

METHODIST GIRLS' SCHOOL

Founded in 1887



PRELIMINARY EXAMINATION 2026

PRIMARY 6

SCIENCE

BOOKLET A

Total Time for Booklets A and B: 1 hour 45 minutes

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Shade your answers in the Optical Answer Sheet (OAS) provided.

Name: _____ ()

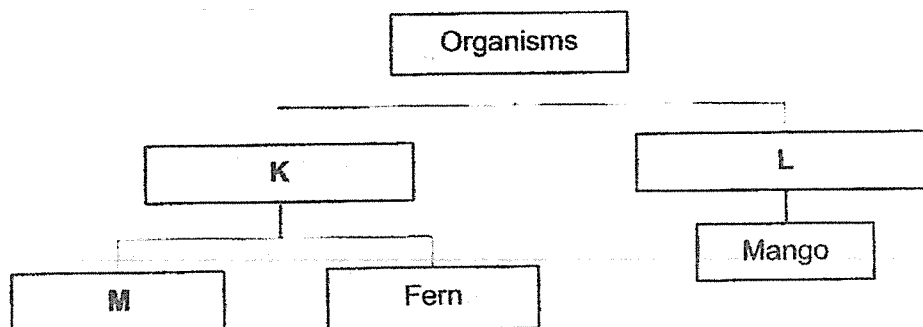
Class: Primary 6. ____ _

Date: 20 August 2026

This booklet consists of 22 printed pages including this page.

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 on the Optical Answer Sheet (OAS).
[60 marks]

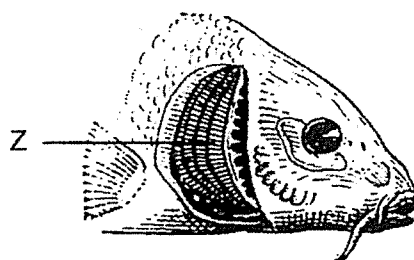
1 Study the chart below.



Which of following is correct for K, L and M?

	K	L	M
(1)	Reproduce by seeds	Reproduce by spores	Moss
(2)	Non-Flowering plant	Flowering plant	Mushroom
(3)	Reproduce by spores	Reproduce by seeds	Mushroom
(4)	Reproduce by spores	Reproduce by seeds	Bacteria

2 Study the diagram below.



Which of the following has the same function as part Z?

	In Plant	In Human
(1)	Tiny openings	Lungs
(2)	Tiny openings	Nose
(3)	Stems	Blood
(4)	Roots	Mouth

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- 3 Enxi observed the life cycles of Insects A and B over a period of time as shown below.

Insect A		Insect B	
			
Young	Adult	Young	Adult

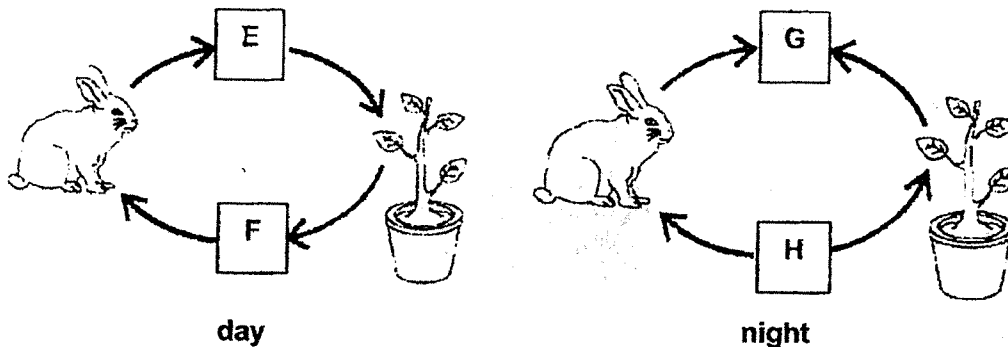
She recorded the day on which a new stage of the life cycle began for each insect, as shown in the table below. Stage 1 refers to the egg.

Stage of Life Cycle	Day on which new stage of life cycle began	
	Insect A	Insect B
Stage 1	Day 1	Day 1
Stage 2	Day 5	Day 6
Stage 3	Day 20	Day 17
Stage 4	-	Day 24

On which day would Enxi observe both a pupa and a nymph?

- (1) Day 5
- (2) Day 6
- (3) Day 17
- (4) Day 20

- 4 The diagrams below show the movement of gases during day and night.

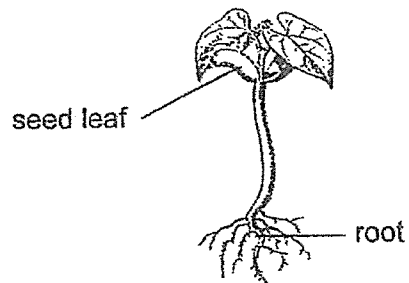


Which letters represent carbon dioxide?

- (1) E and G
- (2) E and H
- (3) F and G
- (4) F and H

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5 The diagram below shows a seedling.

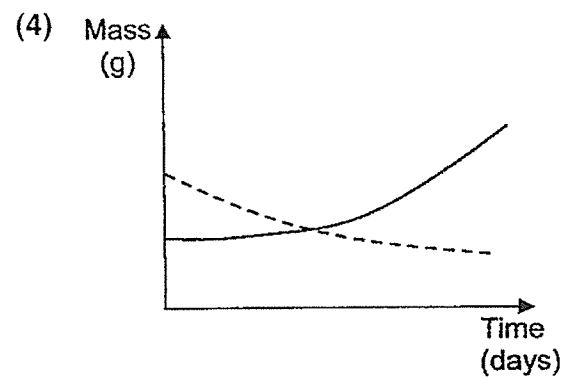
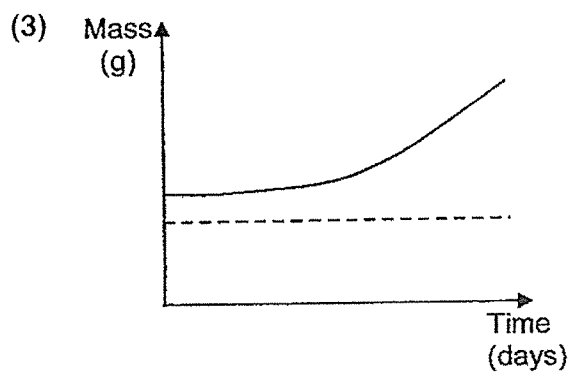
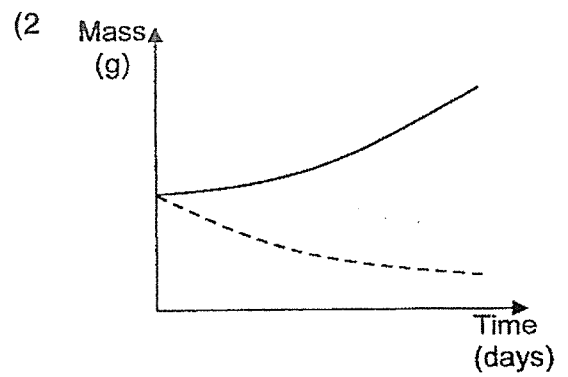
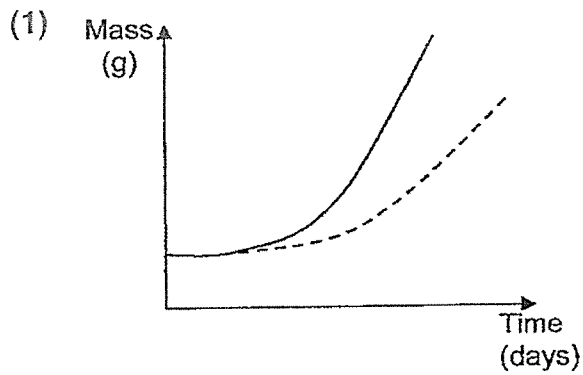


Which of the following graphs correctly shows the changes in the mass of the seed leaves and the seedling over the next few days?

Legend:

— seedling

----- seed leaves



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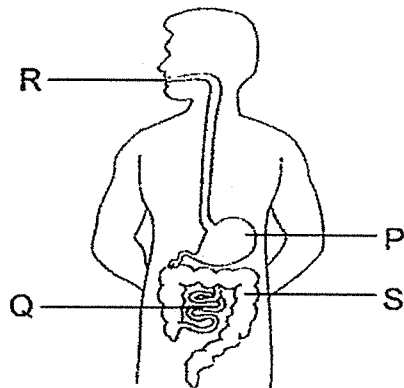
6 Study the table below.

	Parts of the digestive system			
	P	Q	R	S
Digestion takes place	✓	✓		✓
Removes water from food			✓	
Absorbs digested food into the bloodstream				✓

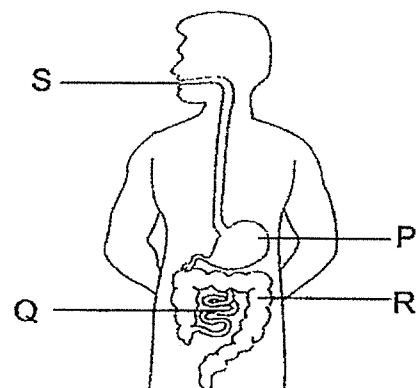
Key
✓ : present

Which of the following is correct?

