

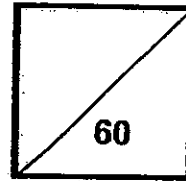
Index Number: —

PEI CHUN PUBLIC SCHOOL
PRELIMINARY EXAMINATION – 2012
PRIMARY 6 (Standard Stream)
SCIENCE
BOOKLET A

30 questions

Marks:

60 marks



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

Name : _____ ()

Class : Primary 6 ()

Date : 2 August 2012

Subject Teacher : _____

Parent's Signature: _____

INSTRUCTIONS TO CANDIDATES

Do not open this booklet until you are told to do so.

Follow all instructions carefully.

Answer all questions.

PART 1 (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.

(30 x 2 marks)

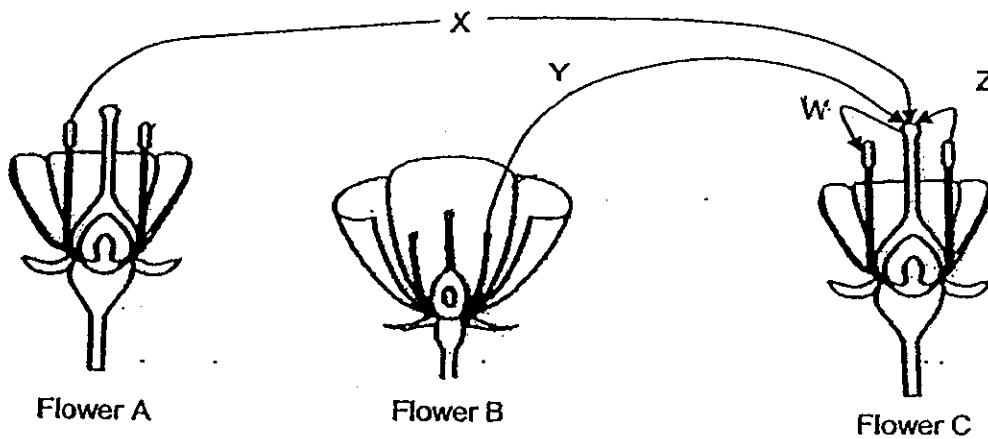
1. Boon Seng saw an animal for the first time in the zoo. He concluded that it was a bird. Which of the following characteristics should this animal have in order to be classified as a bird?

- A: It has feathers on its body.
- B: It has a beak.
- C: It can fly

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

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2. The diagram below shows the cross-section of three flowers, A, B and C. The arrows show the movement of the pollen grains during pollination.



Which of the following arrows show(s) how the wind could have pollinated flower C?

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

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3. The table below shows the arrangement of materials W, X, Y and Z, in order of increasing weight and strength.

In increasing order →				
Mass	Z (lightest)	W	Y	X (heaviest)
Strength	X (weakest)	W	Z	Y (strongest)

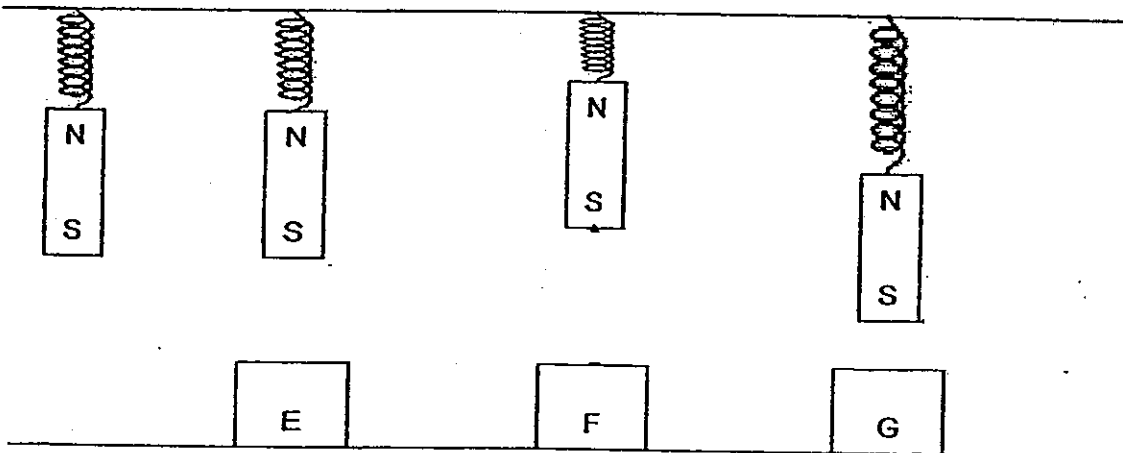
The frame of a racing bicycle needs to be both strong and lightweight.

Which material would be best suited for making the frames of racing bicycles?

- (1) W
(2) X
(3) Y
(4) Z

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4. Devi suspended four identical magnets using four identical springs. She placed objects E, F and G below three of the magnets. The diagram below shows what she observed.



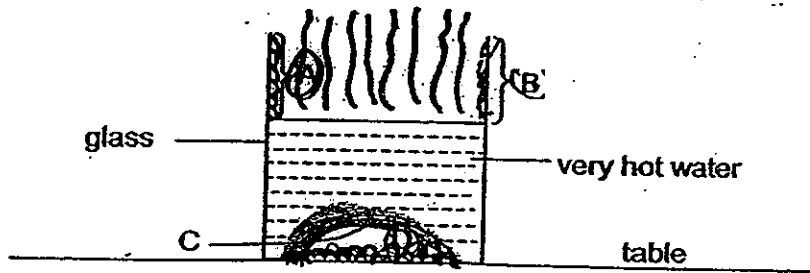
Based on the diagram above, which of the following statements are definitely true?

- A: G is a magnet.
B: E is not made of magnetic materials.
C: Like poles of F and the magnet are facing each other.
D: G is a stronger magnet than

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

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5. Chuan Ming has a glass which is curved at its base. He poured very hot water into the glass and left it on a table as shown below.



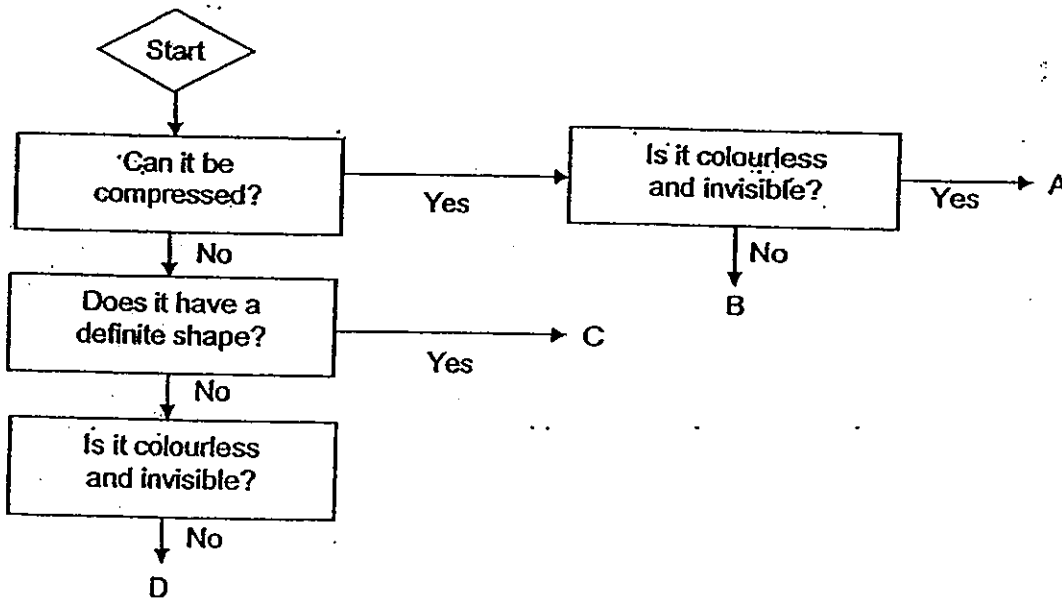
After five minutes, Chuan Ming observed that water droplets were formed.

Which parts of the glass and/or table, A, B, C and/or D, could Chuan Ming observe water droplets?

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

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6. Study the flow chart below.

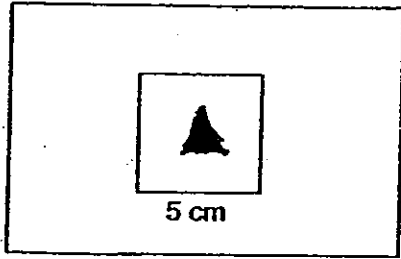


Which of the following letters, A, B, C or D, best represents steam?

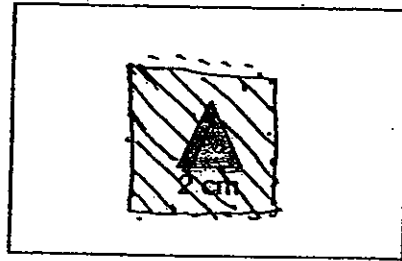
- (1) A
- (2) B
- (3) C
- (4) D

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7. Khalid carried out an investigation with a red plastic sheet and a sheet of aluminium of the same size. He cut out a square from the middle of the red plastic sheet and a triangle from the middle of the aluminium sheet as shown in the diagram below.

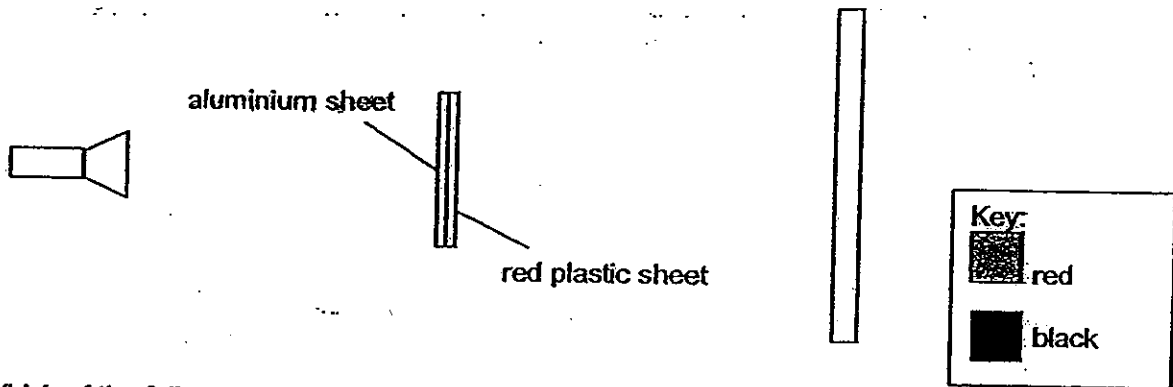


red plastic sheet

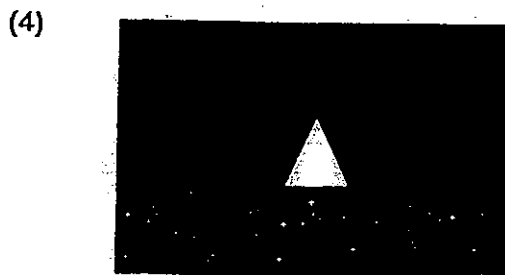
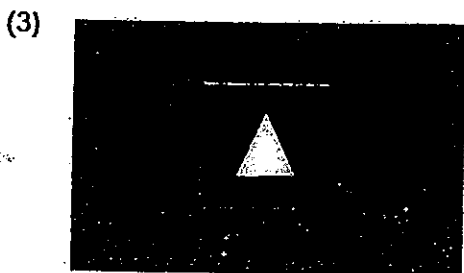
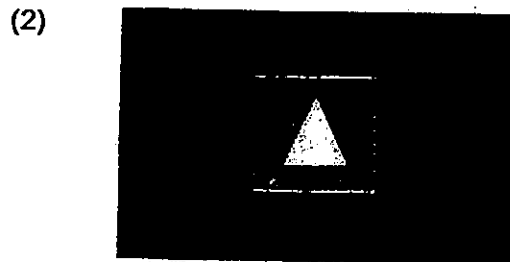


aluminium sheet

- He glued the two sheets together and placed them between a torch and a screen as shown in the diagram below.

