Practice Question Set For GCSE
Subject : Physics
Paper-2 Topic : 14_Particle model

Merit Minds
www.merit-minds.com
Exam Preparation and Free Resources

Name of the Student:_____
Max. Marks : 18 Marks **Time : 18 Minutes**

Q1.

A student is investigating the melting of ice.

The student has some crushed ice in a beaker at a temperature of −20 °C.

The student heats the beaker and its contents for 20 minutes.

Figure 24 is a graph of the student's results.

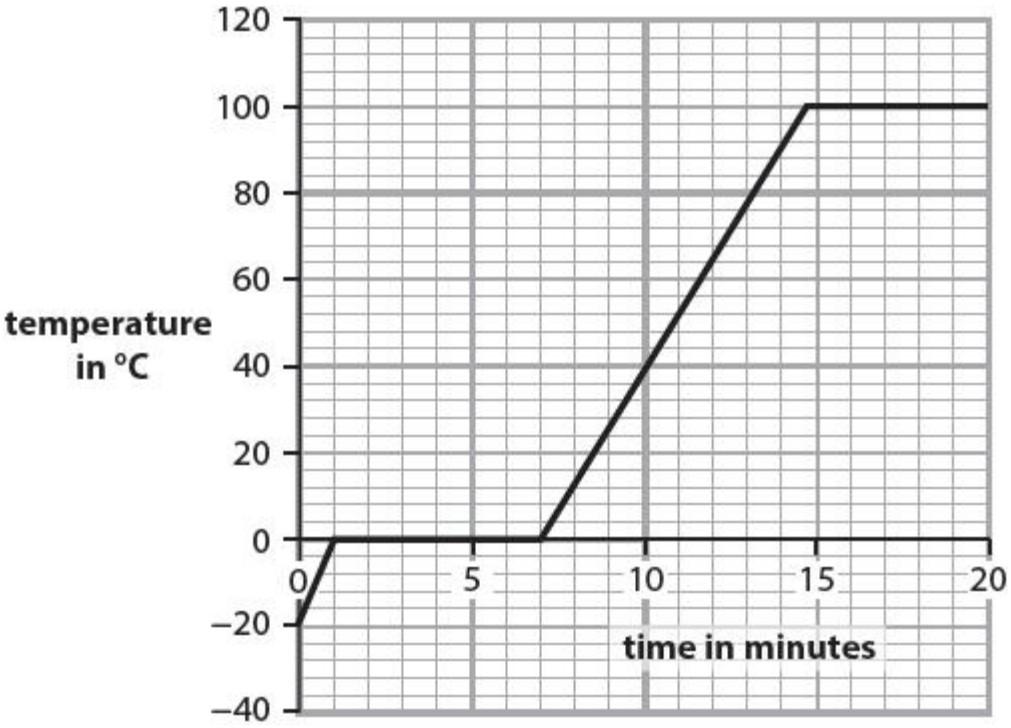

Figure 24

Using information from the graph, describe the changes that take place in the 20 minutes shown on the graph.

Your answer should refer to

- data from the graph
- the state (solid, liquid or gas) of the contents of the beaker.

(6)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

(Total for question = 6 marks)

Q2.

A student needs to determine the specific heat capacity of water.

Figure 22 shows some of the equipment the student uses.

Figure 22

Describe the method the student should use to determine the specific heat capacity of water.

Your description should include, with reasons,

- any other equipment needed
- the measurements needed.

You may draw a diagram if it helps your answer.

(6)

(Total for question = 6 marks)

Q3.

Figure 6 shows a graph produced from the data collected by the data logger in Figure 5.

Labels P, Q, R and S have been added.

