

19 Comparing the properties of solids, liquids and gases, which option is correct?

	property	solids	liquids	gases
<b>A</b>	ordering of molecules	high	not so high	random
<b>B</b>	spacing of molecules	close	far	far
<b>C</b>	translation of molecules	no	no	yes
<b>D</b>	vibration of molecules	no	yes	yes

20 Particles of dust, suspended in water, are viewed through a microscope. The particles can be seen to move irregularly.

This movement is due to

- A** convection currents in the water.
- B** evaporation of the water near the dust particles.
- C** gravitational forces acting on the particles of dust.
- D** water molecules hitting the dust particles in a random way.

21 Two solid substances P and Q have atoms of mass  $M_P$  and  $M_Q$  respectively. They have  $N_P$  and  $N_Q$  atoms per unit volume.

It is found by experiment that the density of P is greater than that of Q.

Which of the following deductions from this experiment must be correct?

- A**  $M_P > M_Q$
- B**  $N_P > N_Q$
- C**  $M_P N_P > M_Q N_Q$
- D**  $\frac{M_P}{N_P} > \frac{M_Q}{N_Q}$