

SINGAPORE CHINESE GIRLS' SCHOOL  
SECOND SEMESTRAL ASSESSMENT 2013

Primary 5

NAME: \_\_\_\_\_ ( )      DATE: \_\_\_\_\_

CLASS: PRIMARY 5

SCIENCE  
BOOKLET A

30 questions

60 marks

Total time for Booklets A & B: 1 h 45 min

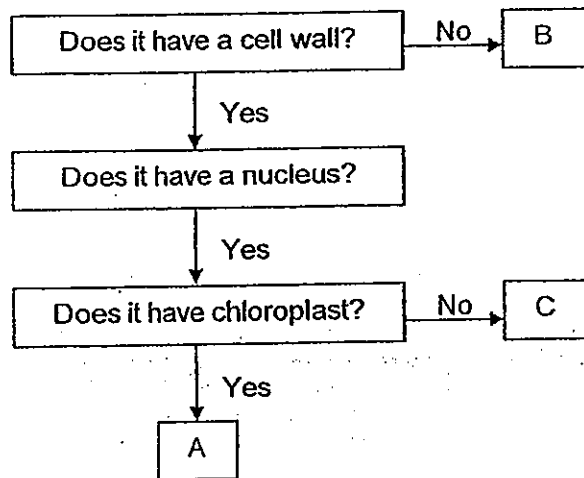
**DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.**

**FOLLOW ALL INSTRUCTIONS CAREFULLY.**

**Part 1 (60 marks)**

For each question from 1 to 30, 4 options are given. One of them is the correct answer. Make your choice, (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet.

1. Shannon observed 3 different cells A, B and C, and placed them in the flow chart below.



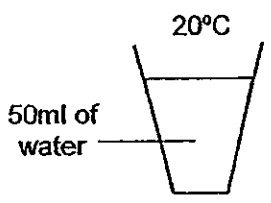
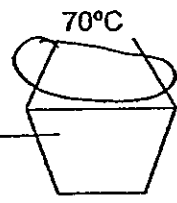
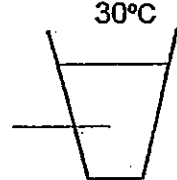
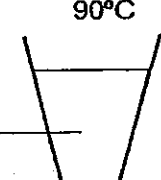
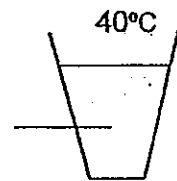
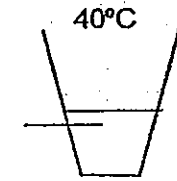
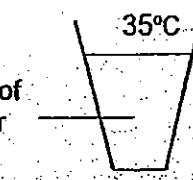
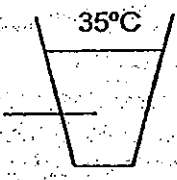
Which cell/s is/are likely to be animal cell/s?

- (1) A only  
 (2) B only  
 (3) A and C only  
 (4) B and C only

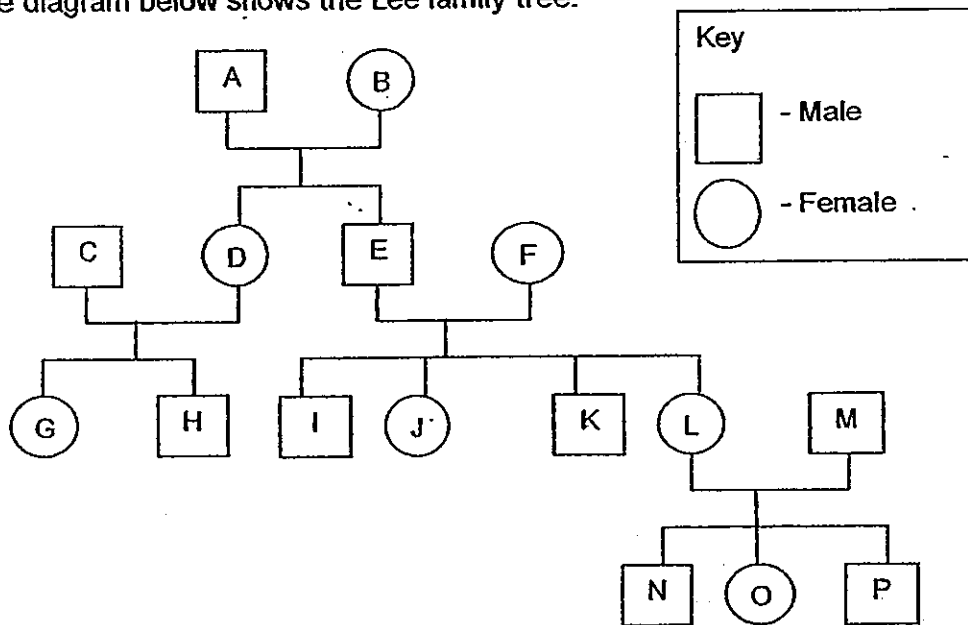
2. Which of the following correctly shows the cell parts and their functions?

	Cell membrane	Cell wall	Nucleus
(1)	Control substances that move in and out of the cell	Gives the cell its regular shape	Pass on genetic information
(2)	Pass on genetic information	Control substances that move in and out of the cell	Controls activities that take place in the cell
(3)	Controls activities that take place in the cell	Pass on genetic information	Gives the cell its regular shape
(4)	Gives the cell its regular shape	Controls activities that take place in the cell	Control substances that move in and out of the cell

3. Janet wants to find out if temperature really affects rate of evaporation. Which of the following set-ups is most suitable for her experiment?

(1)	<p>20°C</p>  <p>50ml of water</p> <p>Set-up A</p>	<p>70°C</p>  <p>50ml of water</p> <p>Set-up B</p>
(2)	<p>30°C</p>  <p>50ml of water</p> <p>Set-up A</p>	<p>90°C</p>  <p>50ml of water</p> <p>Set-up B</p>
(3)	<p>40°C</p>  <p>50ml of water</p> <p>Set-up A</p>	<p>40°C</p>  <p>30ml of water</p> <p>Set-up B</p>
(4)	<p>35°C</p>  <p>50ml of water</p> <p>Set-up A</p>	<p>35°C</p>  <p>50ml of water</p> <p>Set-up B</p>

4. The diagram below shows the Lee family tree.



The following are information about the Lee family:

- Mary has 4 children.
- Jason has 3 grandsons.
- Judy has 1 sister and 2 brothers.

Which of the above letters correctly represents Mary, Jason and Judy?

	Mary	Jason	Judy
(1)	F	A	J
(2)	B	E	L
(3)	E	M	O
(4)	K	B	L

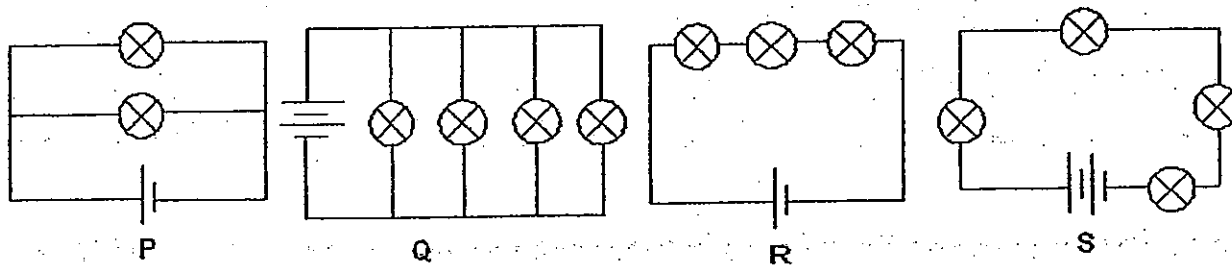
5. The air we breathe out has a higher level of \_\_\_\_\_ than the air we breathe in.

- A water vapour
- B food
- C carbon dioxide
- D nitrogen

- (1) A and C only
- (2) A and D only

- (3) A, B and C only
- (4) A, C and D only

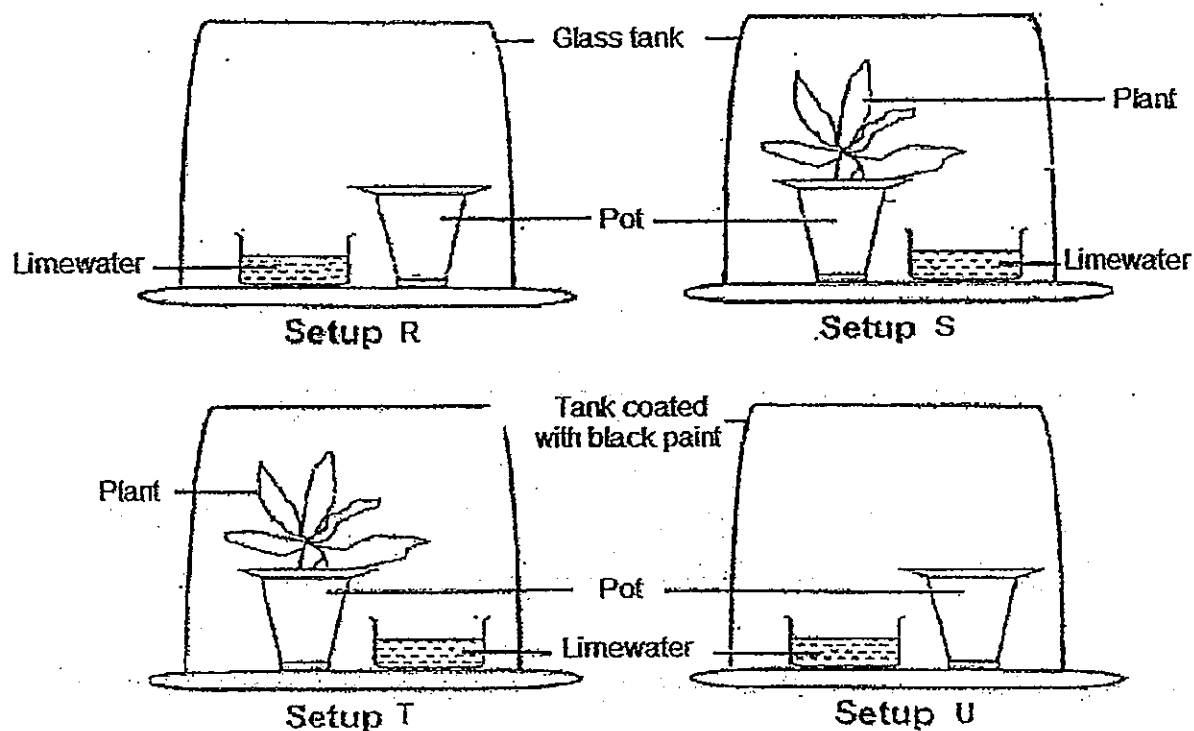
6. Study the electrical circuits below.



