

**10** In a series circuit,  $3.1 \times 10^{19}$  electrons pass a particular point in a time of 30 seconds.

Which of the following gives the magnitude of the current in amperes in this circuit?

- ☐ **A**  $\frac{(3.1 \times 10^{19}) \times (1.6 \times 10^{-19})}{30}$
- ☐ **B**  $\frac{3.1 \times 10^{19}}{(1.6 \times 10^{-19}) \times 30}$
- ☐ **C**  $(3.1 \times 10^{19}) \times (1.6 \times 10^{-19}) \times 30$
- ☐ **D**  $\frac{(3.1 \times 10^{19}) \times 30}{1.6 \times 10^{-19}}$

(Total for Question 10 = 1 mark)