

- 6** An aircraft, initially stationary on a runway, takes off with a speed of  $85 \text{ km h}^{-1}$  in a distance of no more than  $1.20 \text{ km}$ .

What is the minimum constant acceleration necessary for the aircraft?

- A**  $0.23 \text{ m s}^{-2}$       **B**  $0.46 \text{ m s}^{-2}$       **C**  $3.0 \text{ m s}^{-2}$       **D**  $6.0 \text{ m s}^{-2}$

- 7** A radio-controlled toy car travels along a straight line for a time of  $15 \text{ s}$ .