Given that the same type of batteries and the same type of bulbs were used above, arrange the circuits in order of producing the brightest to the dimnest bulbs.

- (1) Q, P, S, R
- (2) S, Q, R, P
- (3) Q, S, R, P
- (4) P, R, S, Q

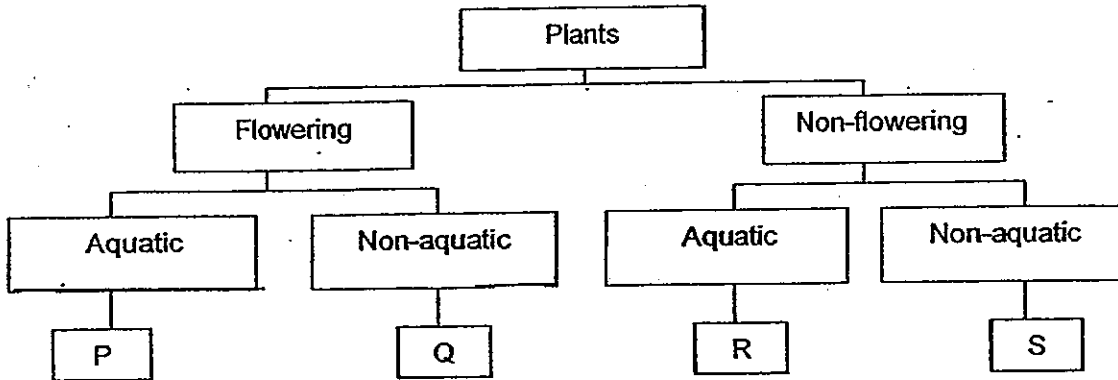
7. Elaine set up an experiment as shown below. The setups were left in a room for 1 day. The colour of the limewater in all setups before and after the experiment was observed.



Which of the following correctly shows the colour of the limewater setups before and after the experiment?

	Set-up	Before	After
(1)	R	Clear	Chalky
(2)	S	Clear	Clear
(3)	T	Chalky	Clear
(4)	U	Chalky	Clear

8. Study the classification chart below.



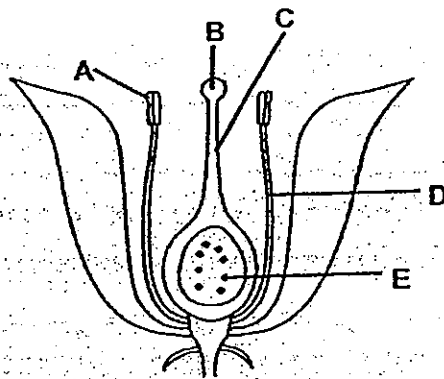
Which of the following statements is/are true?

- A: P, Q, R and S are plants.
- B: Both Q and S are non-aquatic.
- C: The bird's nest fern belongs to Group S.
- D: P bears flowers while R does not bear flowers.

- (1) A and B only
- (2) C and D only

- (3) A, B and D only
- (4) A, B, C and D

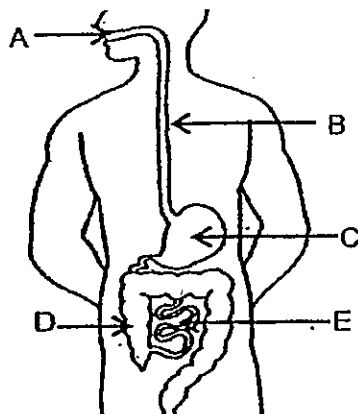
9. The diagram below shows the cross section of a flower.



Which of the following correctly shows the female and male parts of a flower?

	Female Parts	Male parts
(1)	A, B, D	C, E
(2)	A, D	B, C, E
(3)	B, C, E	A, D
(4)	B, C	A, D, E

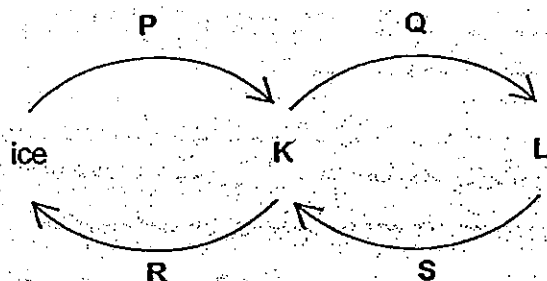
10. The figure below shows the human digestive system.



Which of the following is correct?

	Contains digestive juices	Absorb excess water	Absorb digested food
(1)	A, C, E	D	E
(2)	E	A, C, E	B, D
(3)	A, C, E	F	D
(4)	D	B, E	A, C, E

11. In the diagram below, K and L represent different states of water. P, Q, R, and S represent the different processes.



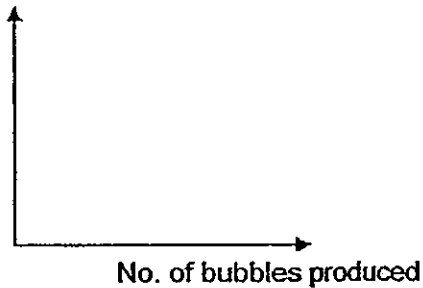
Which of the following correctly shows what P, Q, R, S could be?

	P	Q	R	S
(1)	Freezing	Condensation	Melting	Evaporation
(2)	Evaporation	Freezing	Condensation	Melting
(3)	Melting	Evaporation	Freezing	Condensation
(4)	Condensation	Melting	Evaporation	Freezing

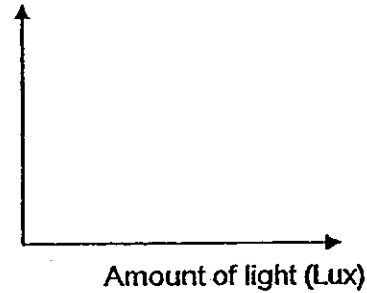


12. Sally wants to find out if varying the amount of light will affect the rate of photosynthesis in water plants. Which of the following graphs is correctly labeled?

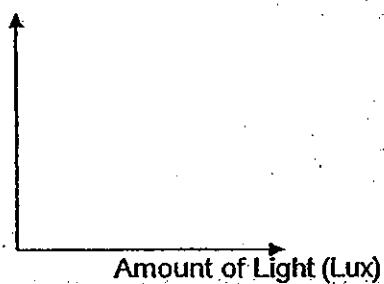
(1) Temperature of water (°C)



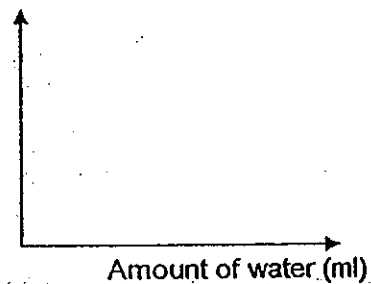
(3) Temperature of water (°C)



(2) Number of bubbles produced



(4) Number of bubbles produced



13. Which of the following statement/s about the plant transport system and human circulatory system is/are false?

A: Both systems transport food and water.

B: Both systems have tubes to transport materials.

C: Both systems need an organ to pump the materials in the tubes to different parts.

