

Name of the Student: \_\_\_\_\_

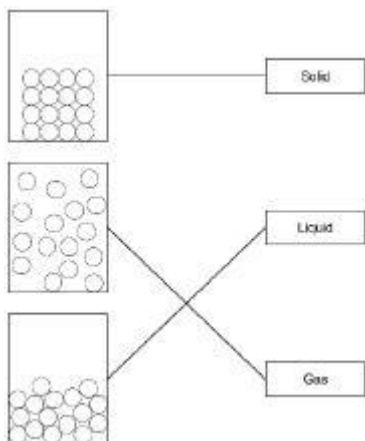
Max. Marks : 18 Marks

Time : 18 Minutes

Mark Schemes

**Q1.**

(a)



2 marks for all correct  
1 mark for 1 or 2 correct

2

(b) **B**

1

(c) **D**

1

(d) the kinetic energy of the particles

1

(e)  $E = 0.250 \times 334\,000$

1

$E = 83\,500$  (J)

1

(f) sublimates

1

[8]

**Q2.**

(a) **Level 2:** The method would lead to the production of a valid outcome. The key steps are identified and logically sequenced.

3-4

**Level 1:** The method would not necessarily lead to a valid outcome. Some steps are identified, but the method is not fully logically sequenced.

No relevant content

0

**Indicative content**

- use a eureka/displacement can
- fill the eureka/displacement can with water
- fill the eureka/displacement can up to the spout
- place lime in eureka/displacement can
- collect water that overflows
- use a measuring cylinder to measure volume of water

**OR**

- use a measuring cylinder
- part fill the measuring cylinder with water
- measure the initial volume of water
- place lime in measuring cylinder
- record new volume of water
- volume of lime = new volume – initial volume

(b) mean =  $\frac{(2.1+2.1+2.4)}{3}$

1

mean = 2.2 (cm<sup>3</sup>)

1

(c) allows anomalous results to be identified and ignored

1

reduces the effect of random errors when using the equipment

1

(d) density =  $\frac{84}{120}$

1

density = 0.70 (g/cm<sup>3</sup>)

1

**[10]**