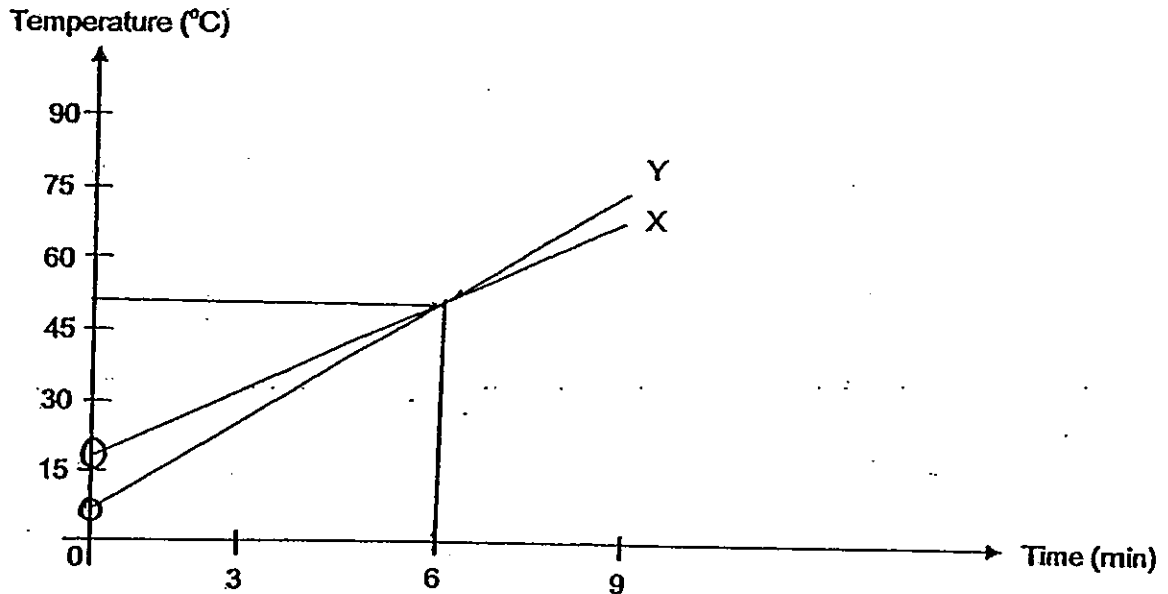


Which of the following shows the correct shadow cast on the screen?



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8. Mei Yan had two identical beakers, X and Y, each filled with an equal amount of water. She heated the water in the beakers. The graph below shows the changes in the temperature of the water in both beakers for 9 minutes.



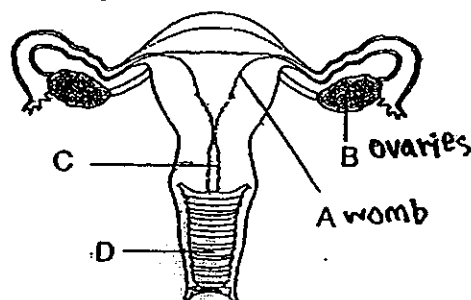
Based on the information given, which of the following statements is/are definitely true?

- A: The water in beaker Y was heated with a stronger flame.
 B: At the 6th minute, both beakers contained the same amount of heat.
 C: If Mei Yan continued heating the water in both beakers, the water in beaker Y would boil first.

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

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9. Doctors have developed a technique in which the female egg is fertilised in a test-tube. The embryo is then implanted into the female reproductive system. The diagram below shows a female reproductive system.

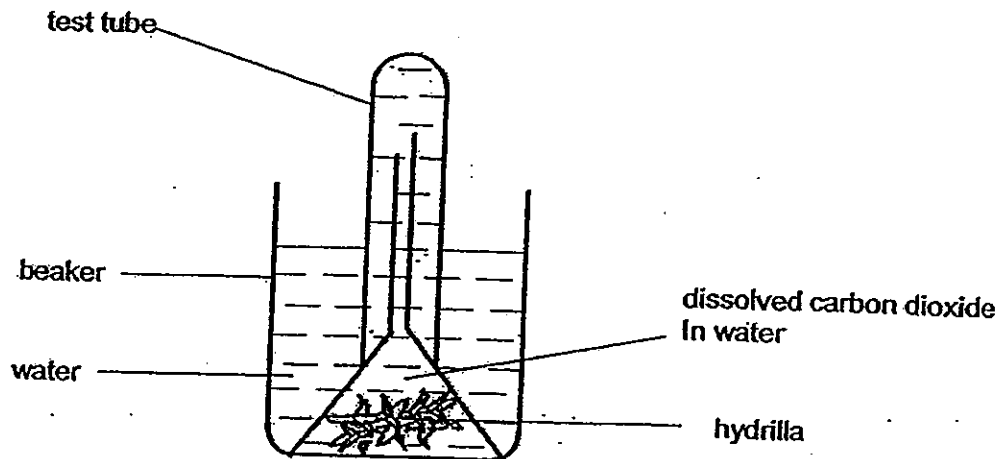


In which part, A, B, C or D, will the embryo be implanted?

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

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10. Imran wanted to prove that with more carbon dioxide present, the rate of photosynthesis is higher. He prepared four set-ups A, B, C and D. Different amounts of chemical P are added to the set-ups to increase the amount of dissolved carbon dioxide in the water. The diagram below shows one of the set-ups.



Which two set-ups should he use to prove his hypothesis?

Set-up	Amount of chemical P in the water (g)	Amount of hydrilla (g)	Amount of water (ml)	Size of beaker (ml)
A	20	10	100	100
B	20	15	50	100
C	10	20	100	200
D	10	15	50	200

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

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11. Lydia had the following materials:

- an egg shell
- soil
- 2 identical plastic containers
- a beaker of water
- bean seeds

Which question cannot be answered using only the listed materials?

- (1) Do the roots of the seedlings exert force when they grow?
- (2) Does the amount of water affect the germination of the bean seeds?
- (3) Does the type of egg shells affect the germination of the bean seeds?
- (4) Does the use of crushed egg shell as fertiliser help the seedling grow taller?

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12. Rajan was given a beaker containing a mixture of four substances P, Q, R and S. The properties of the four substances are given in the table below.

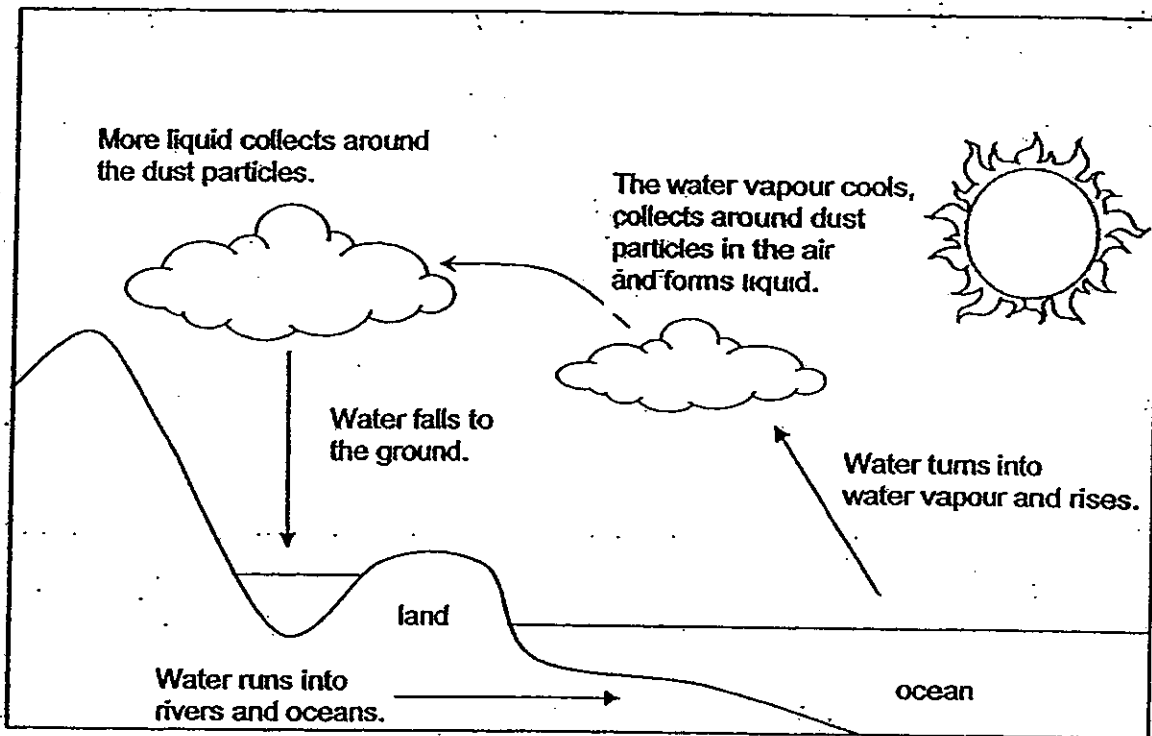
Substance	Property		
	Is it a magnetic material?	Can it dissolve in water?	Colour
P	Yes	No	Black
Q	No	Yes	Blue
R	No	No	White
S	No	Yes	White

Which two substances would be the most difficult for Rajan to separate?

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

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13. The diagram below shows the water cycle.



In areas with low rainfall, it is possible to produce rain by cloud seeding. Cloud seeding involves dropping particles such as chemical X into the atmosphere.

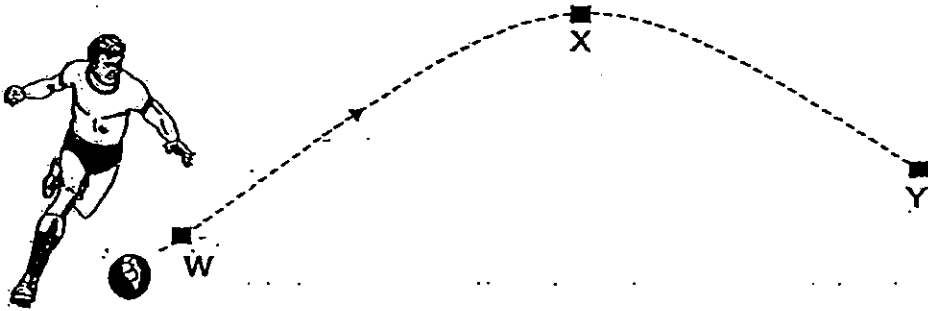
Chemical X increases the amount of rain produced by increasing the _____

- (1) amount of water vapour rising from the ocean → more clouds
- (2) number of particles to collect water vapour
- (3) speed at which water evaporates
- (4) temperature of the atmosphere

