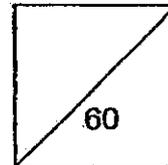


HENRY PARK PRIMARY SCHOOL
2014 PRELIMINARY EXAMINATION
PRIMARY 6 SCIENCE

Booklet A

Name: _____ ()

Class: Primary 6 _____



30 Questions
60 Marks

Total Time for Booklet A and B: 1 h 45 min

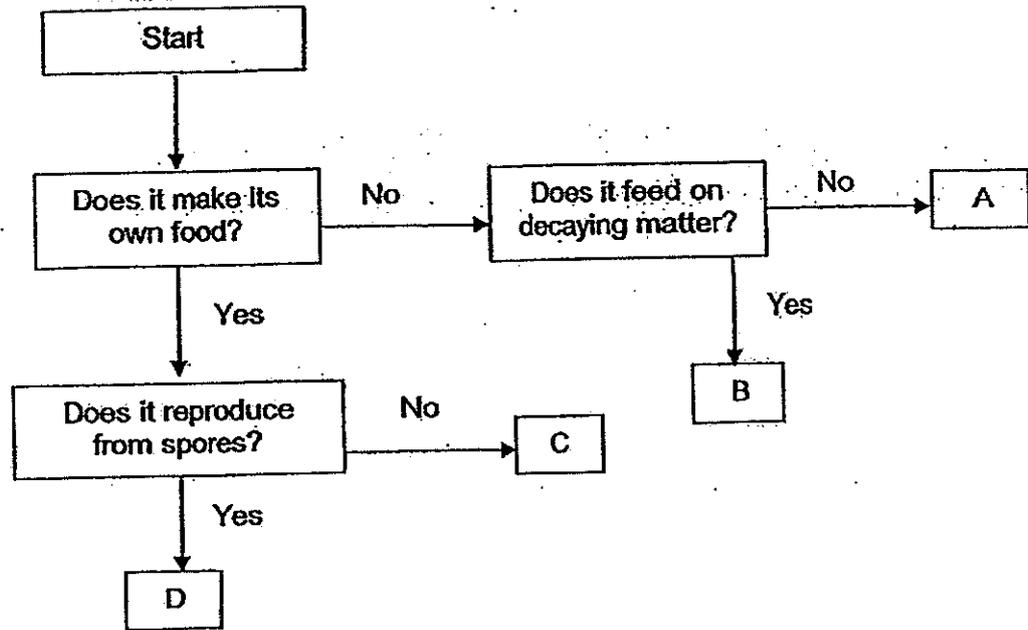
DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

READ AND FOLLOW INSTRUCTIONS CAREFULLY.

Booklet A (60 marks)

For each question from 1 to 30, four 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.

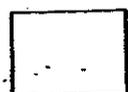
1. The flowchart below shows the characteristics of four living things, A, B, C and D.



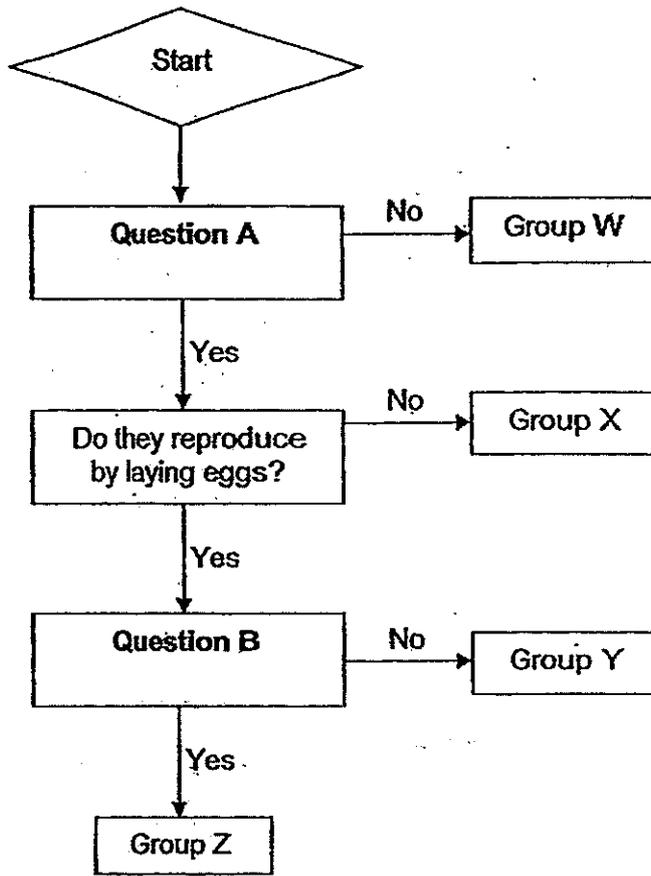
Which of the following living things is/are ~~definitely~~ a plant(s)?

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

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2. The flowchart below shows how some animals are grouped.



Animals G and H below can both be placed in Group Y.



Animal G



Animal H

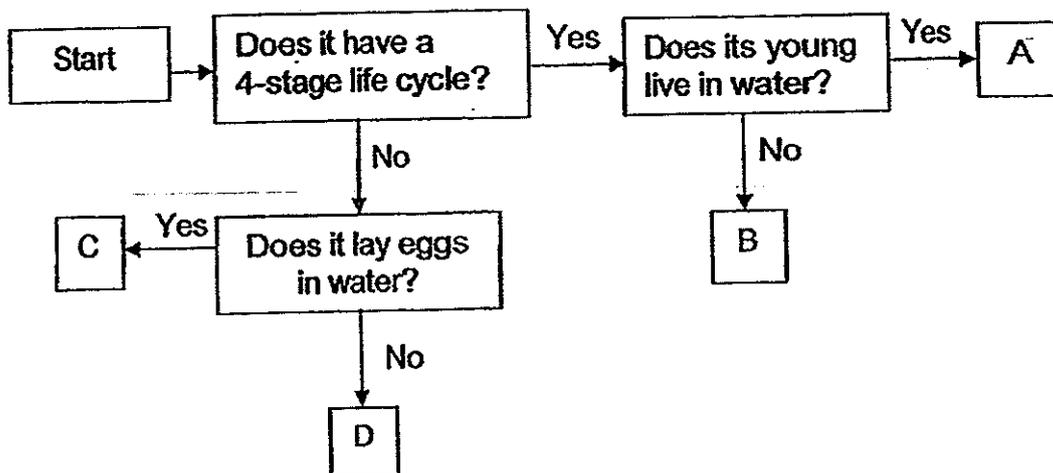
What could questions A and B be?

	Question A	Question B
(1)	Do they have wings?	Do they produce milk for their young?
(2)	Do they produce milk for their young?	Do they have wings?
(3)	Do they have wings?	Do they have feathers?
(4)	Do they have feathers?	Do they have wings?

()



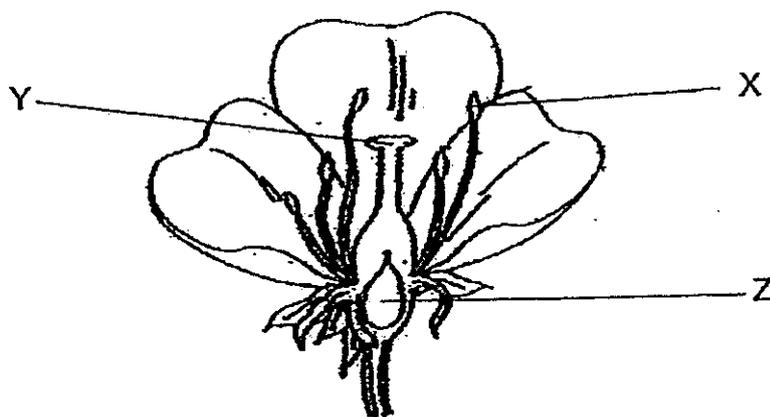
3. The flowchart below shows how some animals are classified.



Which of the following organisms best represent A, B, C and D respectively?

	A	B	C	D
(1)	frog	chicken	mosquito	mealworm beetle
(2)	mosquito	mealworm beetle	frog	chicken
(3)	mosquito	mealworm beetle	chicken	frog
(4)	mealworm beetle	mosquito	frog	chicken

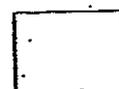
4. The diagram below shows parts of a flower that has been cut into half.



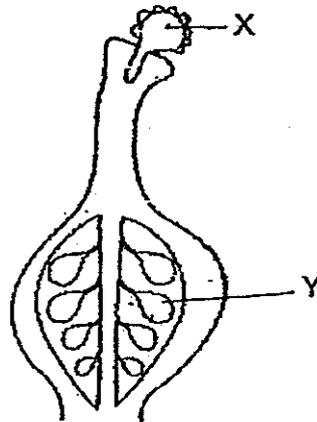
Process A is needed for both plant and human reproduction.

Which part(s) of the flower does Process A take place in?

- (1) X only
- (2) Z only
- (3) X and Y only
- (4) Y and Z only



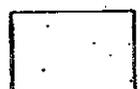
5. The diagram shows parts of a flower at a particular stage during reproduction.



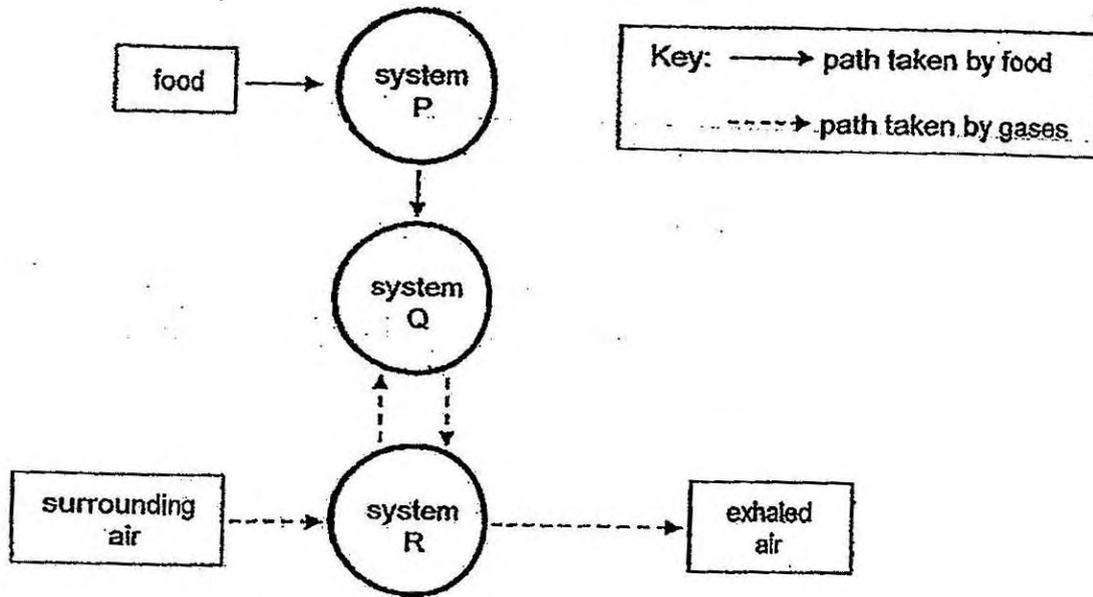
Which of the following best describes structures X and Y?