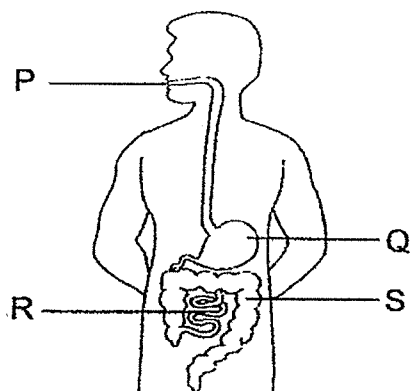
(1)



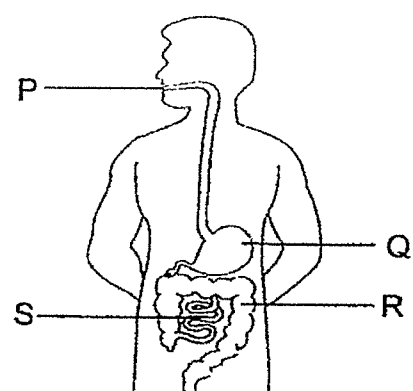
(2)



(3)

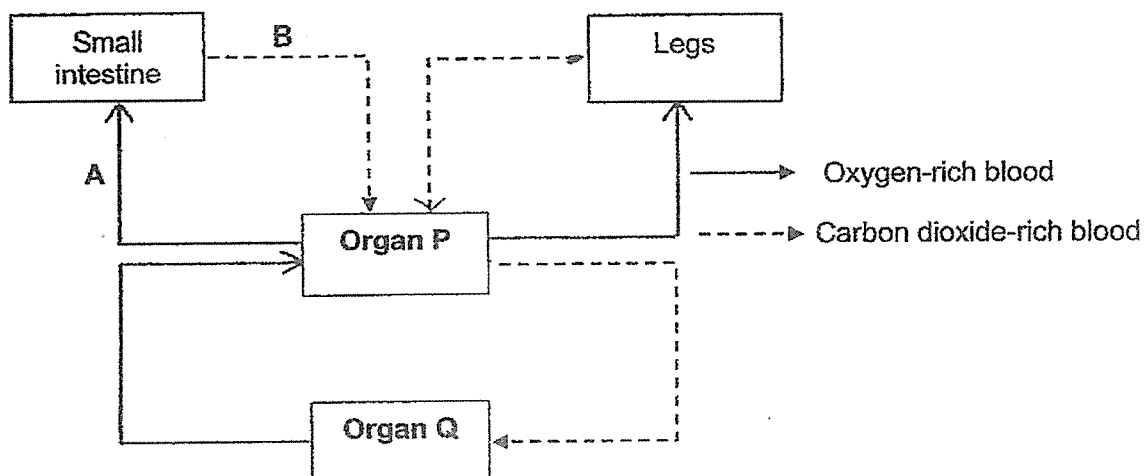


(4)



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- 7 The diagram shows the direction of blood flow in certain parts of the body.



Which of the following is correct for A, P and Q?

	A	Organ P	Organ Q
(1)	Contains more digested food than B	Lungs	Heart
(2)	Contains less digested food than B	Lungs	Heart
(3)	Contains more digested food than B	Heart	Lungs
(4)	Contains less digested food than B	Heart	Lungs

Use the information below to answer Questions 8 and 9.

- 8 Joe wanted to conduct an experiment to find out whether water is needed for the decomposition of leaves. He prepared four bags with an equal amount of soil. He then added dead leaves and water to the soil. The table below shows the amount of dead leaves and water he added to each of the four bags.

Bag	Mass of dead leaves added (g)	Amount of water added (ml)
A	100	0
B	50	10
C	50	0
D	150	10

Which of the following should not be kept constant to ensure a fair test?

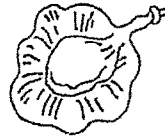
- (1) The type of soil
 - (2) The presence of water
 - (3) The mass of dead leaves
 - (4) The surrounding temperature
- 9 Joe then wanted to find out if light is needed for decomposition to take place. State the changes that he would need to make if he used bags B and D.
- A Increase the amount of water in bag B to 20 ml
 - B Increase the mass of dead leaves in bag B to 150 g
 - C Decrease the amount of dead leaves in bag D to 50 g
 - D Put bag B in a place with light and bag D in a place without light
- (1) A and B only
 - (2) A and C only
 - (3) A and D only
 - (4) B and D only

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10 Study the diagrams below.



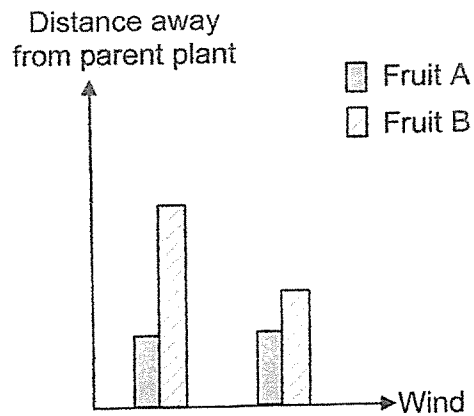
Fruit A



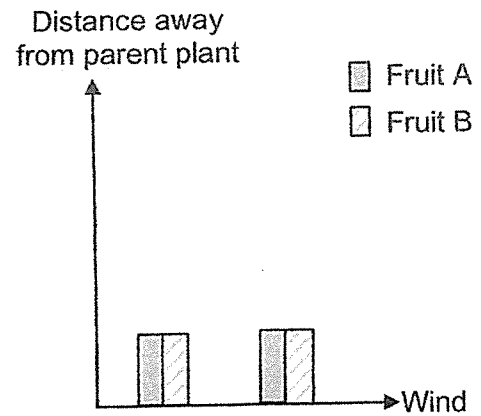
Fruit B

Which of the following graphs shows the correct relationship between the strength of wind and the distance of the fruits dispersed?

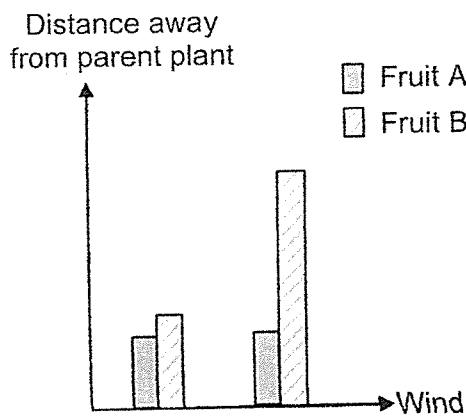
(1)



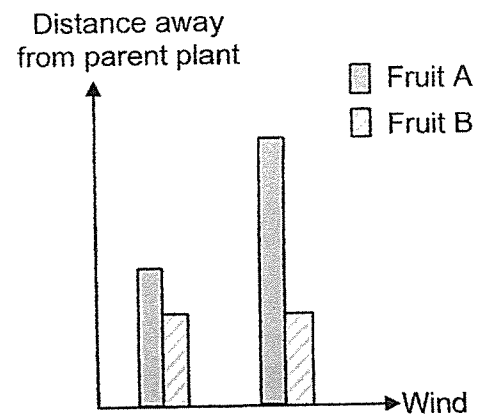
(2)



(3)

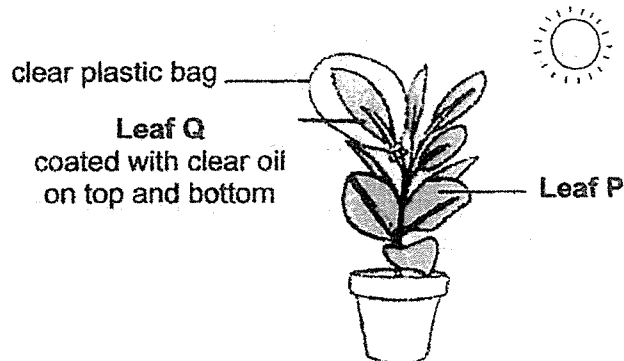


(4)

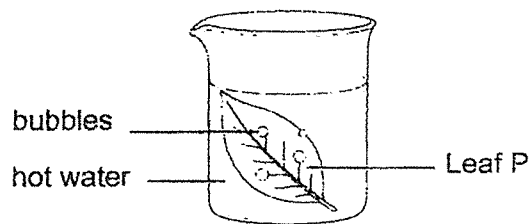


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- 11 Timothy coated a layer of clear oil on top and at the bottom of Leaf Q. He then wrapped Leaf Q in a clear plastic bag as shown below. The plant was placed in the garden from morning till sunset.



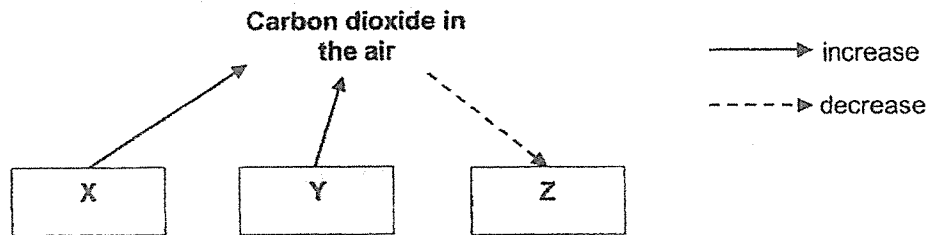
After sunset, Timothy removed leaves P and Q and placed them into a beaker of hot water as shown below. He counted the number of oxygen bubbles on both leaves. There were some bubbles released from Leaf P.