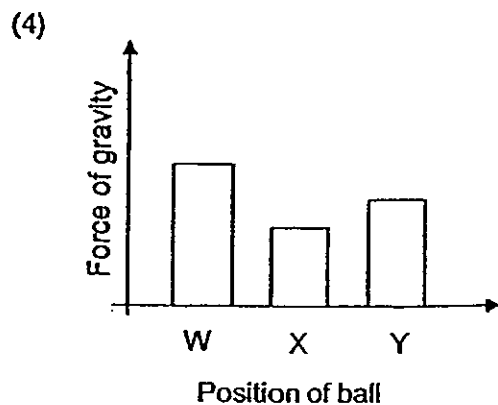
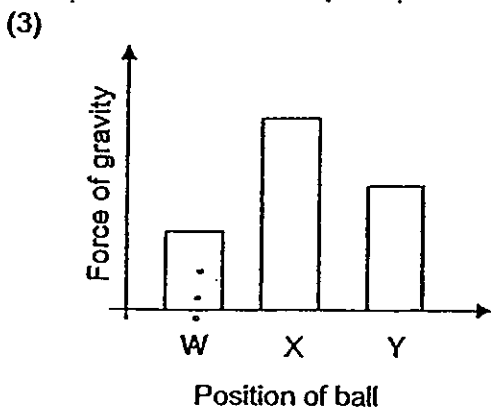
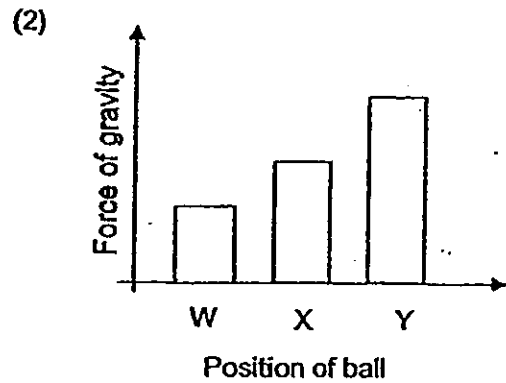
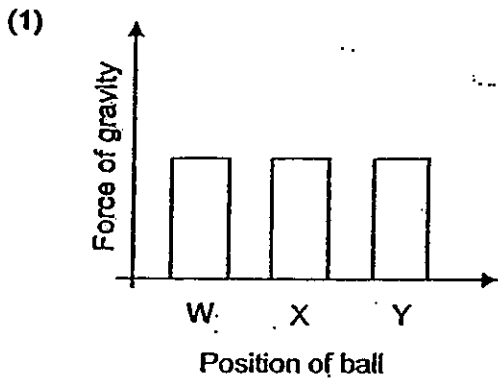
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14. The diagram below shows the path a ball travelled when it was kicked during a soccer game.

Points W, X and Y are different positions along the path of the travelling ball.

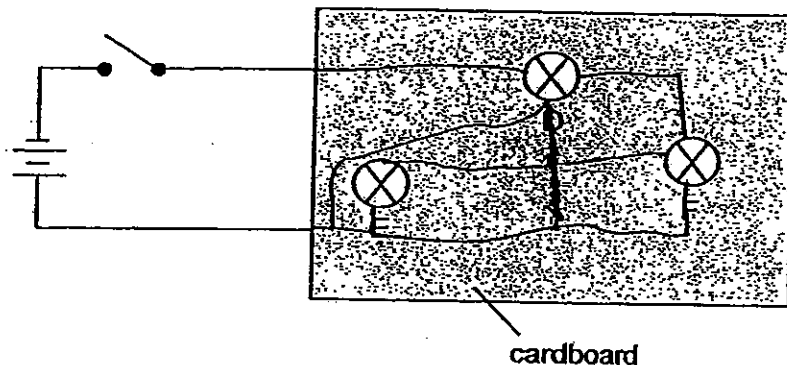


Which of the following graphs shows the correct amount of force of gravity acting on the ball at points W, X and Y?



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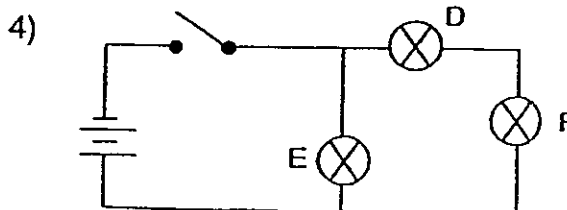
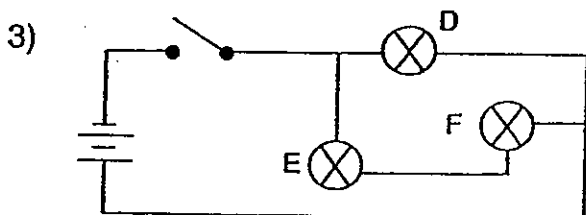
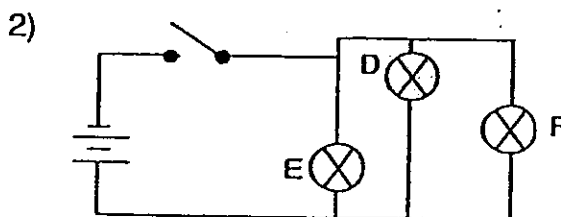
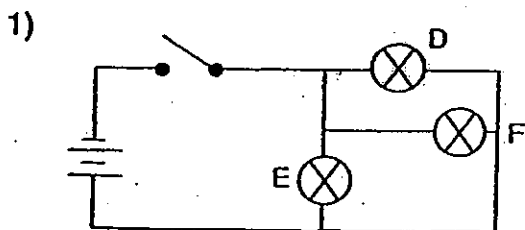
15. Ay Wei set up a circuit with three identical bulbs, D, E and F, and two batteries. She covered the wires connected to the bulbs with a cardboard. The bulbs can be seen through holes in the cardboard as shown in the diagram below.



Ay Wei then removed bulbs D, E and F, one at a time and closed the circuit. She observed the effect on the other two bulbs when one bulb is removed and recorded her observations in the table below.

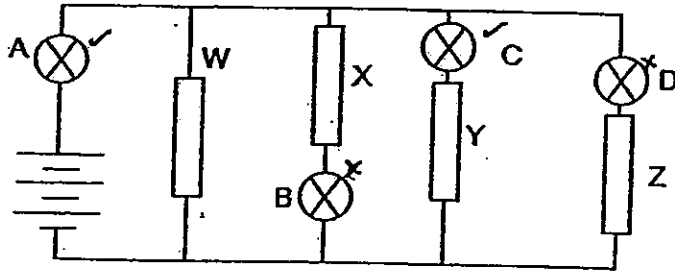
Bulb removed	Observations
D	E and F stayed lit
E	D stayed lit while F went off
F	D stayed lit while E went off

Which of the following circuits shows how the three bulbs were connected?



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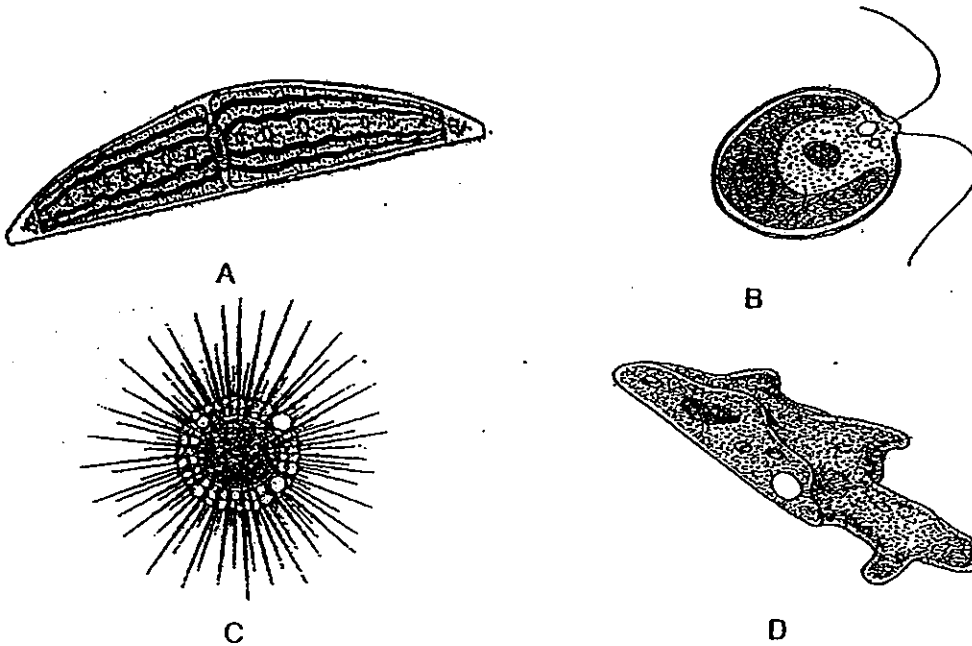
16. The diagram below shows an electric circuit containing a battery, four light bulbs, A, B, C and D, and four unknown objects, W, X, Y and Z. Bulbs A and C lit up and Bulbs B and D did not. All the light bulbs are working properly.



Which of the following best describes the unknown objects?

	Definitely an electrical conductor	Possibly an electrical conductor	Definitely an electrical non-conductor
(1)	X and Z		W and Y
(2)	W and Y	X	Z
(3)	W and Y		X and Z
(4)	Y	W?	X and Z

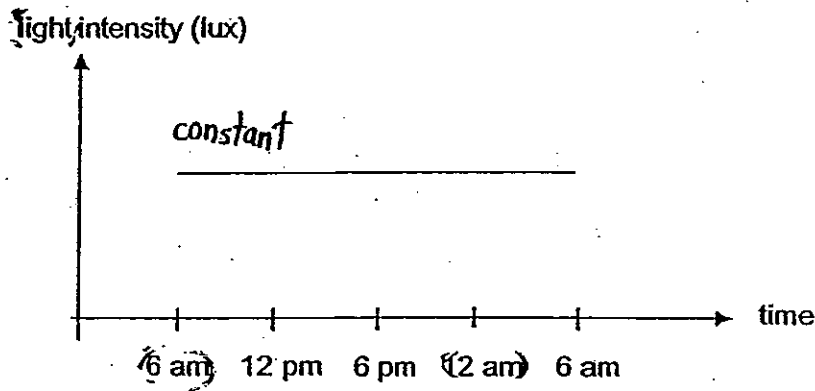
17. The diagrams below show four single-celled organisms A, B, C and D.



Based on the diagrams, which of the cells above are most likely to be plant cells?

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

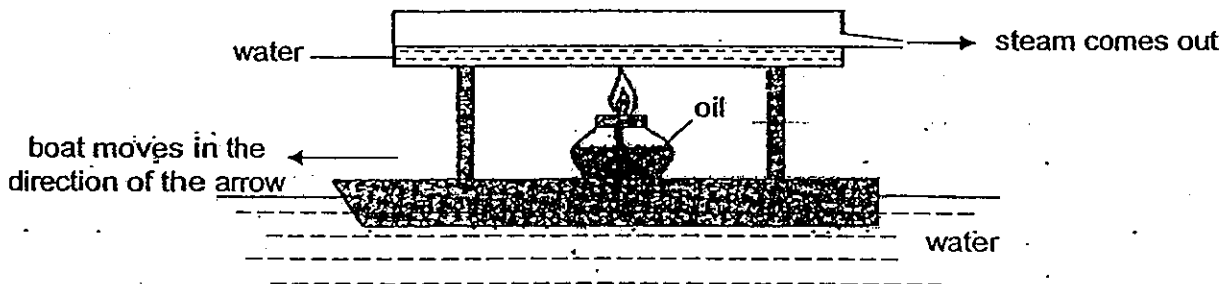
18. The changes in the light intensity and temperature in a particular habitat in Singapore were recorded throughout the day. The graph and the table below show the light intensity and temperature of the habitat respectively.



Time	6 am	12 pm	6 pm	12 am	6 am
Temperature (°C)	27.5	31	29.5	28.5	28

Which of the following habitats is most likely to have the conditions described above?