	Structure	
	X	Y
(1)	A pollen after pollination but before fertilisation	A seed after pollination and fertilisation
(2)	A pollen after pollination but before fertilisation	An ovule after pollination but before fertilisation
(3)	A pollen before pollination but after fertilisation	A seed after pollination and fertilisation
(4)	A pollen before pollination but after fertilisation	An ovule after pollination but before fertilisation

()



6. The diagram below shows how food and gases are transported in the human body.



Which of the following correctly shows the organ found in system P, Q and R?

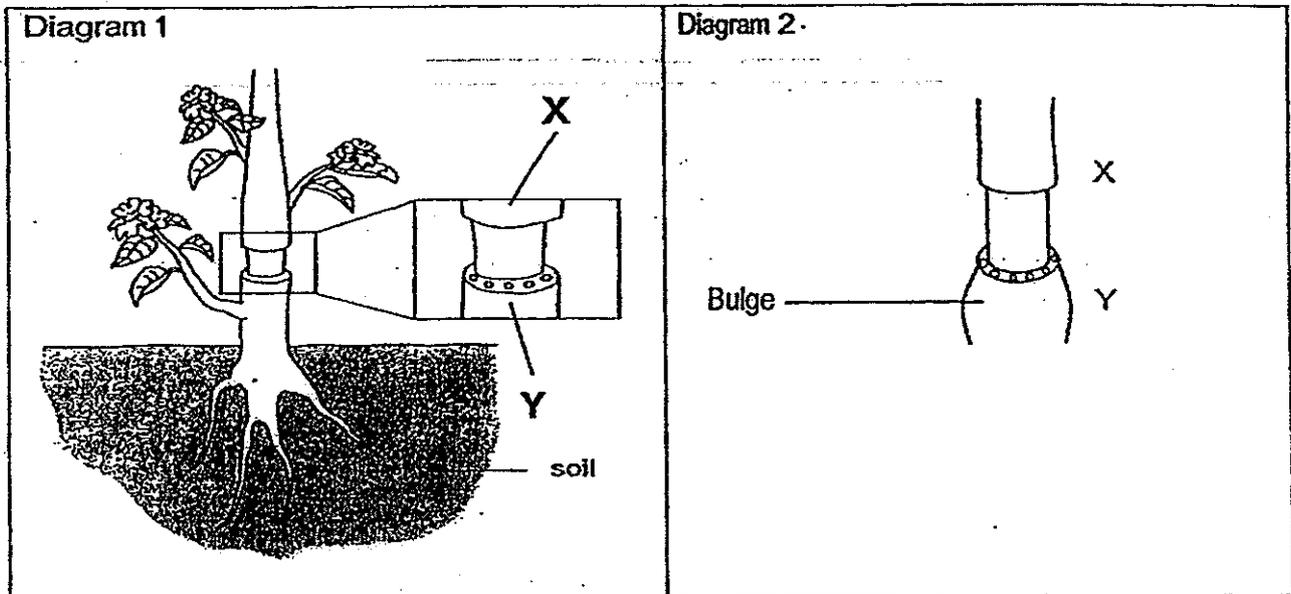
	System P	System Q	System R
(1)	Mouth	Nose	Lungs
(2)	Nose	Lungs	Stomach
(3)	Stomach	Heart	Lungs
(4)	Mouth	Stomach	Nose

()



7. Xiaoting wanted to find out what would happen to a plant if part of its stem was removed as shown in Diagram 1.

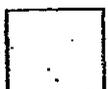
After some time, she noticed a bulge at part Y of the stem as shown in Diagram 2.



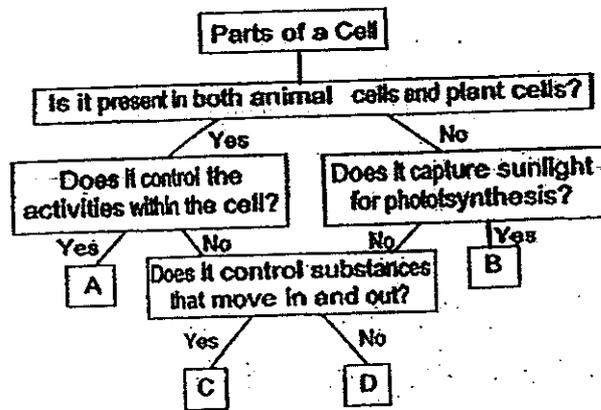
Based on the above experiment, which one of the following statements is true?

- (1) The plant will not be affected by the cut in the stem at all.
- (2) The plant will die after some time as water from the roots cannot reach the other parts of the plant.
- (3) The plant will die after some time as food from the leaves cannot reach the roots.
- (4) The plant will die after some time as both food and water cannot be transported around the plant.

()



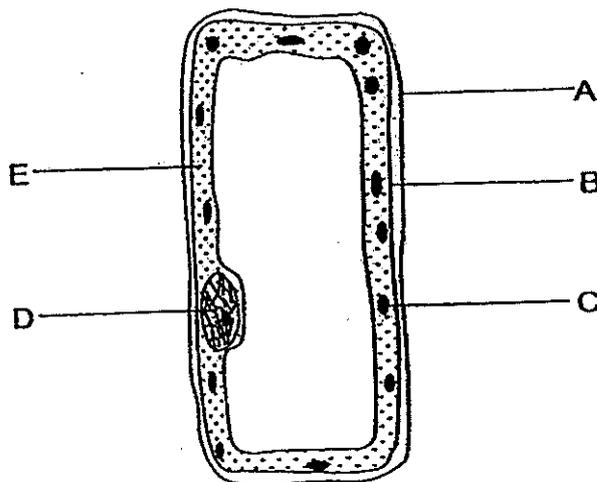
8. The diagram below can be used to identify part A, B, C and D of a cell.



Which of the following correctly represents part A, B, C and D?

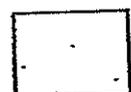
	A	B	C	D
(1)	nucleus	chloroplasts	cell wall	cell membrane
(2)	cytoplasm	nucleus	cell membrane	chloroplasts
(3)	cytoplasm	cell membrane	nucleus	chloroplasts
(4)	nucleus	chloroplasts	cell membrane	cell wall

9. The diagram below shows a plant cell.



Which of the following parts of the plant cell, A, B, C, D, E, are not found in an animal cell?

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



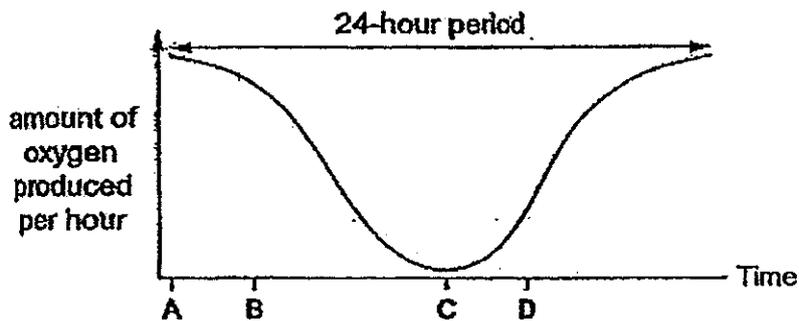
10. Which of the following are produced when plants carry out photosynthesis?

- (1) oxygen and water
- (2) oxygen and sugar
- (3) oxygen and starch
- (4) carbon dioxide and sugar

()

11. An experiment was carried out in a garden with a green plant.

The graph below shows the amount of oxygen produced by the green plant during a period of 24 hours.



Which of the letters, A, B, C or D, on the graph represent the amount of oxygen produced at 12.00 am and 12.00 pm on a bright day?

Amount of oxygen produced at	
12.00 am	12.00 pm
(1) A	D
(2) A	C
(3) B	A
(4) C	A

()



12. Group X and Group Y shown below represent two different groups of organisms.

Group X	Group Y
lizards, snakes, scorpion, cactus	ants, millipedé, wood lice, fallen dead leaves

The table below shows the characteristics of the environment found in four different habitats.

Habitat	Characteristics of the Environment		
	Temperature of surrounding air	Presence of Water	Presence of Light
A	Very low all the time	Found as icebergs, in icy streams and seas	Only during certain months of the year
B	Moderate	Found in damp soil	Very little most of the time
C	Very high in the day, very low at night	Found as puddles	Plentiful in the day
D	Higher in the day than at night	Completely covered in water	More on the surface and less below the surface

In which of the habitats, A, B, C or D, would the organisms in Group X and Group Y most likely be found?

Organisms in	
	Group X Group Y
(1)	A D
(2)	B C
(3)	C B
(4)	D B

()



13. The food chain shown below represents a food relationship in a particular pond community. N is a water plant.



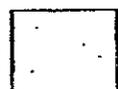
A large population of Q is accidentally introduced into the pond. Q does not have any predators in the pond.

What is likely to happen immediately if Q feeds on M only?

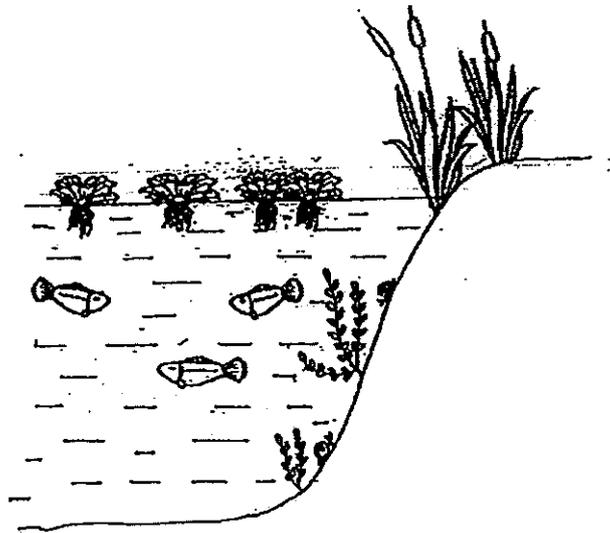
- A: The population of N will decrease.
- B: The population of M will decrease.
- C: The population of P will decrease.
- D: The population of Q will decrease.