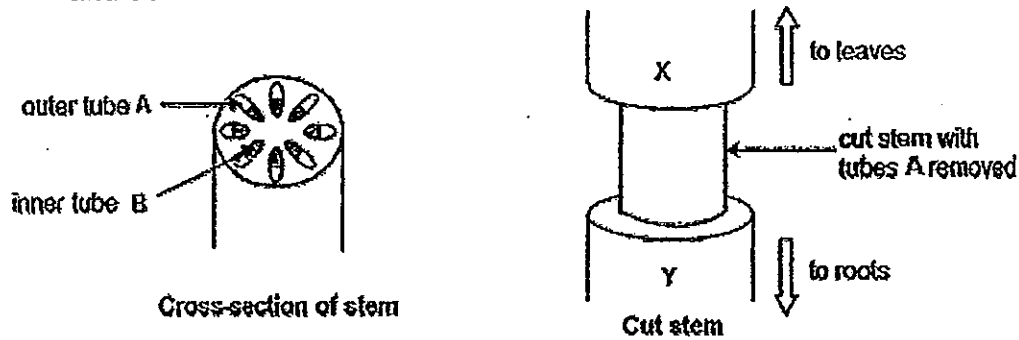
(1) A only

(2) C only

(3) A and B only

(4) None of the above

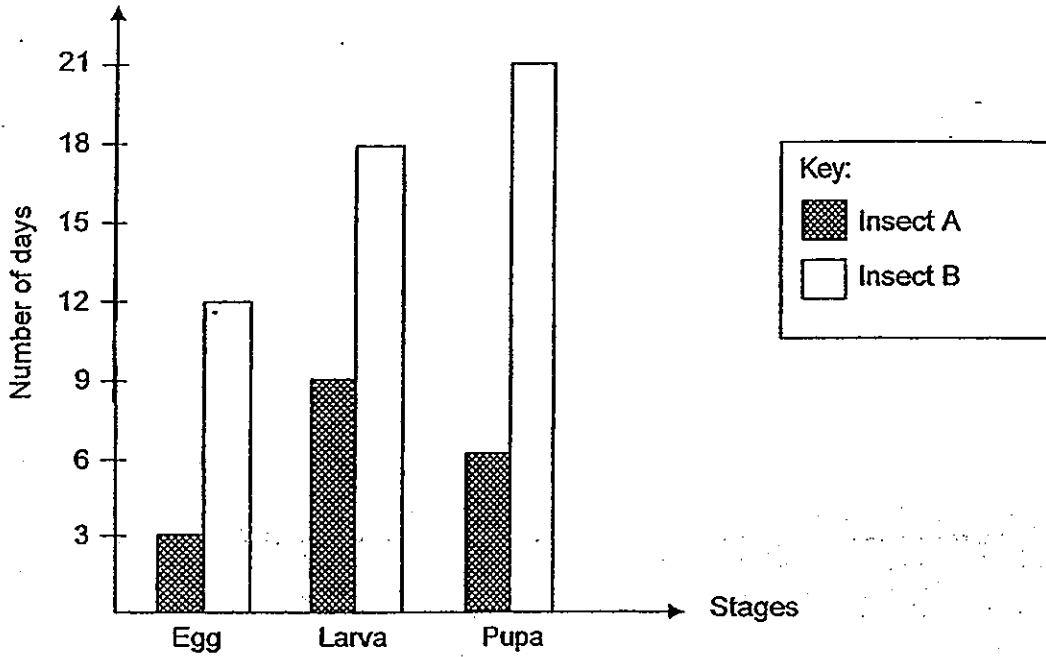
14. The cross section of the stem of a plant shows two different sets of tubes, A and B.



Which of the following correctly matches the type of cut made and what will happen to the section of the stem after a few days?

	Cut made	Appearance of stem after a few days
(1)	Outer tube A removed	
(2)	Outer tube A and Inner tube B removed	
(3)	Outer tube A and Inner tube B removed	
(4)	Only bark is removed	

15. The graph below shows the length of time for the different stages of the life cycles of 2 insects.



At which stage will Insect A and Insect B be on the 11<sup>th</sup> day, after the eggs have been laid?

	Insect A	Insect B
(1)	Adult	Larva
(2)	Pupa	Larva
(3)	Larva	Egg
(4)	Pupa	Pupa

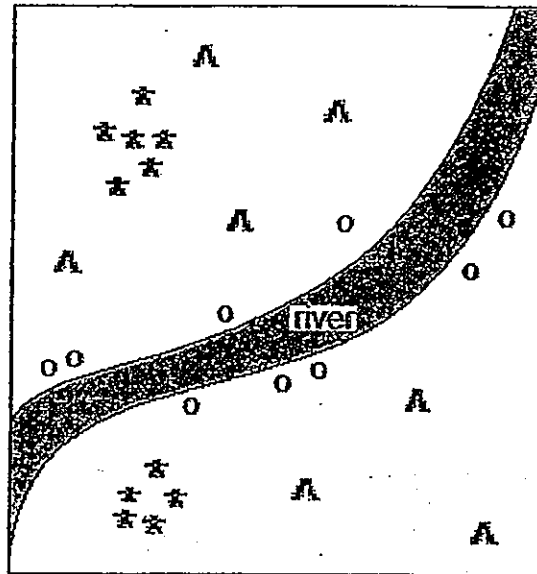
16. Which of the following are ways to conserve electricity?

- A: Switching off electrical appliances when not in use.
- B: Drying clothes in the dryer on a hot and sunny day.
- C: Using the air conditioner instead of a fan on a cool day.
- D: Using energy-saving appliances like compact florescent bulbs.

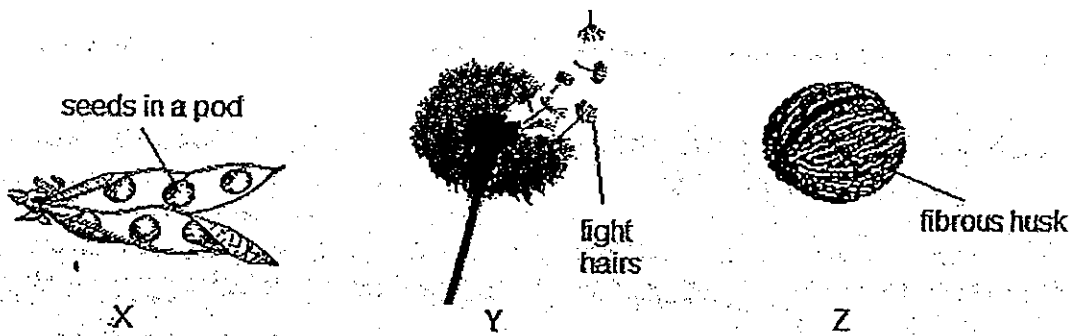
- (1) A and B only
- (2) A and D only

- (3) B and C only
- (4) A, C and D only

17. The diagram below shows where 3 types of plants can be found after their seeds are dispersed.



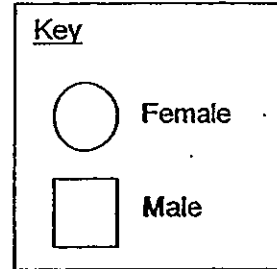
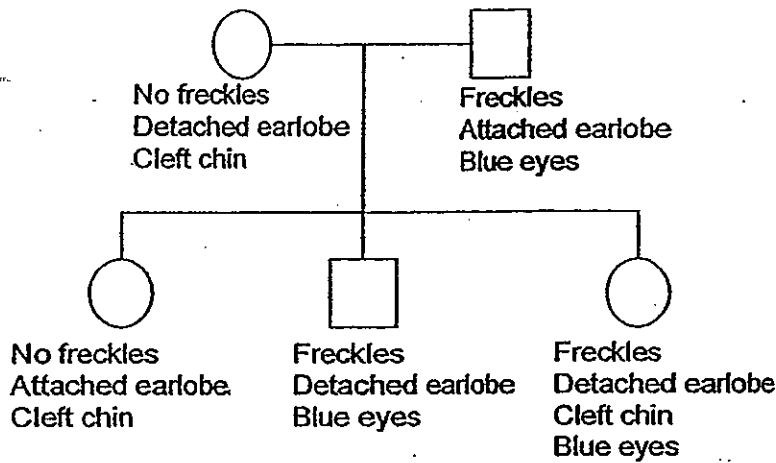
Study the 3 fruits shown below.



Which of the following correctly matches fruit X, Y and Z to their plants?

	A	B	C
(1)	Y	Z	X
(2)	X	Y	Z
(3)	Y	X	Z
(4)	Z	X	Y

18. Study the family tree below.

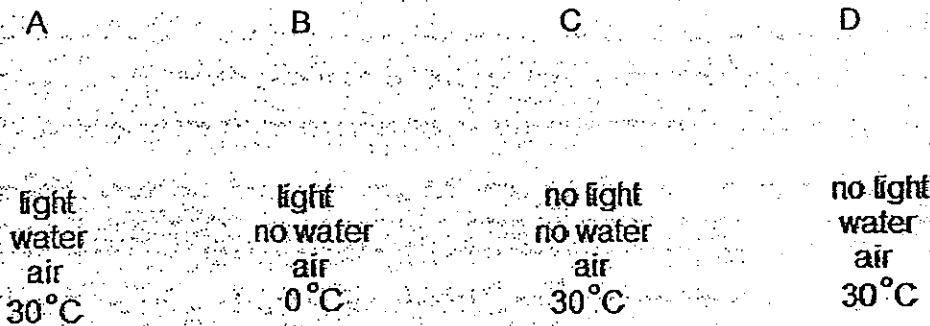


What can be concluded from the family tree above?

- A: Only the females have cleft chin.  
 B: Only the son has inherited all of his father's traits.  
 C: 2 children have inherited at least 2 of their father's traits.  
 D: All 3 children have inherited at least 1 of their mother's traits.

- (1) A and B only  
 (2) A and C only  
 (3) C and D only  
 (4) A, C and D only

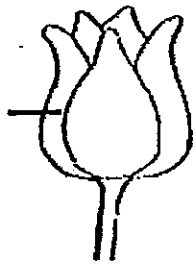
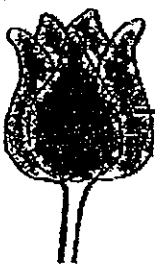
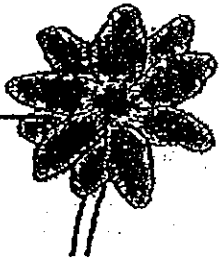

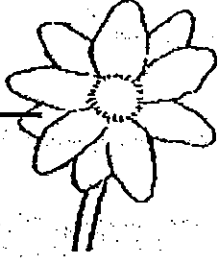
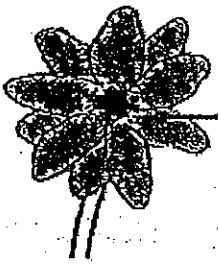
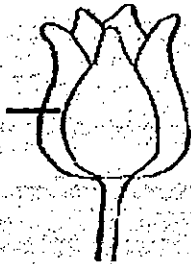
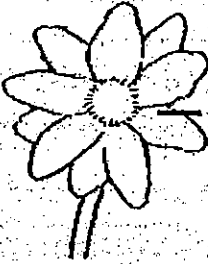
19. Four similar seeds are placed under four different conditions as shown in the diagram below.



