

- 16** A force of 1000 N is needed to lift the hook of a crane at a steady velocity. The crane is then used to lift a load of mass 1000 kg at a velocity of  $0.50 \text{ m s}^{-1}$ .

How much of the power developed by the motor of the crane is used in lifting the hook and the load? Assume that the acceleration of free fall  $g$  is equal to  $10 \text{ m s}^{-2}$ .

- A** 5.0 kW      **B** 5.5 kW      **C** 20 kW      **D** 22 kW

- 17** When ice melts, it contracts.

Which row is correct for ice turning into water?

	distance between atoms	density
<b>A</b>	decreases	decreases
<b>B</b>	decreases	increases
<b>C</b>	increases	decreases
<b>D</b>	increases	increases

**Space for working**