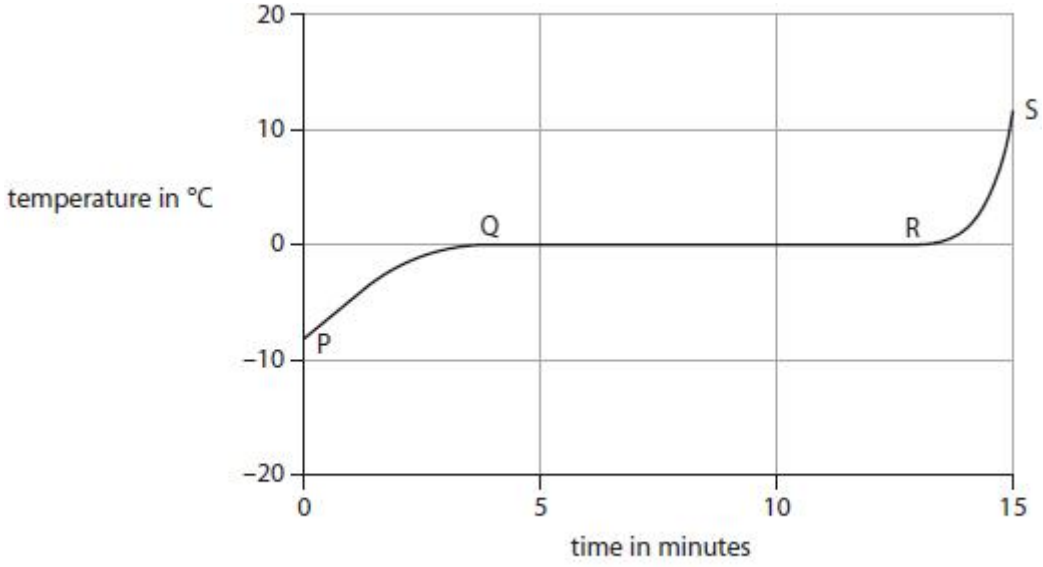

Figure 6

At the start, P, the beaker contains crushed ice at −8 °C.

Describe what happens to the crushed ice during the next 15 minutes.

You may use labels P, Q, R and S to help your answer.

(3)

.....

.....

.....

.....

.....

.....

(Total for question = 3 marks)

Q4.

Figure 6 shows helium gas inside a container.

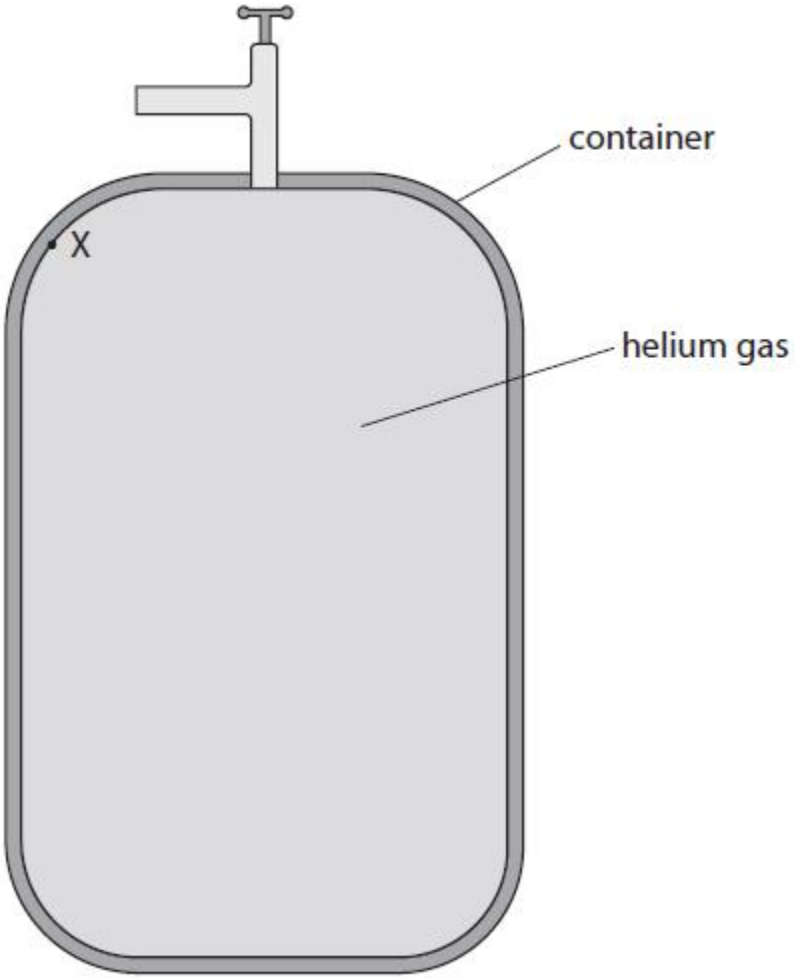

Figure 6

(i) Draw an arrow on Figure 6 to show the direction of the force due to the helium gas, at the point labelled X.

(1)

(ii) Explain, in terms of particles, why the helium gas exerts a force on the sides of the container.

(2)

.....

.....

.....

.....

(Total for question = 3 marks)