Timothy observed less bubbles on Leaf Q. Which of the following would be the likely reason?

- (1) Leaf Q could not trap light.
- (2) Leaf Q had fewer tiny openings.
- (3) Leaf Q could not take in carbon dioxide.
- (4) Leaf Q could not trap light and take in carbon dioxide.

- 12 The diagram shows some processes that can increase or decrease the amount of carbon dioxide in the air.



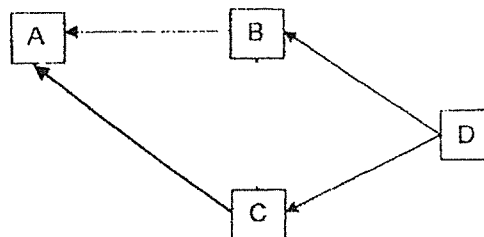
Which of the following shows correct processes for X, Y and Z?

	X	Y	Z
(1)	Burning	Decomposition	Photosynthesis
(2)	Decomposition	Photosynthesis	Burning
(3)	Burning	Photosynthesis	Decomposition
(4)	Photosynthesis	Burning	Respiration

- 13 Which of the following is **not** a result of deforestation?

- (1) higher temperature
- (2) more soil would be eroded
- (3) thinning of ice on the surface of sea water
- (4) more carbon dioxide would be absorbed from the air

- 14 Study the food web in a habitat with organisms A, B, C and D.



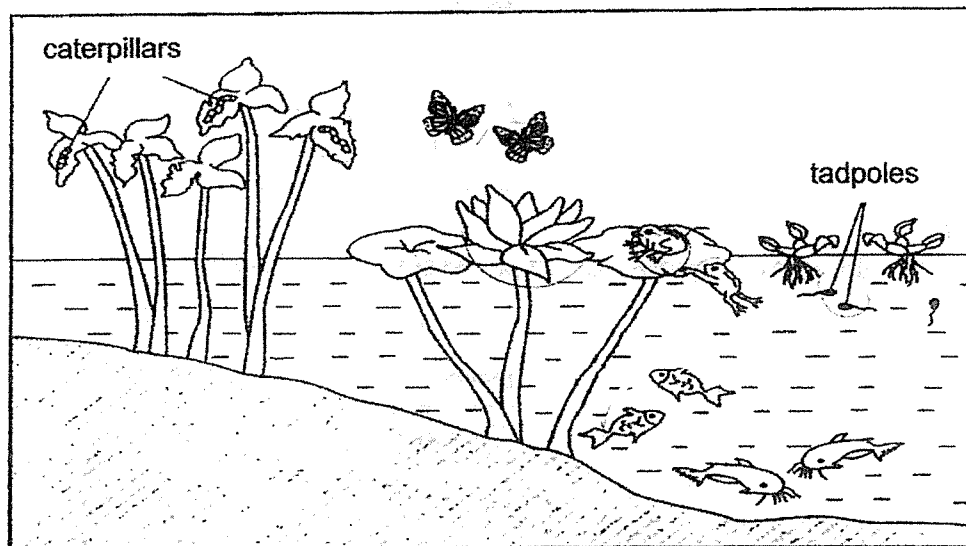
A large number of organism G were accidentally introduced into the habitat. G only eat one type of organism in this habitat. After some time, all the other organisms decreased in number.

Which organism did G eat?

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

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- 15 The diagram below shows some organisms which can be found in a pond community.

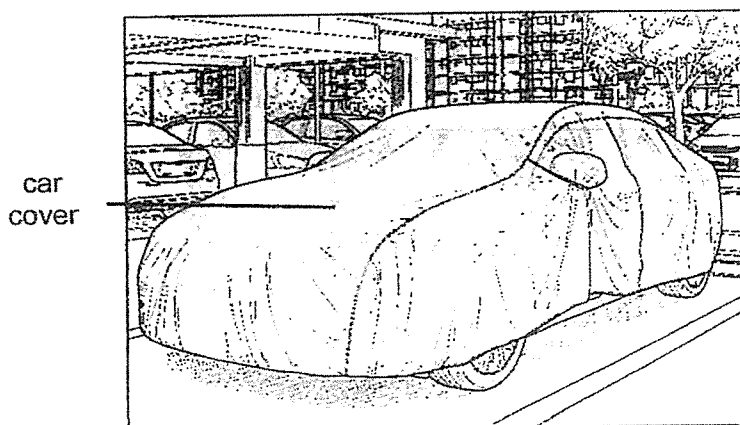


How many populations of producers and consumers are present in this habitat?

	Producers	Consumers
(1)	2	4
(2)	3	4
(3)	3	6
(4)	10	14

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- 16 Mdm Zalina puts a car cover over her vehicle at the open air carpark. The car cover protects her vehicle from the rain and the strong sunlight.

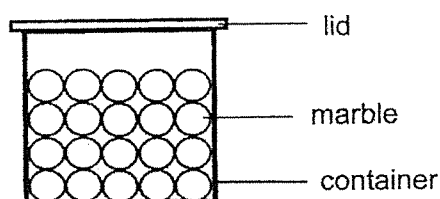


Which of the following correctly states the properties of the material used to make the car cover?

	allows light to pass through	flexible	waterproof
(1)	✓	✓	x
(2)	✓	x	✓
(3)	x	✓	✓
(4)	x	x	x

Key:
x : no
✓ : yes

- 17 Rachel placed twenty marbles in a 60 cm³ container with a lid as shown below. Each marble has a volume of 2 cm³.



When she tried to add ten more marbles to the container, she could not close the lid. However, she was able to pour 20 cm³ of water into the container without the water overflowing.

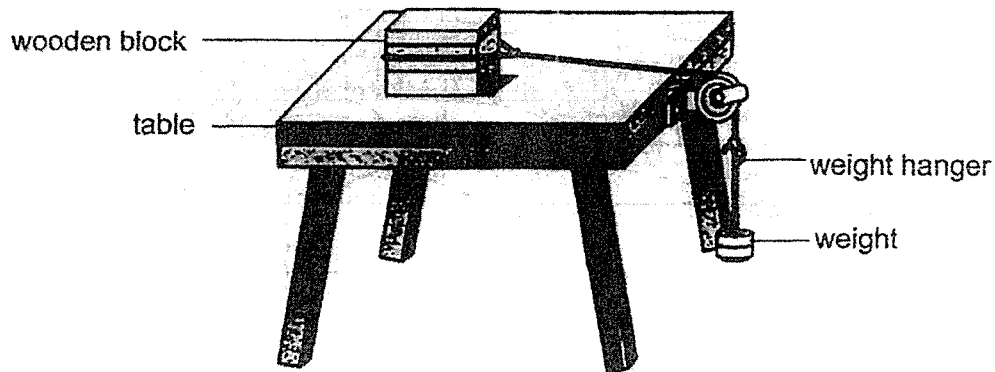
Which of the following statements is/are correct?

- A Liquid has no definite volume but solid has a definite volume.
- B The total volume of thirty marbles is more than the volume of the container.
- C The total volume of twenty marbles and the water is the same as the volume of the container.

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

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- 18 Ravi wanted to investigate the amount of force required to move a wooden block across a table. He added 50 g weights one at a time until the block started to move across the table.



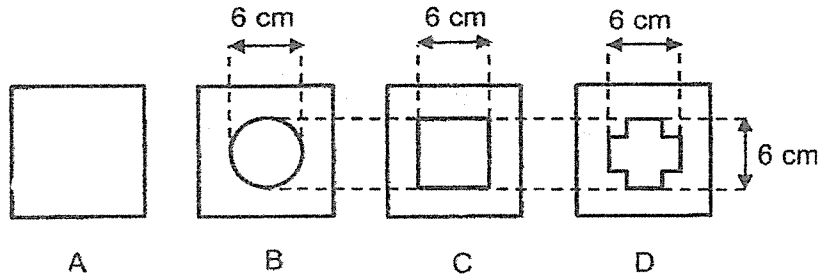
He had four set-ups and changed the variables for each one. He recorded his results in the table below.

Set-up	Mass of block (g)	Surface area of block in contact with the table (cm ²)	Number of 50 g weights required for the block to move
P	250	40	4
Q	250	15	6
R	300	15	8
S	300	40	8

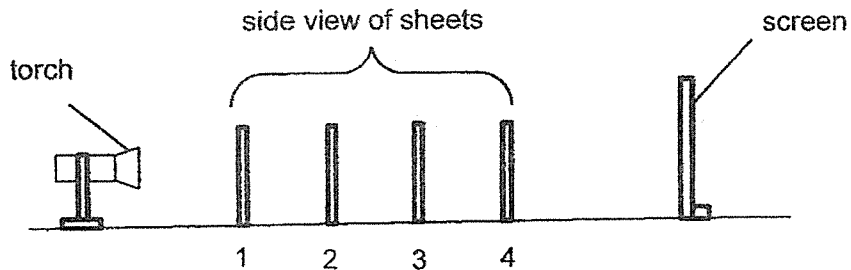
Ravi hypothesised that the surface area of the block in contact with the table did not affect the amount of force required to move it across the table. Which two set-ups support his hypothesis?