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

()



14. The diagram below shows part of a pond and the organisms living in it.



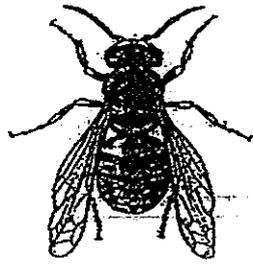
Which one of the following shows correctly the number of different types of producers, consumers, populations and communities in the pond?

	Number of type of producers	Number of type of consumers	Number of populations	Number of communities
(1)	2	2	5	1
(2)	3	2	5	1
(3)	3	5	8	1
(4)	3	5	12	5

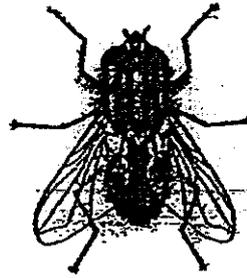
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15. The diagram below shows two animals, P and Q.



Animal P



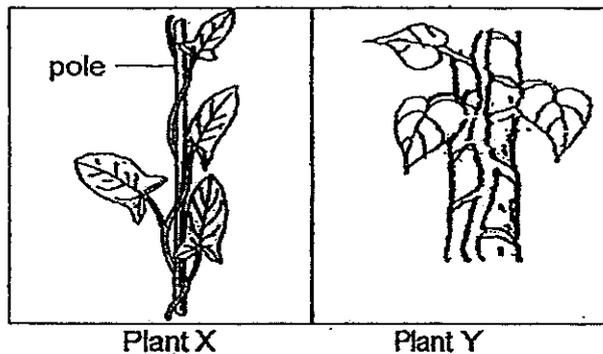
Animal Q

Animal P stings and feeds on small organisms like ants and spiders.
Animal Q looks like animal P, feeds on nectar but does not sting.

Which one of the following describes the advantage for animal Q to resemble animal P?

- (1) Animal Q would be able to feed on prey of Animal P easily.
- (2) Animal P would be able to mate with animal Q to reproduce.
- (3) Predators of animal P would be able to prey on animal Q as well.
- (4) Predator of animal Q would avoid preying on it, mistaking it for animal P.

16. The diagram below shows two plants, X and Y, which have special adaptations to allow them to survive in their environment.



Based on the diagram shown, which of the following statements about plant X and Y are correct?

- A: Both plants have creeping stems.
- B: Both plants need support to grow upwards.
- C: Both plants are trying to obtain more sunlight.
- D: Plant X has stronger stem than Plant Y.

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

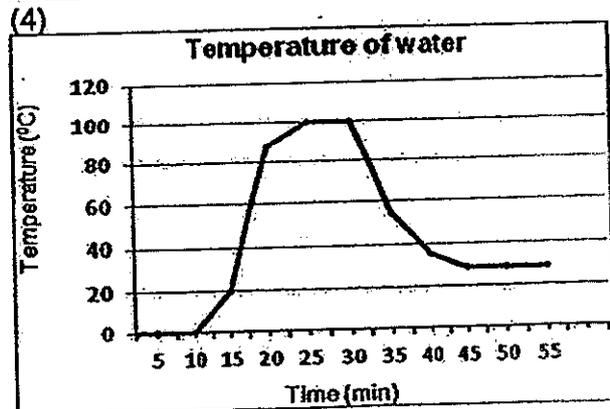
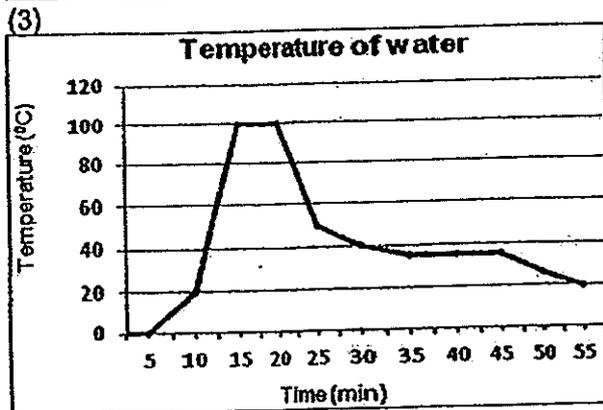
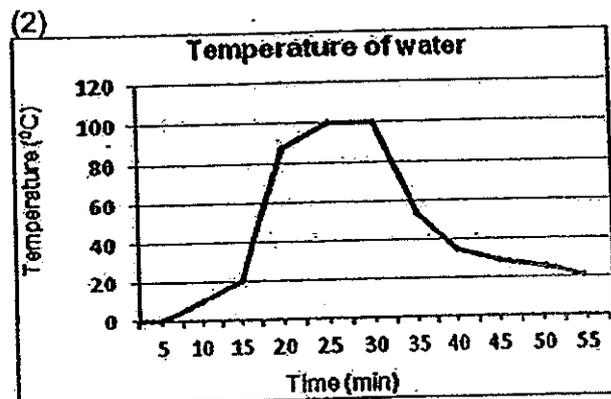
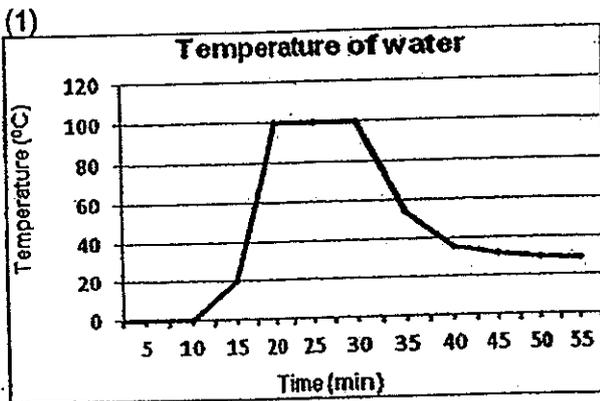


17. John conducted an experiment to find out changes in temperature of water. He wrote the procedure in the table as shown below.

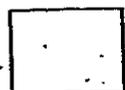
Step 1	Place a beaker of ice, 10 g in mass, at room temperature of 29°C to melt completely. Record temperature.
Step 2	Then heat the same beaker of water over a burner till it reaches boiling point. Record temperature.
Step 3	Continue boiling water for 5 minutes. Record temperature.
Step 4	Remove beaker from burner to allow water to cool to room temperature of 29°C. Record temperature.

He recorded his data in a graph after each step.

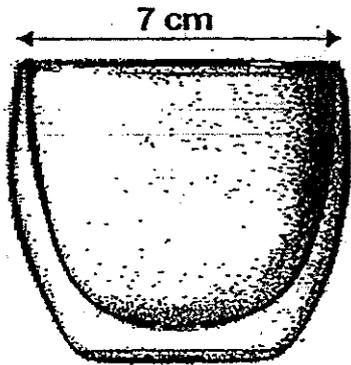
Which one of the following graphs most likely represents the changes in temperature of water over the duration of his experiment?



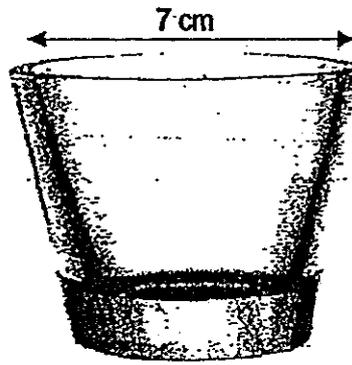
()



18. The diagrams below show two types of glasses with different designs. Design A has a double layer of glass as compared to Design B which has a single layer of glass.



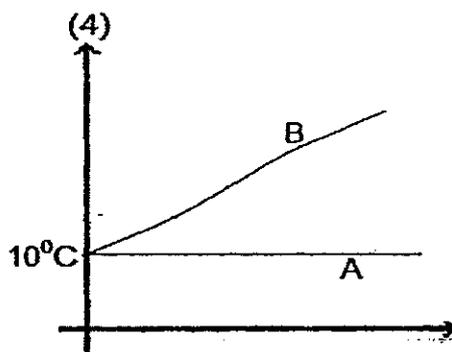
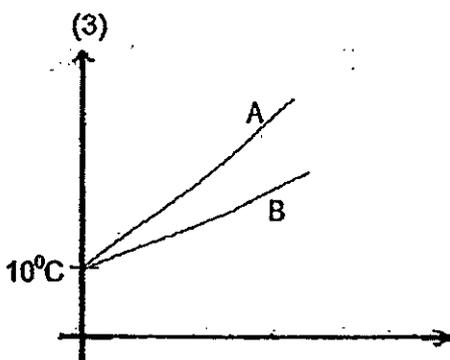
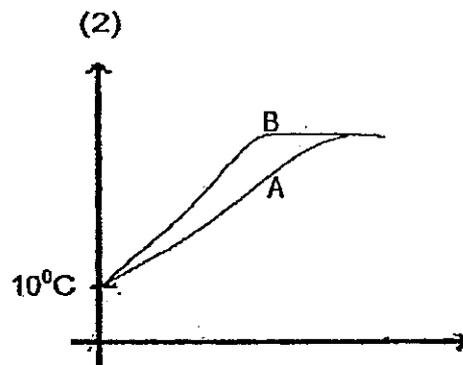
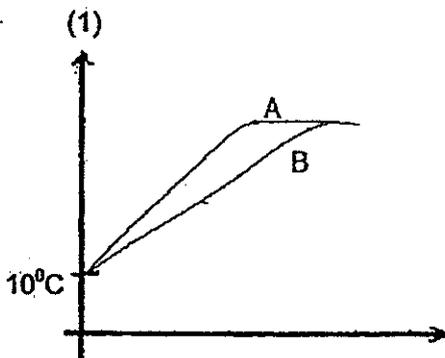
Design A



Design B

Ahmad poured water at 10°C into both glasses and left them in the same room.

Which one of the following graphs correctly shows how the temperature of water changes with time in each type of glass?



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19. Substance A and Substance B are in two different states of water.

The diagram below shows the properties of Substances A and B.

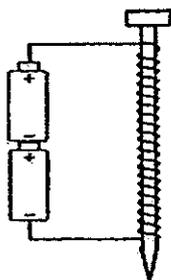


What process takes place as Substance A changes into Substance B?

- (1) Boiling
- (2) Melting
- (3) Freezing
- (4) Condensation

()

20. An electromagnet can be made using two batteries, wires and an iron nail as shown in the diagram below.



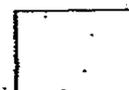
In a closed circuit, the iron nail becomes an electromagnet.

How can the strength of the electromagnet be increased?

