

- 21** At room temperature, the density of liquid mercury is five times greater than the density of solid aluminium.

What is the reason for this?

- A** Aluminium atoms are spaced widely apart.
  - B** Aluminium atoms move more freely than mercury atoms.
  - C** Atoms in a liquid take up less space than atoms in a solid.
  - D** Mercury atoms have greater mass than aluminium atoms.
- 22** When white sugar granules are heated, they melt. When the melt is cooled quickly, a brittle solid form of toffee is produced.

How does the structure of the sugar change?

- A** amorphous to polymeric
  - B** crystalline to amorphous
  - C** crystalline to polymeric
  - D** polymeric to amorphous
- 23** Which property of a metal wire depends on its Young modulus?
- A** ductility
  - B** elastic limit
  - C** spring constant
  - D** ultimate tensile stress

**Space for working**