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

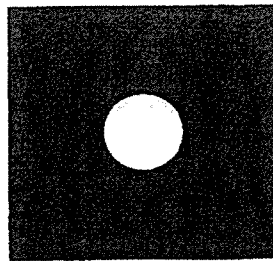
- 19 Siti has four square sheets, A, B, C and D, each made of different materials. Sheets A and D allow all light to pass through while sheets B and C do not allow any light to pass through. She cuts out different shapes at the centre of sheets B, C and D as shown in the diagram below. Sheet A remains uncut.



Siti then placed the sheets in the four positions, 1, 2, 3 and 4, in an experimental set-up as shown.



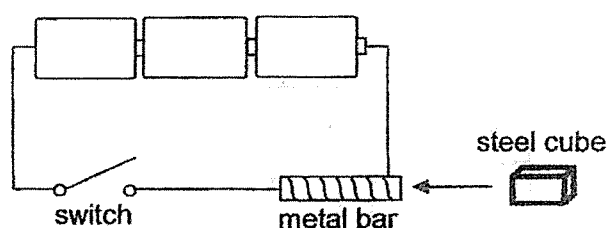
The diagram below shows the shadow she observed on the screen when the torch was switched on.



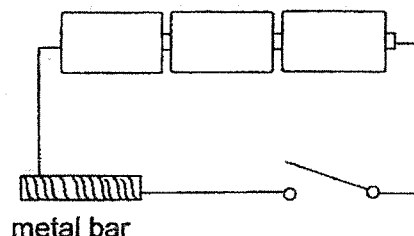
Which of the following is a possible arrangement of the positions of the four sheets?

Position of sheets				
	1	2	3	4
(1)	A	B	C	D
(2)	A	C	D	B
(3)	A	D	B	C
(4)	B	D	C	A

- 20 Mark set up two circuits, W and X, as shown below. He turned a different number of coils of wire around the metal bars in each circuit. A steel cube was placed at equal distance from circuits W and X. He closed both switches at the same time.



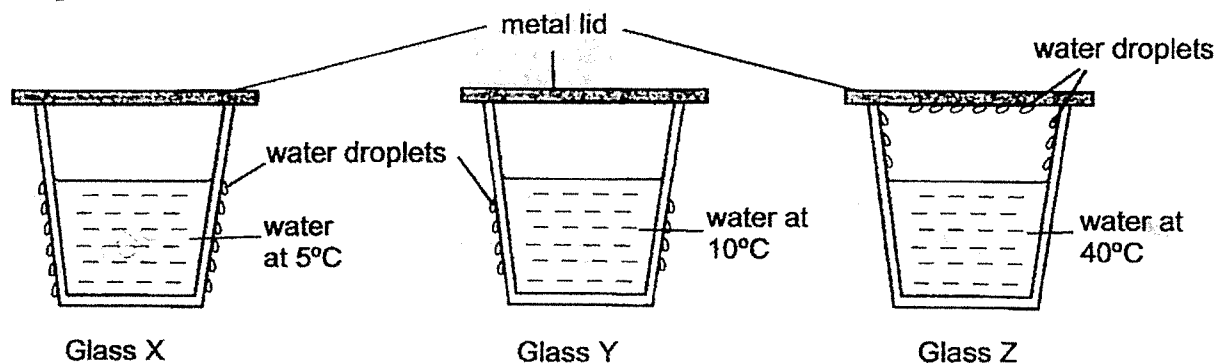
Circuit W



Circuit X

He observed that the steel cube move towards the metal bar in Circuit W. Which of the following statements is/are correct?

- A The metal bar in Circuit W is magnetised
 - B The metal bar in Circuit X repelled the steel cube
 - C There are more coils of wire around the metal bar in Circuit W
- (1) A only
 (2) A and B only
 (3) B and C only
 (4) A, B and C
- 21 Three identical glasses, X, Y and Z, containing the same volume of water at different temperatures were placed in a room. At the end of 10 minutes, water droplets were seen on the glasses as shown below.

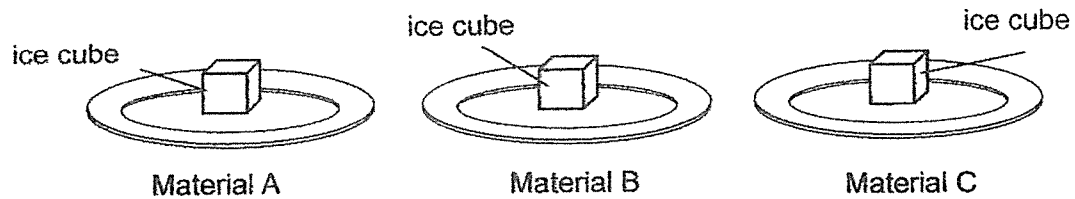


What is the possible temperature of the room?

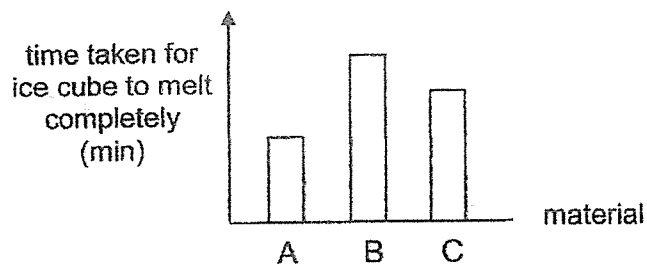
- (1) 6 °C
- (2) 10 °C
- (3) 35 °C
- (4) 45 °C

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- 22 Marilyn placed three similar ice cubes on three plates, made of different materials A, B and C.

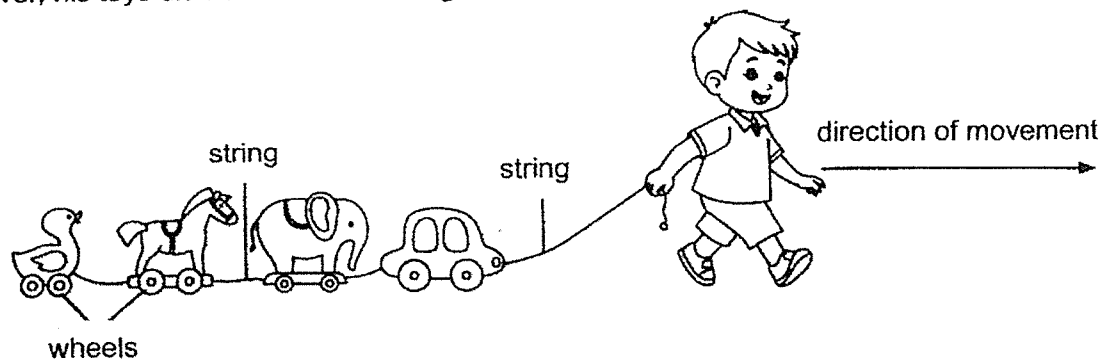


She measured the time taken for each ice cube to melt completely and recorded the results in the bar graph below.



Based on the results, which of the following statements is correct?

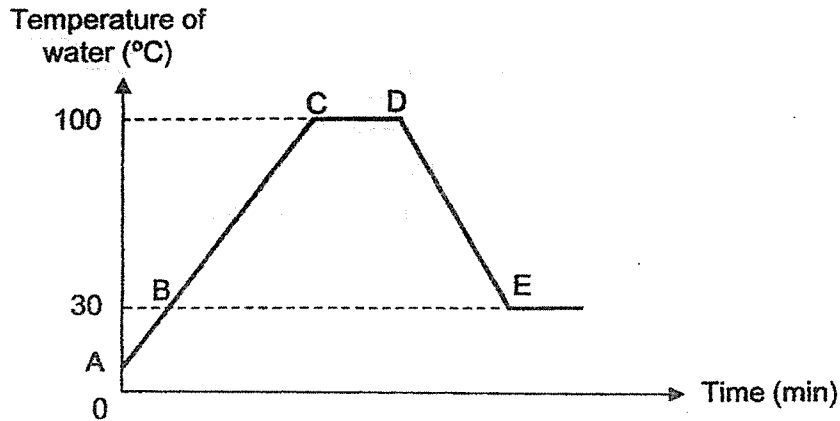
- (1) Material B loses heat the fastest.
 - (2) Material A gains heat the slowest.
 - (3) Material C gains heat faster than B.
 - (4) Material A gains heat slower than B.
- 23 Jun Han used a string to pull his row of toys forward while walking in a straight line. However, his toys did not move in a straight line.



Which of the following best explains why his toys did not move in a straight line?

- (1) The force acting on each toy is in a different direction.
- (2) More gravitational force acts on Jun Han than the toys.
- (3) There are different amount of friction between the wheels and the floor.
- (4) The weight of the toys is greater than the gravitational force acting on them.

- 24 Kamal took a beaker of water from the fridge and heated it on a heating plate. He removed it from the heating plate at D. He measured the temperature of water and drew a line graph to show the changes in the temperature of water over time.



Based on Kamal's results, which of the following statements is/are true?

- A The water lost heat at DE only.
 B Evaporation took place at AB and BC only.
 C The water reached room temperature of 30 °C at E.

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

- 25 The table below shows the state of substances X and Y at three different temperatures, 25°C, 60°C and 80°C.

