

Q1.

Which row in the table is correct?

	particles in a solid	particles in a gas
<input type="checkbox"/> A	move freely	move freely
<input type="checkbox"/> B	move freely	vibrate about fixed positions
<input type="checkbox"/> C	vibrate about fixed positions	move freely
<input type="checkbox"/> D	vibrate about fixed positions	vibrate about fixed positions

(1)

(Total for question = 1 mark)

Q2.

Complete each box in Figure 1 to show how particles are arranged in a solid, liquid and gas.

One particle in each box has been drawn for you.

(3)

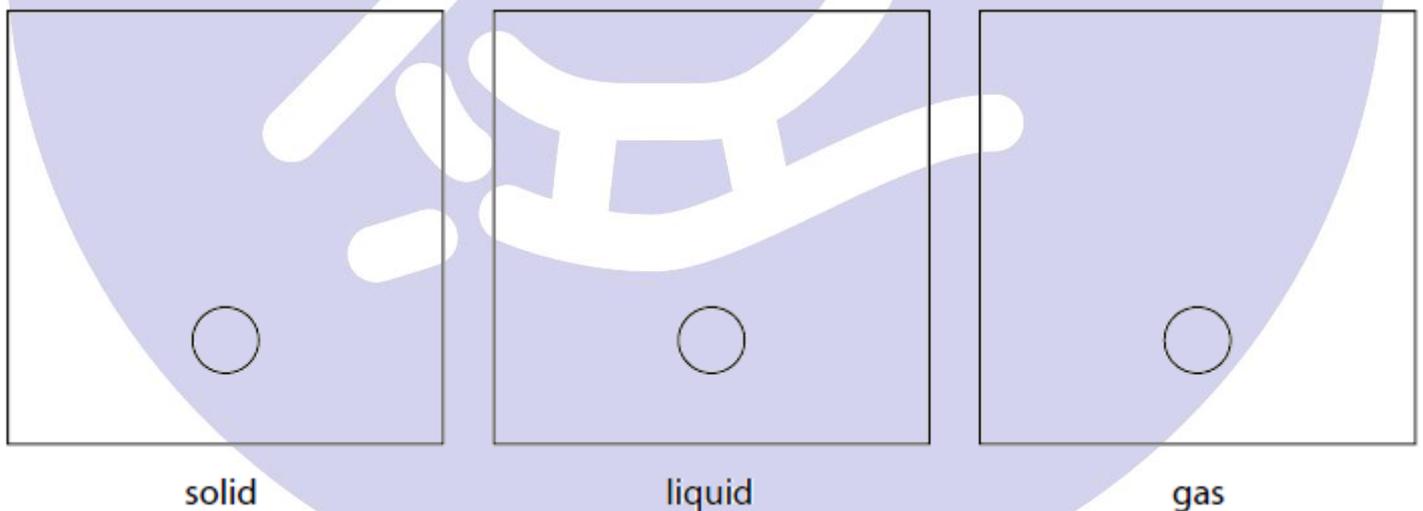


Figure 1

(Total for question = 3 marks)

Q3.

Describe, in terms of particles, **two** differences between a solid and a liquid of the same substance.

(2)

1

.....

2

.....

(Total for question = 2 marks)

Q4.

Aluminium has a melting point of 660 °C.

(ii) Describe the motion of particles in liquid aluminium (above 660 °C).

(2)

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.....

.....

(Total for question = 2 marks)

Q5.

The espresso machine shown in Figure 27 is an electrical appliance.



(Source: © tanawaty/123RF)

Figure 27

Steam from the pipe enters the milk, where steam condenses to water.

The steam and hot water heat the milk.

(i) Describe, in terms of energy, how the arrangement and movement of particles in the steam changes as the steam enters the milk, condenses and cools.

(2)

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(Total for question = 2 marks)

Q6.

Kinetic theory describes the movement of particles in the three states of matter.

Gas is one of the states of matter.

(i) Name the other two states of matter.

(2)

1

.....

2

.....

(Total for question = 2 marks)

Q7.

(iii) The steel ball is put into a furnace where it melts.

Compare the motion of particles in the steel when they are in the solid state with their motion when in the molten (liquid) state.

(3)

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(Total for question = 3 marks)