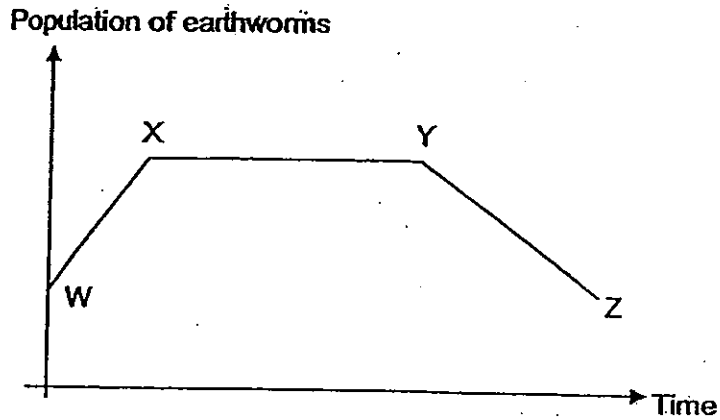
- (1) pond
 - (2) leaf litter
 - (3) seashore
 - (4) school field
19. The diagram below shows a simplified model of how a steamship works.



Based on the diagram, which of the following correctly describes the energy conversion in the steamship?

- (1) heat energy + light energy \rightarrow kinetic energy
- (2) kinetic energy \rightarrow heat energy \rightarrow kinetic energy
- (3) potential energy \rightarrow light energy \rightarrow kinetic energy
- (4) potential energy \rightarrow heat energy \rightarrow kinetic energy

20. The graph below shows the population of earthworms over a period of time in a particular habitat.



What could have happened between Y and Z?

- A: There was a drought.
 B: The air was too humid
 C: Some birds were introduced into the habitat.

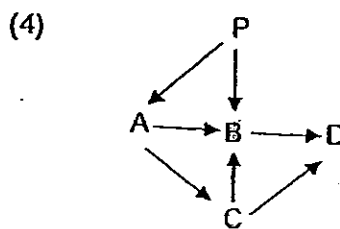
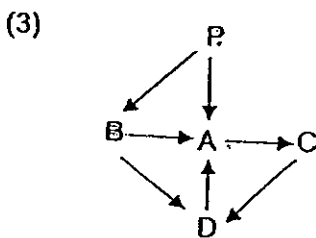
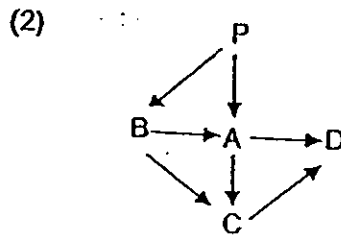
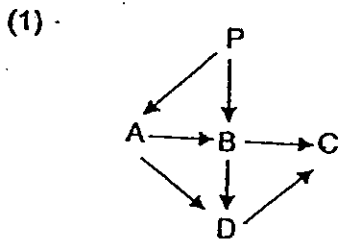
- (1) A only
 (2) B only
 (3) B and C only
 (4) A and C only

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21. A, B, C and D are four living things in a community. The table below shows the food they each consume.

Food Consumer	Food
A	P
B	A and P
C	B and D
D	A and B

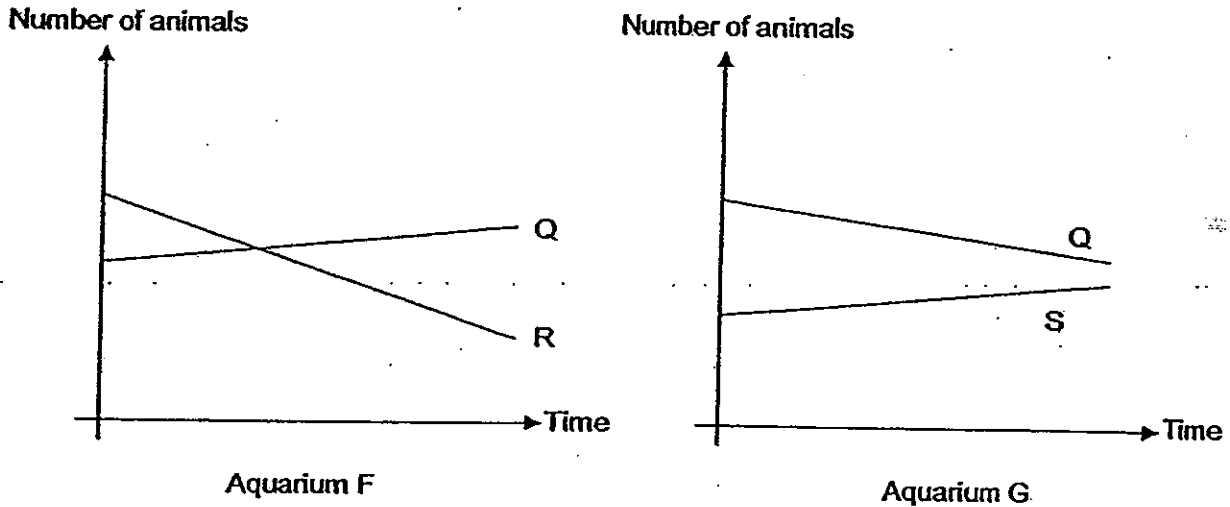
Which of the following food webs is found in this community?



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22. Joanna caught three different types of animals Q, R and S from a pond and put them in two aquariums F and G. She put animals Q and R in aquarium F and animals Q and S in aquarium G. She also put some plants in both aquariums.

She counted the number of animals in the aquariums every week for a few months. Her results are shown in the graphs below. She did not see any dead animals in the aquariums.



From the graphs, which of the following correctly describes animals Q, R and S?

	Prey	Predator	Prey and Predator
(1)	R	Q	S
(2)	S	R	Q
(3)	R	S	Q
(4)	S	Q	R

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23. Organism X is a ~~camivore~~ and lives on Island P. Island P is surrounded by ice and the temperature ranges from 5°C in the day to -20°C at night. Most animals sleep ~~underground~~ at night as it is too cold. Small bushes and plants grow on Island P and many small animals feed on these plants.

Which of the following adaptations would best describe Organism X?

	Structural	Behavioural
(1)	broad and padded feet has sharp claws white skin covered with spikes	hunts only at night
(2)	broad and padded feet has sharp claws black skin covered with thick fur	hunts in the day
(3)	hoofed feet has a long spiky tongue black skin covered with thick fur	hunts in the day
(4)	hoofed feet has sharp claws white skin covered with spikes	hunts only at night

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24. Debbie wants to find out if ~~plant W is adapted to survive with little water~~. She uses four different-sized pots, with each pot having the same amount of soil. She grows four plants of different sizes in the four pots and places them at a sunny spot in the garden.

The table below shows what she does daily.

Plant	W1	W2	W3	W4
Amount of water given daily (ml)	20	5	10	15

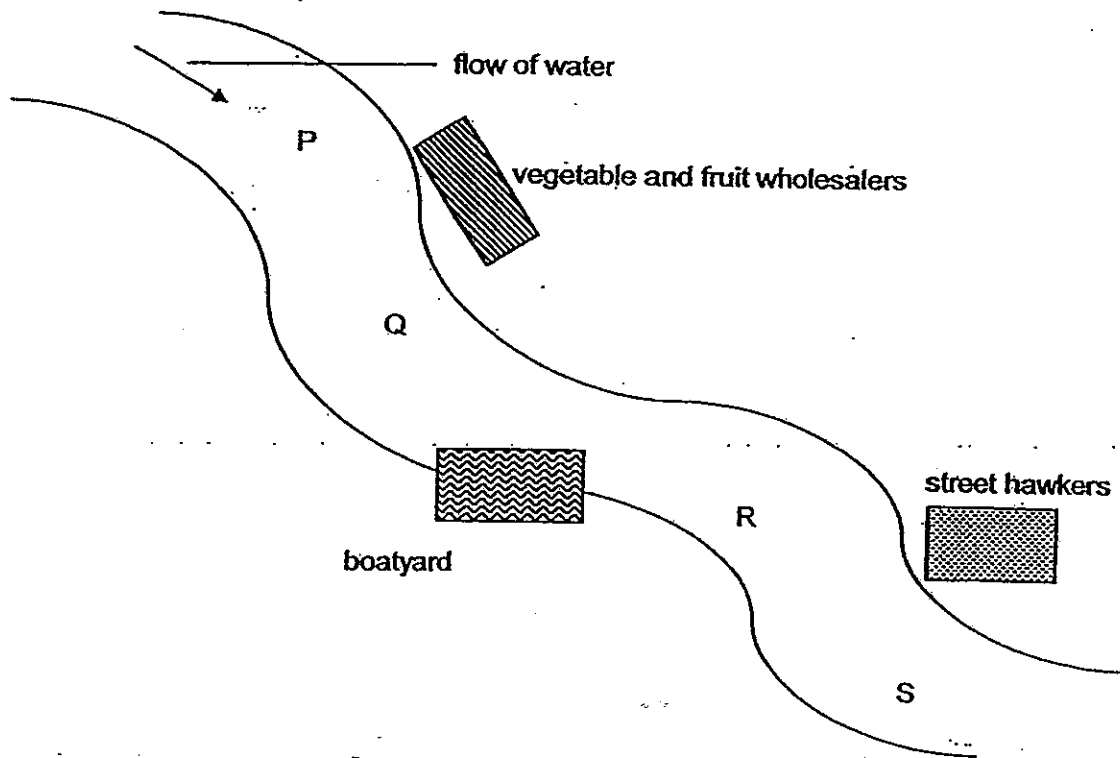
Debbie's mother tells her that her test is not fair. What change must she make to the experiment to ensure that the test is fair?

- (1) Use different types of soil to grow the plants.
- (2) Use four pots of the same size.
- (3) Use different kinds of plants.
- (4) Use plants of similar size.

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⋮

25. The diagram below shows part of a river that flows downstream. The vegetable and fruit wholesalers, the boatyard and the street hawkers use the water from the river for cleaning and other purposes.



Based on the above diagram, which of the following statements are definitely true about the environment?

- A: Water at Point S is the most polluted as the street hawkers contribute most to the pollution in the river.
 B: The source of pollution at Point R comes only from the activities of the boatyard.
 C: Water at Point Q is cleaner than that at Point R.
 D: Water at Point P is the least polluted of all

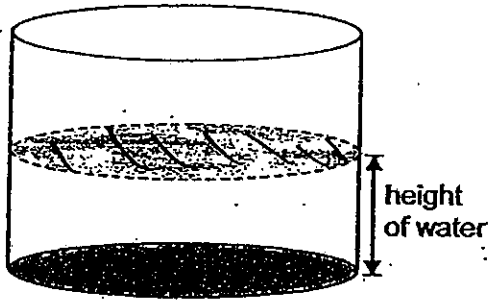
- (1) A, B, C and D
 (2) A, B and D only
 (3) C and D only
 (4) A and B only

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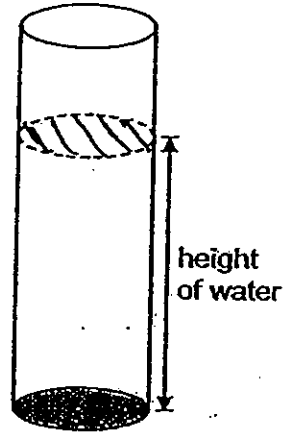
26. Kumar poured 300 cm^3 of water into each of the four containers which were made of the same material. The containers were left in the open.

Which of the containers would have the least amount of water left after a few hours?