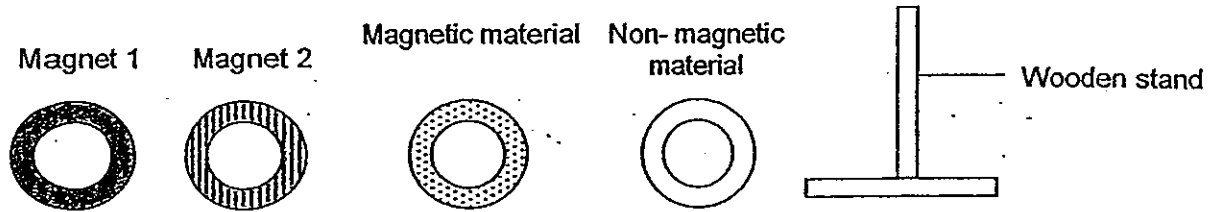
Which of the seeds above will germinate?

- (1) D only  
 (2) A and B only  
 (3) A and D only  
 (4) C and D only

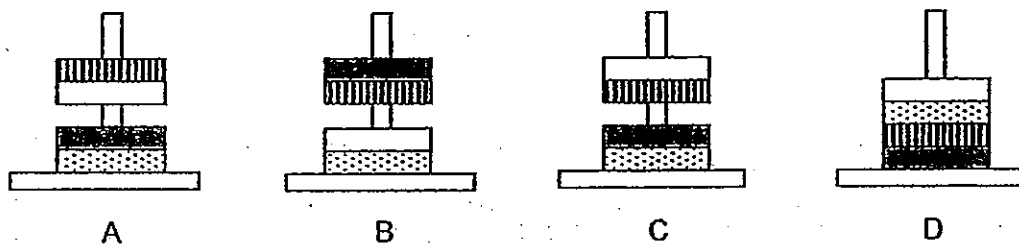
20. Rina wanted to find out if bees are attracted to the colour of flowers. Which of the following flowers should she use?

(1)	 <p>white tulip with no nectar</p>	 <p>red tulip with no nectar</p>
(2)	 <p>red daisy with nectar</p>	 <p>red tulip with nectar</p>
(3)	 <p>white daisy with no nectar</p>	 <p>red da. with nectar.</p>
(4)	 <p>white tulip with nectar</p>	 <p>white daisy with no nectar.</p>

21. The diagram below shows 4 rings made of different materials.



Which one of the following are possible observations when all 4 rings are placed through the wooden stand one on top of the other?



- (1) A and C only  
 (2) B and D only

- (3) C and D only  
 (4) A, B and C only

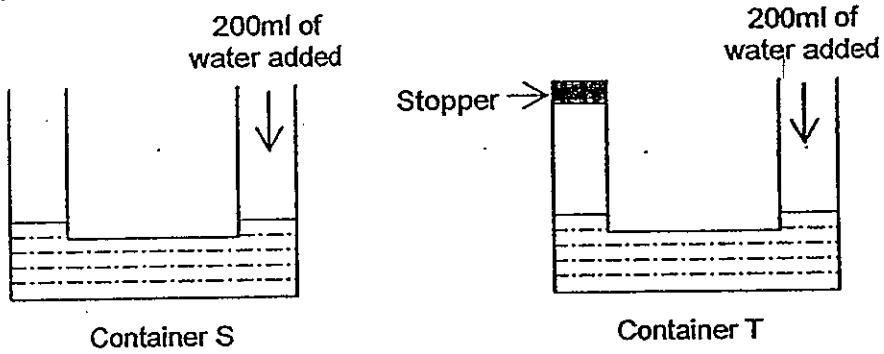
22. Samantha wanted to find out if plants give out water through their leaves. She tied a plastic bag over one of the leaves of a plant as shown in the diagram below.



She waited for 15 minutes and observed that there were no water droplets collected in the plastic bag. What can Samantha do to improve on her experiment?

- (1) Tie the plastic bag around the pot only.  
 (2) Spray paint on both sides of the leaves.  
 (3) Remove some of the leaves of the plant.  
 (4) Lengthen the duration of the experiment.

23. Container S and Container T contain the same amount of water.



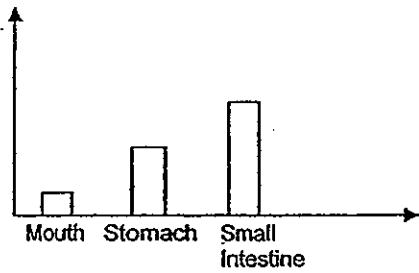
Which of the following shows the water level in both containers after 200ml of water is added into each container?

	Container S	Container T
(1)		
(2)		
(3)		
(4)		

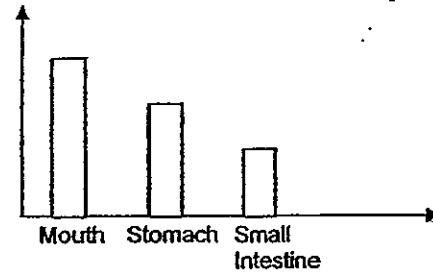


24. Which graph best depicts the amount of undigested food in our digestive system?

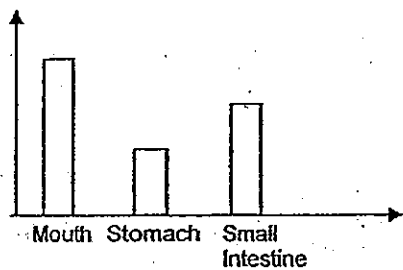
(1) Amount of undigested food



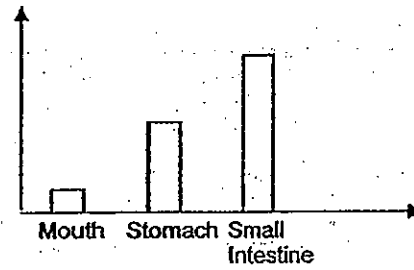
(3) Amount of undigested food



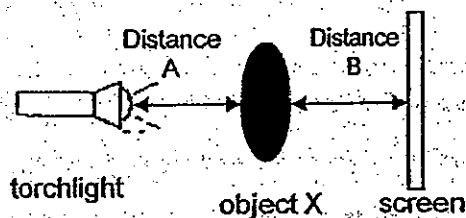
(2) Amount of undigested food



(4) Amount of undigested food



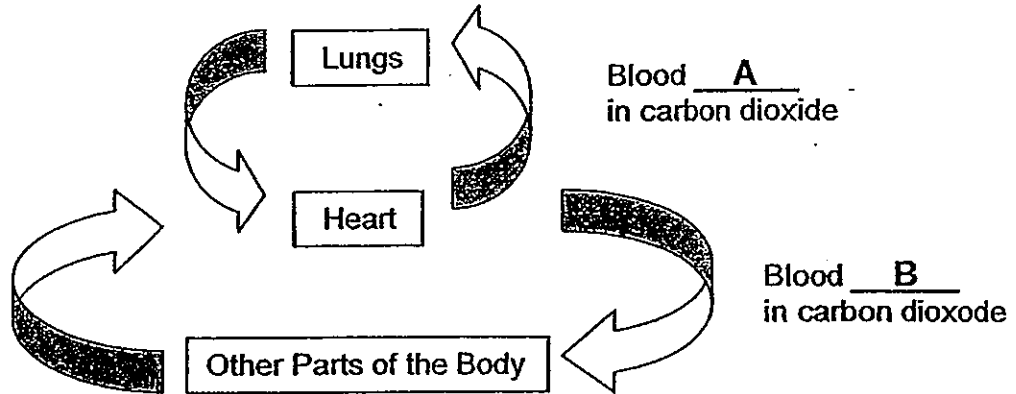
25. When a lit torchlight is shone on an object X, a shadow is formed on the screen.



Which of the following correctly shows how the size of the shadow changes when distance A and/or distance B changes?

	Size of shadow	Distance A	Distance B
(1)	Bigger	Decreases	Increases
(2)	Smaller	Stays the same	Increases
(3)	Stays the same	Increases	Decreases
(4)	Smaller	Decreases	Stays the same

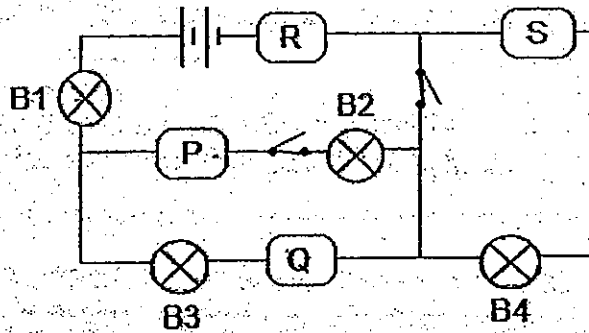
26. Study the diagram below carefully



Which of the following correctly represents the words that should be placed at blanks A and B?

	A	B
(1)	poor	rich
(2)	rich	rich
(3)	rich	poor
(4)	poor	poor

27. In the electrical circuit shown below, only B1, B2 and B3 light up when all the switches are closed.



Which of the following correctly shows the materials P, Q, R and S are made of?

	Metal	Plastic
(1)	P, Q and S	R
(2)	P, R and S	Q
(3)	P, Q and R	S
(4)	P and R	Q and S

28. Pamela used a leaf shown below for a photosynthesis experiment. There was no starch in the leaf at the start of the experiment.

