PAYA LEBAR METHODIST GIRLS' SCHOOL (PRIMARY)
REVISION PAPER 3A 2025
PRIMARY 6

Name: _____ ( )

Class: Primary 6 _____

Section A	/56

Date: _____ Parent's Signature: _____

Section A (28 x 2 = 56 marks)
For each question from 1 to 28, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and shade your answer on the Optical Answer Sheet.

1 Which of the following group of animals has dry scaly skin?

(1) fish
(2) reptile
(3) mammal
(4) amphibian

2 Blood flows through blood vessels from P to S as shown.

hand $\xrightarrow{P}$ heart $\xrightarrow{Q}$ lungs $\xrightarrow{R}$ heart $\xrightarrow{S}$ hand

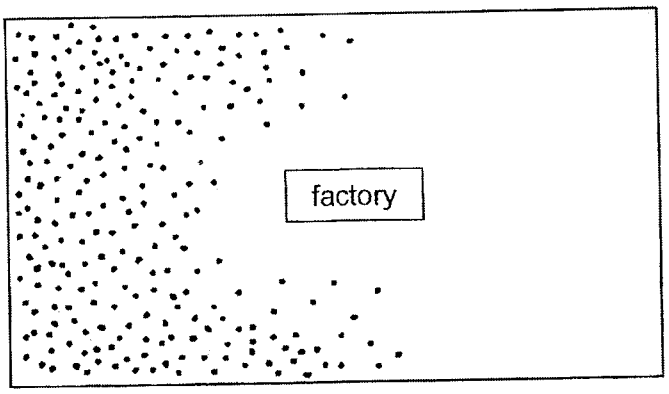
Which blood vessels transport blood richer in oxygen

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

3 Which statement about the human digestive system is correct?

(1) The mouth does not digest food.
(2) The large intestine digests and absorbs food.
(3) The large intestine does not absorb any substance.
(4) Some food have been digested when they leave the stomach.

4 Plant H grows well in areas with clean air. The diagram shows plant H growing near a factory which gives out polluted gases.



Key:
- plant H

Based on the diagram, in which direction was the wind blowing?

(1) →

(2) ←

(3) ↑

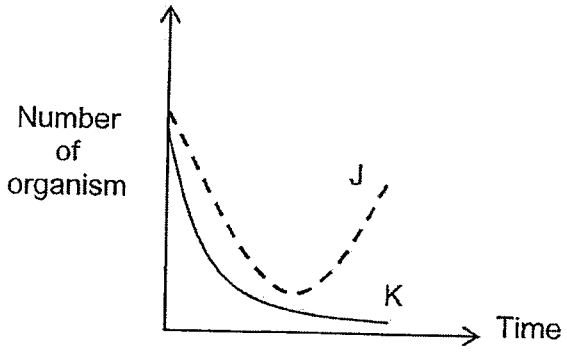
(4) ↓

5 Which of the following about photosynthesis is correct?

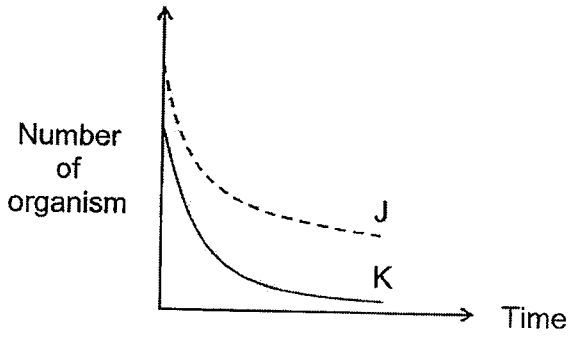
	gas taken in	gas given out	light needed
(1)	carbon dioxide	~~oxygen~~	no
(2)	carbon dioxide	oxygen	yes
(3)	oxygen	carbon dioxide	no
(4)	~~oxygen~~	carbon dioxide	yes

6 On an island, there are only two types of organisms, J and K. J is the prey of K. Which graph shows what happens to J and K when a predator of K is introduced?

(1)



(2)



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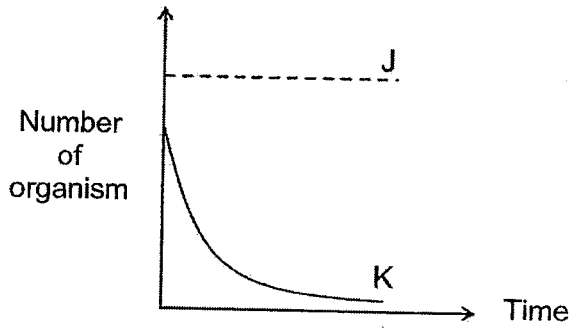

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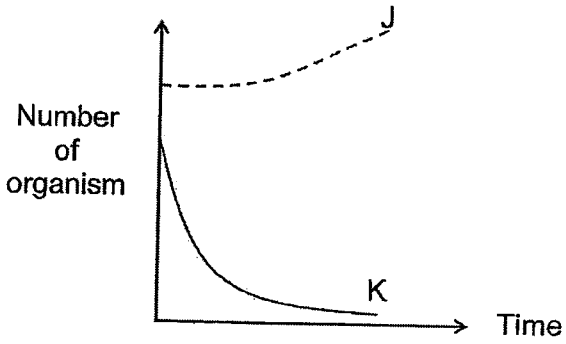
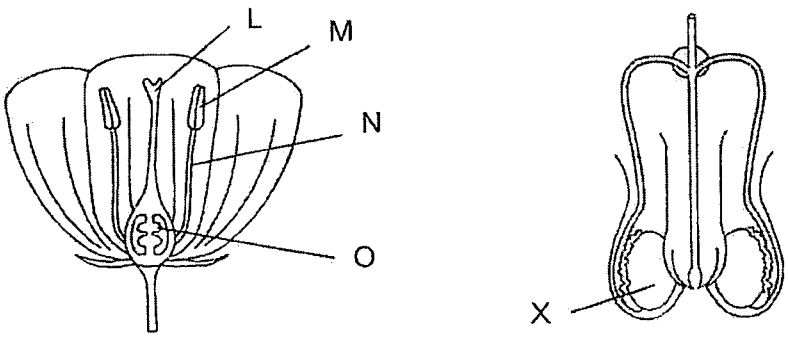


7 A substance has to pass through various parts of a plant cell before reaching the nucleus. Which of the following shows the correct order of these parts?

(1) cytoplasm, cell membrane, cell wall
(2) cell wall, cell membrane, cytoplasm
(3) cell membrane, cytoplasm, cell wall
(4) cell wall, cytoplasm, cell membrane

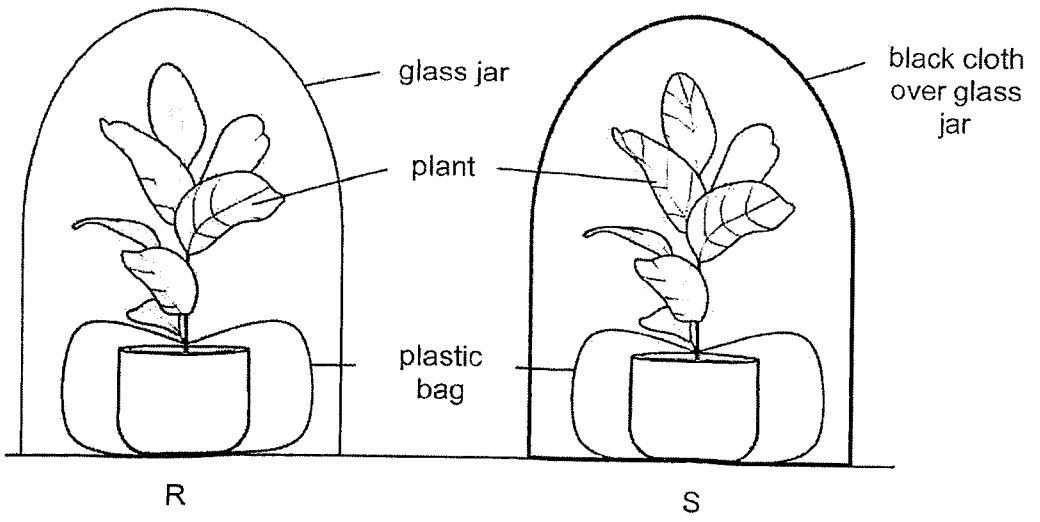
8 The diagrams below show the reproductive systems in a plant and human respectively.



Which part L, M, N or O has a similar function to X?