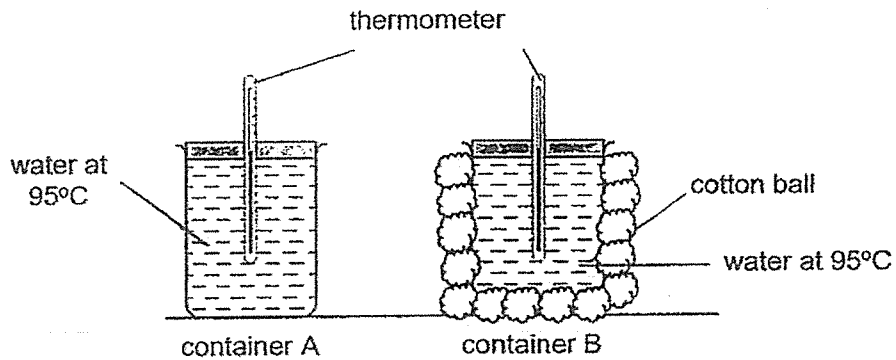
Substance	State at 25°C	State at 60°C	State at 80°C
X	liquid	gas	gas
Y	solid	solid	liquid

Which of the following shows the possible boiling point of X and melting point of Y?

	Boiling point of X (°C)	Melting point of Y (°C)
(1)	20	50
(2)	70	90
(3)	90	30
(4)	50	70

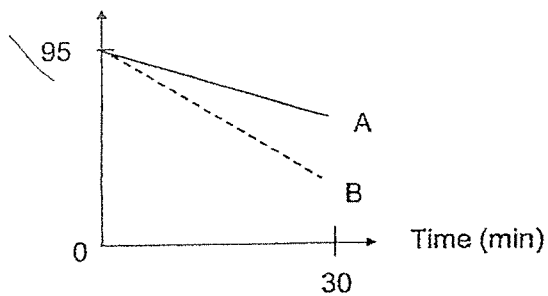
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- 26 Charlie prepared two identical containers of water, A and B, containing the same amount of water at 95°C . She wrapped container B with cotton balls as shown below and left them on a table over a period of time.

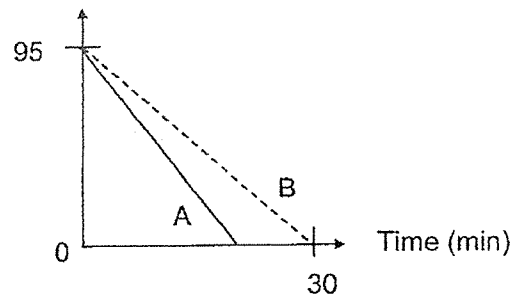


Which one of the following graphs correctly shows the change in temperature of water in each container over 30 minutes?

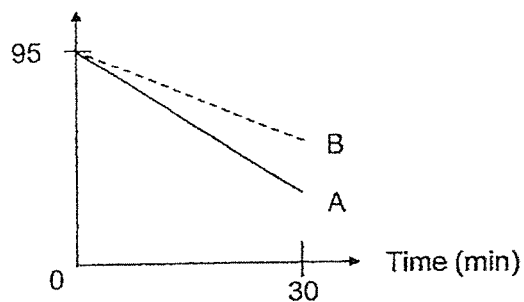
(1) Temperature ($^{\circ}\text{C}$)



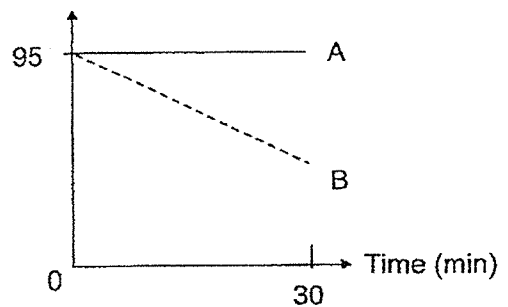
(2) Temperature ($^{\circ}\text{C}$)



(3) Temperature ($^{\circ}\text{C}$)

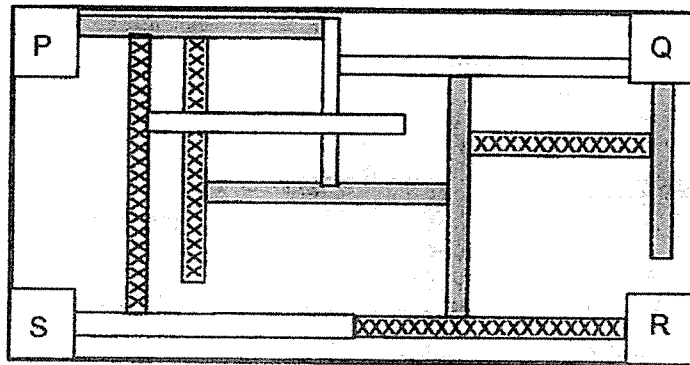


(4) Temperature ($^{\circ}\text{C}$)



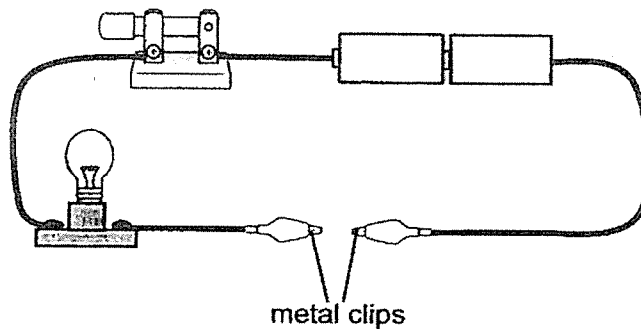
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- 27 Sophie created an electric circuit maze using strips of different materials overlapping one another and a cardboard base as shown in the diagram below. The four corners, labelled P, Q, R and S, were made of electrical conductors.



Key:	
Aluminium strip	
Copper strip	
Plastic strip	

She constructed a circuit tester as shown below.

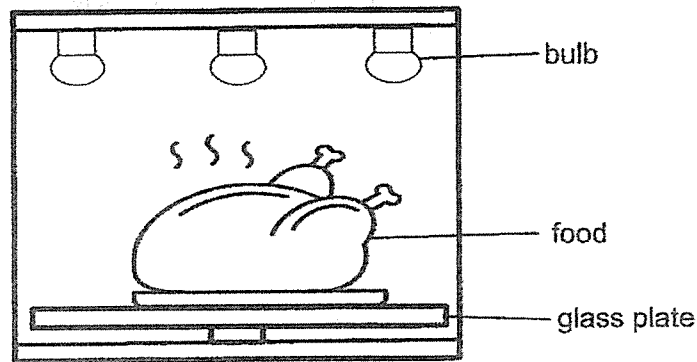


Sophie attached the metal clips to two corners of the cardboard at a time. Which of the following would she observe?

	Two corners that metal clips are attached to	Does the bulb light up?
(1)	P and Q	No
(2)	P and S	No
(3)	Q and R	No
(4)	R and S	Yes

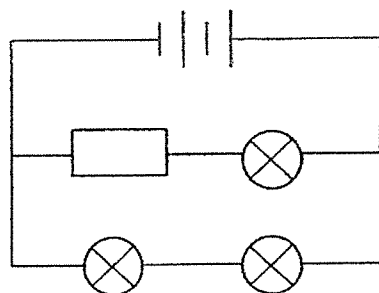
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- 28 The diagram below shows a simplified microwave oven used to heat up food. When the oven is turned on, the glass plate rotates and the bulbs light up.

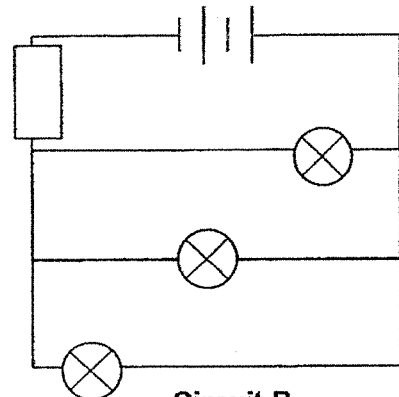


When Tim switched on the oven, he observed that one of the bulbs did not light up but the glass plate continued to rotate.

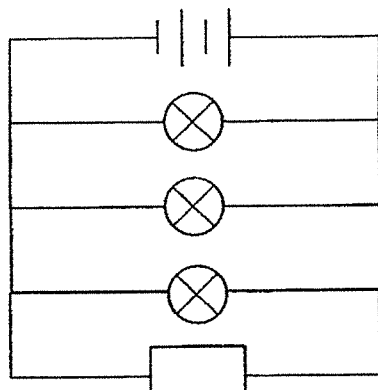
The device that rotates the glass plate is represented by the symbol .



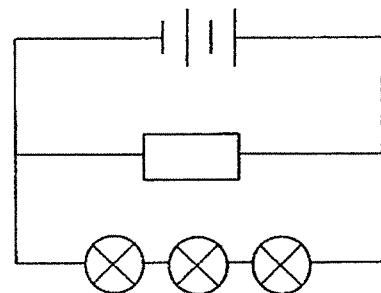
Circuit A



Circuit B



Circuit C



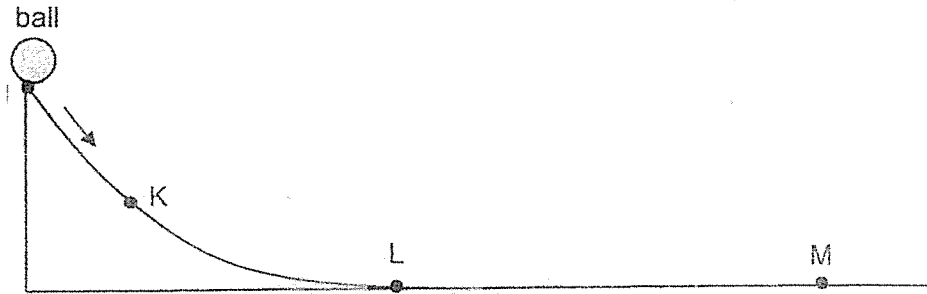
Circuit D

Which of the above electric circuits correctly show the possible circuit arrangement for the microwave oven?