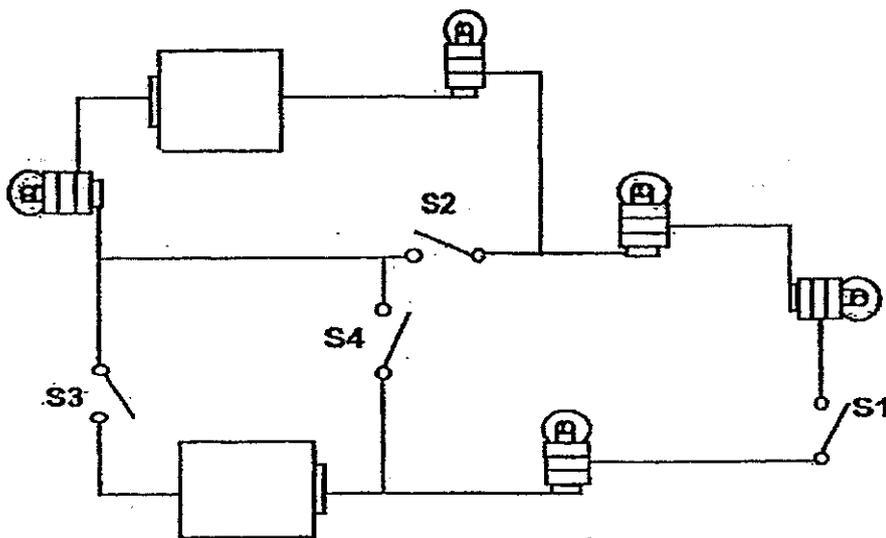
- A: Use a longer nail.
- B: Increase the length of wire used.
- C: Increase the number of batteries in series.
- D: Increase the number of turns of wire around the nail.

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

()



21. The diagram below shows four bulbs connected together in a circuit.

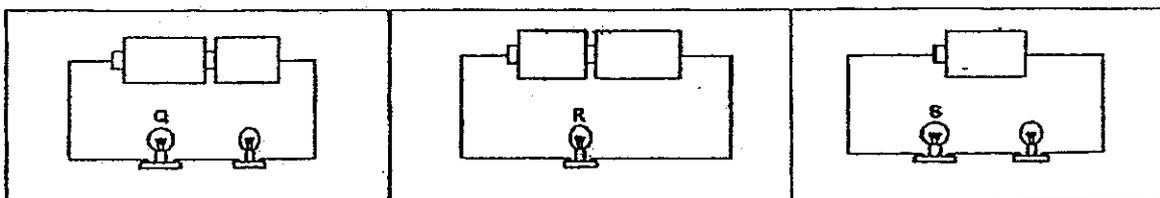


Which of the switches, S1, S2, S3, S4, should be closed for all the bulbs to light up?

- (1) S1 and S2 only
- (2) S1 and S3 only
- (3) ~~S1~~, S2 and S4 only
- (4) S2, S3 and S4 only

()

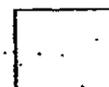
22. The diagram below shows three circuits with different arrangements of identical batteries and bulbs. The bulbs in all three circuits light up.



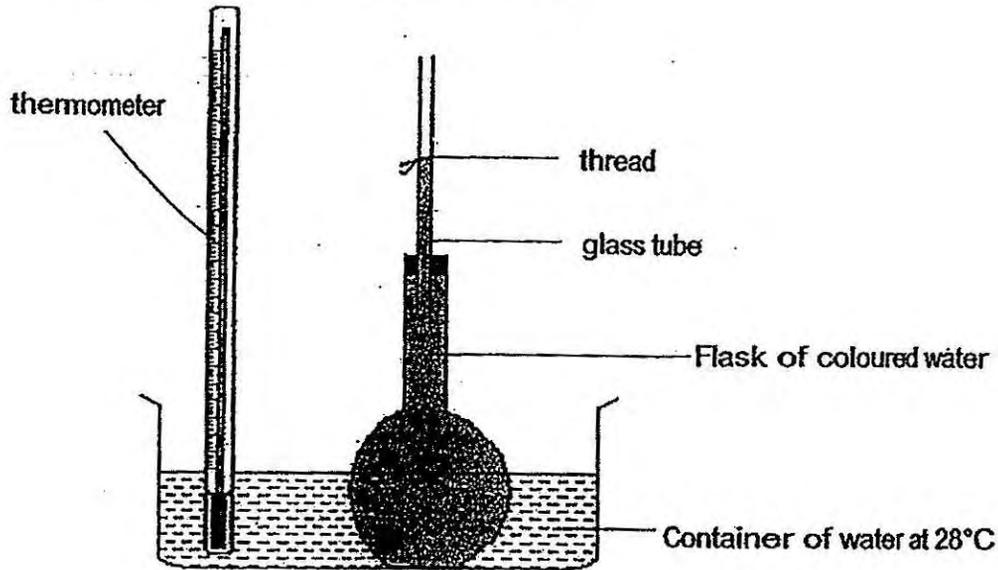
Arrange the bulbs, Q, R and S, in the order of brightness, starting with the bulb which was the brightest.

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

()



23. The container below was filled with tap water of room temperature at 28°C. A flask of coloured water was then placed into the container. The water level in the glass tube was marked out with a thread.



Ice cubes were added in the container and a change in temperature of water was recorded.

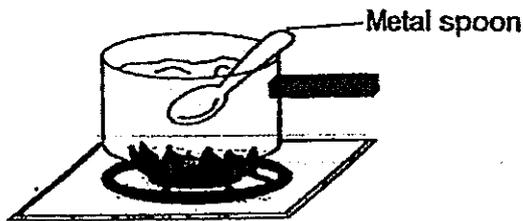
Which one of the following correctly describes the level of water in the tube after ice cubes were added and the reason for the observation?

	Water Level in the tube	Reason for observation
(1)	Falls	Water in the flask loses heat and contracts
(2)	Rises	Water in the flask gains heat and expands
(3)	Rises	Ice cubes gain heat and melt to become water
(4)	Remains the same.	Water in the flask neither gains nor loses heat.

()



24. The diagram below shows a metal spoon left in a pot of hot soup over a stove by Mrs Leong.



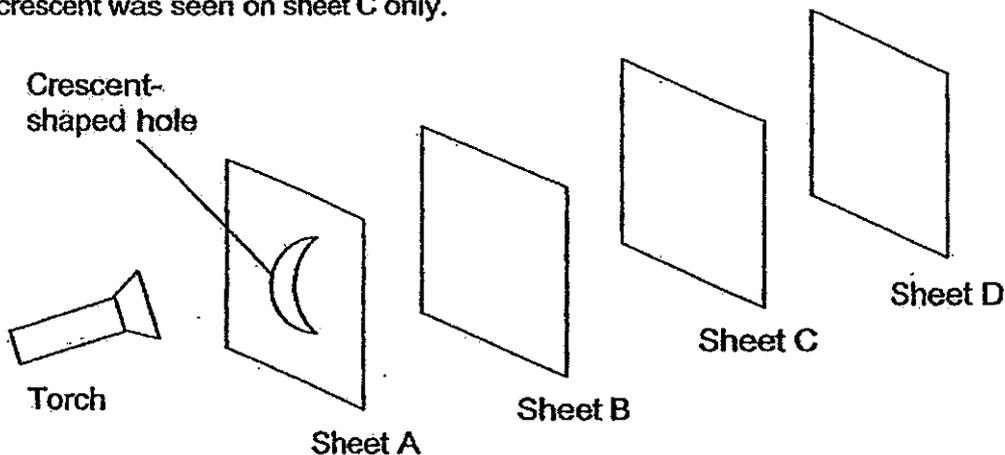
After 20 minutes, Mrs Leong used her hands to remove the metal spoon from the pot. The metal spoon burned her hand. Which of the following explains why the metal spoon burned her hand?

- A: Mrs Leong's hand lost heat to the spoon.
 B: Mrs Leong's hand gained heat from the spoon.
 C: The heat on Mrs Leong's hand transferred to the spoon.
 D: The spoon gained heat from the hot soup then lost heat to Mrs Leong's hand.

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

()

25. Martin carried out an experiment in a dark room with the set-up as shown below. He arranged 4 sheets of different materials A, B, C and D in a straight line. When the torch was switched on, he observed that a bright patch of light in the shape of a crescent was seen on sheet C only.

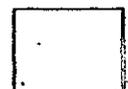


Which of the following statements is/are definitely true about the sheets used above?

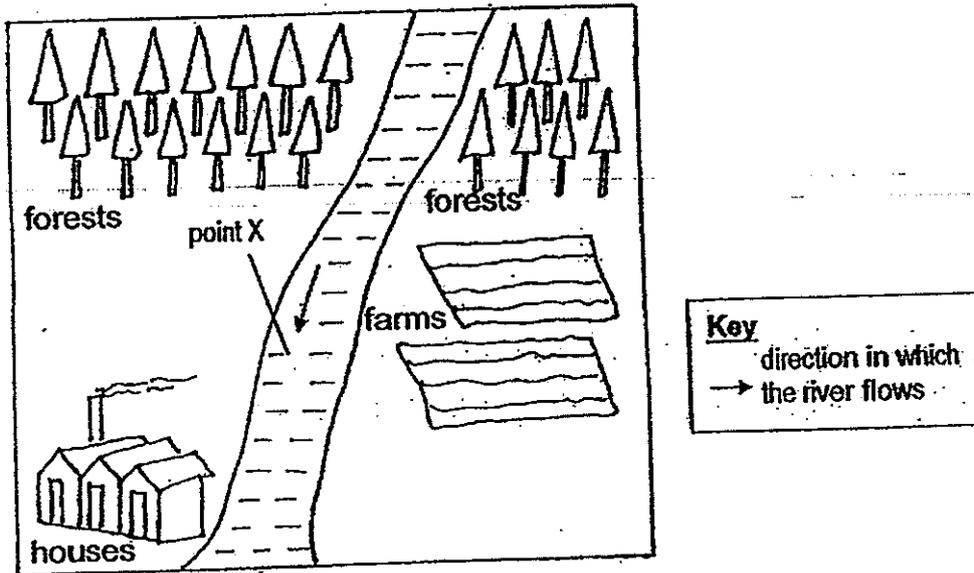
- A: Sheet A is opaque
 B: Sheet B is transparent
 C: Sheet C is transparent
 D: Sheet D is translucent.

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

()



26. A river runs through a forest as shown in the diagram below.

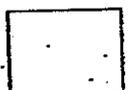


Which of the following will most likely decrease the amount of pollutants in the river at point X?