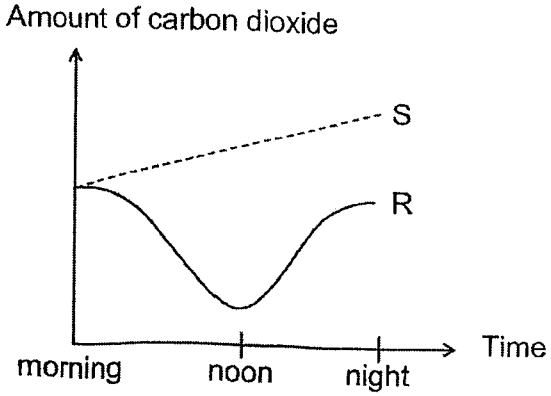
(1) L
(2) M
(3) N
(4) O

9 Belle prepared two similar set-ups, R and S, as shown in the diagram. She gave both set-ups the same amount of water and placed them in the sun for one day.

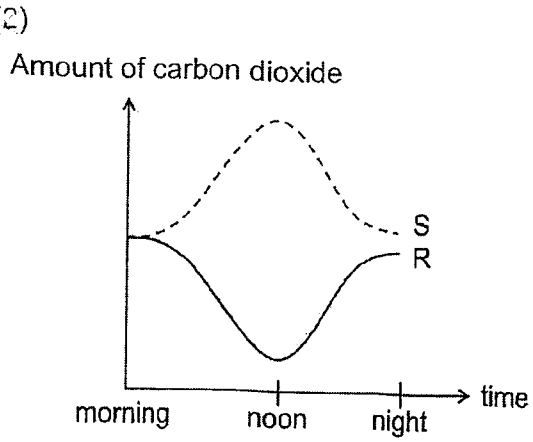


Which of the following correctly shows the amount of carbon dioxide in R and S throughout the day?

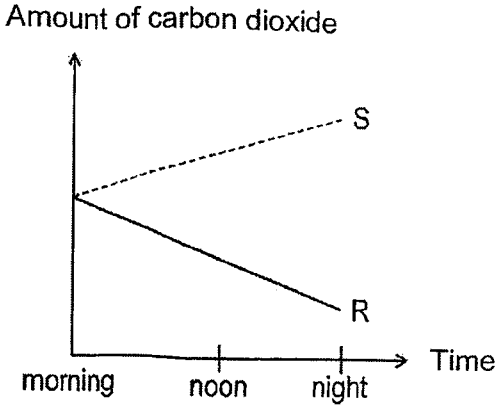
(1)



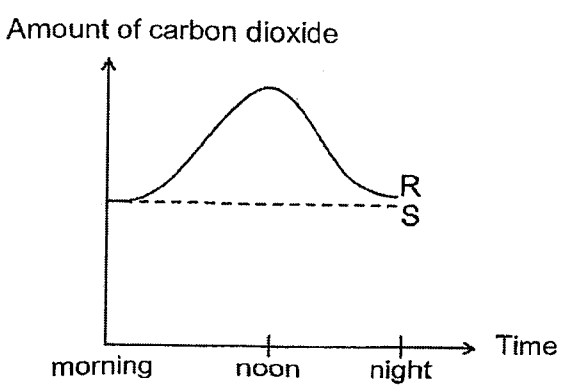
(2)



(3)



(4)



10 Alex picked a fruit in the garden. He wanted to find out if the fruit was dispersed by water by carrying out the following actions.

A Check the fruit for stiff hairs.

B Measure the mass of the fruit.

C Cut the fruit to see if it was fibrous.

D Pour water over the fruit to see if it absorbs water.

Which of the actions would allow Alex to conclude whether the fruit was dispersed by water?

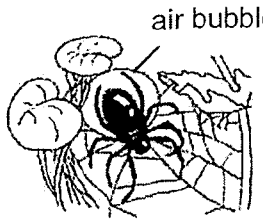
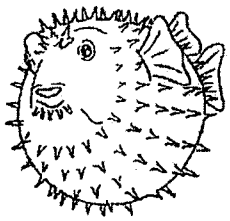
(1) A and B only

(2) A and C only

(3) C and D only

(4) B, C and D only

11 The diagrams below show the adaptations of some animals, A, B, C and D.

<table>
<tr>
<td>(A) Carrying an air bubble in water
 
</td>
<td>(B) Increasing its body size when in danger
  </td>
</tr>
<tr>
<td>(C) Having moist skin and lungs
  </td>
<td>(D) Having a sharp beak
  </td>
</tr>
</table>

Which of the following are adaptations for breathing methods?

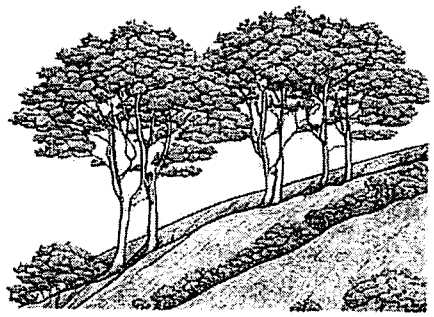
(1) A and C only

(2) A and D only

(3) A, B and C only

(4) B, C and D only

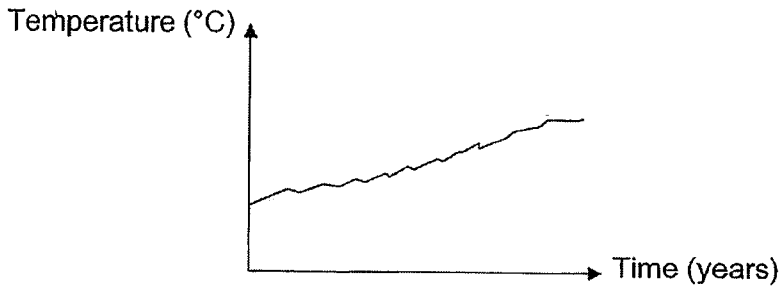
12 The diagram shows trees growing on a slope.



The trees remain on the slope even after a period of heavy rainfall.
Which of the following correctly shows the explanation?

(1) The roots hold the trees firmly to the ground.
(2) The strong stems provide support for the trees.
(3) The leaves stop the wind from blowing the trees away.
(4) The branches stop the wind from blowing the trees away.

13 The graph below shows the average temperature on Earth over a period of 20 years.



Which of the following explain(s) the changes in the temperature over 20 years?

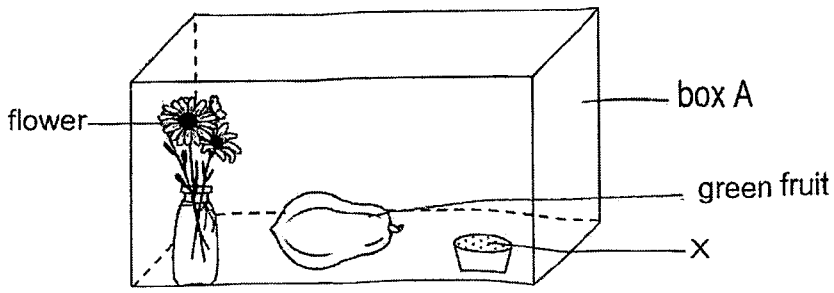
A Using recyclable bags
B Overfishing of a certain species
C Increase in the number of cars on the road
D Clearing large areas of forests to build houses

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

14 A certain type of green fruit gives off a gas P. When this fruit is stored together with some fresh flowers in a box, gas P causes the flowers to wither quickly. Without gas P, the flowers would remain fresh for a longer time.

Carol carried out an experiment to find out if substance X can remove gas P.

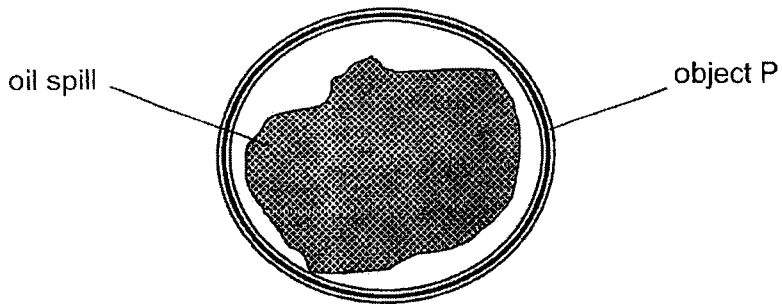
She used two similar plastic boxes, A and B, with lids. In box A, she placed some fresh flowers, the green fruit and substance X, as shown below.



To ensure a fair experiment, which of the following should Carol place in box B?

(1) green fruit only
(2) green fruit and fresh flowers only
(3) green fruit and substance X only
(4) fresh flowers and substance X only

15 Object P is placed around an oil spill to prevent the oil from spreading further on the sea water.



What are the properties of the material used to make object P?