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

(Go on to the next page)

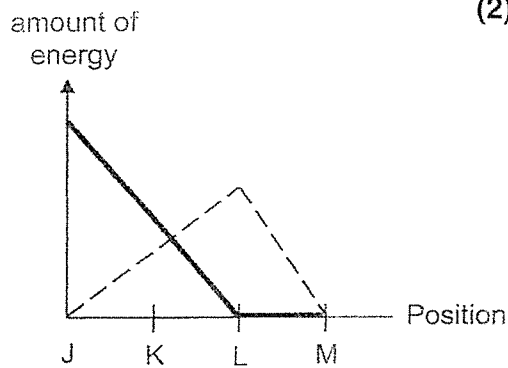
- 29 Roy released a ball from position J on a slope, as shown in the diagram below. The ball rolled past positions K and L before coming to a stop at position M.



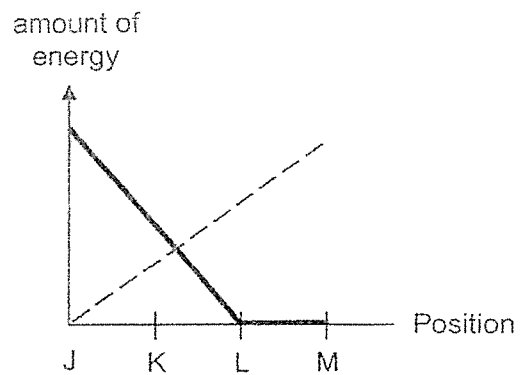
Which one of the following graphs correctly shows the changes in the potential and kinetic energy of the ball from positions J to M?

Key: potential energy ———
kinetic energy - - - - -

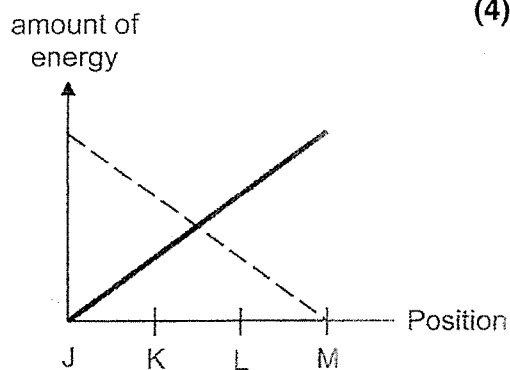
(1)



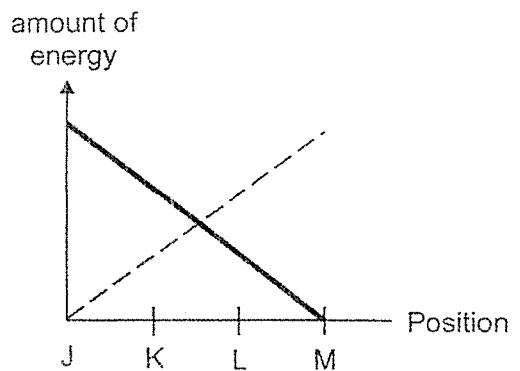
(2)



(3)

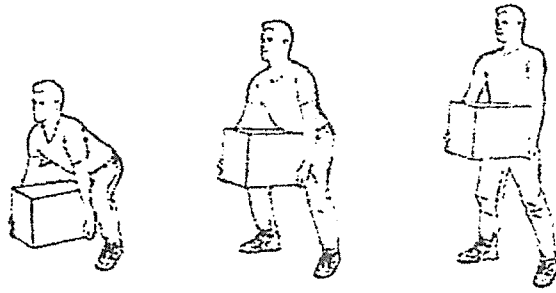


(4)



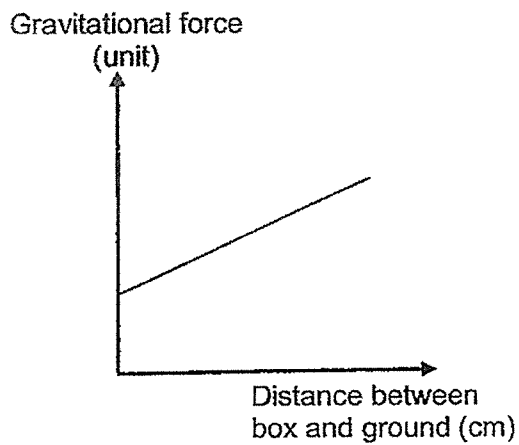
(Go on to the next page)

30 Mr Ashraf lifted a box up as shown below.

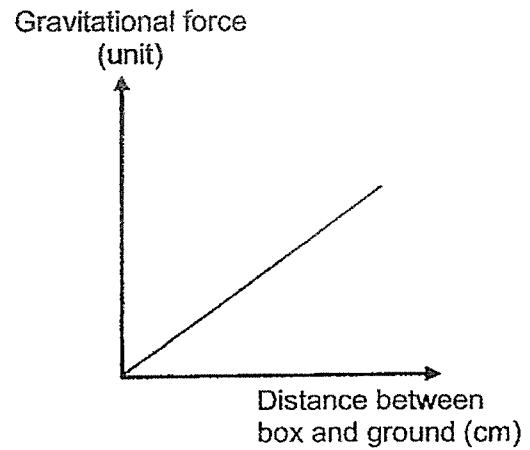


Which of the following graphs correctly shows the amount of gravitational force acting on the box when he lifted it up?

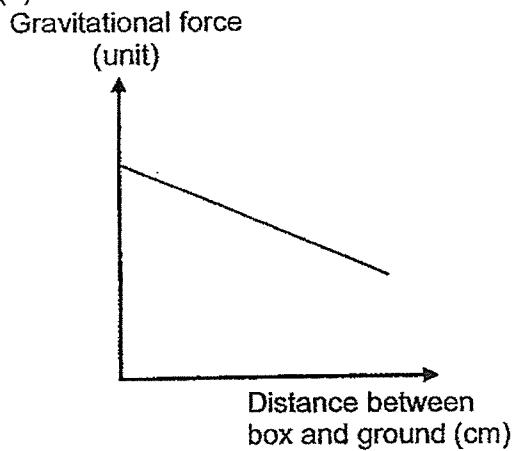
(1)



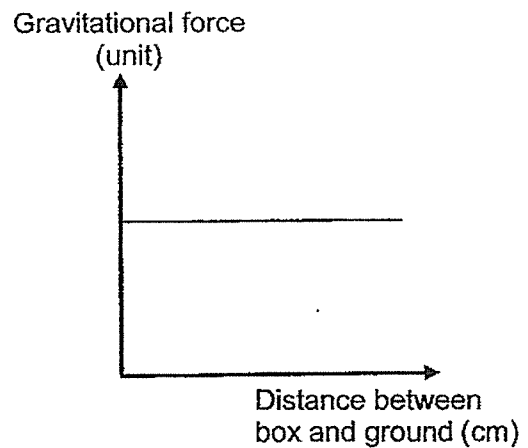
(2)



(3)



(4)



METHODIST GIRLS' SCHOOL

Founded in 1887



PRELIMINARY EXAMINATION 2026 PRIMARY 6 SCIENCE

BOOKLET B

Total Time for Booklets A and B: 1 hour 45 minutes

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Name: _____ ()

Class: Primary 6. _____

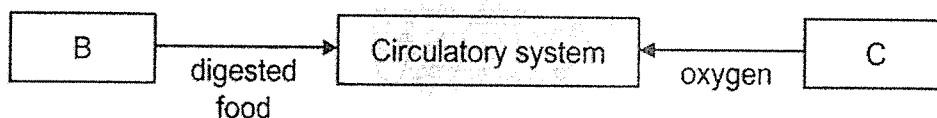
Date : 20 August 2026

Booklet A	60
Booklet B	40
Total	100
Parent's Signature	

This booklet consists of 13 printed pages including this page.

For questions 31 to 41, 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. [40 marks]

31 Study the diagram below.



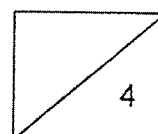
(a) Name the human systems B and C. [1]

B: _____

C: _____

(b) State the functions of system C. [1]

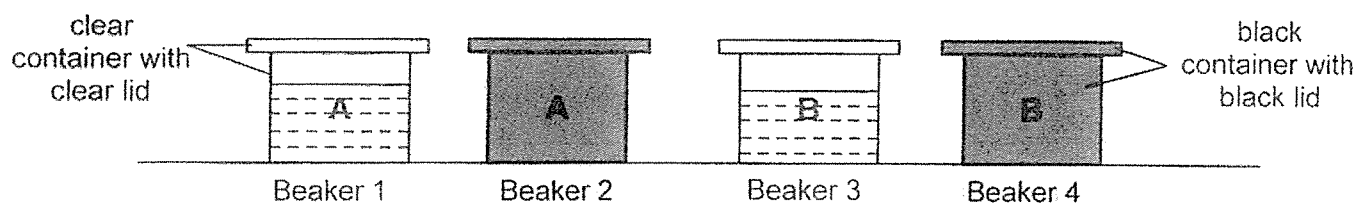
(c) Describe how digested food is transported to all parts of our body. [2]



32 (a) State what respiration is.

