

- 11** A satellite is in geostationary orbit above the Earth at a height of 36 000 km. The radius of the Earth is 6400 km.

What is the speed of the satellite?

- A**  $490 \text{ m s}^{-1}$       **B**  $2200 \text{ m s}^{-1}$       **C**  $2600 \text{ m s}^{-1}$       **D**  $3100 \text{ m s}^{-1}$

- 12** A school laboratory has dimensions  $10 \text{ m} \times 3.0 \text{ m} \times 4.0 \text{ m}$ . The laboratory contains 5000 moles of