(1) able to float on water and flexible
(2) allow light to pass through and strong
(3) allow light to pass through and flexible
(4) able to float on water and allow light to pass through

16 Which of the following is **not** an example of the effects of a force?

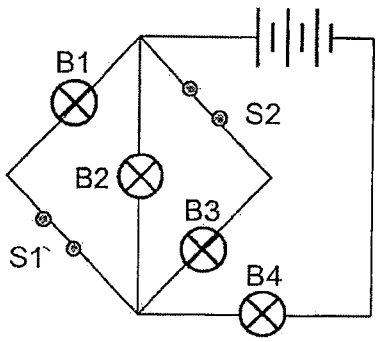
(1) A door is slammed shut by the wind.

(2) A lump of plasticine is moulded into a ball.

(3) A basketball bounces on the floor when it lands.

(4) A bulb is lit up when electricity passes through it.

17 Naura set up an experiment as shown in the diagram below.



Which of the following bulbs, B1, B2, B3 and B4, will be lighted up when both switches S1 and S2 are opened?

(1) B1 and B2 only

(2) B2 and B3 only

(3) B2 and B4 only

(4) B3 and B4 only

18 The table below shows the melting and boiling points of substances A and B.

Substance	A	B
Melting point (°C)	170	160
Boiling point (°C)	425	210

At which temperature are substances A and B in different states of matter?

(1) 150 °C

(2) 200 °C

(3) 350 °C

(4) 450 °C

19 Gus tried to separate two metal basins, A and B, that were stuck together but he was not able to do so.

What can Gus do to separate the basins in the shortest amount of time?

A Pour hot water into basin A.

B Pour cold water into basin A.

C Place basin B into a tray of hot water.

D Place basin B into a tray of cold water.

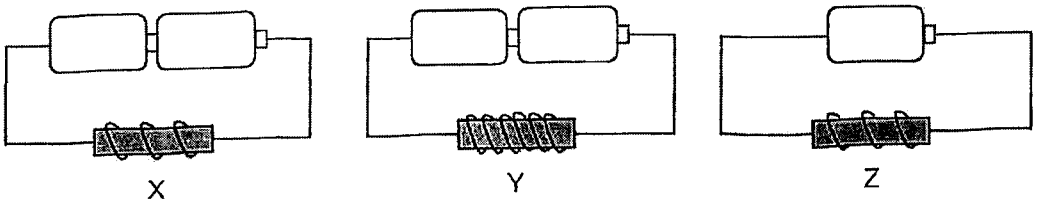
(1) A and C only

(2) A and D only

(3) B and C only

(4) B and D only

20 Shawn set up three electromagnets, X, Y and Z as shown below.



Which of the following shows the correct order of the strength of the electromagnets, starting from the strongest to the weakest?

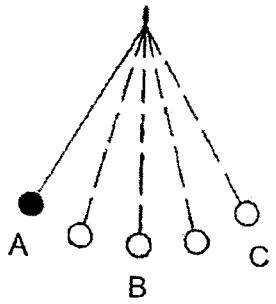
(1) X, Y, Z

(2) Y, X, Z

(3) Z, X, Y

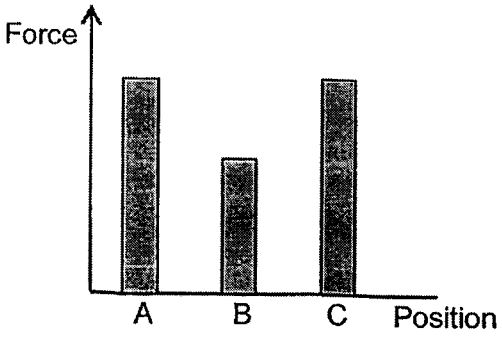
(4) Z, Y, X

21 A ball was attached to a string as shown. The ball was released at position A. The ball swung to position B and then to position C.

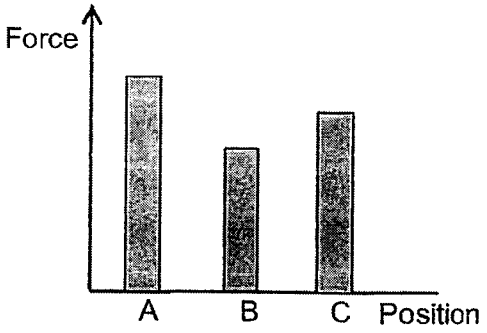


Which of the following graphs best represents the amount of gravitational force acting on the ball at positions A, B and C?

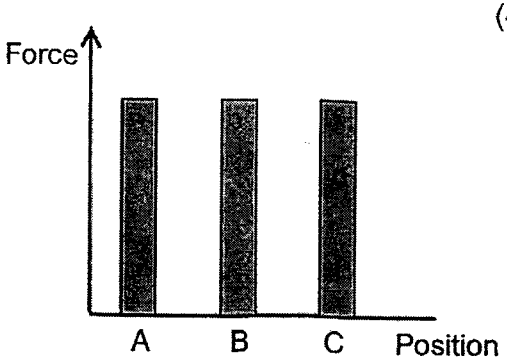
(1)



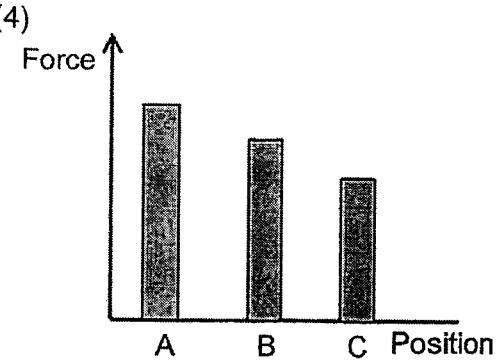
(2)



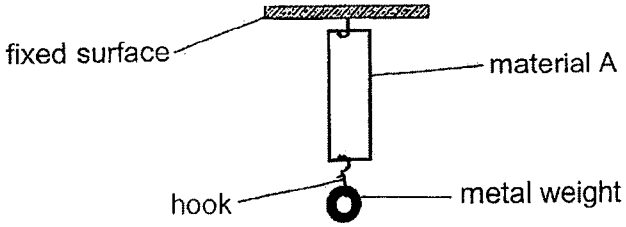
(3)



(4)



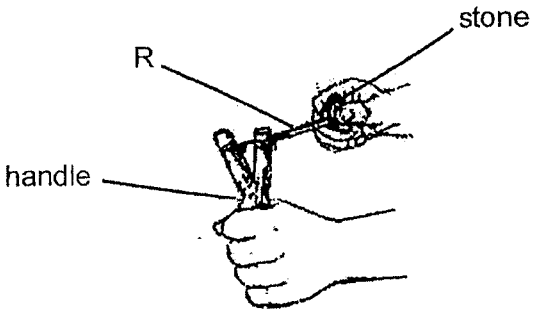
22 Hussain hung a metal weight on material A as shown below.



He measured the increase in the length of material A and repeated the experiment with three different materials, B, C and D. He recorded his results in the table below.

Material	Increase in length (cm)
A	4
B	0
C	2
D	8

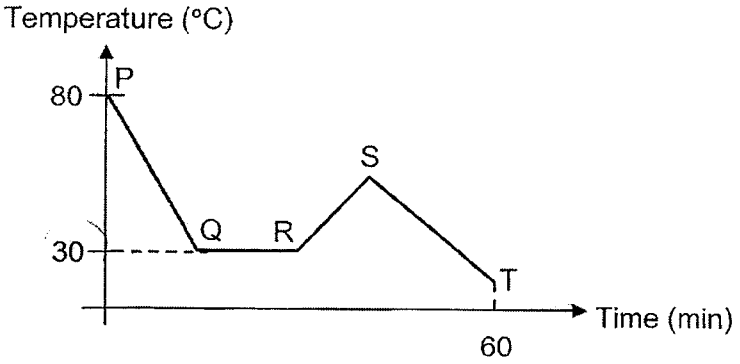
The diagram below shows a catapult.



Which material is best used for part R?

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

23 The graph below shows the change in temperature of a liquid in a beaker over a period of one hour.



A The liquid was freezing at Line QR.

B The boiling point of the liquid is 80°C.

C Line ST involved a loss of heat energy.

D A heat source was introduced at point R.

Based on the graph, which of the following(s) is / are definitely true?

(1) A only

(2) C only

(3) B and D only

(4) C and D only

24 Gary bends and breaks the light stick as shown below to light up a dark room.

Which of the following correctly explains why he can see his light stick clearly?