[1]

John found two tiny organisms A and B in a pond. He wanted to find out whether they were animals or plants. He filled four beakers, 1, 2, 3 and 4 with the same amount of pond water. He placed organism A in beakers 1 and 2, and organism B in beakers 3 and 4 as shown below.



He added a drop of liquid Y in each beaker. The table below shows the colour of liquid Y in the presence of more oxygen or more carbon dioxide.

	In the presence of more oxygen	In the presence of more carbon dioxide
Colour of liquid Y	Blue	Yellow

At the end of two hours, he observed and recorded the colour of liquid Y in the beakers.

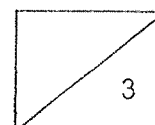
Beaker	Colour of liquid Y
1	Yellow
2	Yellow
3	Blue
4	Yellow

(b) Based on his results, John concluded that A was an animal. Explain how he arrived at this conclusion.

[1]

(c) Explain why liquid Y turned blue in beaker 3.

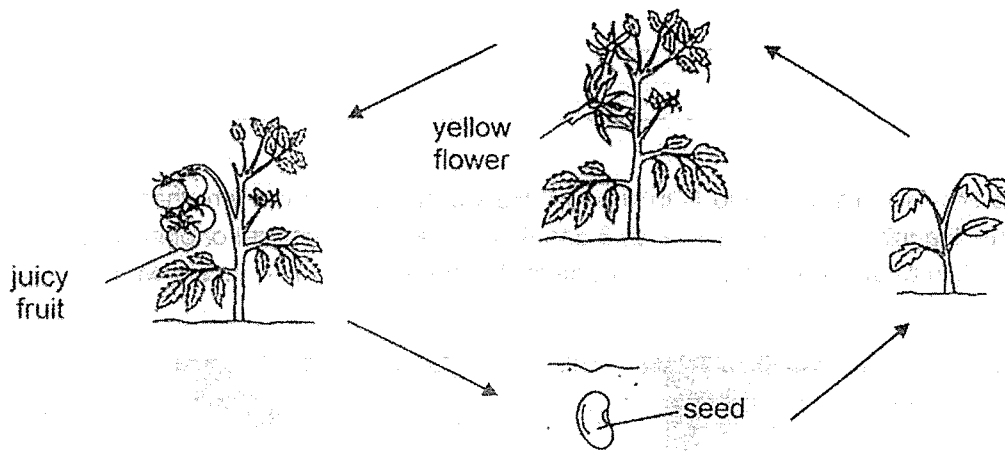
[1]



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33

The diagram shows the processes of reproduction in plant X.

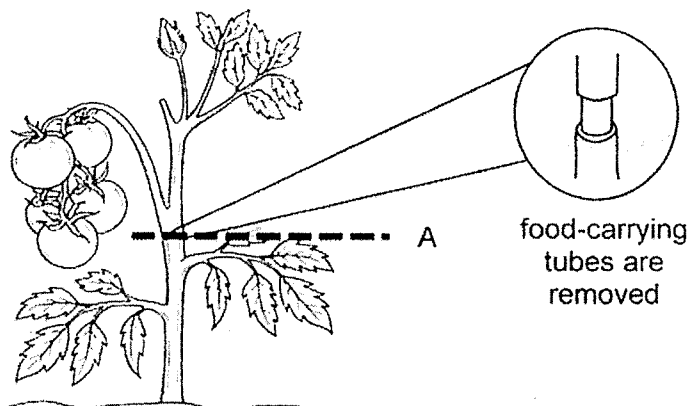


- (a) Name two processes that must take place after germination to produce seeds. [1]

- (b) State the parts of the flower of plant X that juicy fruits and seeds developed from. [1]

Fruits from _____ Seeds from _____

- (c) A farmer uses the seeds from plant X to grow new plants. Explain why the new plants will also develop juicy fruits. [1]

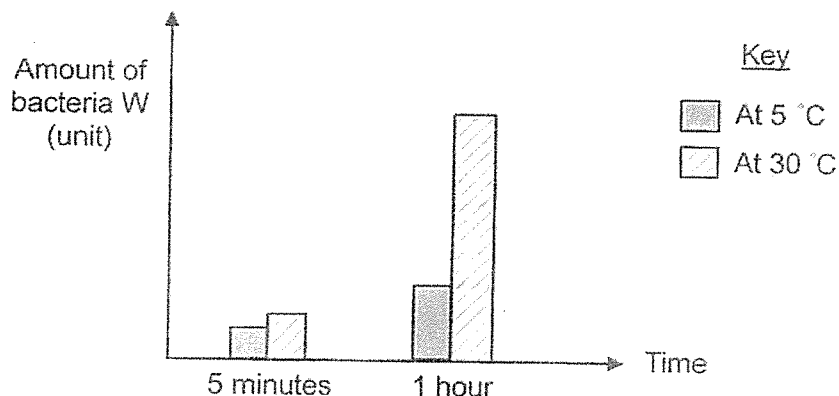


- (d) Food-carrying tubes are removed around the stem at part A. Explain why the fruits produced became smaller. [2]

34

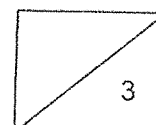
Bacteria W can cause illness when it is present in large numbers. Jane wanted to study how temperature affects the amount of bacteria W left on the cooked food.

She placed a plate of cooked meat inside the fridge at 5 °C and a similar plate of cooked meat at 30 °C. She then recorded the amount of bacteria W in the food at 5 minutes and at 1 hour. Her results are as shown.



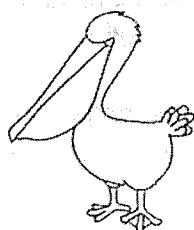
- (a) Based on the graph, explain why Jane should keep the plate of cooked meat in the fridge. [2]

- (b) Suggest a reason why there is a change in the amount of bacteria W at 30 °C after 1 hour. [1]

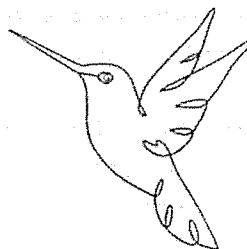


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35 Study the birds below.



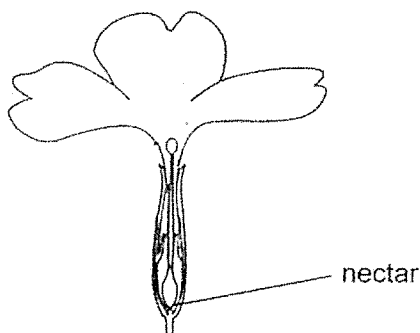
bird X



bird Y

- (a) Which bird, X or Y, is likely to survive in the pond habitat? Give a reason for your answer. [1]

- (b) Some birds feed on nectar of this flower.



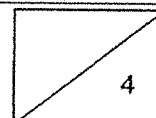
Which bird, X or Y, is adapted to feed on this flower? Explain your answer. [1]

Study bird B below.



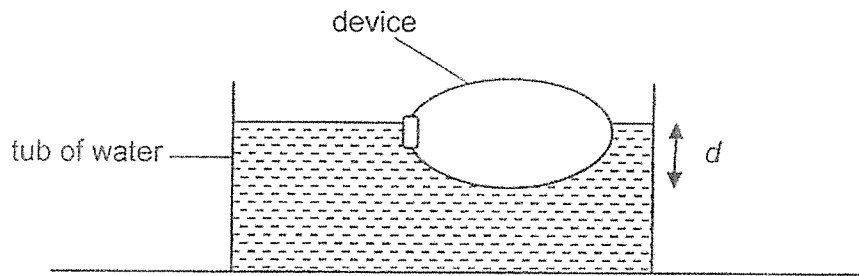
bird B

- (c) State two structural adaptations of bird B that help it to obtain food. [2]



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- 36 Joanne conducted an experiment by pumping air into a plastic device and placing it in a tub of water. She measured the depth d in which the device sank in water.

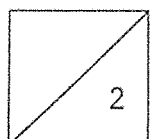


She repeated the experiment using weights of different masses placed on the device. She recorded the results in the table below.

Mass of weight (g)	1000	800	600
Depth d (cm)	5	4	3

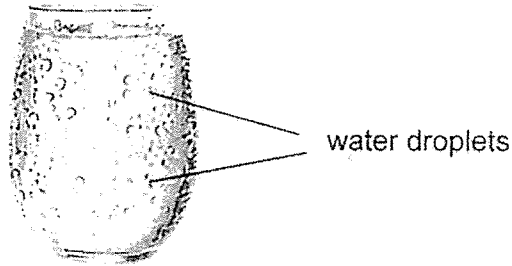
- (a) Based on the results of her experiment, what could she conclude? [1]

- (b) Joanne releases some air from the device. Explain the change in depth d observed. [1]



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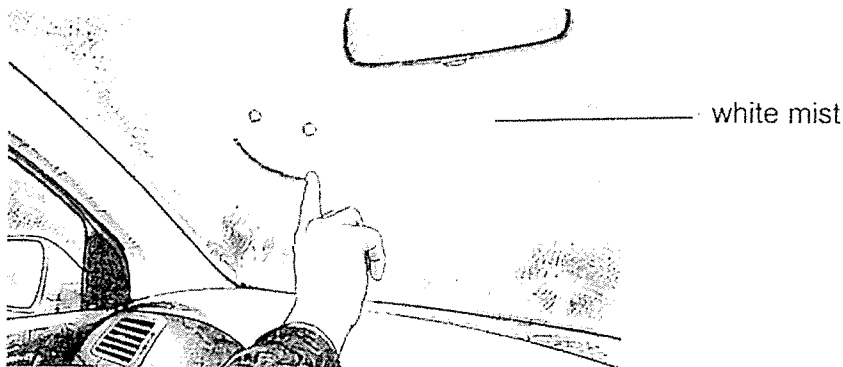
- 37 Min Min took a cup of water out of the fridge and placed it on the dining table. She observed water droplets forming on the outer surface of the cup as shown below.