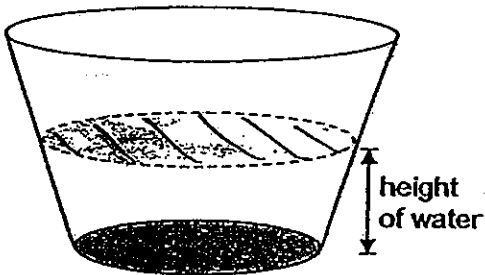
(1)



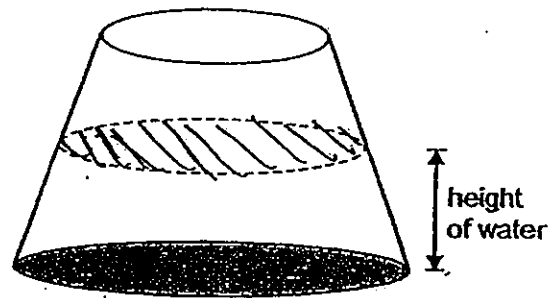
(2)



(3)

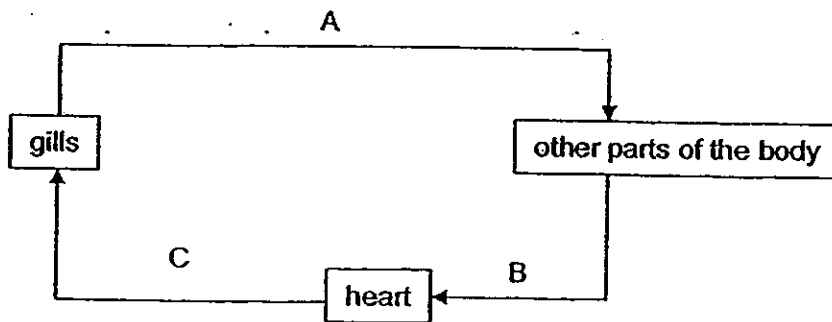


(4)



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27. The diagram below shows how blood circulates in the body of a fish.



Which of the following statements is true?

- (1) Blood in B and C is rich in carbon dioxide.
- (2) Blood in A and C is rich in oxygen.
- (3) Blood in A is rich in carbon dioxide.
- (4) Blood in B is rich in oxygen.

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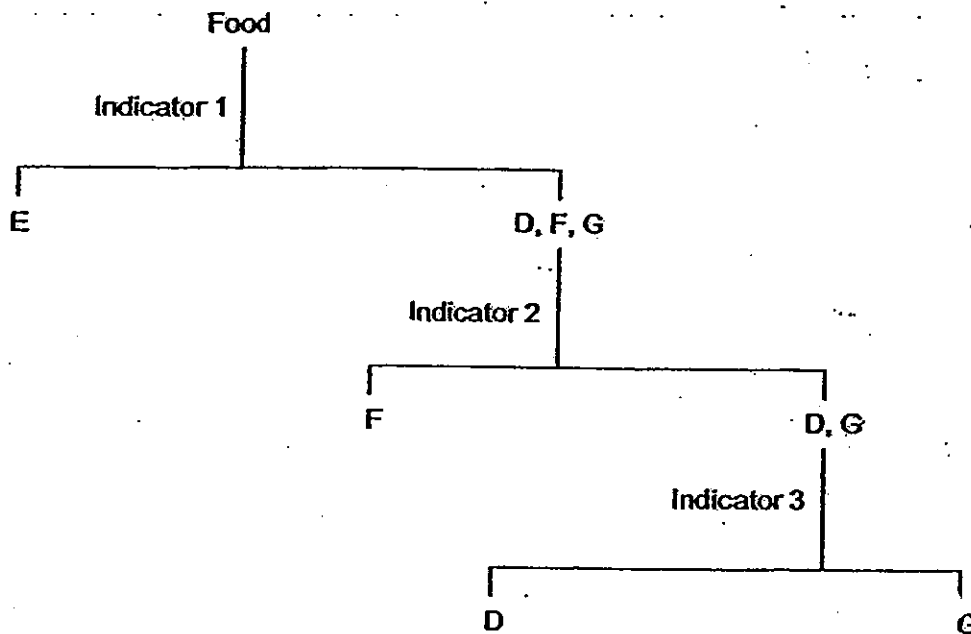
28. Judy used three indicators, P, Q, and R, to test four different kinds of food, D, E, F and G:

- P for the presence of fat
- Q for the presence of sugar
- R for the presence of starch

The table below shows her results.

Food	Fat present	Sugar present	Starch present
D	no	yes	yes
E	yes	no	yes
F	no	yes	no
G	yes	yes	yes

Judy used her results to draw a classification chart of some of her tests.

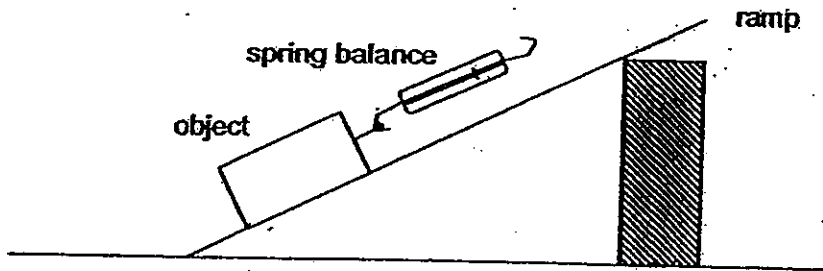


Which indicator, P, Q or R, represents Indicator 1 and 2 respectively?

	Indicator 1	Indicator 2
(1)	Q	P
(2)	Q	R
(3)	P	R
(4)	P	Q

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29. Zhi Ming wanted to compare the amount of force needed to move different objects up a ramp.



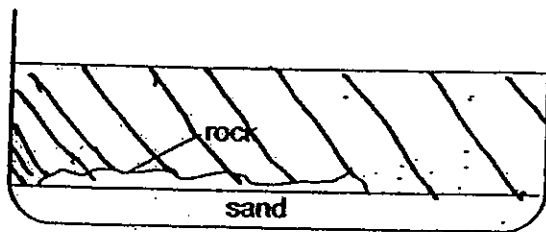
What variables should he keep the same in the experiment?

- A: mass of the object
- B: the spring balance used
- C: the steepness of the ramp
- D: surface texture of the ramp

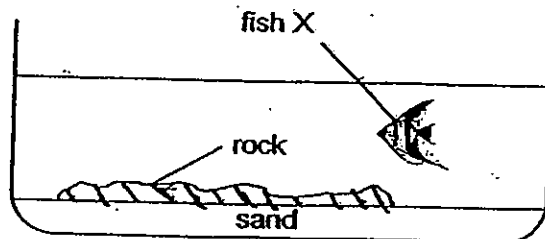
- (1) A only
- (2) B and C only
- (3) C and D only
- (4) B, C and D only

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30. Ahmad collected some water from a pond. He filled two containers, A and B, with the collected water as shown below.



Container A



Container B

Ahmad then left the containers near a window. After a few weeks, he observed that there was a lot of algae on all the walls of container A. On the other hand, algae could only be found on the rock in container B.

Ahmad wrote four statements about the containers.

- Both containers had algae.
- Fish X was 8 cm long.
- Fish X ate the algae.
- The temperature of the water in both containers was 28°C.

Which question can be answered from what Ahmad observed?

- (1) What type of algae does fish X eat?
- (2) Does fish X affect the growth of algae?
- (3) Does the waste of fish X affect the growth of algae?
- (4) Do algae grow faster on a rocky or a sandy surface?

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End of Booklet A

Index Number: -

PEI CHUN PUBLIC SCHOOL
PRELIMINARY EXAMINATION – 2012
PRIMARY 6 (Standard Stream)
SCIENCE
BOOKLET B

Marks:

16 questions

40 marks

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

Booklet A	60
Booklet B	40
Total	100

Name : _____ ()

Class : Primary 6 ()

Date : 2 August 2012

Subject Teacher : _____

Parent's Signature: _____

INSTRUCTIONS TO CANDIDATES

Do not open this booklet until you are told to do so.

Follow all instructions carefully.

Write your answers in this booklet.

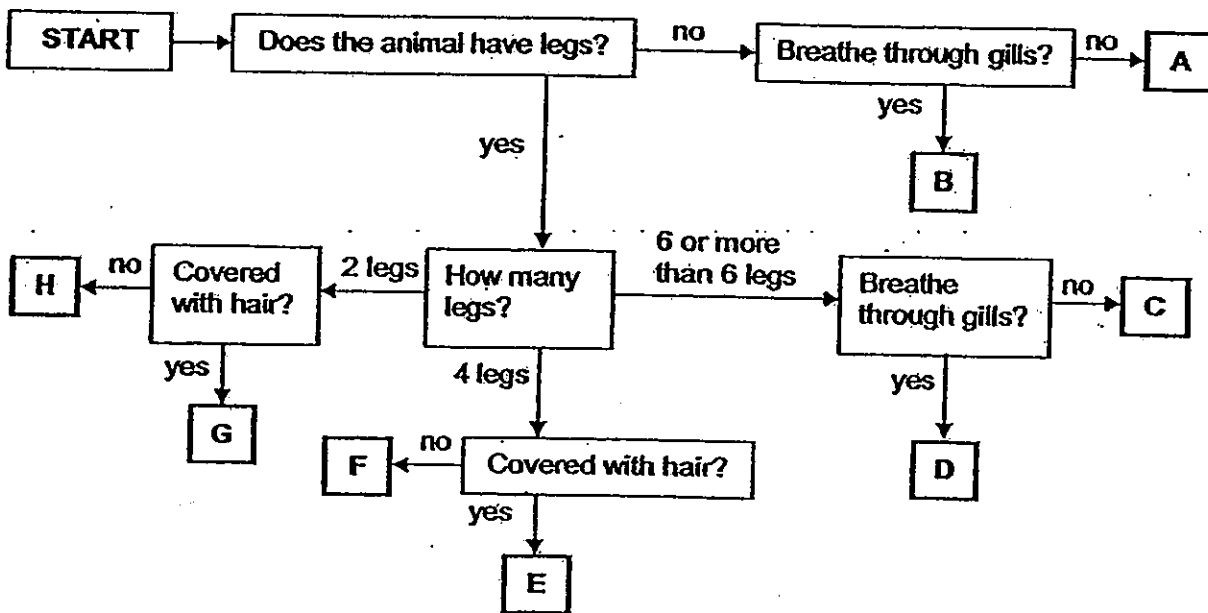
PART II

For questions 31 to 44, write your answers in this booklet.

The number of marks available is shown in the brackets [] at the end of each question or part question.

(40 marks)

31. Study the chart below. Letters A to H represent different animals.

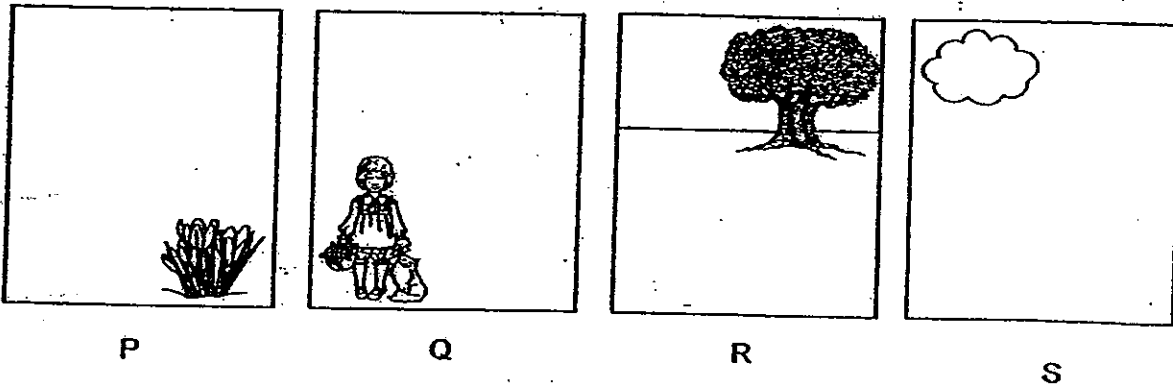


a) What are the characteristics of animal G? [1]

b) Which letters can be used to represent the animals below? [2]

Animal	Letter
whale	
ostrich	
prawn	
spiny anteater	

32. Pei Ling had four pieces of different materials, P, Q, R and S. Pictures are printed on the materials as shown below.