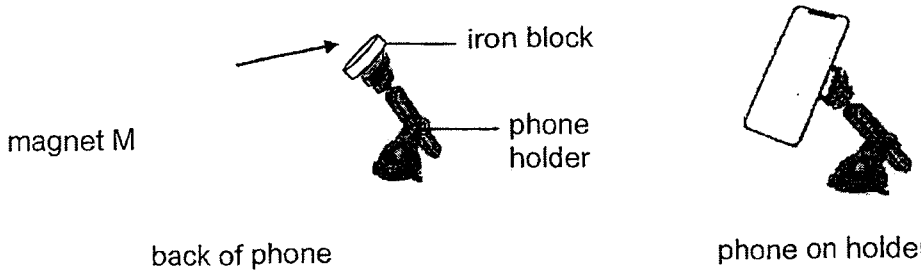
(1) Gary's eyes are a source of light.

(2) The light stick is a source of light.

(3) Light is reflected from Gary's eyes to his light stick.

(4) Light is reflected from the light stick into Gary's eyes.

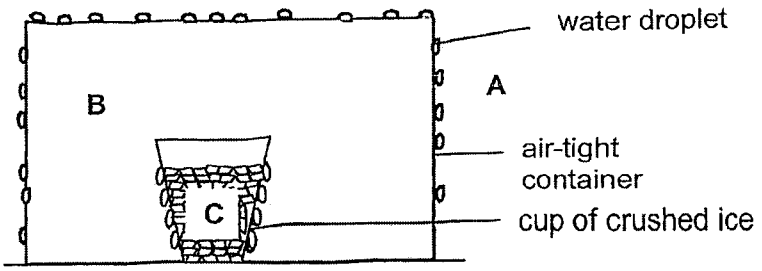
25 The diagram shows a phone holder with an iron block on its top.
James placed a magnet M on the back of his phone to attach it to the holder.



Which of the following explains why the phone remains attached to magnet M?

(1) Magnet M and iron block have the same potential energy.
(2) The mass of the phone is less than the mass of magnet M.
(3) The weight of the phone is less than the magnetic force of M.
(4) The iron block has more potential energy than the phone holder.

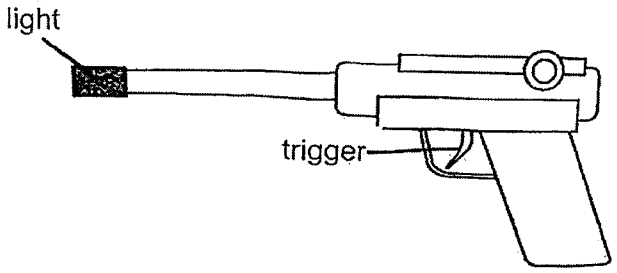
26 A cup of crushed ice was placed in an air-tight container. After some time, water droplets were formed outside the air-tight container as shown below.



Which of the following best represents the temperature at Positions A, B and C?

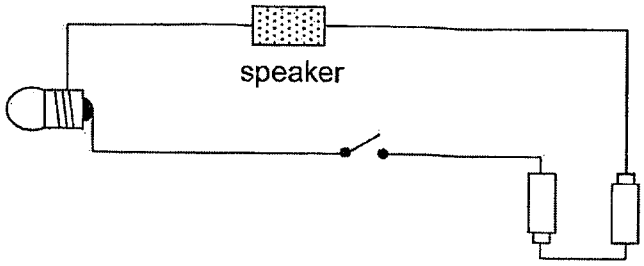
	Temperature (°C)		
	A	B	C
(1)	33	21	15
(2)	15	21	0
(3)	15	15	15
(4)	33	21	0

27 Marcus has a toy gun that gives out light and sound when the trigger is pressed. After some time, he notices that there is only sound, but not light, coming out from the toy gun when he presses the trigger.

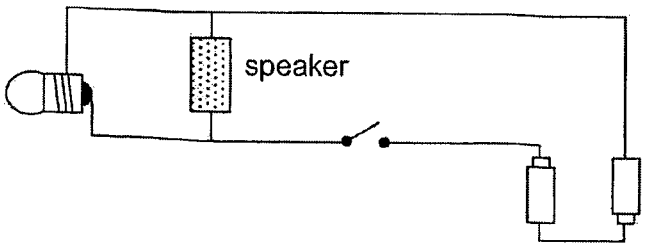


Which of the following correctly identifies the electric circuit in the toy gun?

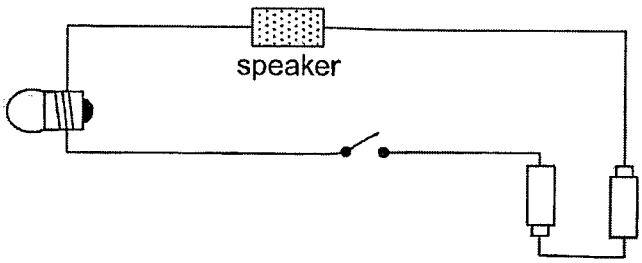
(1)



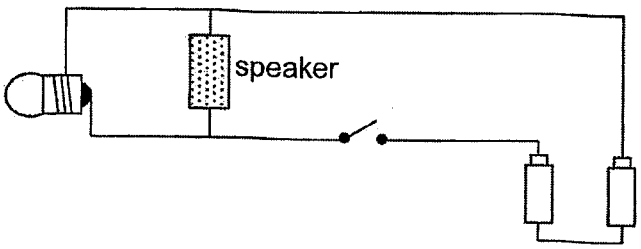
(2)



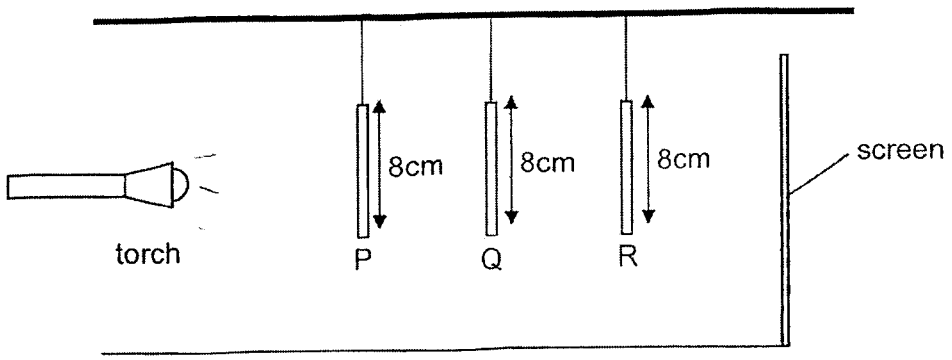
(3)



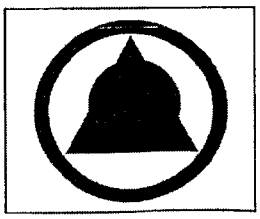
(4)



28 Ali shone a lighted torch at three different cardboard cut-outs, P, Q and R. He placed these cut-outs at different distances from the torch as shown below.



The diagram below shows what he observed on the screen.



Which of the following correctly represents cut-outs P, Q and R?

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

END OF BOOKLET A

PAYA LEBAR METHODIST GIRLS' SCHOOL (PRIMARY)
REVISION PAPER 3B 2025
PRIMARY 6

Name: _____ ( )

Class: Primary 6 _____

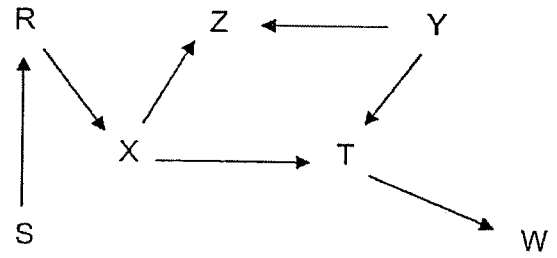
Section B	/44

Date: _____ Parent's Signature: _____

SECTION B: 44 Marks

For questions 29 to 40, write your answers in the spaces provided.
The number of marks available is shown in brackets [ ] at the end of each question or part question.

