

**15** A satellite of mass 810 kg is to be raised from the Earth to a height of 92.0 km above the surface of the Earth.

What is the necessary increase in the potential energy of the satellite?

The mass of the Earth is  $5.98 \times 10^{24}$  kg.

The radius of the Earth is 6370 km.

- A**  $7.22 \times 10^5$  J      **B**  $7.31 \times 10^5$  J      **C**  $7.22 \times 10^8$  J      **D**  $7.31 \times 10^8$  J

**16** In a vacuum magnetism can produce its effect and in air it is a minimum.