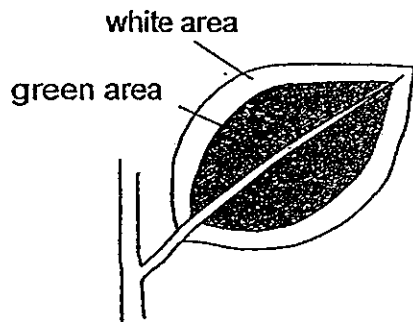


Diagram 1

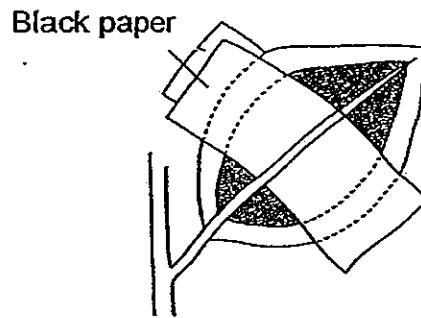


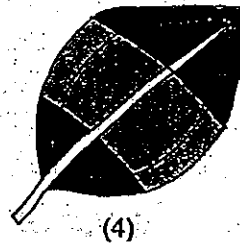
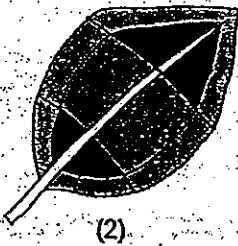
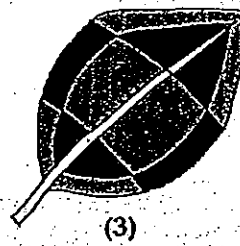
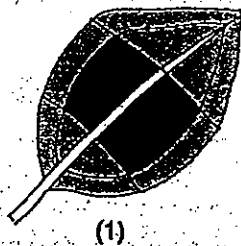


Diagram 2

She then covered part of the leaf with black paper as shown in Diagram 2 and put the plant under the Sun. Two days later, she plucked off the leaf and removed the black paper. Iodine turns dark blue when there is starch.

Which of the following shows the appearance of the leaf after the starch test?

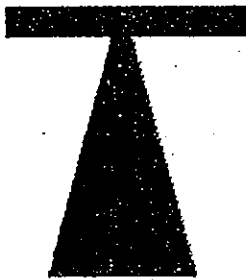
<u>Key:</u>	
	brown
	dark blue



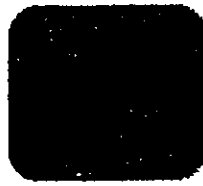
29. The diagram below shows a traffic cone.



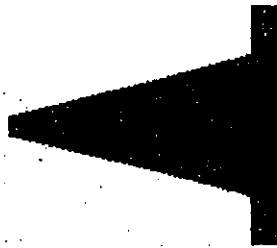
Which of the following shadow/s can be formed when a light source is shone on the cone?



A



B



C



D

- (1) A only
- (2) B only

- (3) B and C only
- (4) A and D only

30. Which of the following statements about how our body reacts when we exercise are true?

- A: More oxygen is produced.
- B: The body needs less food.
- C: The heart beats at a faster rate.
- D: More carbon dioxide is produced.

- (1) A and B only
- (2) A and C only

- (3) B and C only
- (4) C and D only

SINGAPORE CHINESE GIRLS' SCHOOL  
SECOND SEMESTRAL ASSESSMENT 2013

Primary 5

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

CLASS: PRIMARY 5

Booklet A		60
Booklet B		40
Total		100

Parent's Signature  
\_\_\_\_\_

**SCIENCE**

**BOOKLET B**

14 questions

40 marks

Total time for Booklets A & B: 1 h 45 min

**DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.**

**FOLLOW ALL INSTRUCTIONS CAREFULLY.**

**Part II (40 marks)**

Answer all the following questions.

31. Information on W, X, Y and Z, is given in the table below.  
A tick (✓) shows that it has the characteristic.

	W	X	Y	Z
Occupies space	✓		✓	✓
Can be compressed	✓			
Takes the shape of the container it is in	✓			✓

- a) Based on the information in the table, describe Y.

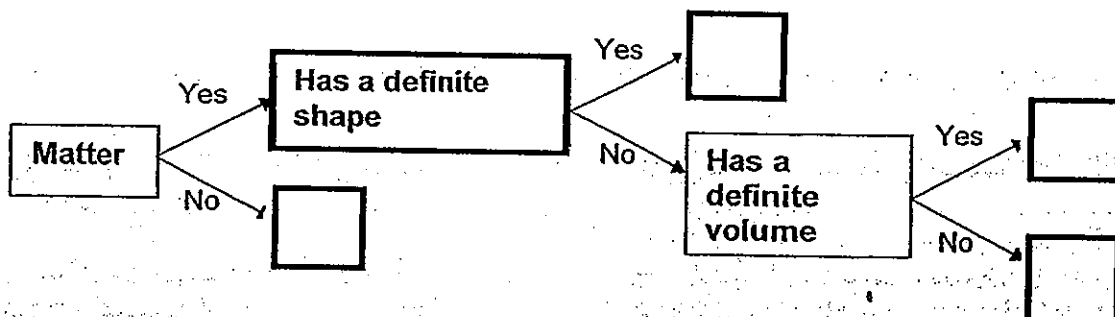
(1M)

---

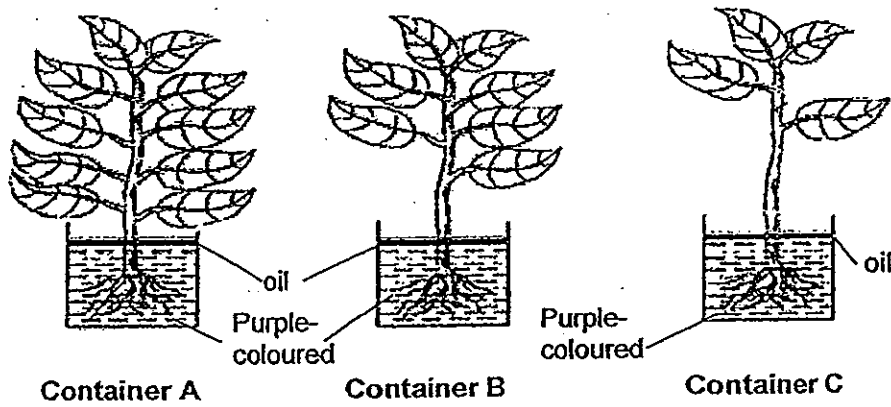
---

- b) Based on the information in the table, complete the flowchart below with W, X, Y and Z.

(2M)



32. Meiling set up an experiment as shown below. She placed 3 similar plants in 3 identical containers filled with the same amount of purple-coloured water. She removed some leaves from the plants in Container B and C.

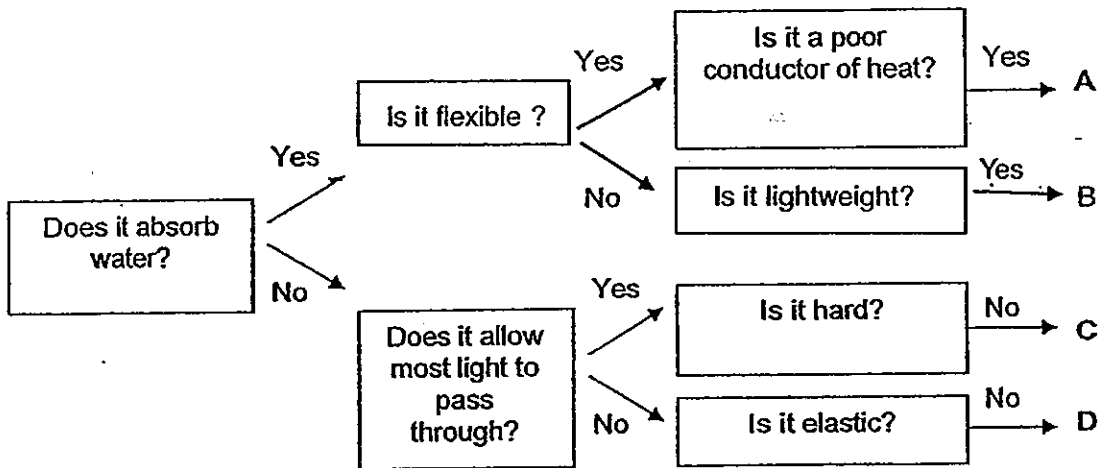


She observed the time taken for the stem of each plant to turn completely purple.

a) Besides conditions already stated in the question, state 1 other variable that should be kept the same for this experiment. (1M)

b) Explain why the plant in Container A turns purple the fastest (2M)

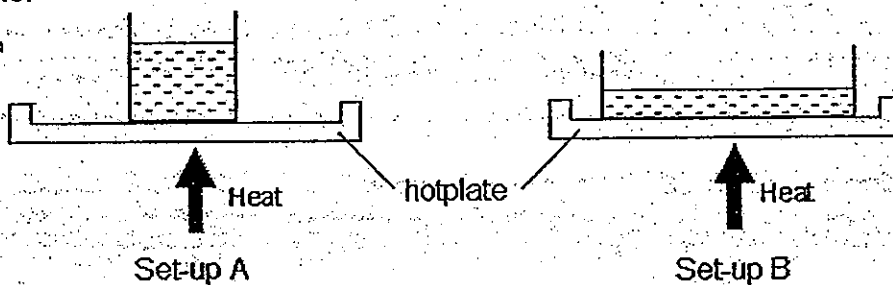
33. The flow chart below shows the properties of some materials, A, B, C and D.



Tick the correct boxes below to indicate if the statement is True, False or Not Possible to Tell. (2M)

	Statement	True	False	Not Possible to Tell
(a)	A and B can absorb water.			
(b)	B is lightweight and flexible.			
(c)	D is not elastic but it is hard.			
(d)	C allows most light to pass through.			

34. Tom carried out an experiment as shown below. He placed equal amounts of water in 2 containers made of the same material but of different sizes. He then placed them onto 2 identical hotplates and turned them on at same time.