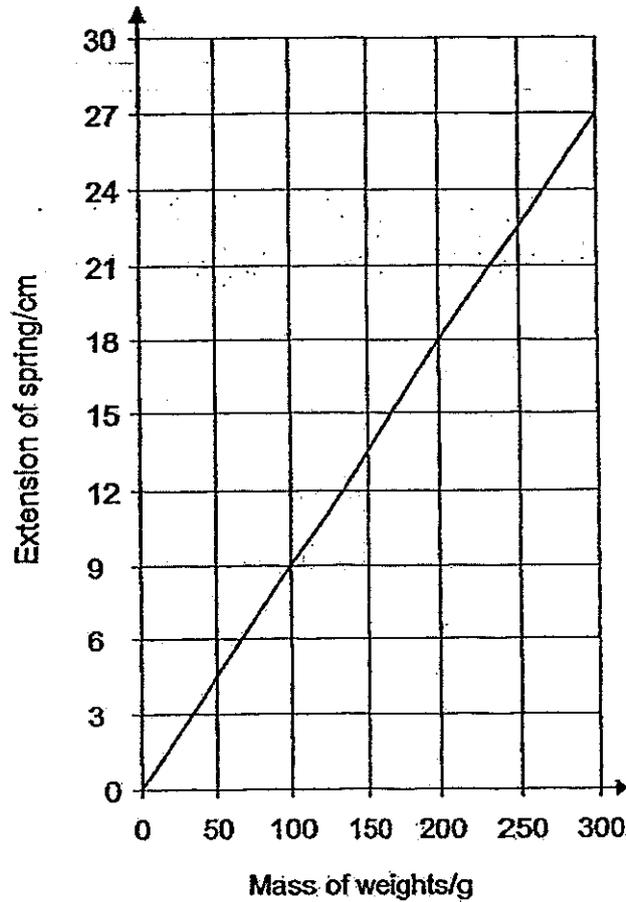
- A: Plant more trees nearer to point X.
- B: Minimise use of pesticide in the farm.
- C: Stop dumping of sewage from the houses into the river.

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

C)



27. Dora had a spring with an original length of 15 cm. She wanted to find out the relationship between the extension of the spring and different weights. She hung different weights on the spring, one at a time, and measured its extension. She recorded and plotted the results on the graph below.



Based on the graph, what would be the length of the spring when a 200g weight was hung on it?

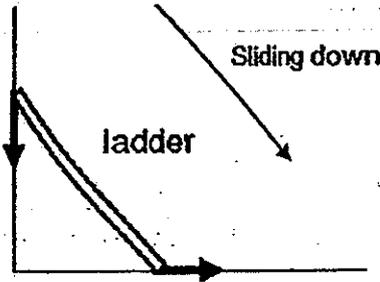
- (1) 18 cm
- (2) 24 cm
- (3) 27 cm
- (4) 33 cm

()

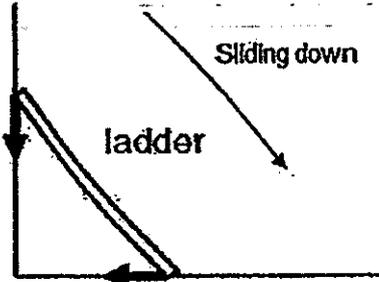


28. A ladder is placed leaning against a wall as shown below. Which one of the following shows correctly the direction of frictional force acting on the ladder when it is sliding down from the wall?

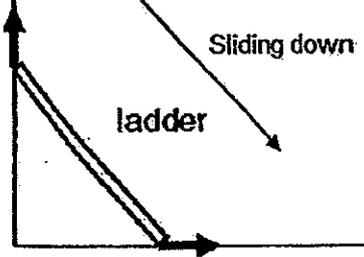
(1)



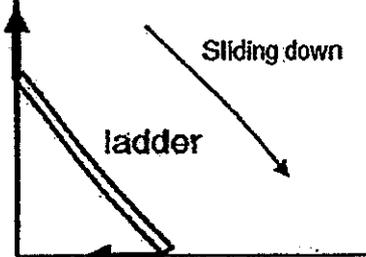
(2)



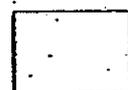
(3)



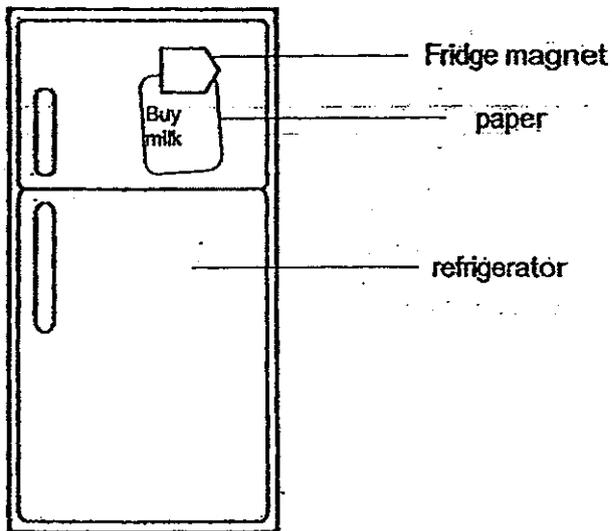
(4)



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29. Susan used a fridge magnet to attach a piece of paper on the door of the refrigerator as shown in the diagram below.



When she attached a thin piece of paper, the magnet was able to hold it onto the refrigerator's door.

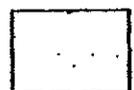
When a thicker piece of paper was used, both the magnet and the paper fell onto the floor.

Based on the above information, which of the following statements are **not** correct?

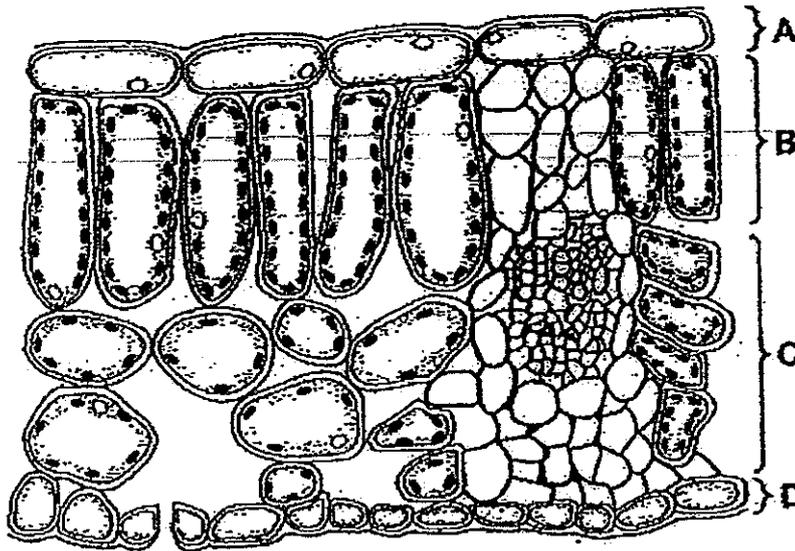
- A: Paper is a material that prevents magnetic force from passing through.
- B: The surface of the refrigerator's door is made of a magnetic material.
- C: Force of gravity is only acting on the thicker paper but not on the thin paper.

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

()



30. The diagram below shows layers of cells in a leaf.

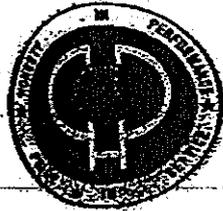


In which of the layers of cells, A, B, C or D, will conversion of energy from one form to another take place?

	Layers of cells	Conversion of energy from one form to another
(1)	A and B only	heat energy \longrightarrow light energy
(2)	A and C only	light energy \longrightarrow heat energy
(3)	B and C only	light energy \longrightarrow chemical potential energy
(4)	B, C and D only	light energy \longrightarrow chemical potential energy

End of Booklet A





HENRY PARK PRIMARY SCHOOL

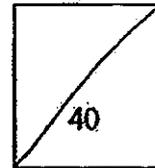
2014 PRELIMINARY EXAMINATION

PRIMARY 6 SCIENCE

Booklet B

Name: _____ ()

Class: Primary 6 _____



**14 Questions
40 Marks**

Total Time for Booklet A and B: 1 h 45 min

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

READ AND FOLLOW INSTRUCTIONS CAREFULLY.

Booklet B (40 marks)

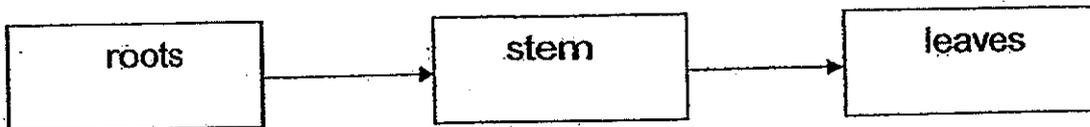
Write your answers to questions 31 to 44 in the spaces given.

31. The table below shows the properties of material S, T, U and V.

Material	Waterproof	Flexible	Conductor of heat
S	Yes	No	Poor
T	Yes	Yes	Good
U	Yes	No	Good
V	No	Yes	Poor

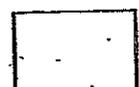
Which material, S, T, U or V, should Sammy choose to make a cooking pot?
Explain your answer.

32. The diagram below shows the movement of water in a plant.

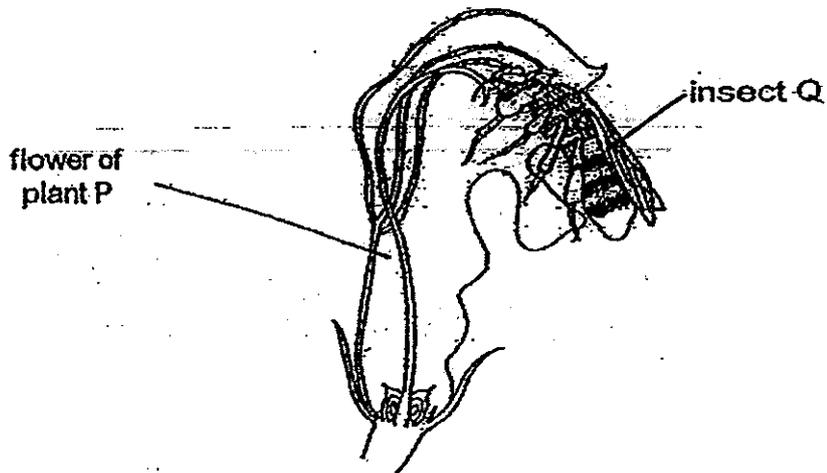


a) In the diagram above, draw the movement of food in a plant using the correct dotted arrows ($\leftarrow \cdots \rightarrow$). (1m)

b) Why would a plant eventually die if the roots were removed? (1m)



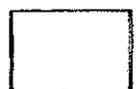
33. The diagram below shows Process X being carried out in a flowering plant.