In no particular order, Pei Ling then placed all the four materials together, one in front of the other. The diagram below shows what she saw when all the four materials were placed together.



Based on what Pei Ling saw, put a tick (✓) in the appropriate boxes.

[2]

Material	Allows all light to pass through	Does not allow light to pass through	Not possible to tell
P			
Q			
R			
S			

33. A pogo stick is a device for jumping off the ground in a standing position using a spring. It consists of a pole with a handle at the top and footrests near the bottom. The diagram below shows how a boy jumps off the ground using a pogo stick.



- (a) Explain, in terms of forces, how the boy is able to jump off the ground when he stands on the pogo stick. [2]

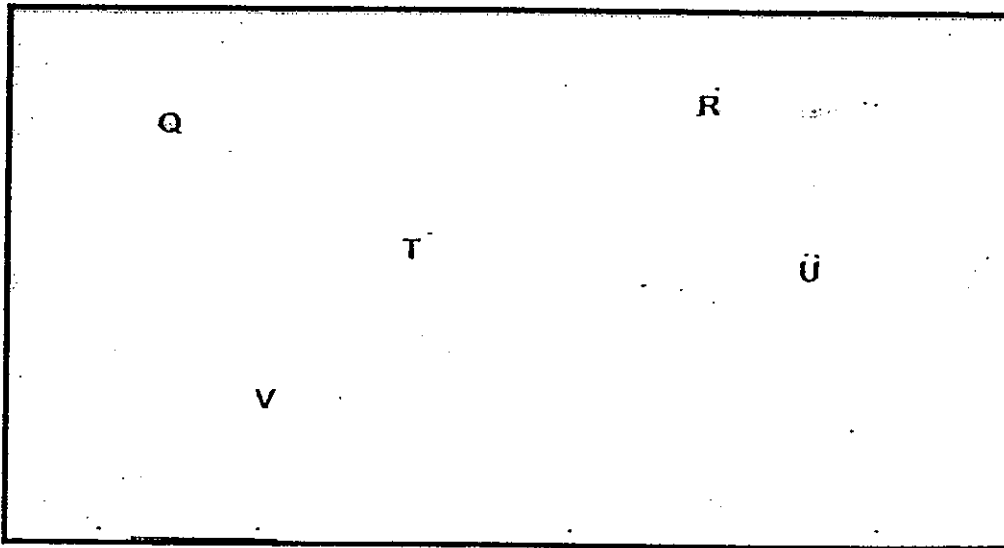
- (b) On which type of surface, concrete or grass, will the boy need to apply a greater amount of force on the 'pogo stick' to reach the same height? Give a reason for your answer. [1]

34. Some organisms, represented by letters Q to V, can be found in a marine community.

Use the following information and draw arrows to construct a marine food web in the box below.

[2]

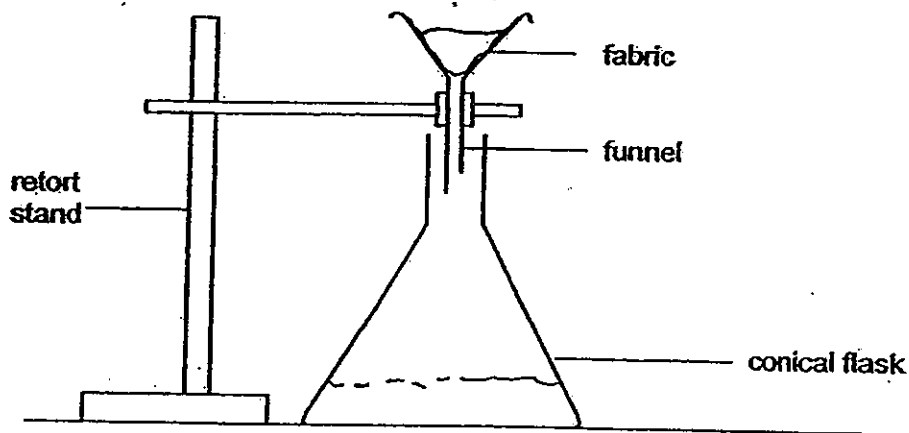
- Organisms T are microscopic food producers.
- Organism Q is a plant-eater. It is a prey to larger fish.
- Organism S is a large marine mammal. It is an animal-eater and is a predator of larger fish.
- Organisms V are plant-eaters and are found in very large numbers.
- Organism U is a small fish which feeds on Organism V. It is a prey to larger fish.
- Organism R is a large fish which feeds on smaller fish and is a prey to large marine mammals.



•
•
•
•



35. Fatimah had three pieces of fabric, X, Y and Z. They were made of different materials but of similar size and thickness. She placed a piece of fabric over a funnel as shown below.



She poured 20 ml of water onto the fabric and waited for the water to flow through it until no more water dripped from the fabric into the conical flask. She measured the volume of water collected and also weighed the fabric to find out its mass when it was wet.

Fatimah repeated the experiment on the other two pieces of fabric and recorded her results in the table below.

Fabric	Amount of water collected in flask (ml)	Mass of fabric before water was poured (g)	Mass of fabric after water was poured (g)
X	10	6	16
Y	16	5	9
Z	0	4	4.1

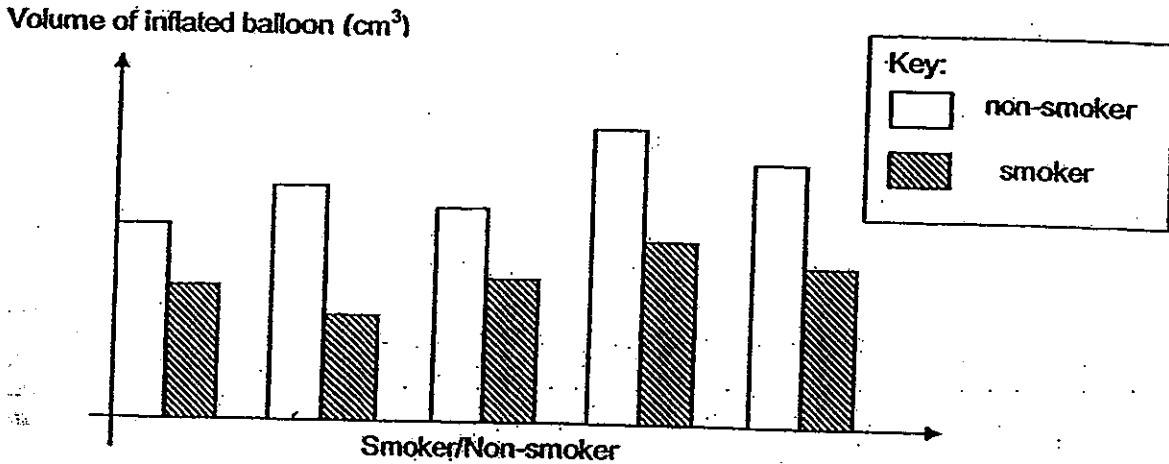
- a) Based on the results in the table, which fabric, X, Y or Z, is the best for making a raincoat? Explain your answer. [2]

- b) Based on the results in the table, which fabric, X, Y or Z, is the best for making cloth for drying wet dishes? Give a reason for your answer. [1]



36. Ali wanted to find out if non-smokers have a bigger lung capacity than those who smoke. The term 'lung capacity' refers to the amount of air the lungs of a person can hold.

Ali selected five male smokers and five male non-smokers of similar built and age group to conduct his experiment. Each person took a deep breath and blew into a deflated balloon. The volume of the inflated balloon was measured. Ali plotted a graph based on his results as shown below.



- (a) Based on the graph, do smokers or non-smokers have a greater lung capacity? Give a reason for your answer.

[1]

- (b) The table below shows the oxygen level in the blood of a smoker and a non-smoker.

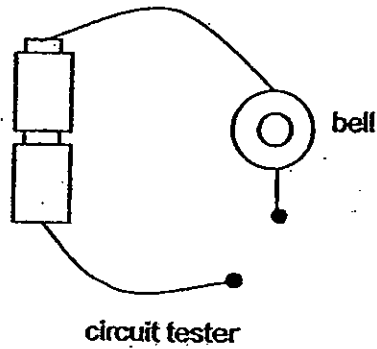
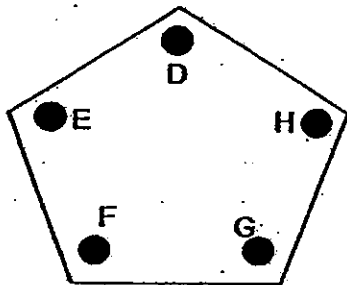
Amount of oxygen in the blood leaving the heart to the rest of the body (%)	
smoker	90
non-smoker	97

Based on the information above, explain why a smoker's heart rate is higher than a non-smoker when both are running.

[2]

Score

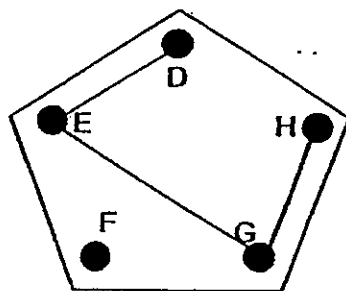
37. Limin fixed five metal buttons, D, E, F, G and H, to a card. There were three pieces of wires under the card which connected some of the buttons to one another. She connected a circuit tester to two of the metal buttons.



The metal buttons were tested with the circuit tester. Limin recorded her results in a table as shown below.

Set-up	Buttons tested	Did the bell sound?
1	D and E	Yes
2	D and G	Yes
3	D and F	No
4	E and H	Yes
5	E and G	Yes
6	E and F	No
7	F and H	No
8	F and G	No
9	G and H	Yes

- a) Based on the results above, draw only 3 straight lines on the circuit card below to show the correct connection of the wires between the metal buttons. [1]