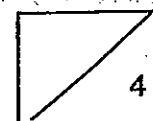


In which set-up would the water boil faster? Explain your answer. (2M)

---

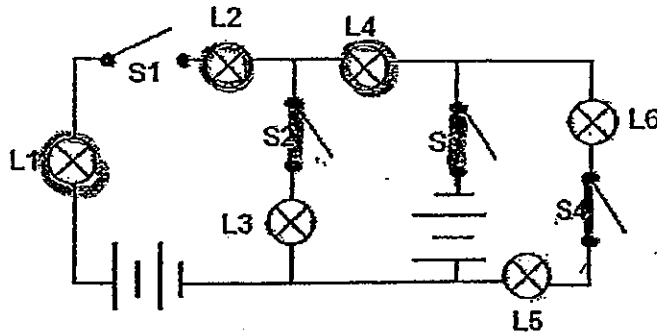


---





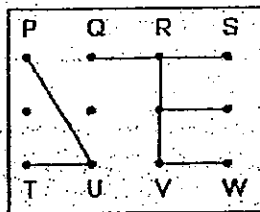
35a. Study the electrical circuit shown below.



Complete the table below with the appropriate bulbs (L1, L2, L3, L4, L5 or L6) and Switches (S1, S2, S3 or S4). (2M)

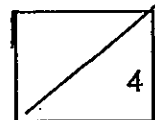
	Two switches that are closed	Bulb/s that light up	Bulb/s that do not light up
i)		L1, L2, L4, L5 and L6	L3
ii)		L1, L2 and L4	L3, L5 and L6
iii)	S2 and S3		
iv)	S3 and S4		

b) Study the circuit card below.

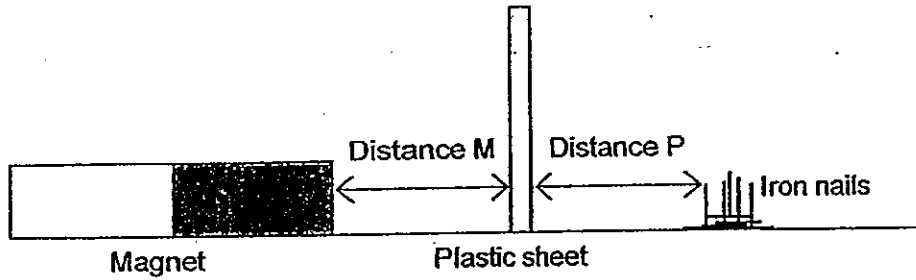


Indicate with a "✓" to show if the bulb of a circuit tested will light up and a "X" to show if the bulb will not light up. (2M)

Points	Does the bulb light up?	Points	Does the bulb light up?
PQ		UW	
PT		RS	



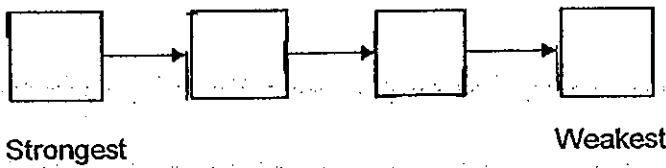
36. Amy carried out the experiment as shown below. For each magnet, she changed the distance between the magnet and plastic sheet (Distance M) as well as the distance (Distance P) between the plastic sheet and iron nails.



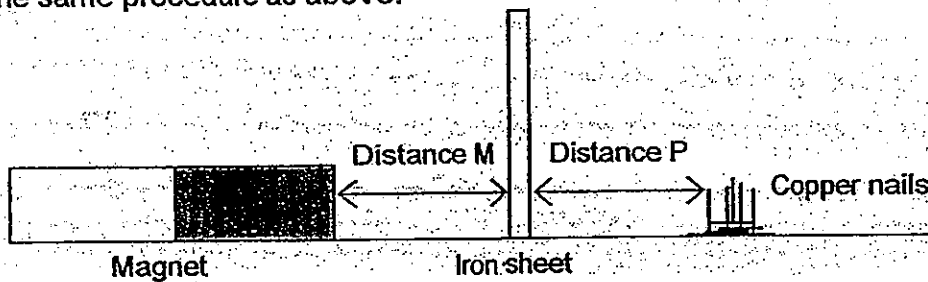
The results of Amy's experiment are as shown below.

Magnet	Distance M (mm)	Distance P (mm)	No. of iron nails that moved towards the plastic sheet
A	20mm	5mm	3
B	5mm	10mm	3
C	10mm	20mm	3
D	20mm	20mm	3

a) Based on Amy's experiment, rank the magnets in the order of the **strongest to the weakest**. (2M)



b) Amy replaced the iron nails with copper nails as shown below and carried out the same procedure as above.



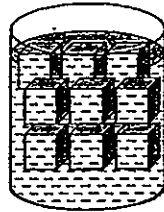
How will the results of her experiment change? Explain. (1M)

---

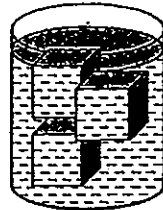


---

37. Lillian poured 250ml of water into each of Beaker X and Y. Both beakers have an equal volume of ice but the ice in Beaker X is in smaller cubes than those in Beaker Y.



Beaker X



Beaker Y

a) Which beaker of water will cool faster? Explain why. (2M)

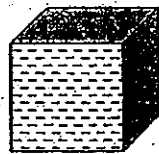
---



---

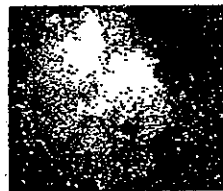
b) Below shows 500g of ice in a block and 500g of ice that has been crushed.

500g of ice  
(in a block)



A

500g of ice  
(crushed)

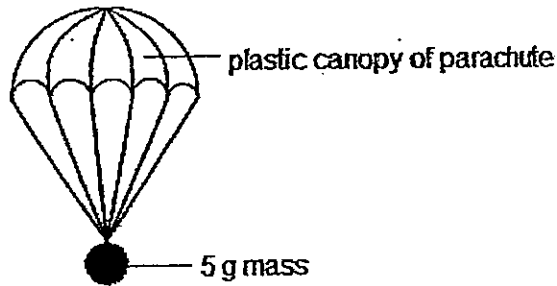


B

Which of the above, A or B, will melt faster? (1M)

---

38a) Olivia made 3 parachutes using different sizes of the same plastic material and attached a similar 5 g mass to each parachute and dropped them from the same height.



She recorded the time taken for each of the 4 parachutes to reach the ground.

Area of canopy (cm <sup>2</sup> )	Time taken to reach the ground (s)
50	4.7
100	10.4
150	16.1
200	22.3

Based on her results, what is the relationship between the area of the canopy of the parachute and the time taken for the parachute to reach the ground? (1M)

---

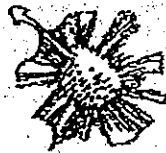


---

38b) Olivia conducted another experiment to find out how the area of the wing-like structure of an angsana fruit affects the time it takes to land on the ground. She used 3 angsana fruits as shown below.



Fruit X



Fruit Y



Fruit Z

She conducted the experiment 4 times and recorded the results in the table below the time (in seconds) it took each fruit to land on the ground.

Record Number	Fruit X	Fruit Y	Fruit Z
1	4.0	4.8	5.1
2	4.6	4.9	5.4
3	4.7	5.0	5.6
4	4.0	6.3	5.4

Her Science teacher commented that one of the readings has been recorded wrongly.

In the table above, circle the wrong reading.

(1M)

38c) A few days later, Olivia observed 2 seeds, Q and P, being blown around in the garden.



Seed Q

Seed P

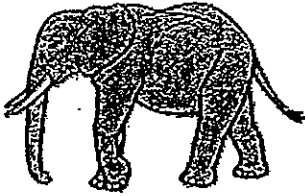
Which seed, Q or P, is more likely to be dispersed further away from the parent plant? Explain your answer.

(2M)

---

---

39. The diagram below shows 3 multicellular organisms, A, B and C.



Organism A



Organism B



Organism C

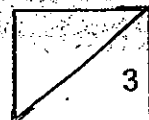
The following are statements 3 pupils, Erika, Juliette and Shannon made about the 3 organisms.

- Erika : The cells in all 3 organisms have regular shape.  
 Juliette : All the cells in organism C have chloroplasts.  
 Shannon : The cells in all 3 organisms contain genetic information.

Their science teacher commented that 2 of the pupils are wrong.

In the box below, state which 2 pupils made wrong statements and explain their errors.

Pupil: (1M)	Explanation: (2M)
i)	<hr/> <hr/> <hr/> <hr/>
ii)	<hr/> <hr/> <hr/> <hr/>



40. Patrick wants to find out if overcrowding affects the growth of seedlings. He prepared 4 similar pots of green bean seedlings and placed them in the garden. The table below summarises the information for his experiment.

Pot	No of seedlings	Place	Water
A	3	Garden	15ml
B	15	Garden	15ml
C	9	Garden	10ml
D	6	Garden	10ml

a) Patrick did not conduct a fair test. Why?

(1M)

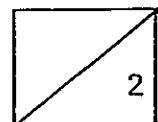
---

---

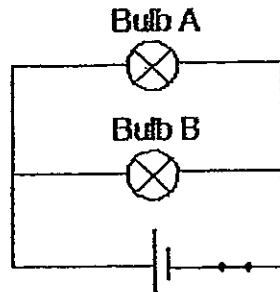
b) Although Patrick did not conduct a fair test, name 2 set-ups he can still compare to reach his conclusion.

(1M)

---

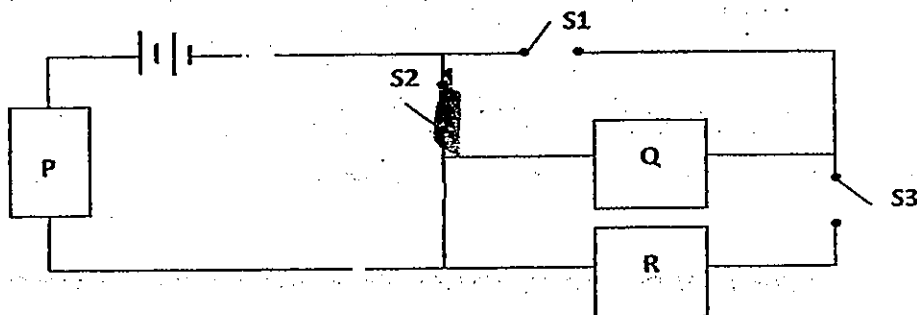


41a) Study the electrical circuit below. Bulbs A and B light up when the switch is closed.



