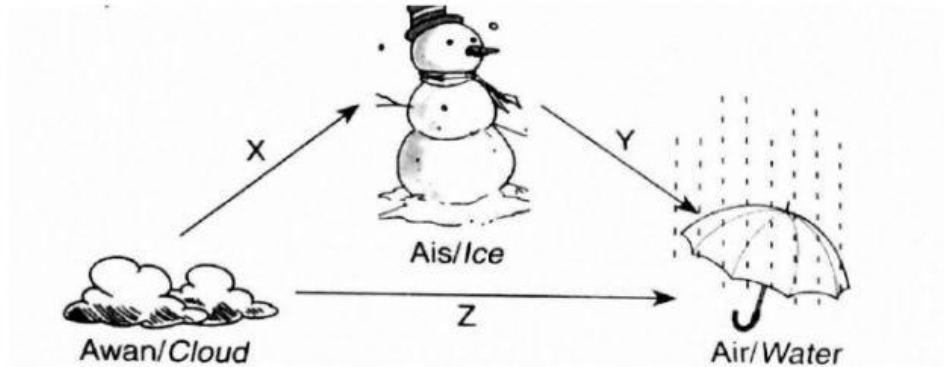


BAB 4 : JIRIM DAN BAHAN

1. Rajah 1 di bawah menunjukkan perubahan keadaan jirim bagi satu bahan.
Diagram 1 below shows the changes in the state of matter of a substance.



Rajah 1
Diagram 1

Berdasarkan Rajah 1,
Based on Diagram 1,

- (a) Namakan proses X, Y dan Z.
Name the proses X, Y dan Z.

(i) X:

.....

(ii) Y:

.....

(iii) Z:

.....

[3markah/3 marks]

- (b) Berdasarkan teori kinetik jirim, huraikan perubahan dalam jirim semasa proses Y.
Based on the kinetic theory of matter, explain the changes in matter during the process Y.

.....

.....

[2 markah/2 marks]

- (c) Proses manakah yang melibatkan penyerapan haba?
Which of the process involved absorption of heat?

.....
[1 markah/1 mark]

2. Rajah 2 menunjukkan Jadual Berkala.
Diagram 2 shows a Periodic Table.

1																	18		
	2													13	14	15	16	17	
L														N					
		3	4	5	6	7	8	9	10	11	12								Q
M								O											

Rajah 2
Diagram 2

- (a) Apakah nama khas bagi Kumpulan 17?
What is the specific name for Group 17?

.....
[1 markah/1 mark]

- (b) Namakan unsur yang berada di Kala 5.
Name an element which is in Period 5.

.....
[1 markah/1 mark]

- (c) Nyatakan satu ciri bagi unsur O.
State one characteristic of element O.

.....
[1 markah/1 mark]

- (d) Apakah sifat fizik unsur Q pada suhu bilik?
What is the physical properties of Q at room temperature?

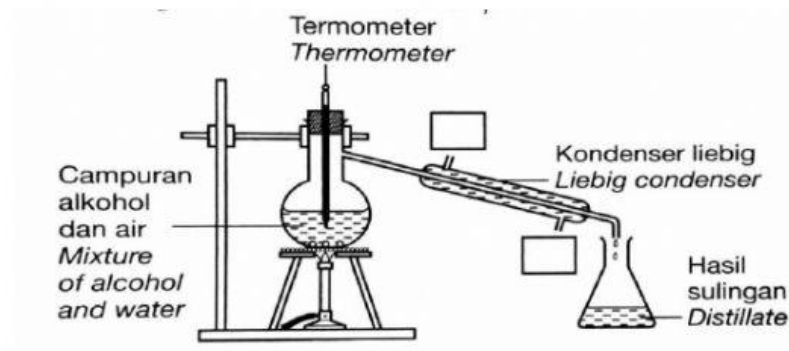
.....
[1 markah/1 mark]

- (e) Manakah dua unsur yang mempunyai sifat kimia yang sama? Mengapa?
Which two elements have the similar chemical properties? Why?

.....
.....

[2 markah/2 marks]

3. Rajah 3 menunjukkan proses penyulingan.
Diagram I shows a distillation process.



Rajah 3
Diagram 3

- (a) Lukis anak panah untuk menunjukkan aliran air di atas dan bawah condenser.
Draw arrows to show the flow of water at the top and bottom of the condenser.

[2 markah/2 marks]

- (b) Tandakan (✓) proses yang terlibat dalam aktiviti ini.
Tick (✓) the processes that involved in this activity.

Penyejatan
Evaporation

☐

Pendidihan
Boiling

☐

Kondensasi
Condensation

☐

[1 markah/1 mark]

- (c) Bagaimanakah kita dapat membuktikan bahawa hasil sulingan itu tulen.
How can we prove that the distillate is pure?

.....
[1 markah/1 mark]

- (d) Mengapakah condenser Liebig itu perlu diisi dengan air sejuk yang mengalir?
Why does the Liebig condenser need to be filled with running cold water?

.....
[1 markah/1 mark]

- (e) Tandakan (✓) campuran bahan lain yang dapat dituliskan dengan kaedah ini.
Tick (✓) other mixtures of substances that can be purified by using this method.

Larutan garam
biasa
*Common salt
solution*

☐

Minyak dan air
Oil and water

☐

Lumpur dan air
Mud and water

☐

[1 markah/1 mark]