29 The diagram below shows a food web of a community.



(a) Based on the food web above, state the relationship between organism T and organism W. [1]

_____

_____

(b) How many food producers are there in the food web? [1]

_____

(c) Ravi said that organism Y is a prey of organism T. Do you agree? Explain your answer. [1]

_____

_____

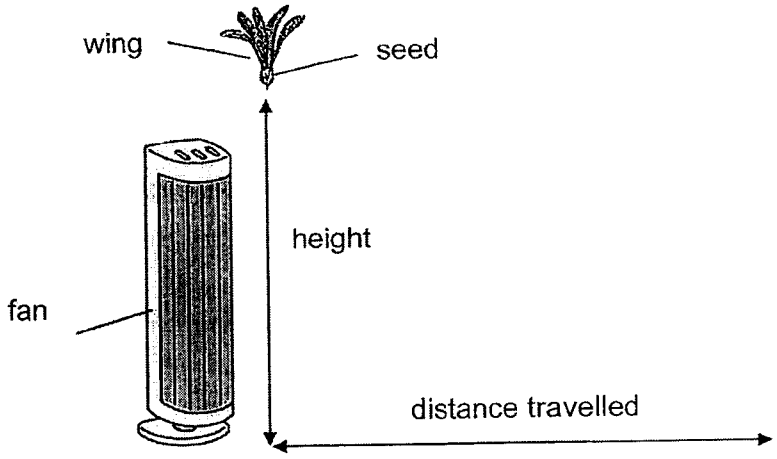
(d) A disease caused large numbers of organism R to die. Explain how this would affect the population of organism X. [1]

_____

_____

SCORE	/4

30 Jim conducted an experiment to find out how the speed of wind affects the distance a seed travels. He dropped a seed from a certain height in front of a fan as shown in the diagram below.



He measured the distance travelled by the seed for various fan speeds and recorded the results in the table as shown.

Fan speed	low	medium	high
Distance travelled by the seed (m)	1.2	1.5	2.2

(a) Based on Jim's results, explain how the seed benefits when it is dispersed by stronger wind. [1]

SCORE ___/4

_____

_____

(b) State the relationship between the fan speed and the distance travelled by the seed. [1]

_____

_____

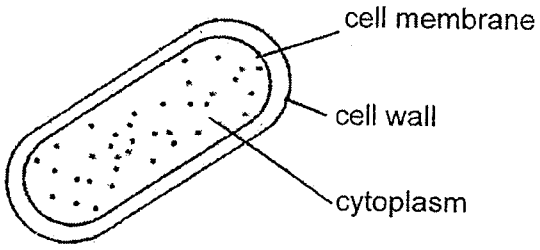
(c) Jim wanted to find out if the length of the wings of the seed affects the distance the seed travelled What two changes should he make to his previous experiment to investigate this new aim? [2]

1st change: _____

2nd change: _____

SCORE ___/4

31 The diagram below shows a bacterium, which is a single-celled living thing.



(a) Identify a part of the bacteria cell not found in animal cells. [1]

(b) Identify a part of an animal cell not found in the bacteria cell. [1]

Bacteria S live in our bodies. In small amounts, they are not harmful, but in large amounts, they can cause humans to become very ill.

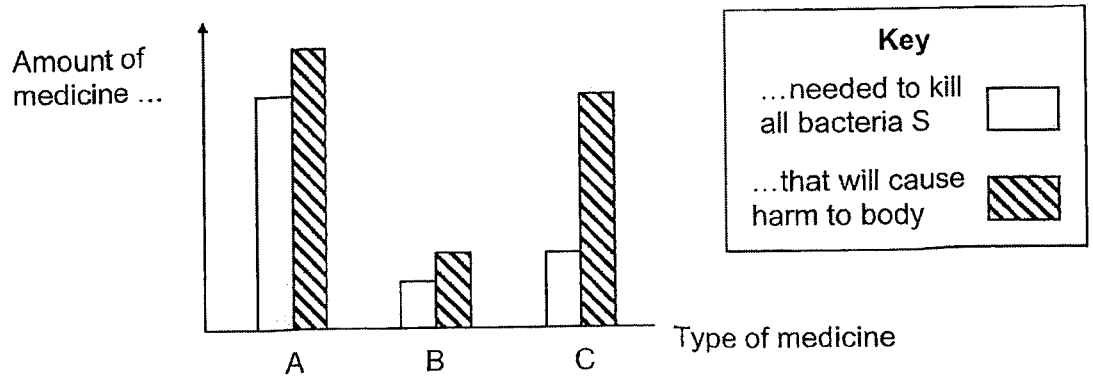
If a doctor finds out that there is some bacteria S living in our body, he will give us medicine to kill all bacteria S, even if we may not be ill to begin with.

(c) Give a reason why we should take medicine to kill bacteria S even though there may only be a small amount in our body. [1]

Question 31 continues on Page 3

Someone who is ill because of bacteria S must take enough medicine to kill all bacteria S to get better. However, if he takes too much medicine, the medicine may harm his body instead.

The graph below shows the amount of medicine needed to kill all bacteria S in the body, as well as the amount that will cause harm to the body, for three different types of medicine, A, B and C.

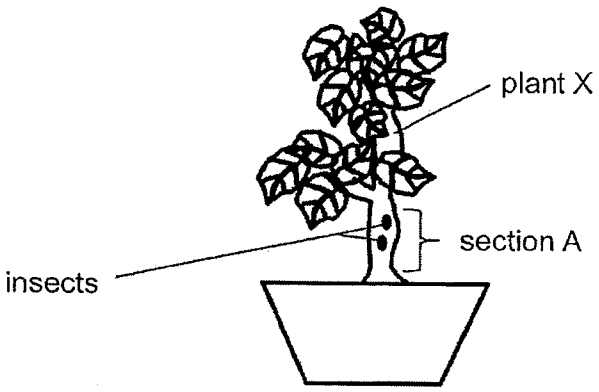


(d) Based on the graph, which medicine, A, B or C, is the safest medicine to take? Explain your answer. [1]

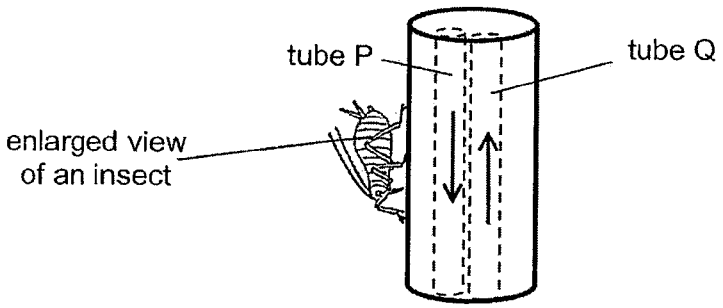
SCORE	/4

32 **(a)** State a difference between the human circulatory system and the plant transport system. [1]

A farmer found many tiny insects feeding on the food made by plant X by inserting its mouthpiece into its stem.



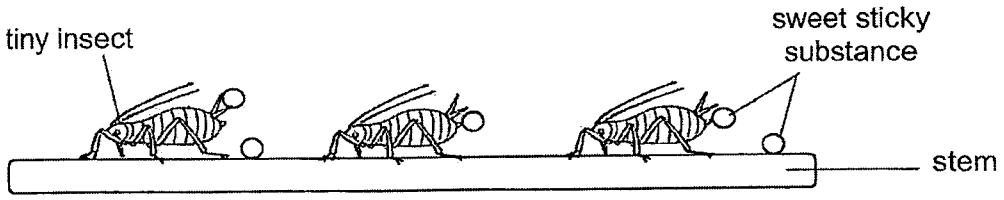
The diagram below shows section A of the stem. The arrows (⟶) show the directions in which two different substances are being transported in separate tubes, P and Q.



(b) Based on the information above, which tube, P or Q, would the insect insert its mouthpiece into to obtain the food from the plant? Explain your answer. [1]

Question 32 continues on Page 5

The tiny insects produced drops of sweet, sticky substance from their bodies.