Will Bulb B light up if Bulb A is removed? Explain why. (1M)

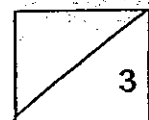
b) Andrea set up the circuit as shown below. There are 3 switches labelled S1, S2 and S3 and 3 different objects labelled P, Q and R. One of the objects is a light bulb and the other 2 are nichrome wires, which heat up when electricity passes through them.



She tested the circuit and made the following observations.

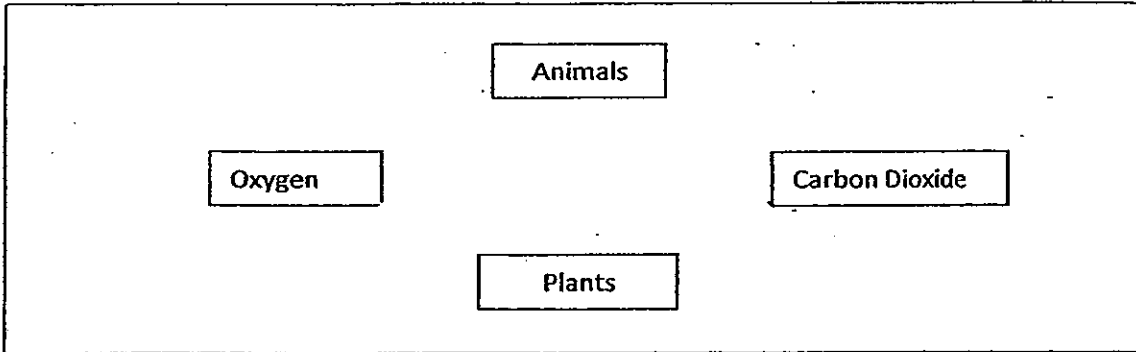
Switch(es) closed	Observations
Only S1	2 piece of nichrome wire heated up
S1 and S3	2 pieces of nichrome wire heated up and bulb will light up

i) State what she will observe if only S2 is closed. (1M)

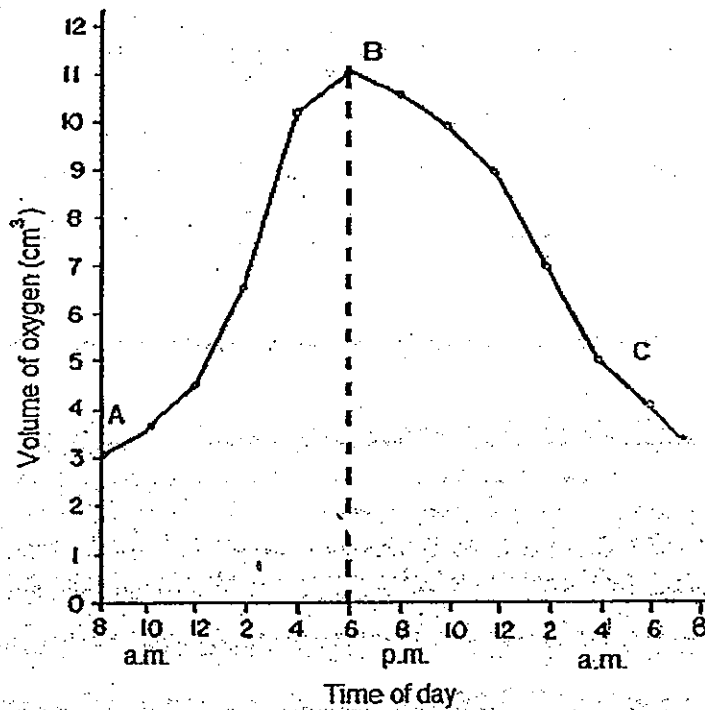




42a) In the box below, draw arrows to show the process of Photosynthesis.(1M)



42b) The graph below shows the amount of oxygen in a glass box with a green plant over a 24-hour period.



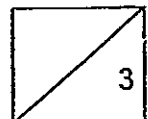
i) Suggest one reason why oxygen levels in the box change from point B to point C. (1M)

---

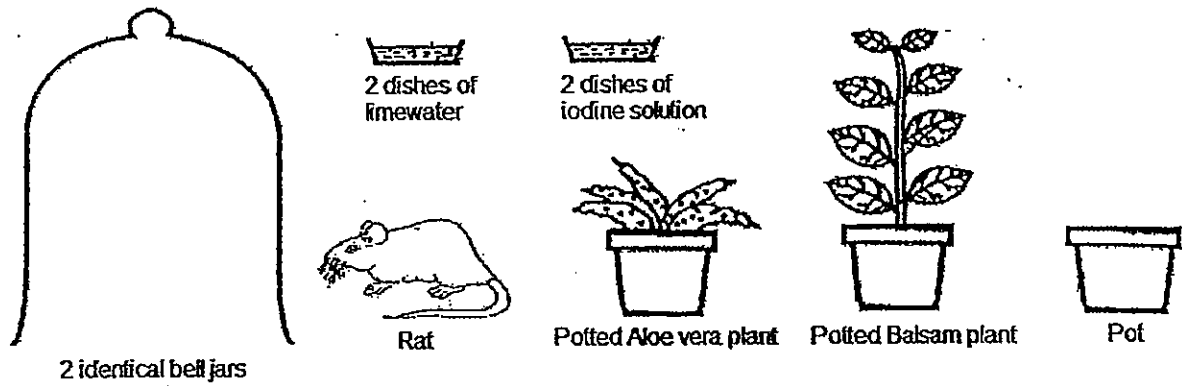


---

ii) On the graph, draw a new line to show what happens when the green plant is replaced by a mushroom over 24 hours. (1M)



43. Your teacher asks you to conduct an experiment to find out if plants give out carbon dioxide during respiration. You find the following items in the school science laboratory:



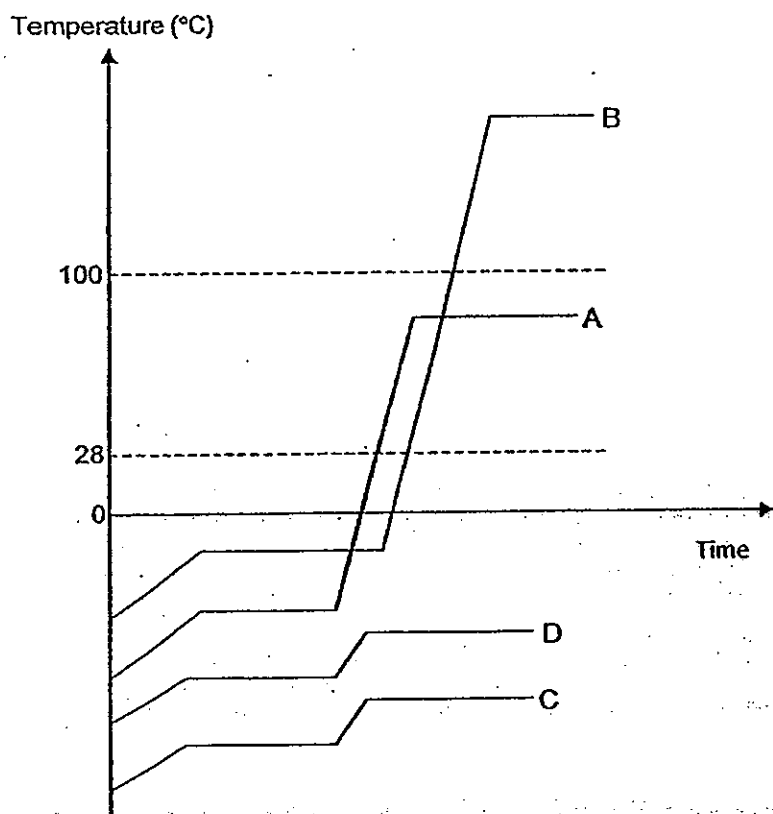
a) Given that you should use 2 set-ups in your experiment, in each of the boxes below, list the apparatus you will use for each set-up. (2M)

Set-up 1	Set-up 2

b) What must you observe in order to conclude that plants do give out carbon dioxide during respiration? (1M)

