

**21** Water from a reservoir is fed to the turbine of a hydroelectric system at a rate of  $500 \text{ kg s}^{-1}$ . The reservoir is 300 m above the level of the turbine.

The electrical output from the generator driven by the turbine is 200 A at a potential difference of 6000 V.

What is the efficiency of the system?

**A** 8.0 %

**B** 8.2 %

**C** 80 %

**D** 82 %

**22** Which row correctly describes the spacing, ordering and motion of the molecules in water and in