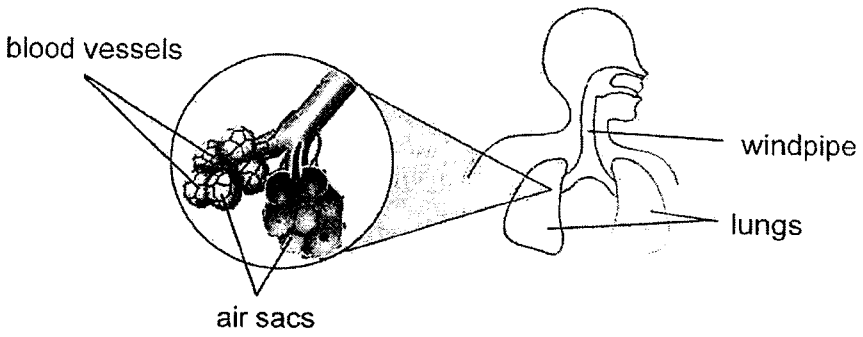
(c) Large ants could be found near these tiny insects but do not feed on them. Explain why it is an advantage for the large ants to be near the tiny insects. [1]

_____

_____

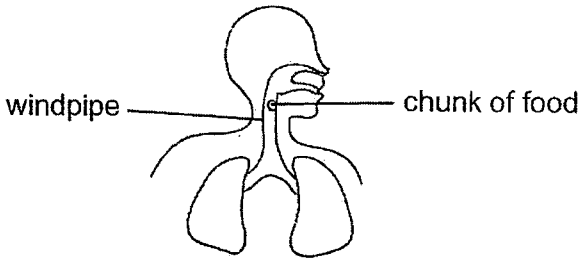
SCORE	3/3

33 The human lungs contain air sacs as shown in the diagram below.



(a) How does having many air sacs in the lungs affect the rate of gaseous exchange? [1]

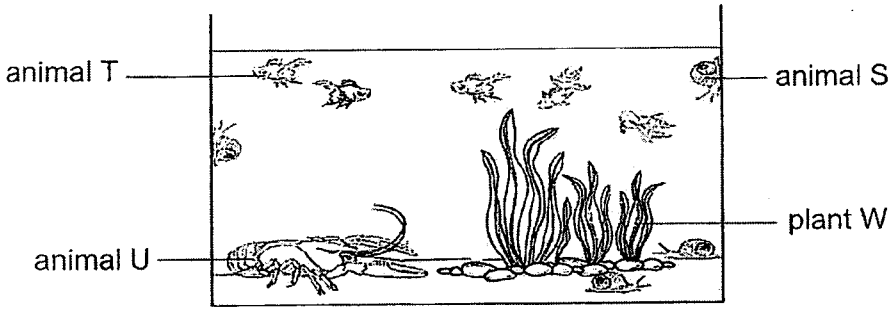
A person chokes due to a chunk of food being stuck in the windpipe.



(b) Based on the diagram above, explain why choking leads to difficulty in breathing. [2]

SCORE	/ 3

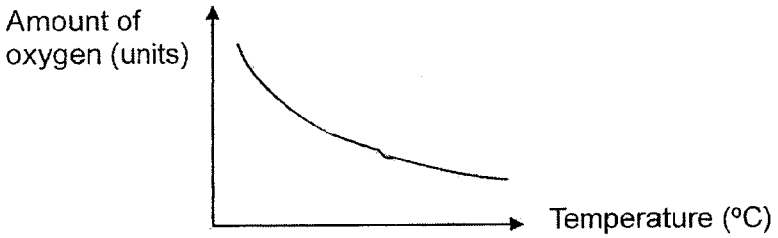
34 Siti has a fish tank as shown in the diagram below.



(a) State the number of populations in the fish tank. [1]

_____

Siti conducted an experiment to measure the amount of oxygen present in the water of her fish tank at different temperatures. Her results are shown in the graph below.



Siti noted that the breathing rate of the fish increased when the temperature of the water in the fish tank increased.

(b) Using the results of the experiment, explain this observation. [2]

_____

_____

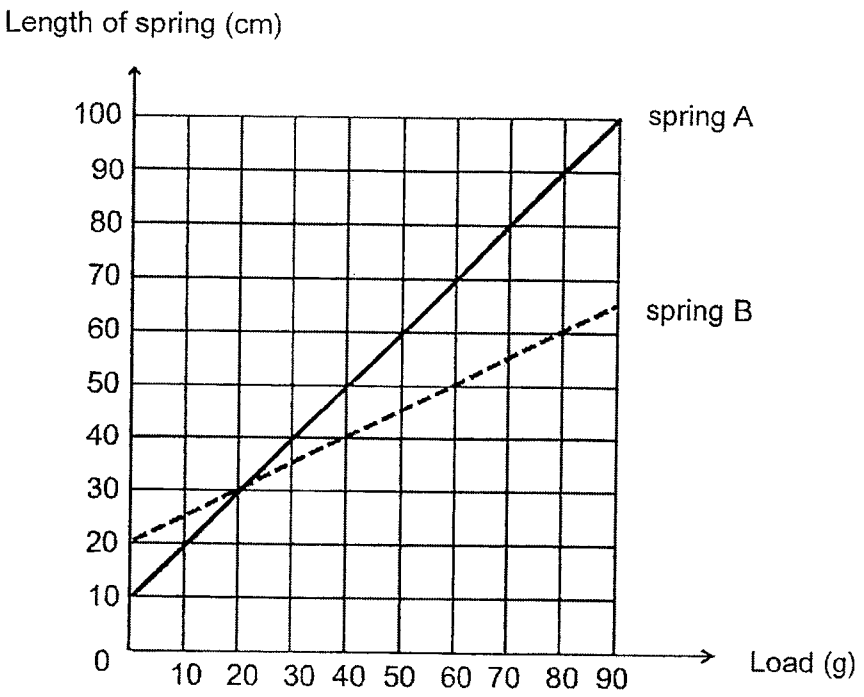
Siti observes animal S curling its soft body into its hard shell when it is resting.

(c) Explain how curling its soft body benefits animal S. [1]

_____

SCORE	/ 4

35 Ella conducted an experiment on springs A and B. She hung various loads one at a time and recorded the length of the spring. Her results are shown in the graph below.



(a) Name the force exerted on the spring when loads were hung. [1]

_____

(b) Based on the graph, state the original lengths of spring A and spring B. [1]

(i) Spring A: _____ cm

(ii) Spring B: _____ cm

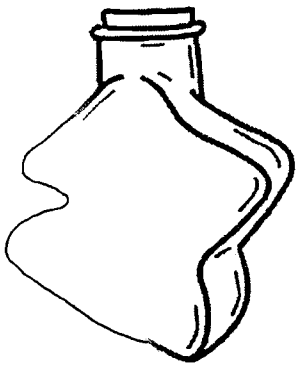
(c) What should Ella do to ensure the results are reliable? [1]

_____

_____

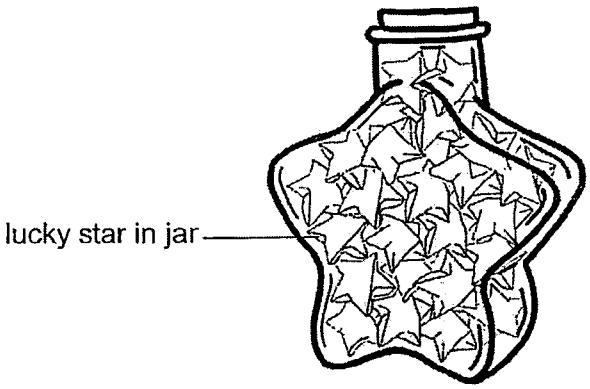
SCORE	/ 3

36 Gina has a star-shaped jar.



(a) Describe one way to find the volume inside the jar. [2]

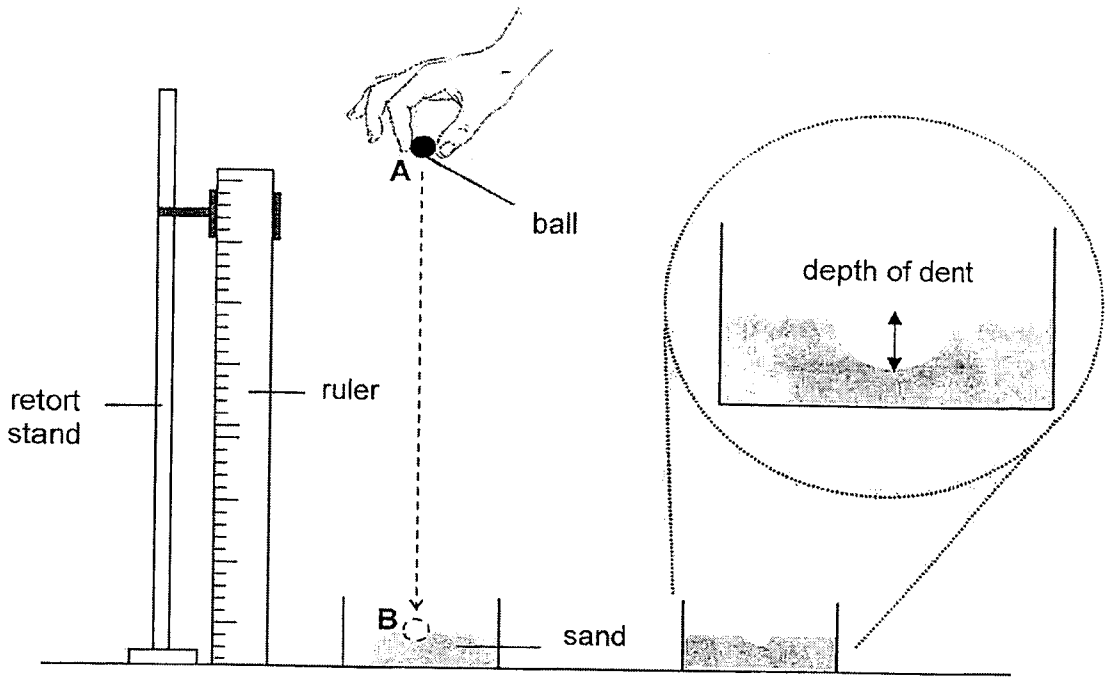
The volume inside the jar is 100 cm^3. Gina has 100 similar lucky stars. Each star has a volume of 1 cm^3.