\_\_\_\_\_

44. Andrea heated substances A, B, C and D from a solid state over a period of time and plotted the graphs below.

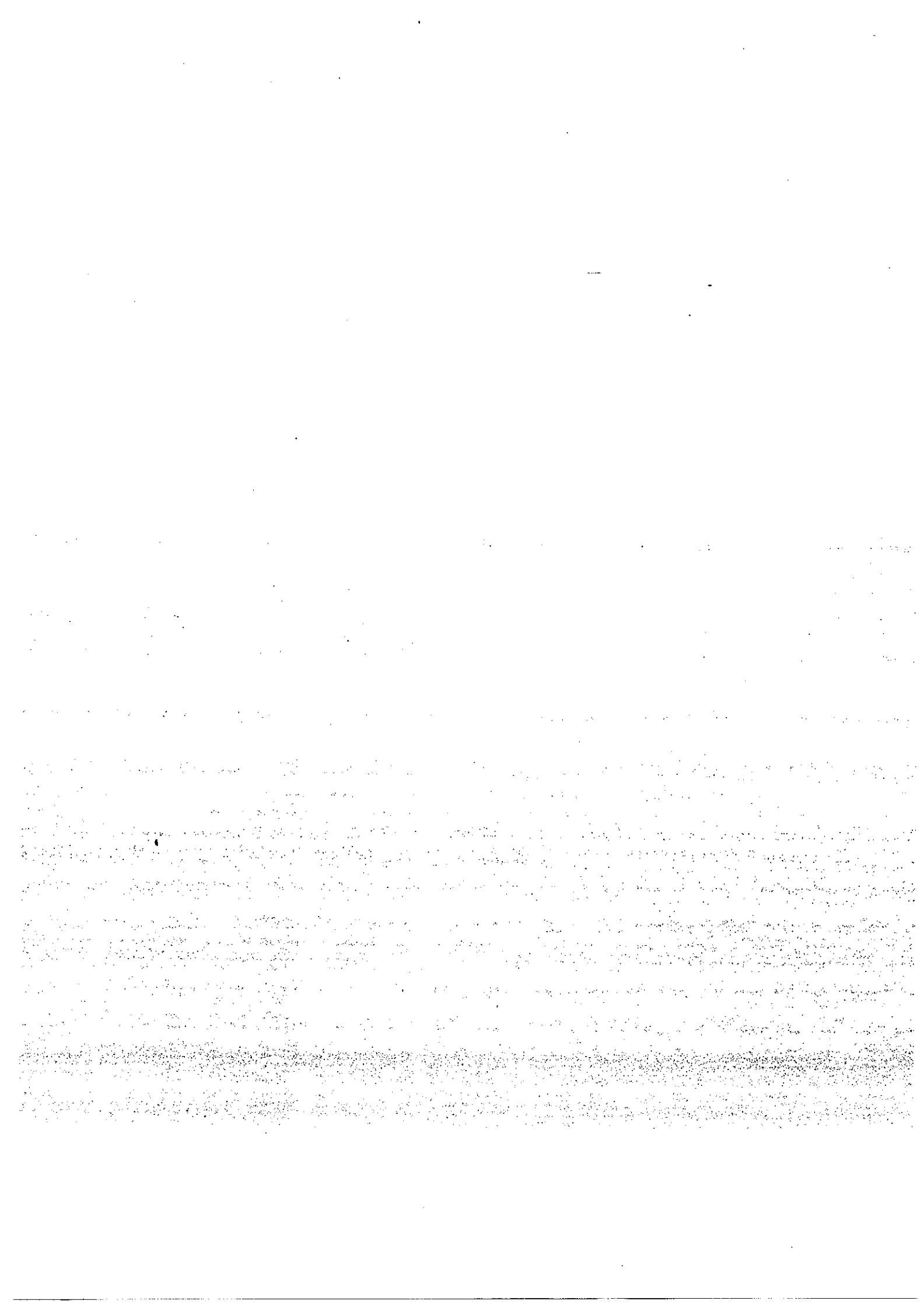


a) Which substance/s is/are a gas/s at room temperature (28°C)? (1M)

\_\_\_\_\_

b) Which substance/s is/are liquid/s at 0°C? (1M)

\_\_\_\_\_



**Singapore Chinese Girls' School 2013 Primary 5 Science SA2**

**Booklet A**

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>
2	1	2	1	1	1	2	4	3	1	3	2	2	1	3
<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>
2	2	4	3	1	3	4	4	3	2	3	3	2	3	4

**P5 SCIENCE SA2 2013**

**ANSWER KEY**

Qn	Accepted Answer																				
31a)	Y occupies space, cannot be compressed and does not take the shape of the container it is in.																				
31b)	<pre> graph LR     Matter[Matter] -- Yes --&gt; Shape[Has a definite shape]     Matter -- No --&gt; X[X]     Shape -- Yes --&gt; Y[Y]     Shape -- No --&gt; Volume[Has a definite volume]     Volume -- Yes --&gt; Z[Z]     Volume -- No --&gt; W[W]     </pre>																				
32a)	Location / temperature of water																				
32b)	A has the <u>most</u> leaves so <u>most</u> water vapour will be lost by the plant. Therefore, water will be transported up its stem/water-carrying tubes at the <u>fastest</u> rate.																				
33)	<table border="1"> <thead> <tr> <th></th> <th>True</th> <th>False</th> <th>NPTT</th> </tr> </thead> <tbody> <tr> <td>(a)</td> <td>√</td> <td></td> <td></td> </tr> <tr> <td>(b)</td> <td></td> <td>√</td> <td></td> </tr> <tr> <td>(c)</td> <td></td> <td></td> <td>√</td> </tr> <tr> <td>(d)</td> <td>√</td> <td></td> <td></td> </tr> </tbody> </table>		True	False	NPTT	(a)	√			(b)		√		(c)			√	(d)	√		
	True	False	NPTT																		
(a)	√																				
(b)		√																			
(c)			√																		
(d)	√																				
34)	B. More of the surface area of container in B was in contact with the hot plate. B would gain more heat and start to boil faster.																				
35a)	<table border="1"> <thead> <tr> <th></th> <th>Switches that are closed</th> <th>Bulb/s that light up</th> <th>Bulb/s that do not light up</th> </tr> </thead> <tbody> <tr> <td>i)</td> <td>S1 and S4</td> <td>L1, L2, L4, L5 and L6</td> <td>L3</td> </tr> <tr> <td>ii)</td> <td>S1 and S3</td> <td>L1, L2 and L4</td> <td>L3, L5 and L6</td> </tr> <tr> <td>iii)</td> <td>S2 and S3</td> <td>L3 and L4</td> <td>L1, L2, L5 and L6</td> </tr> <tr> <td>iv)</td> <td>S3 and S4</td> <td>L5 and L6</td> <td>L1, L2, L3 and L4</td> </tr> </tbody> </table>		Switches that are closed	Bulb/s that light up	Bulb/s that do not light up	i)	S1 and S4	L1, L2, L4, L5 and L6	L3	ii)	S1 and S3	L1, L2 and L4	L3, L5 and L6	iii)	S2 and S3	L3 and L4	L1, L2, L5 and L6	iv)	S3 and S4	L5 and L6	L1, L2, L3 and L4
	Switches that are closed	Bulb/s that light up	Bulb/s that do not light up																		
i)	S1 and S4	L1, L2, L4, L5 and L6	L3																		
ii)	S1 and S3	L1, L2 and L4	L3, L5 and L6																		
iii)	S2 and S3	L3 and L4	L1, L2, L5 and L6																		
iv)	S3 and S4	L5 and L6	L1, L2, L3 and L4																		
35b)	<table border="1"> <thead> <tr> <th>Points</th> <th>Does the bulb light up?</th> <th>Points</th> <th>Does the bulb light up?</th> </tr> </thead> <tbody> <tr> <td>PQ</td> <td>X</td> <td>UW</td> <td>X</td> </tr> <tr> <td>PT</td> <td>√</td> <td>RS</td> <td>√</td> </tr> </tbody> </table>	Points	Does the bulb light up?	Points	Does the bulb light up?	PQ	X	UW	X	PT	√	RS	√								
Points	Does the bulb light up?	Points	Does the bulb light up?																		
PQ	X	UW	X																		
PT	√	RS	√																		
36a)	D, C, A, B																				
36b)	No copper nails will move towards the magnet. Copper is not magnetic material.																				
37a)	Water in X cooled faster because the water lost heat to the ice cubes faster. Ice cubes in Beaker X (are smaller have a greater area in contact with the water.																				

37b) B

38a) The larger/smaller the area of the parachute, the longer/shorter the time taken for it to reach the ground.  
6.3

38b) Seed Q. It has a longer wing-like structure and a smaller and lighter seed that allows it to float longer and further away from the parent plant.

38c)

39) Erika: Only cells in organism C have regular shape because it is a plant.  
Juliette: Only the cells which make food (they are green) for the plant have chloroplasts.

40a) No. A, B, C and D did not have the same amount of water.

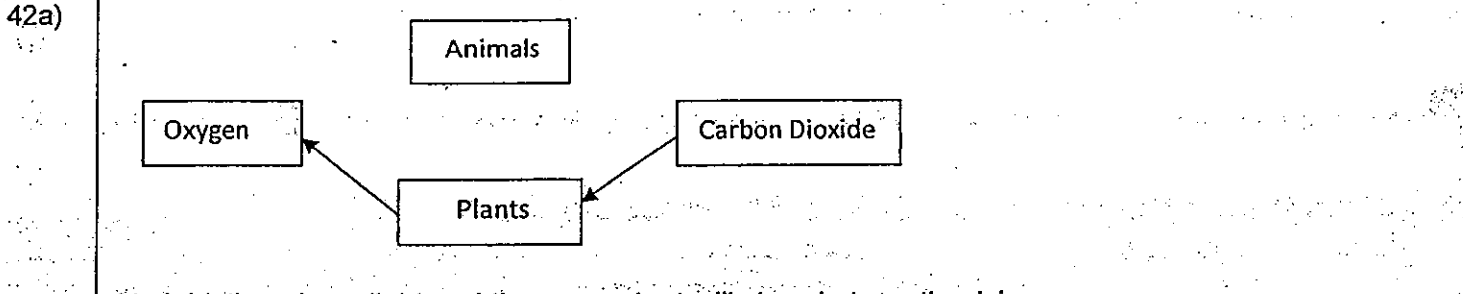
40b) A and B or C and D

41a) Yes. The bulbs are arranged in parallel. / The circuit is still closed.

41bi) The nichrome wire at P will heat up.

41bii)

(Any 1 of above 5)



42bi) At night, there is no light and the green plant will stop photosynthesizing.

42bii) Volume of oxygen will decrease on graph.

43a)

Set-up 1	Set-up 2
Bell jar Pot / No pot 1 dish limewater	Bell jar Potted balsam/aloë vera plant 1 dish limewater

43b) The limewater in the set-up with the potted plant will turn chalky.

44a) C and D

44b) A and B