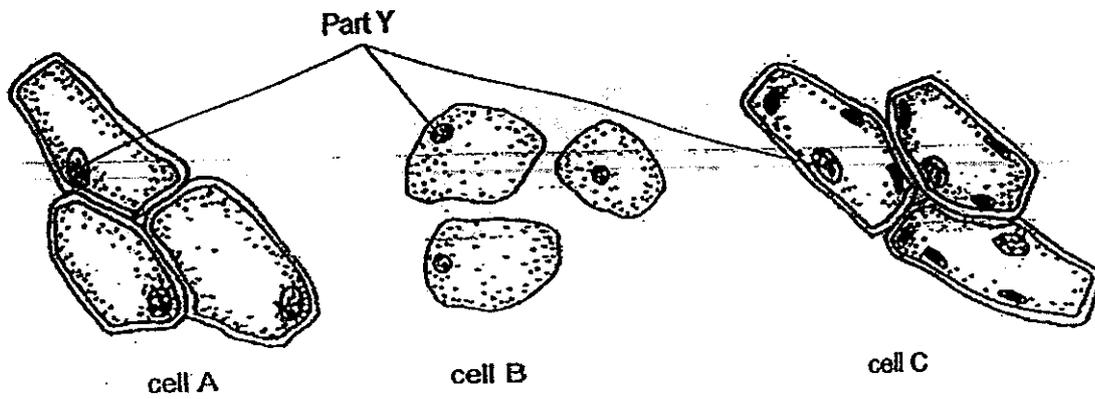
a) Name process X. (1m)

b) Describe how insect Q helps the plant to carry out process X. (2m)

c) If process X is not carried out, flowering plants may not be able to reproduce. Explain why this is so. (1m)



34. The diagram below shows cell A, B and C.



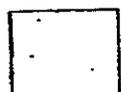
a) Part Y can be found in all three cells. State a function of part Y. (1m)

b) Which 2 cells, A, B and/or C, came from the same group of organism?

(i) Cell _____ and cell _____ (1m)

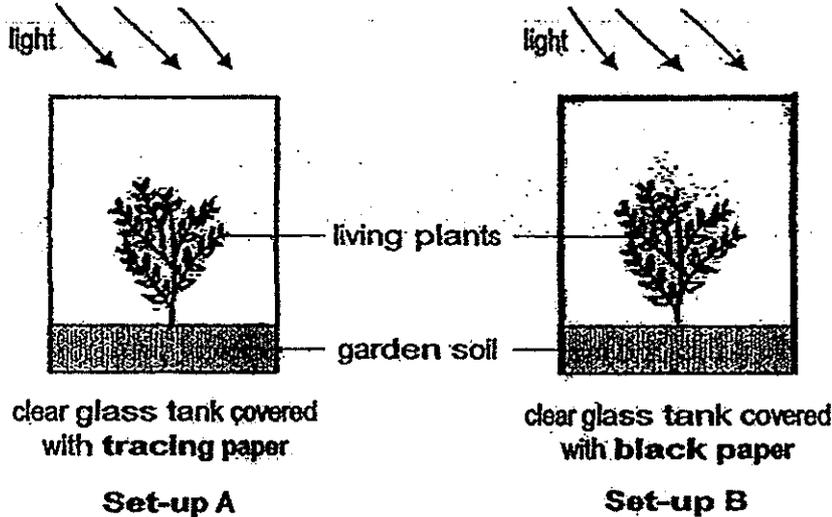
(ii) Name the group of organism the two cells belong to. (1m)

c) Explain your answer in (b)(ii). (1m)



35. Cheryl wanted to investigate how the amount of light affects the rate of photosynthesis in plants and prepares three set-ups, A, B and C.

The diagram below shows set-ups A and B in a clear glass tank after the plants have been de-starched for 48 hours.



She has also prepared set-up C for the same experiment.

- a) Tick (✓) in the appropriate boxes below to show what Cheryl should use in Set-up C. (1m)

Items for Set-up C	Tick
Clear glass tank	
Tracing paper	
Black paper	
Living plants	
Garden soil	
Light	



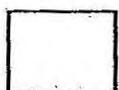
Question 35 continued

A starch test was carried out on the leaves of each plant from Setup A, B and C. Cheryl recorded her results in a table as shown below.

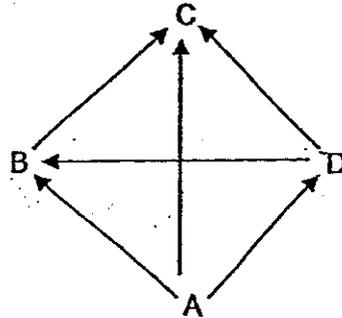
Setup	Observations of starch test
A	Dark blue
B	Yellowish-brown
C	Darker blue

- b) Based on her observations, state a possible conclusion for her experiment. (1m)

- c) Using information from the table above, explain your answer in (b). (1m)



36. The diagram below shows how four organisms, A, B, C and D, interact with one another in a natural environment.
The arrows in the diagram show the direction of the flow of energy.

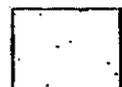


- a) Use the letters, A, B, C or D, to identify the following organisms : (1m)

Producer : _____

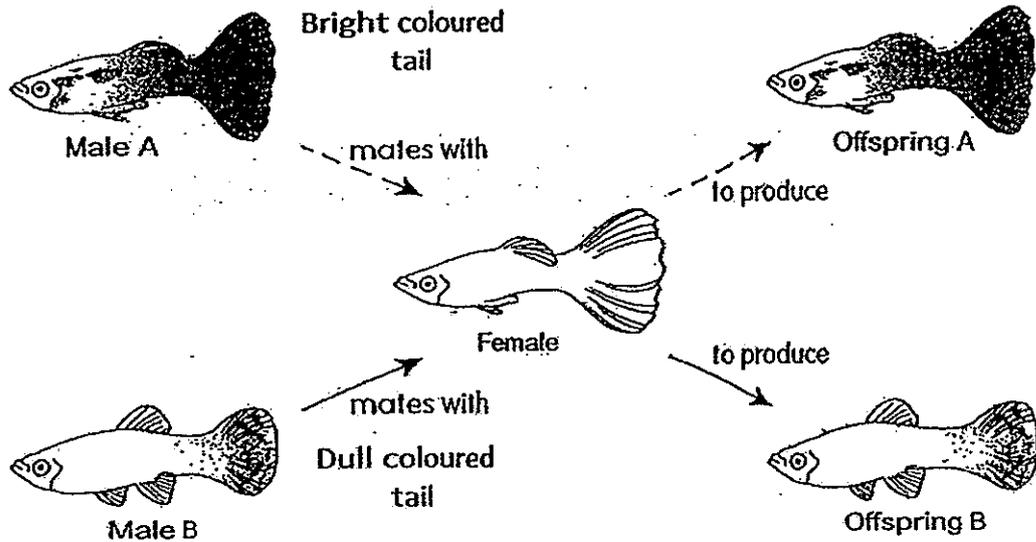
Decomposer : _____

- b) What is the main role of the decomposer in the natural environment? (2m)



37. In an aquatic habitat, two types of male guppies are found in about equal numbers initially. The type A male guppies have bright coloured tails while type B male guppies have dull coloured tails.

However, there is only one type of female guppies in the same habitat as shown in the diagram below.

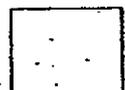


- a) After six months, it was found that the population of Offspring A was much greater than that of Offspring B. (1m)

Give a possible reason why this was observed.

- b) When G, an organism that preys on guppies, was introduced into the habitat which type of offspring, A or B, is likely to show a greater rate of decrease? (2m)

Explain your answer clearly.



38. The table shows the state of four substances A, B, C and D, at different temperatures.

(2m)

Substance	State of substance at:		
	20°C	40°C	60°C
A	Solid	Solid	Solid
B	Solid	Liquid	Liquid
C	Solid	Solid	Liquid
D	Liquid	Liquid	Liquid

Based on the information given above, put a tick (✓) in the correct column in the table below.

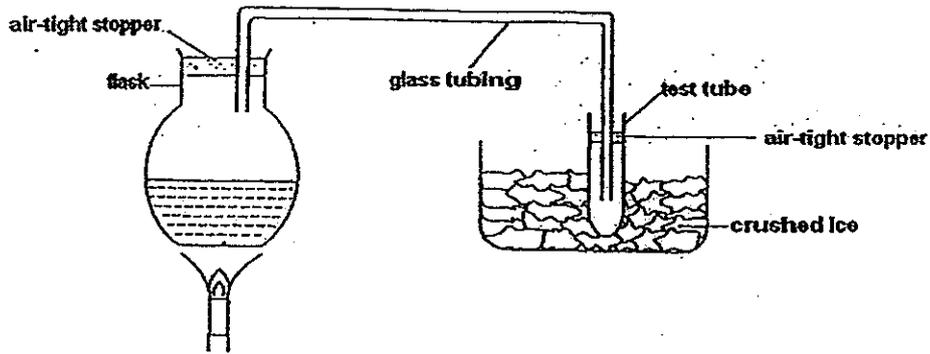
Statement		Put a tick in the correct column		
		True	False	Not possible to tell
(i)	C is a solid at 2°C.			
(ii)	A and B are both liquids at 80°C			
(iii)	D is a gas at 50 °C.			
(iv)	A, B and C are solids at 0°C			



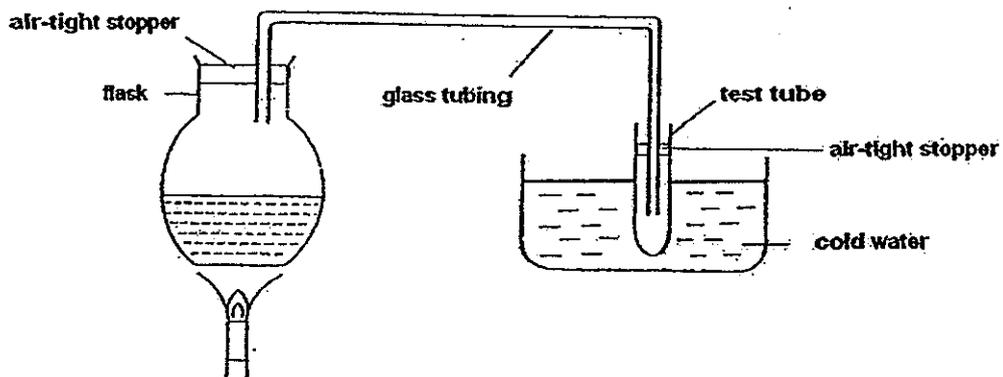
39. In set-ups A and B below the water in the flasks are being heated.