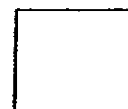
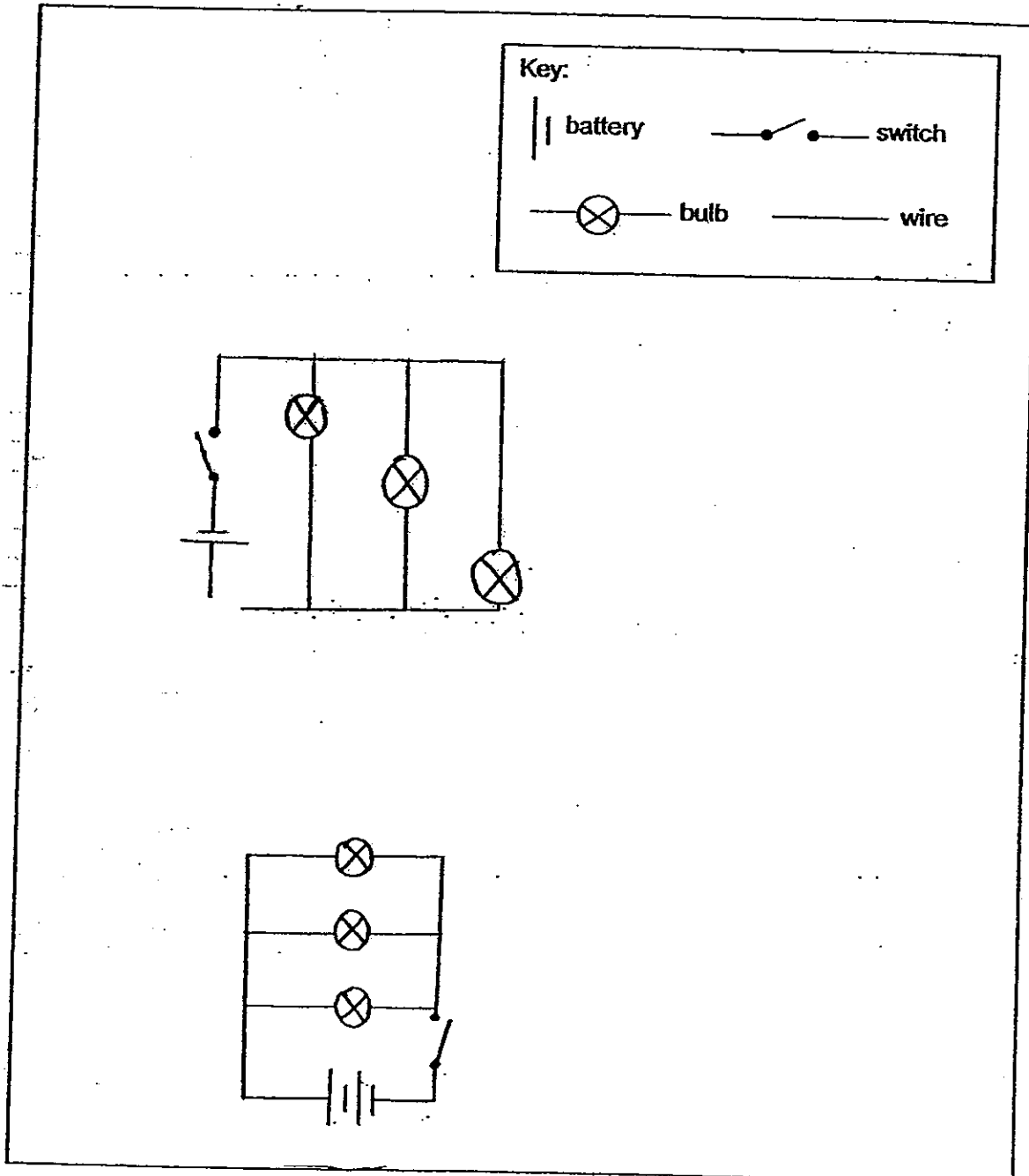


⋮

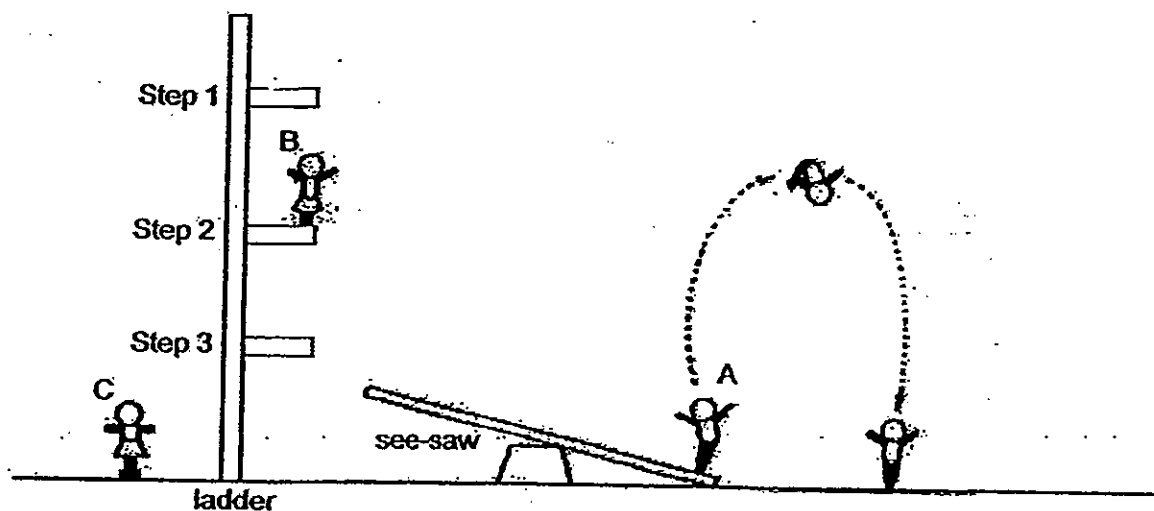


- (b) Limin also had three identical bulbs with her. Two of them were in good condition and one of them was faulty. She was given two batteries, a switch and wires. She set up a circuit using all the bulbs and given materials to find out which bulb was faulty. When the switch was closed, Limin immediately identified the faulty bulb.

In the space below, draw a circuit diagram to show the circuit Limin used to identify the faulty bulb. [1]



38. In a circus show, acrobat A stands on one end of a see-saw. Acrobat B stands on Step 2 of a ladder. When acrobat B jumps from the ladder and lands on the other end of the see-saw, the see-saw pushes acrobat A up into the air and he performs a somersault as shown below.

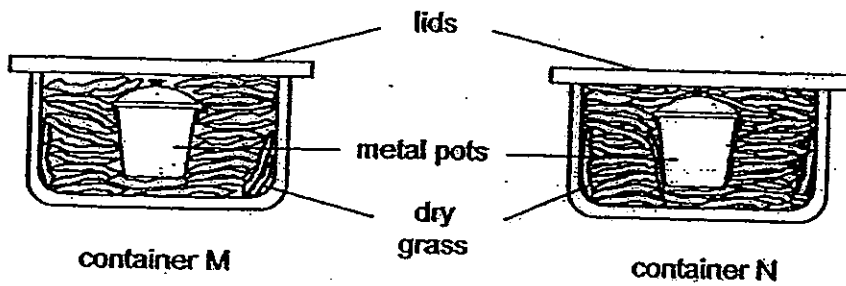


- (a) Based on the diagram, which level, Step 1 or Step 3, should acrobat B jump from so that he can help acrobat A perform his somersault to a greater height? Explain your answer in terms of energy change. [2]

- (b) When acrobat B is replaced by acrobat C acrobat C also jumps from Step 2 of the ladder. It is observed that acrobat A jumps to a greater height before coming down. Explain how acrobat C caused A to jump to a greater height. [2]



39. Mrs Gupta wanted to demonstrate to her class a traditional method of keeping food warm. She placed two identical metal pots filled with food in wooden containers which had dry grass in them. The dry grass in container M was not as closely packed as the dry grass in container N.



- (a) The metal pot in container M was able to keep food warm for a longer period of time. Explain why. [2]

- b) Using the same metal pots and lids, Mrs Gupta prepared another set-up to find out if the type of container will affect the rate in which the metal pot loses heat.

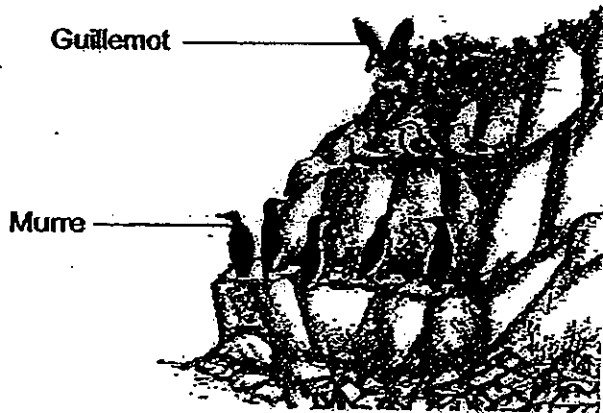
List two variables which Mrs Gupta must keep the same to carry out a fair test. [2]

Variable 1: _____

Variable 2: _____

•
•
•

40. Some seabirds like Guillemots and Murres nest on the bare ledges of cliffs on islands as shown below. This is a behavioural adaptation that increases the chances of their young surviving.



Jun Wei conducted an experiment with a spinning top and a ping pong ball. He spun both the top and the ping pong ball on the table and observed the following:

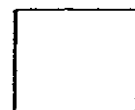
Top: stopped spinning and remained on the table
Ping pong ball: rolled off the table

The pictures below show a Murre's egg and a top.



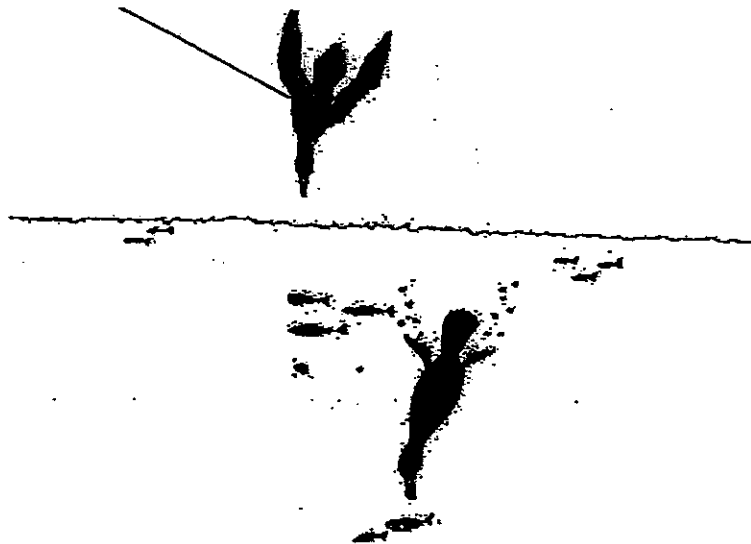
- a) Based on Jun Wei's experiment, how is the egg of the Murre adapted to survive on cliffs? [1]

- b) The cliffs where these seabirds build their nests are rocky and steep. The only way to get to the nest is by flying there. Give a reason how building their nests on rocky and steep cliffs helps the seabirds to increase the chances of their offspring's survival. [1]



- (c) The Murre can plunge into the seawater to catch fish and other marine life. The diagram below shows the Murre diving into the seawater for food.

Murre dives into the seawater



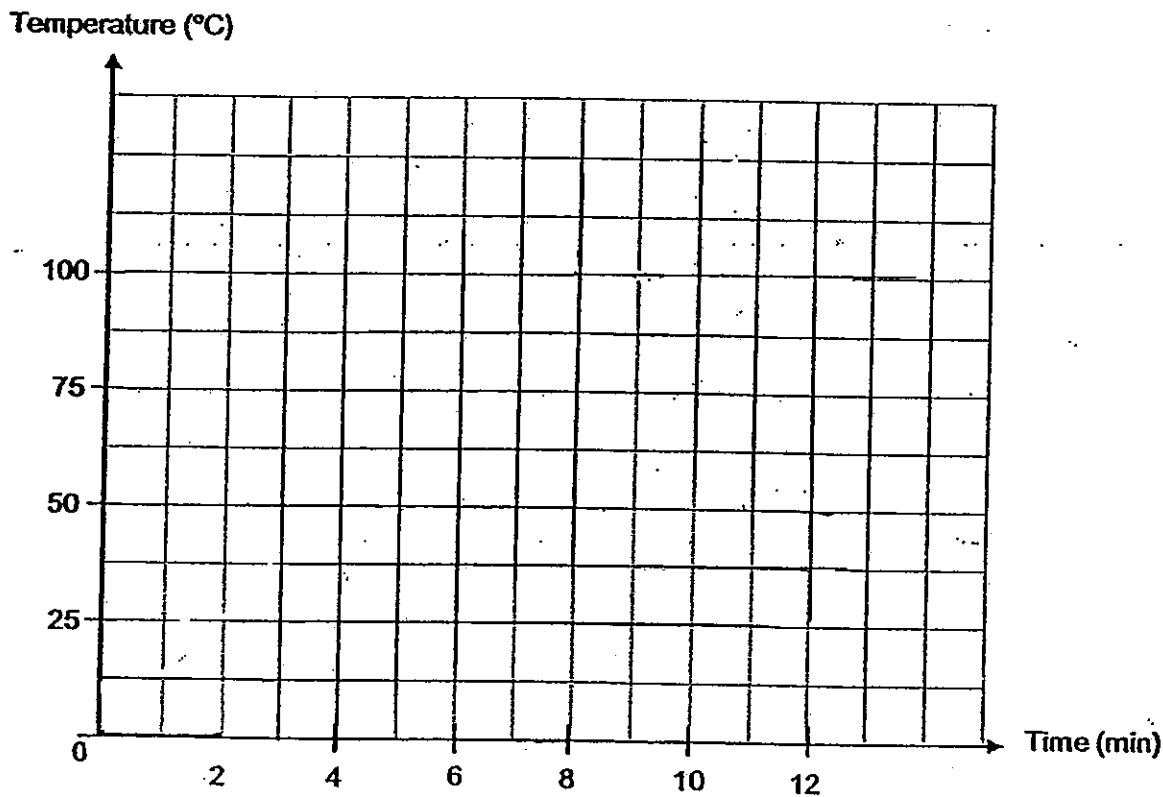
Based on the above diagram, identify the structural adaptation of the Murre that enables it to move easily in the water.

