Practice Question Set For GCSE
Subject : Physics
Paper-1 Topic: GCSE Triple Science_Particle Model Of Matter (High Demand Questions)

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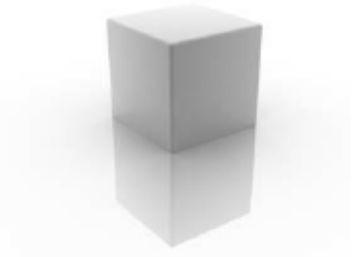
Name of the Student:_____
Max. Marks : 17 Marks **Time : 17 Minutes**

Q1.

A student wants to calculate the density of the two objects shown in the figure below.



Metal cube

Small statue

© Whitehoune/iStock/Thinkstock, © Marc Dietrich/Hemera/Thinkstock

Describe the methods that the student should use to calculate the densities of the two objects.

_____

_____

_____

_____

_____

_____

_____

_____

_____

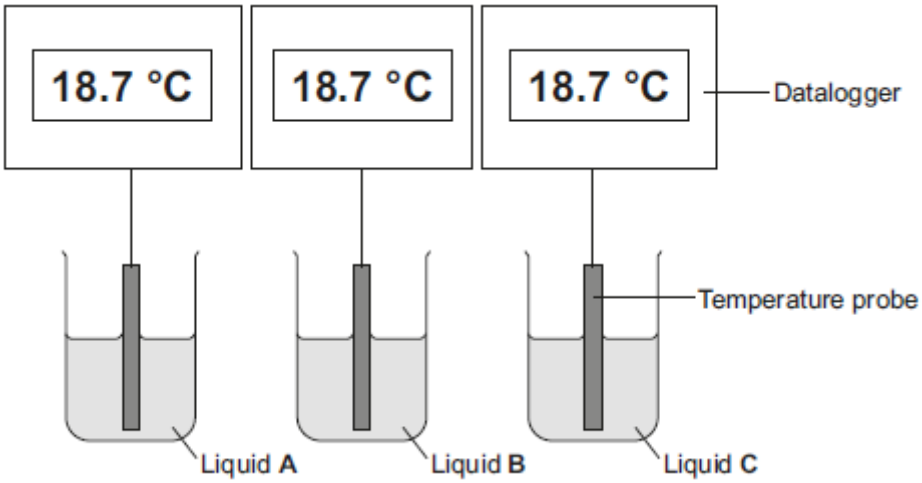
_____

(Total 6 marks)

Q2.

A student investigated the cooling effect of evaporation.
She used the equipment in **Figure 1** to measure how the temperature of three different liquids changed as the liquids evaporated.

Figure 1



(a) The temperature and volume of each liquid was the same at the start of the investigation.

State **one** further control variable in this investigation.

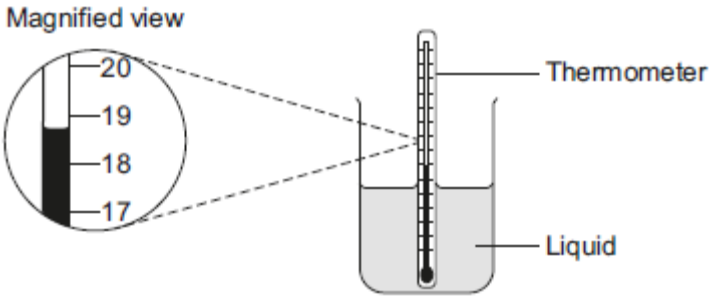
_____

_____

(1)

(b) Give **two** advantages of using dataloggers and temperature probes compared to using the thermometer shown in **Figure 2**.

Figure 2



1. _____

_____

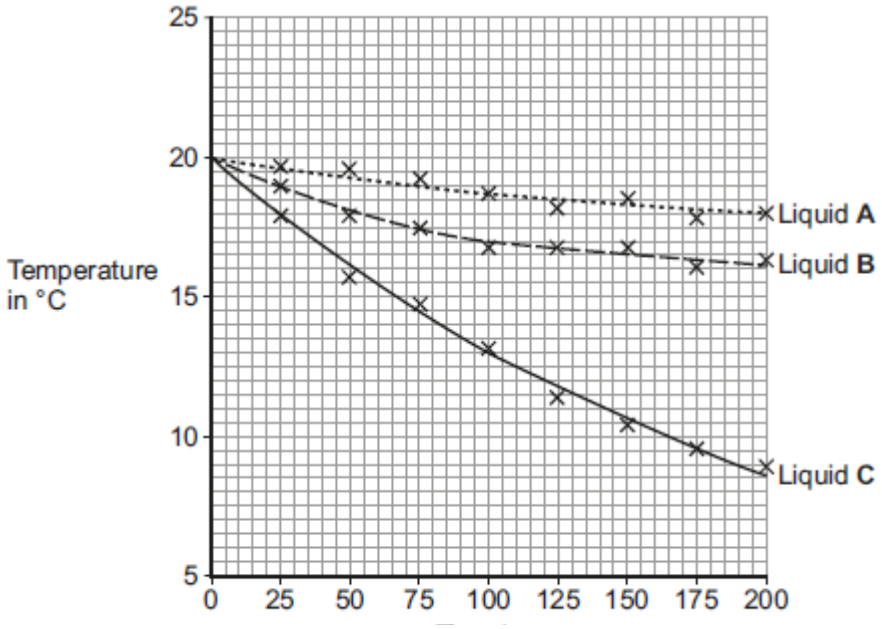
2. _____

_____

(2)

(c) The student's results are shown in **Figure 3**.

Figure 3



(i) Calculate the average rate of temperature decrease of liquid **C** between 0 and 100 seconds.

_____

_____

Average rate of temperature decrease = _____ °C / s

(2)

(ii) Give **one** conclusion that can be made about the rate of temperature decrease of **all three** liquids from the results in **Figure 3**.

_____

_____

(1)

(iii) Which liquid had the lowest rate of evaporation? Give a reason for your answer.

Liquid _____

Reason _____

_____

(1)

(iv) A second student did the same investigation but using a smaller volume of liquid than the first student.

All other variables were kept the same.

What effect would this have on the results of the second student's investigation?

_____

_____

(1)

(d) Explain how the evaporation of a liquid causes the temperature of the remaining liquid to decrease.

(3)

(Total 11 marks)