Set-ups A and B are similar except that in set-up A, the test tube is put in crushed ice, while in Set-up B, the test tube is put in cold water. The amount of water collected in the test tubes is compared.

Set-up A (With crushed ice)



Set-up B (With cold water)

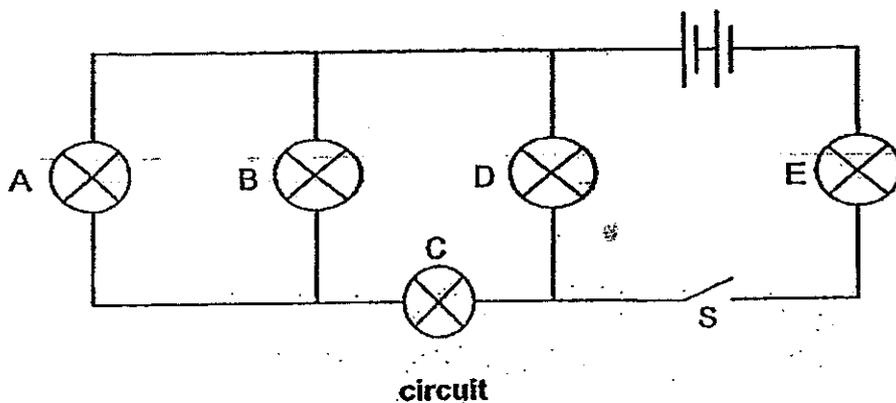


a) State if the amount of water collected in Set-up A will be greater, smaller or the same as that in Set-up B. (1m)

b) Give a reason for your answer in (a). (2m)



40. Ah Meng set up circuit as shown below.

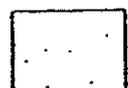


He closed switch S and observed that all the bulbs lighted up. However, after 30 seconds, one of the bulbs fused and all the bulbs did not light up.

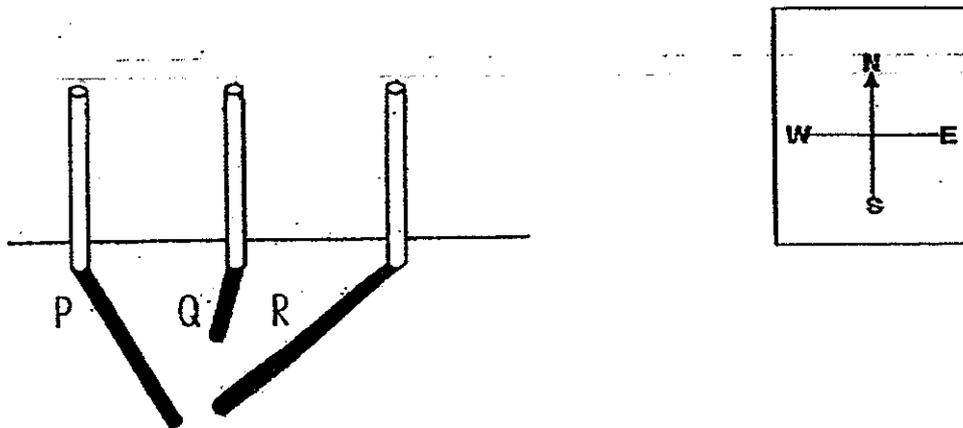
Identify the bulb which most likely has fused.
Explain why all the other bulbs were unable to light up as well.

(a) Bulb which most likely has fused: Bulb _____ (1m)

(b) Explanation : (1m)



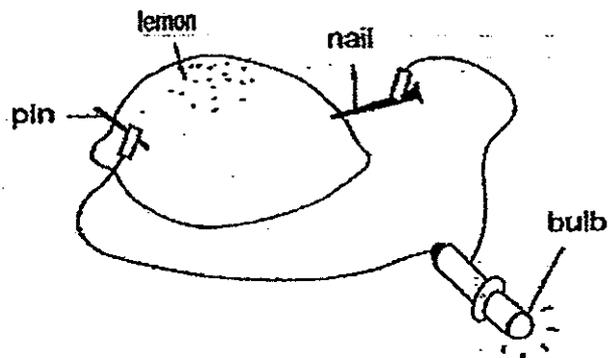
41. The diagram below shows the shadows of poles, P, Q and R, cast at different times of the day. Shadows for Rod P and Rod R were cast in the evening and early morning respectively.



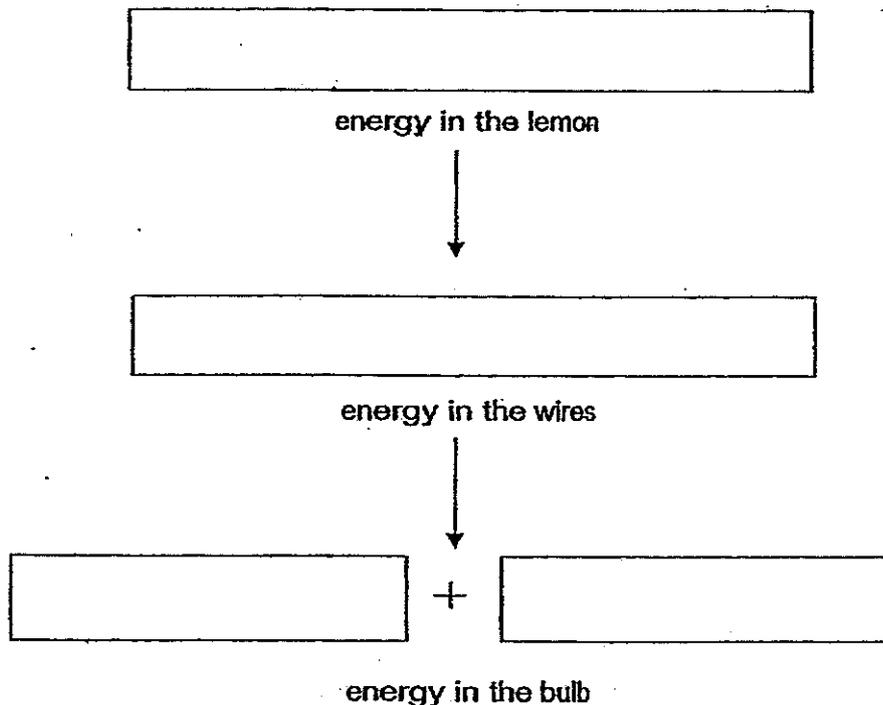
- a) Label 'X' on the diagram above to show the position of the light source of Rod Q. (1m)
- b) Explain how shadows are formed. (1m)



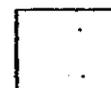
42. Oliver set up a circuit as shown below using a lemon, a nail, a pin, a light bulb and some wires. The bulb lighted up.



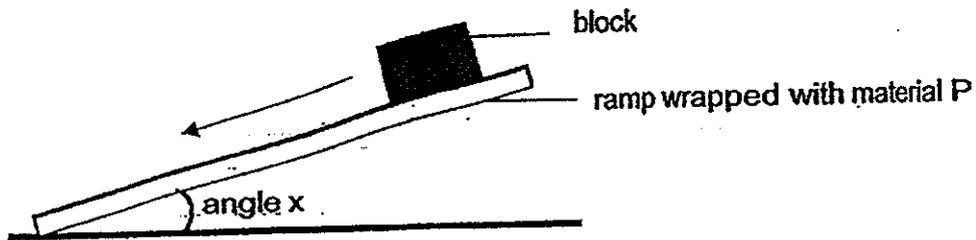
- a) State the energy conversion of the above set-up by filling in the boxes below. (2m)



- b) After some time, the bulb became dimmer. Explain why this is so. (1m)



43. Gabriel wanted to investigate the frictional force between a block and ramps wrapped with different materials, P, Q, R and S, using the set-up shown below.



Gabriel placed the block on one end of the ramp wrapped with material P and tilted the ramp until the block started to move. He measured the angle x at the point when the block started to move.

He repeated the experiment with the ramps wrapped with material Q, R and then S, one at a time. He recorded his results in the table below.

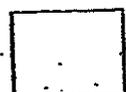
Type of material	Angle x at which the block starts to move ($^{\circ}$)
P	15
Q	25
R	10
S	40

- a) Based on the results of Gabriel's experiment, arrange the materials, P, Q, R and S, starting with the material which is the roughest. (1m)

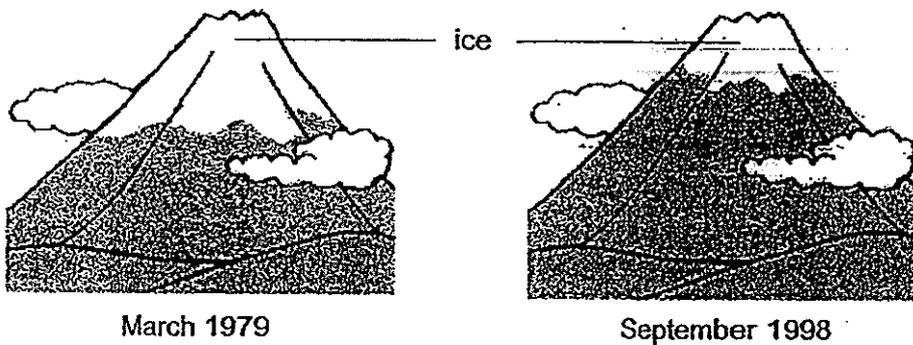
- b) How does using the same block ensure that the experiment is a fair test? (1m)

- c) A similar block of a greater mass was placed on the ramp wrapped with material Q. The ramp was tilted once again until the block started to move. (1m)

Predict the angle x at which the block will start to move.



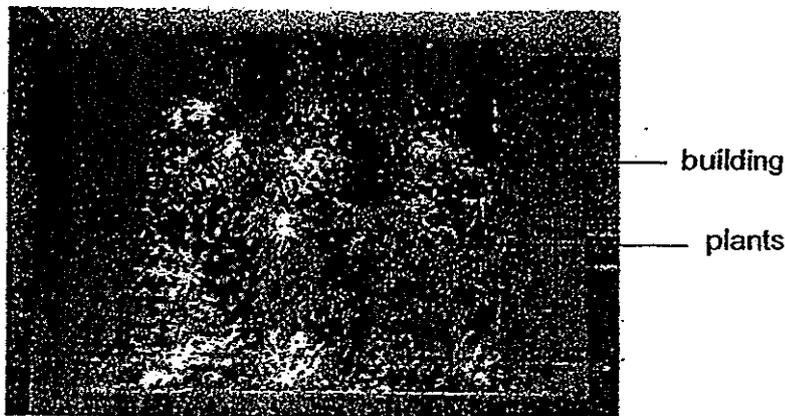
44. The pictures below show a mountain with the amount of ice on it in March 1979 and September 1998.



a) From the pictures above, explain the change in the amount of ice on the mountain from March 1979 to September 1998. (1m)

b) From the observation in (a), what can you infer about the average temperature of the earth in recent years? (1m)

The picture below shows plants growing vertically on the wall of a building to maximise space in a small, populated city with many factories that let out greenhouse gases.

