectional area of $3.0 \times 10^{-6} \text{ m}^2$ and volume of $4.0 \times 10^{-7} \text{ m}^3$, and contains 3.4×10^{22} electrons.

What is the drift speed of the electrons when the current is 2.0 A?

- A** $7.8 \times 10^{-24} \text{ m s}^{-1}$ **B** $2.0 \times 10^{-17} \text{ m s}^{-1}$
- C** $4.9 \times 10^{-5} \text{ m s}^{-1}$ **D** 130 m s^{-1}