(b) Explain why Gina cannot put all 100 stars into the jar. [1]

SCORE	/ 3

37 Fiona wanted to investigate if the amount of potential energy is affected by the height of the object using the set-up below.

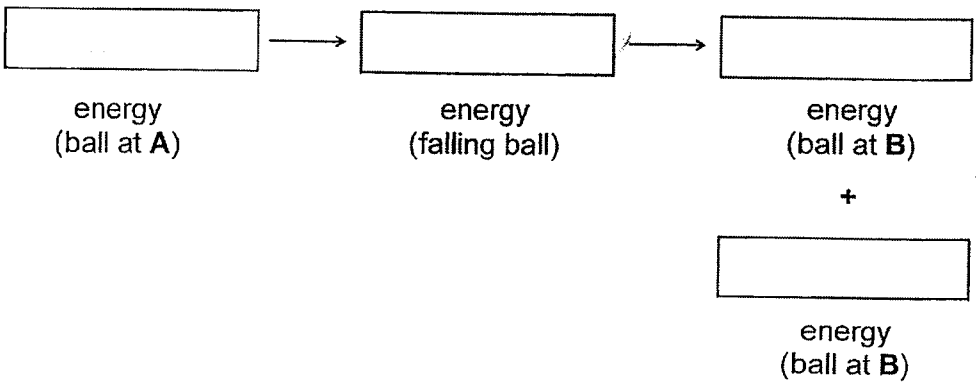


She released the ball from a certain height into a container of sand. The ball created a circular dent and she measured the depth of the dent. She repeated the experiment using balls of various mass and height of release.

Her results are shown below.

Set-up	Mass of ball (g)	Height of release (cm)	Depth of dent (cm)
D	40	50	6
E	30	40	2
F	40	40	5

(a) State the energy conversion of the ball from **A** to **B**. [2]

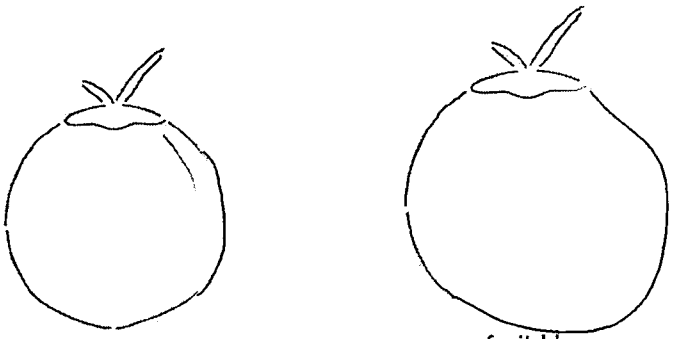


Question 37 continues on Page 11

(b) After each reading was taken, Fiona used a ruler to even out the surface of the sand before she repeated the experiment. Explain why she did that. [1]

(c) What can Fiona conclude about the height of the ball on potential energy? [1]

Fruit G and fruit H dropped from the same tree when they were ripe.



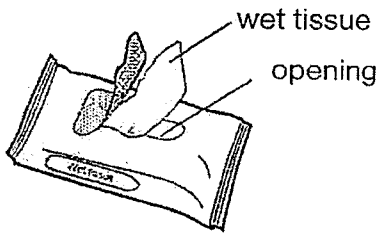
fruit G
1kg

fruit H
2kg

(d) Fiona concluded that fruit H had more potential energy than fruit G when dropped from the same height. Using the results from her experiment, explain how she arrived at this conclusion. [1]

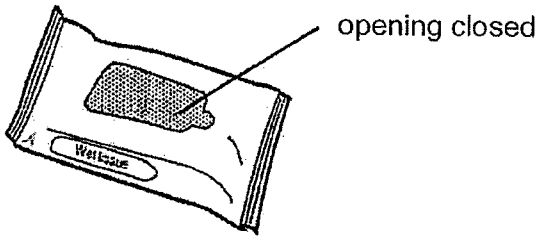
SCORE	/5

38 Isaac removed a piece of wet tissue through an opening in the packet after a run.



(a) When Isaac wiped his face with the wet tissue, his face felt cold.
At that moment, a strong wind blew and his face felt even colder.
Explain why his face felt even colder when a strong wind blew. [2]

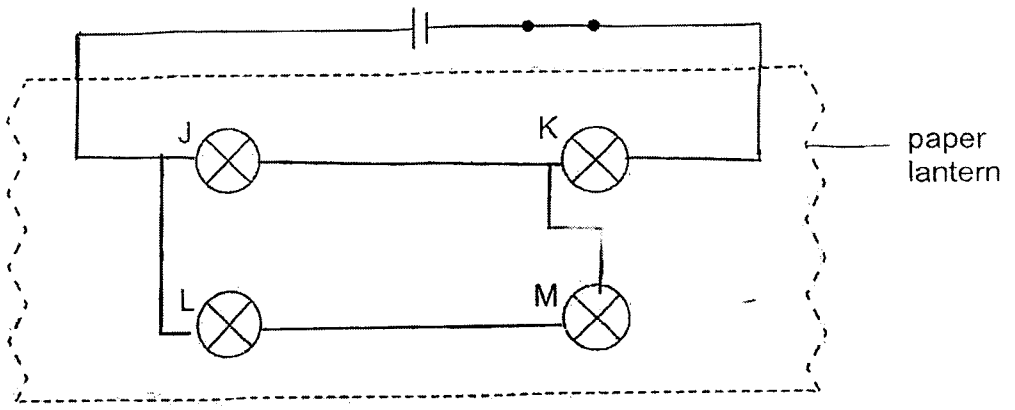
Isaac's mother advised him to close the opening of the packet.



(b) Explain how closing the opening of the packet ensures the tissue does not dry quickly. [2]

SCORE	/4

39 Bulbs J, K, L and M were connected in a circuit hidden in a paper lantern shown below. All the light bulbs lit when the circuit was closed.



The table below shows the observations made when a bulb is removed each time.

Bulb removed	Bulb(s) lit
J	K, L and M
K	None
L	J and K
M	J and K

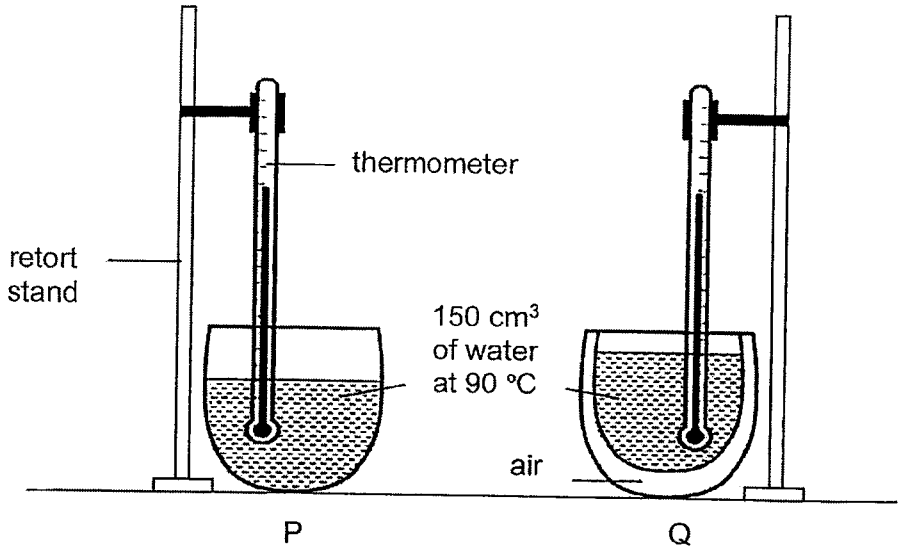
(a) Using the observations in the table above, **complete the circuit in the diagram above** to show how the bulbs were connected. [2]

(b) Suggest a way to make all the bulbs shine brighter. [1]

(c) Hassan saw a shadow cast by the paper lantern on the wall. State the property of light for a shadow to form. [1]

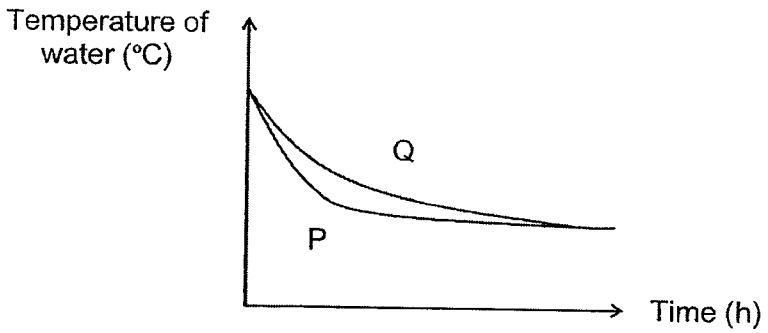
SCORE	/ 4

40 Jennifer conducted an experiment as shown.



She measured the temperature of water in cups P and Q over a period of time.