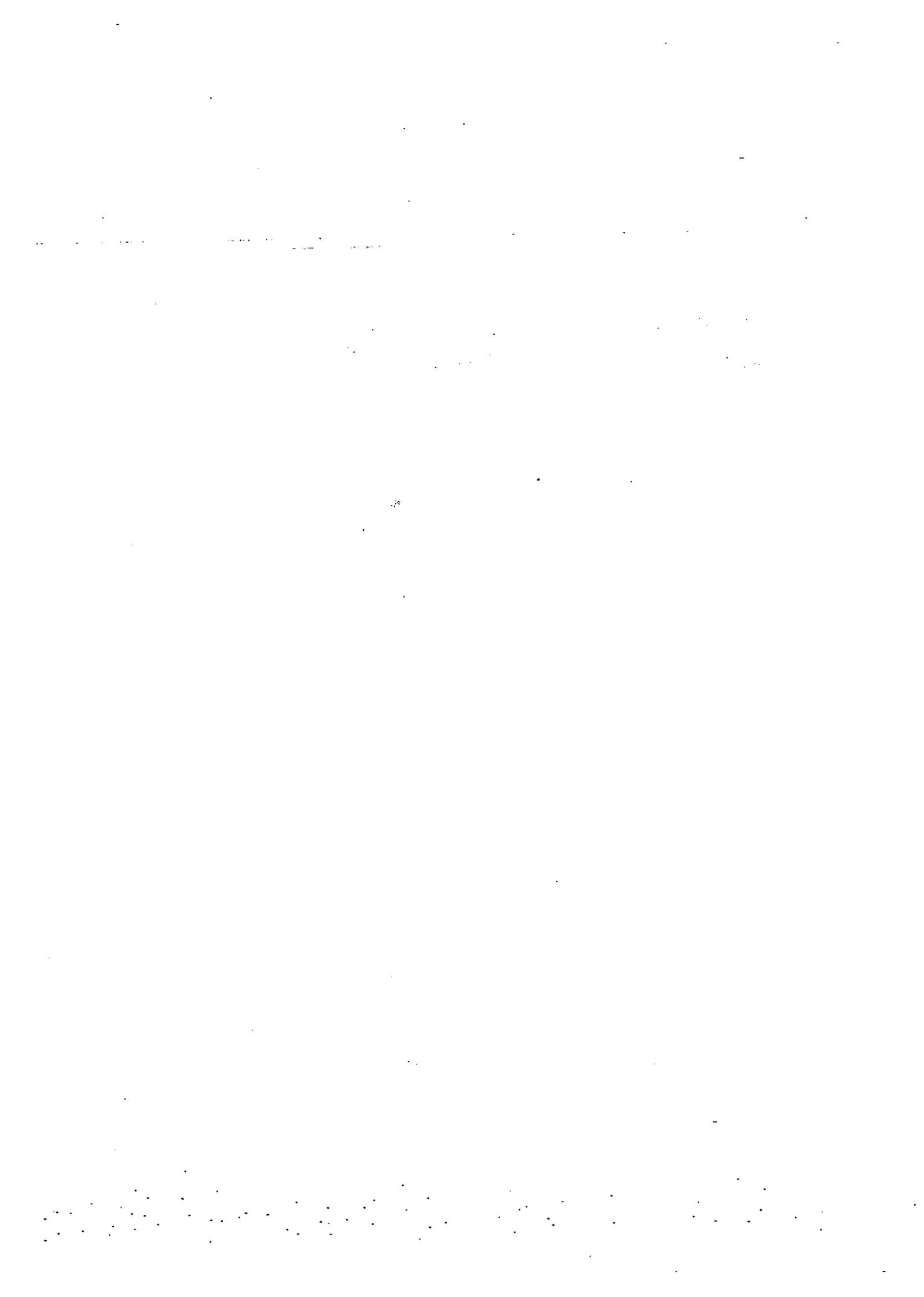


c) State one other advantage of growing plants vertically. (2m)

End of Booklet B

• Setters: Mr Tan JN, Mrs Liu YH, Mrs Seow JJ and Mdm Cecilia Quah





ANSWER SHEET

EXAM PAPER 2014

SCHOOL : HENRY PARK

PRIMARY : P6

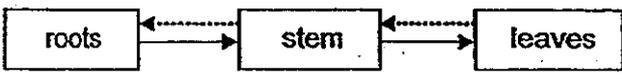
SUBJECT : SCIENCE

TERM : SA2

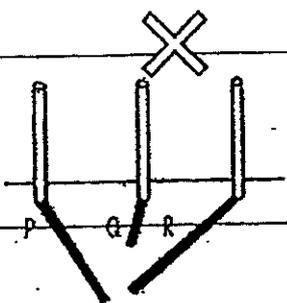
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17
3	1	2	2	2	3	2	4	1	2	4	3	2	2	4	2	4

Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30
1	1	2	2	4	1	3	2	2	4	4	2	3

Section B (Prelims Science) Suggested Answer and Correction

Q	Answers	
31.	Material U, it is waterproof, not flexible and is a good conductor of heat .	
32.	(a)  <pre> graph LR roots[roots] <--> stem[stem] stem <--> leaves[leaves] </pre>	
	(b) The plant is not able to take in water (½) to carry out photosynthesis/to make food (½) .	
33.	(a) Pollination	
	(b) Insect Q carries pollen grains from another flower and when it rests on plant P to collect nectar, pollen grains on its body is rubbed off the stigma of plant P.	
	(c) <u>fertilisation cannot take place (1/2) and seeds cannot be formed (1/2).</u>	
34.	Part Y controls the activities in a cell.	
	(a) (i) Cell A and C. (must get both correct, NO ½) (ii) A plant.	
	(b) Cell A and C have a cell wall (½) and plants have cell wall (½)	

35.	(a) <table border="1" data-bbox="351 1556 925 1803"> <thead> <tr> <th>Items for Setup C</th> <th>Tick</th> </tr> </thead> <tbody> <tr> <td>Clear glass tank</td> <td>/</td> </tr> <tr> <td>Tracing paper</td> <td></td> </tr> <tr> <td>Black paper</td> <td></td> </tr> <tr> <td>Living plants</td> <td>/</td> </tr> <tr> <td>Garden soil</td> <td>/</td> </tr> <tr> <td>Light</td> <td>/</td> </tr> </tbody> </table>	Items for Setup C	Tick	Clear glass tank	/	Tracing paper		Black paper		Living plants	/	Garden soil	/	Light	/	
Items for Setup C	Tick															
Clear glass tank	/															
Tracing paper																
Black paper																
Living plants	/															
Garden soil	/															
Light	/															
	(b) The greater / smaller the amount of light, the greater / slower the rate of photosynthesis.															
	(c) Most (more) sugar is produced which gets converted to most (more) starch															

36.	<p>(a) Producer : A Decomposer : C</p> <p>(b) The decomposer <u>breaks down dead organism</u> (½) <u>into simple substances</u> (½) <u>which provide nutrients to plants for healthy growth</u></p>																													
37.	<p>(a) Male guppies of type A has <u>bright coloured tails</u> (½) <u>and attracted more female guppies more easily for mating/reproduction.</u> (½)</p> <p>(b) Offspring A. (½) Offspring A has <u>bright coloured tail</u> (½) which allowed it to be <u>spotted (more) easily</u> (½) and <u>preyed upon/ eaten.</u> (½)</p>																													
38.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" rowspan="2">Statement</th> <th colspan="3">Put a tick in the correct column</th> </tr> <tr> <th>True</th> <th>False</th> <th>NP</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">(i)</td> <td>C is a solid at 2°C.</td> <td style="text-align: center;">√</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">(ii)</td> <td>A and B are both liquids at 80°C</td> <td></td> <td></td> <td style="text-align: center;">√</td> </tr> <tr> <td style="text-align: center;">(iii)</td> <td>D is a gas at 50 °C.</td> <td></td> <td style="text-align: center;">√</td> <td></td> </tr> <tr> <td style="text-align: center;">(iv)</td> <td>A, B and C are solids at 0°C</td> <td style="text-align: center;">√</td> <td></td> <td></td> </tr> </tbody> </table>	Statement		Put a tick in the correct column			True	False	NP	(i)	C is a solid at 2°C.	√			(ii)	A and B are both liquids at 80°C			√	(iii)	D is a gas at 50 °C.		√		(iv)	A, B and C are solids at 0°C	√			
Statement				Put a tick in the correct column																										
		True	False	NP																										
(i)	C is a solid at 2°C.	√																												
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(iii)	D is a gas at 50 °C.		√																											
(iv)	A, B and C are solids at 0°C	√																												
39.	<p>a) <u>Greater amount of water will be collected in the test tube in set-up A versus set-up B.</u></p> <p>b) The crushed ice in <u>set-up A is colder/(or has lower temperature)</u> <u>has less heat than cold water</u> (1m) <u>than the cold water in set-up B. This will cause more water vapour to condense faster.</u> (1m).</p>																													
40.	<p>(a) Bulb E (1m)</p> <p>(b) It becomes an <u>opened circuit / electricity cannot pass through/incomplete circuit/no other path for electricity to flow/</u> (1m)</p>																													
41.	<p>(a)</p> 																													

	<p>(b) (Path of) light is <u>blocked</u> by objects/rods. The objects/rods are opaque and <u>prevent/do not let light pass through</u>.</p>	
42.	<p>(a) chemical /chemical potential/potential, electrical, heat + light or light + heat</p> <p>(b) Most/less of the chemical potential energy/energy has been converted to / change to light and heat at the light bulb.</p>	
43.	<p>(a) S, Q, P, R</p> <p>(b) Using the same block ensures that <u>only the texture of the material affects frictional force between the block and ramp / the angle x at which block starts to move.</u></p> <p>(c) any angle greater than 25° (accept any value between 25° and 90°)</p>	
44.	<p>a) Ice on March 1979 has melted (1/2) and so amount of ice decreased (1/2) by September 1998</p> <p>b) The surrounding temperature on earth has increased.</p> <p>c) More plants (1) can be grown to release more oxygen (1) into the air OR take in/remove more carbon dioxide from the air.</p>	