[1]

41. Eugene heats a block of ice which is at 0°C. When the ice is heated, it melts and becomes water. Upon further heating, the temperature of the water increases until it reaches its boiling point.

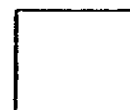
- (a) Draw a line graph below to illustrate the following information:
- it takes 2 minutes for all the ice to melt;
 - the water started to boil after another 6 minutes;
 - he continues to boil the water for another 4 minutes after it has reached boiling point.

[2]



- (b) On the line graph,
- mark the melting point with an X and label it 'M'.
 - mark the boiling point with an X and label it 'B'.

[1]



42. The tables below show the percentage of animals in two leaf litter communities, A and B.

Leaf litter A

Animal	Percentage (%)
centipede	5
earthworm	10
millipede	20
termite	35
woodlice	30

Leaf litter B

Animal	Percentage (%)
centipede	10
millipede	25
termite	20
woodlice	40
others	5

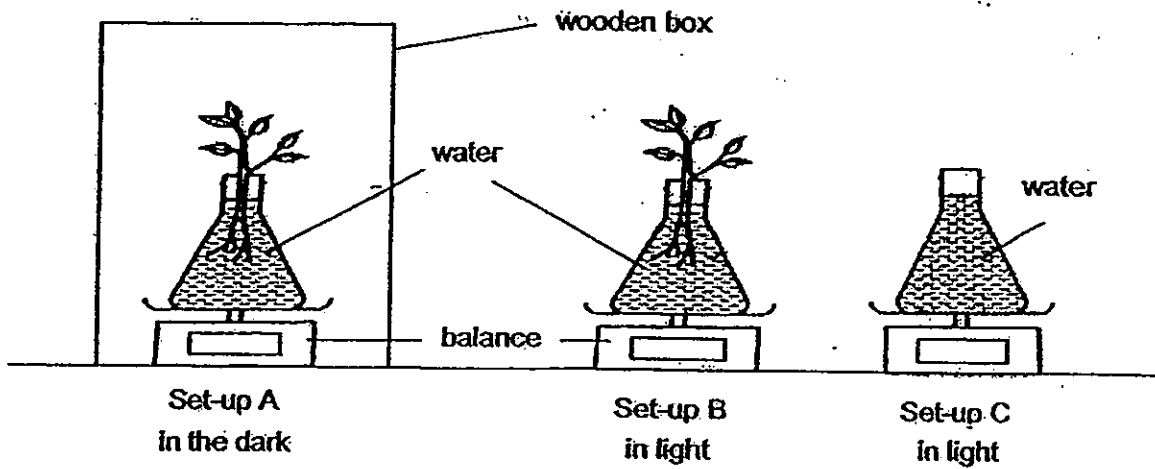
Read the following statements. Decide whether they are true, false or not possible to tell. Put a tick (✓) in the appropriate boxes.

[2]

Statement	True	False	Not possible to tell
(i) Leaf litter A has fewer centipedes than leaf litter B.			
(ii) In leaf litter A, there are three times as many termites as centipedes.			
(iii) There are more types of animals in leaf litter B than leaf litter A.			
(iv) The biggest population of animals in leaf litter B is the woodlice.			

--

43. Roslinda prepared three set-ups, A, B and C, as shown below. They are kept at the same temperature.



She recorded the mass of each set-up at the start of the experiment and again after 24 hours. The results are shown in the table below.

Set-up	Mass at the start of the experiment (g)	Mass after 24 hours (g)
A	950	920
B	950	860
C	720	720

- (a) Explain the purpose of Set-up C which is the control set-up. [1]

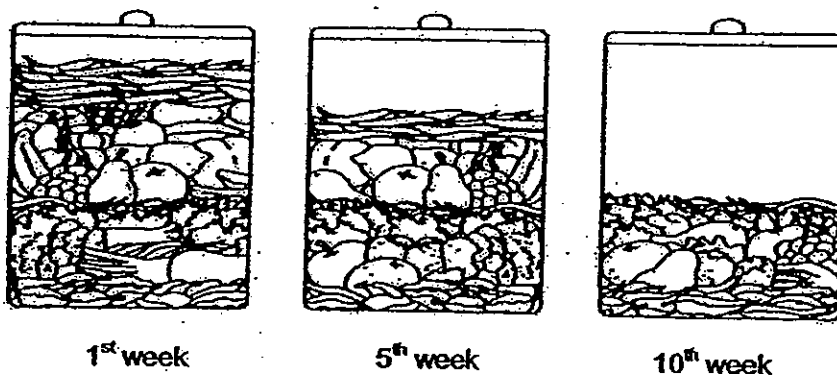
- b) What was the aim of Roslinda's experiment? [1]

- c) The plant in Set-up B loses more water than the plant in Set-up A. Explain why [2]

44. A compost tumbler is an enclosed container. It turns biodegradable waste into decaying matter, also known as compost. It helps to reduce the amount of waste that needs to be sent to the incinerator for burning.

Danny collected dried leaves and cut them into small pieces. He put them into a compost tumbler with some decaying matter. He measured the height of the compost over a few weeks.

The diagram below shows what Danny has observed.



- (a) What was the purpose of adding decaying matter into the compost tumbler? [1]
-
- b) How can farmers make use of the compost from the compost tumbler? [1]
-

End of Booklet B

Set by : Mrs Soo Chen Khin
 Vetted by : P6 Science Committee





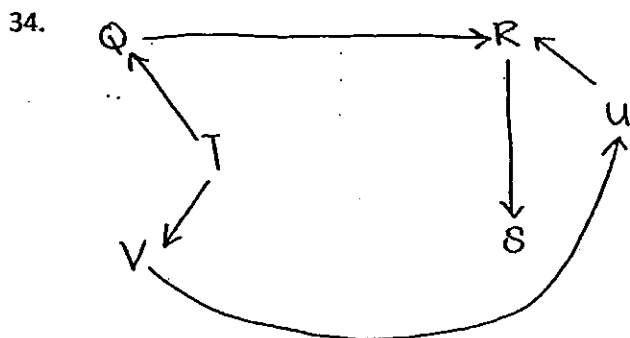
Pei Chun Public School
Preliminary Examinations- 2012
Answer Key for P6 Science

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

31. (a) It has 2 legs and it is covered with hair.
 (b) A, H, D, E

32. P- Not possible to tell
 Q- Allows all light to pass through
 R- Does not allow all light to pass through
 S- Not possible to tell

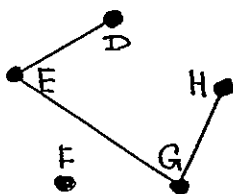
33. (a) Gravity acts on the boy and the spring is compressed. The compressed spring has elastic spring force and it overcomes the gravity acting on him.
 (b) Grass. Grass is softer than concrete.



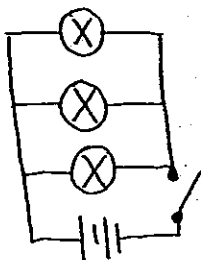
35. (a) Z. The amount of water collected in the flask is the least. The increase in the mass of fabric is the least.
 (b) X. The increase in the mass of fabric is the most.

36. (a) Non-smokers have a greater lung capacity. When the smokers and the non-smokers took a deep breath and blew into the balloon, the non-smoker's inflated balloon is bigger than the smoker's inflated balloon.
 (b) The smoker's heart needs to beat faster to transport the same amount of oxygen to the rest of the body.

37. (a)



(b)



38. (a) Step 1. B will have more gravitational potential which will be converted to (more) kinetic energy. When B lands on the see-saw, the kinetic energy is transferred to A. A will have more kinetic energy.

(b) C has a greater mass than B. C has more gravitational potential than B that is converted more to kinetic energy.

39. (a) Air is a poor conductor of heat. More air space among the dry grass in M than N. The metal pot in M would lose heat slower than the metal pot in N.

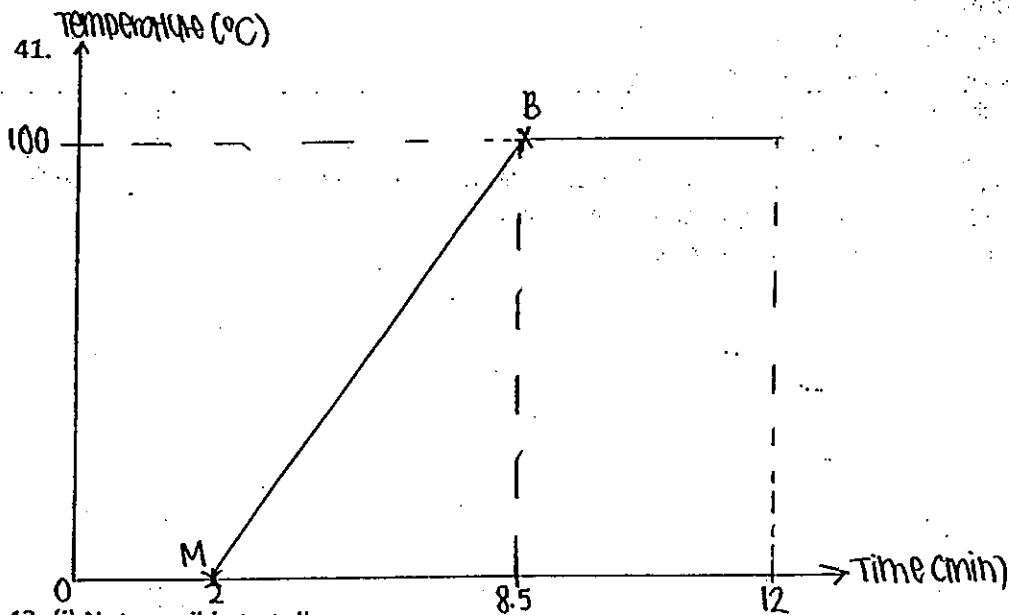
(b) Variable 1: Type of grass.

Variable 2: Size of container

40. (a) It will not roll off the cliff.

(b) There will be fewer predators to prey on their offspring.

(c) It have webbed feet and streamlined body shape.



42. (i) Not possible to tell.

(ii) False.

(iii) True.

(iv) True.

43. (a) To confirm that the losses in mass of water in set-up A and B are due to the plants.

(b) To find out if plants lose more water in the presence of light.

(c) The stomata of plant in set-up B open bigger in the presence of light. The plant in set-up B lose more water than stomata.

44. (a) To speed up decomposition.

(b) Fertilisers.