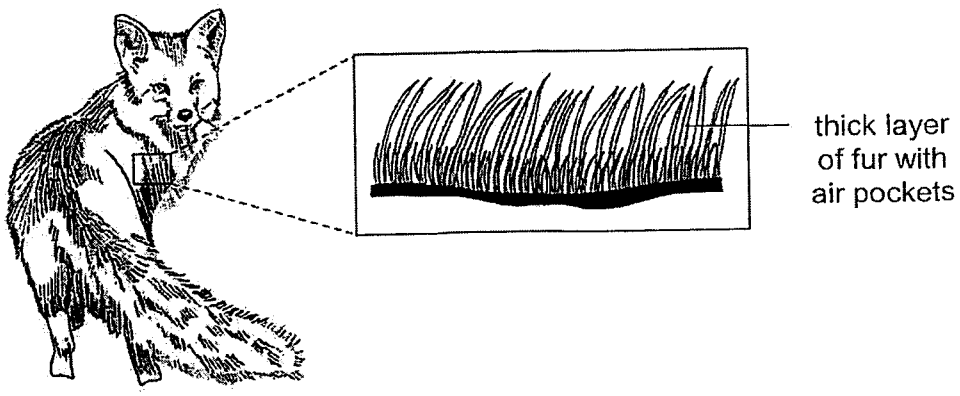
Her results are shown in the graph below.



(a) Based on the graph, which cup, P or Q, is more suitable to serve ice-cream and keep it frozen for a longer period of time? Explain why. [2]

Question 40 continues on Page 15

The picture below shows animal R with a thick layer of fur. There are air pockets among the fur.



(b) Based on the results of Jennifer's experiment, explain how the air pockets help animal R survive in its cold environment. [1]

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END OF BOOKLET B

SCORE	/ 3

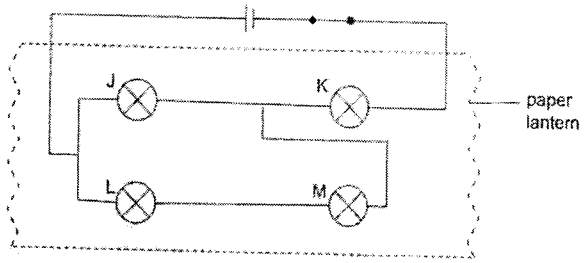
SCHOOL : PAYA LEBAR METHODIST GIRLS' SCHOOL
LEVEL : PRIMARY 6
SUBJECT : SCIENCE
TERM : REVISION 3B 2025

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
2	3	4	2	2	4	2	2	1	3
Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20
1	1	4	3	1	4	3	3	3	2
Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28		
3	4	4	4	3	4	2	2		

PAPER 2

Q29a)	**Concept: Predator-Prey relationship** Ans: T is a prey and W is the predator.
Q29b)	**Skill: Identify producers in a food web** Ans: 2
Q29c)	**Concept: Producers make food** Ans: No. Organism Y is a food producer, so T is not hunting Y.
Q29d)	**Concept: Organisms depend on one another for survival in a food web** Ans: The population of X will decrease as X will not have any R to feed on, dying due to lack of food.
Q30a)	**Concept: Purpose of dispersal** Ans: When the seed is dispersed by a stronger wind, it will be able to travel further away from the parent plant to prevent overcrowding and competition for light, water, mineral salts and space.
Q30b)	**Process skill: Relationship between variables** Ans: The stronger the fan speed, the further distance travelled by the seed.
Q30c)	**Concept: Fair test** Ans: (1) Use two seeds, one with longer wing length, one with shorter wing length. (2) Keep the fan speed the same throughout the experiment.

Q31a)	**Concept: Recognising parts of a plant cell** Ans: Cell wall
Q31b)	**Concept: Recognising parts of an animal cell** Ans: Nucleus
Q31c)	**Concept: Living things reproduce** Ans: Bacteria S can multiply rapidly and make us very sick and taking medicine now helps to kill them before they can cause harm, keeping us safe.
Q31d)	**Skill: Analysing graph** Ans: Medicine C. It has a significant difference between the amount needed to kill bacteria S and the amount that will cause harm to the body. This reduces the risk of overdose and harm.
Q32a)	**Concept: Compare human transport and plant transport system** Ans: The human circulatory system has one transport system while the plant transport system has two. The human circulatory system transports oxygen while the plant transport system does not.
Q32b)	**Concept: Function of food-carrying tubes** Ans: Tube P. Food is transported from the leaves to the roots / rest of plant (through the food-carrying tubes)
Q32c)	**Concept: Living things depend on one another for survival** Ans: They can feed on the sweet substances produced by the tiny insects.
Q33a)	**Concept: Function of lungs** Ans: As the amount of air sacs increases, the rate of gaseous exchange increases because it increases the surface area for gaseous exchange.
Q33b)	**Concept: Function of respiratory system** Ans: When you are choking, the food will block the windpipe, not allowing oxygen to pass through it and into the lungs, leading to difficulty in breathing.
Q34a)	**Concept: Populations of organisms** Ans: 5
Q34b)	**Concept: Factors affecting survival of organisms** Ans: When the temperature of the water increases, the amount of oxygen decreases. The fish needs to take in more oxygen, hence the breathing rate of fish increased.
Q34c)	**Concept: Factors affecting survival of organisms** Ans: This will allow S to hide in the hard shell, to prevent being eaten by predator easily as they may not be able to break the shell.
Q35a)	**Concept: Identify elastic spring force** Ans: Elastic spring force
Q35b)	**Concept: Reading of graph for original length of spring** Ans: Spring A : 10cm Spring B: 20cm
Q35c)	**Concept: Reliability of results** Ans: Repeat the experiment three times and find the average reading.
Q36a)	**Concept: Measure volume using appropriate apparatus** Ans: Fill the jar with water until it is full, then pour the water into a measuring cylinder to measure its volume.
Q36b)	**Concept: Solids have a definite shape** Ans: The stars have a definite shape and do not pack perfectly together, leaving air spaces between them.

Q37a)	**Concept: Conversion of energy to various flame** Gravitational potential energy ⟶ Kinetic energy ⟶ Heat + Sound
Q37b)	**Concept: Accuracy / Fair test** Ans: To ensure a fair test and so that the uneven surface would not affect the results.
Q37c)	**Concept: Making conclusions from results of experiment** Ans: As the height of the ball increases, the potential energy increases.
Q37d)	**Concept: Effect of mass on gravitational potential energy** Ans: Fruit H has a greater mass than Fruit G. Given the same height the fruits were released, Fruit H will create a deeper dent.
Q38a)	**Concept: Evaporation of water causes cooling effect** Ans: The strong wind increased the rate of evaporation, causing more heat to be absorbed from Isaac's face and making his face feel ever colder.
Q38b)	**Concept: Exposed surface area as a factor affecting rate of evaporation** Ans: There is less exposed surface area to the surrounding air of the wet tissue. Less water from the tissue evaporate, keeping the tissue moist for a longer period of time.
Q39a)	**Concept : Construct simple circuits from circuit diagram** 
Q39b)	**Concept: Effect of number of batteries on current in circuit** Ans: Increase the number of batteries. OR All bulbs arranged in series with one another.
Q39c)	**Concept: Shadow is formed when light is blocked** Ans: Shadow is formed when light cannot pass through opaque objects.
Q40a)	**Concept: Identify poor conductors of heat** Ans: Cup Q. It has an air pocket that acts as insulation, reducing heat transfer and slowing down the melting process.
Q40b)	**Concept: Adaptation of animal to cold environment** Ans: Air is a poor conductor of heat, it slows down the transfer of heat from the animal's body to the surrounding cold environment, thus keeping the animal warm and helping it to survive.