- (a) Explain how the water droplets formed on the cup.

[2]

On a hot afternoon, Min Min parked her car outdoors before going for lunch. It rained heavily and after she returned to her car 2 hours later, she observed that there was a white mist on the front windscreen of her car. She touched the windscreen as shown below and it was wet. She drew a smiley face.

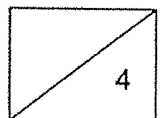


- (b) Based on Min Min's observations, what could she conclude about the difference in temperature of air inside and outside her car?

[1]

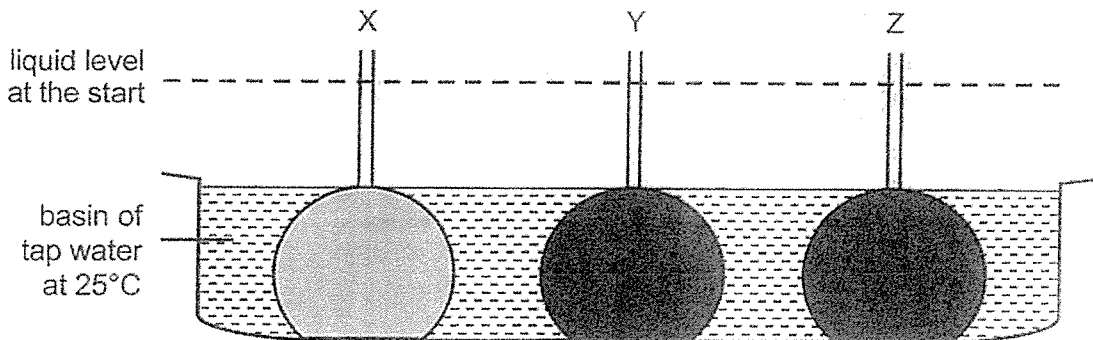
- (c) What could she do to the air-conditioner inside the car to reduce mist from forming?
Explain your answer.

[1]



(Go on to the next page)

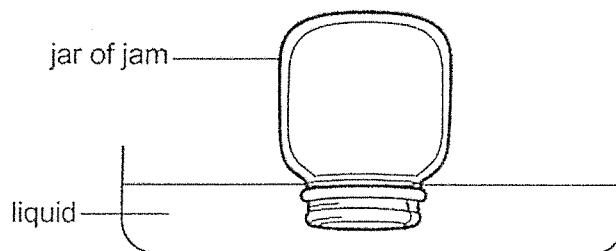
- 38 Rachel filled three similar flasks with the same amount of different liquids, X, Y and Z, at 60°C . The diagram below shows the change in the height of the liquids after the flasks were placed in a basin of tap water for a few minutes.



- (a) Explain why the liquid level in the flasks decreased.

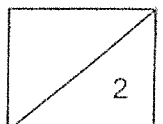
[1]

Rachel took a jar of jam from a kitchen cupboard. She was unable to open the lid. She tried to place the lid submerged in one of the liquids at 60°C .



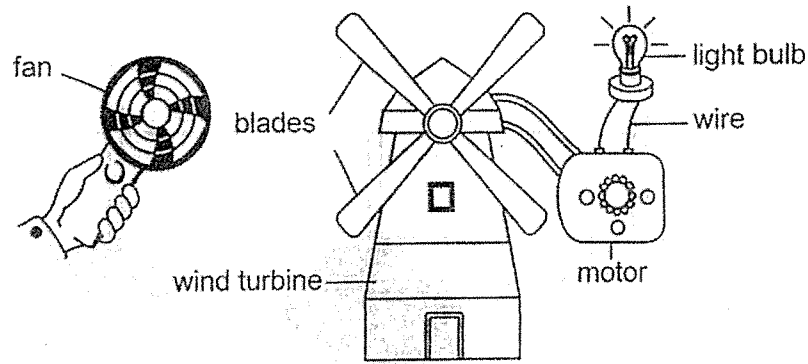
- (b) Based on her experiment, which liquid, X, Y or Z, should she use to open the lid faster? Explain your answer.

[1]



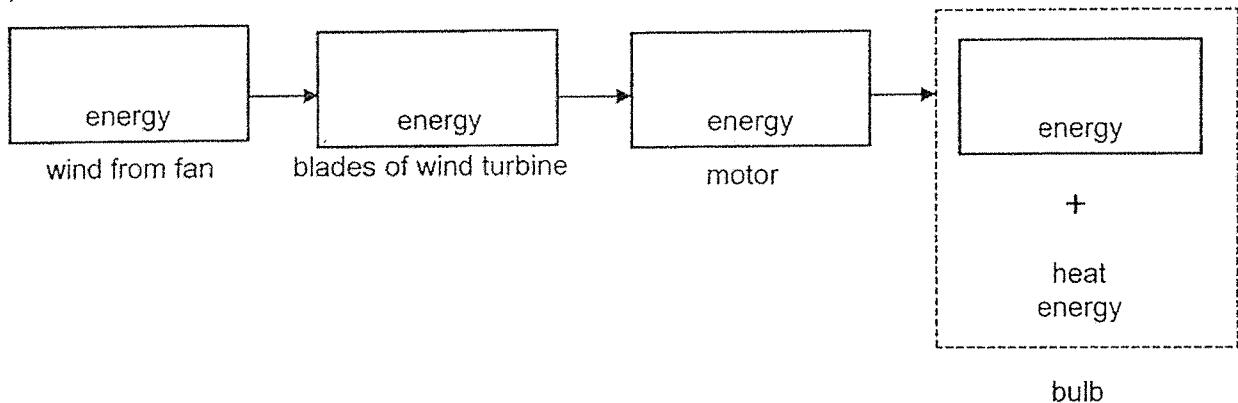
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- 39 Divya built a model of a wind turbine connected to a motor and a bulb. When she turns on her handheld fan, the blades turn and the bulb lights up as shown in the diagram below.

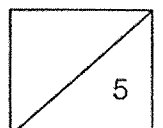


- (a) Divya wanted to find out if the surface area of the blades of the wind turbine affects the time taken for the bulb to light up. State a possible hypothesis for her experiment. [1]

- (b) Fill in the boxes with the forms of energy as Divya turns on her fan. [2]

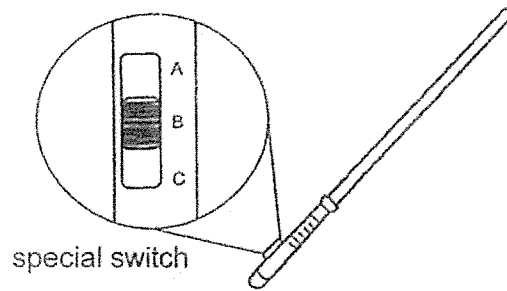


- (c) Explain how adding one more fan will affect the time taken for the bulb to light up. [2]



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- 40 Max has a light sabre toy controlled by a special switch as shown below.

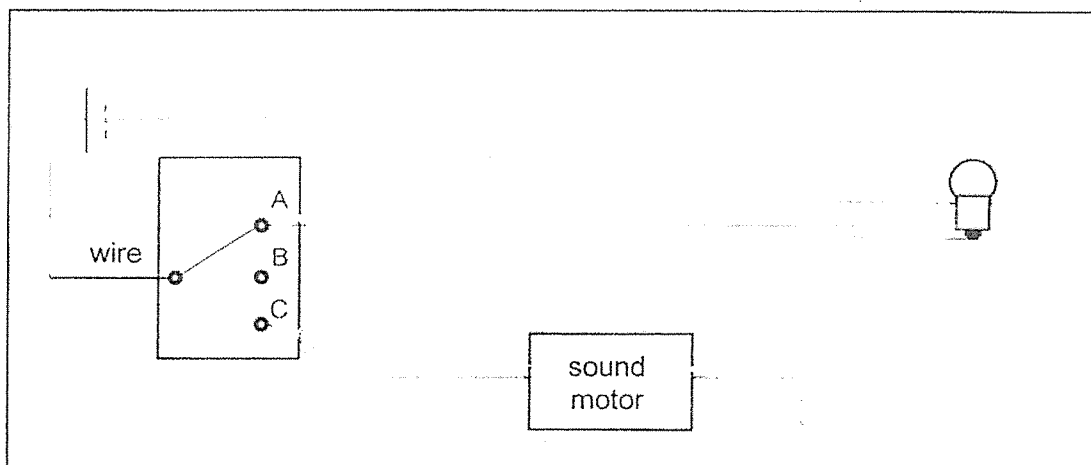


The table below shows what he observes when he turns the switch to positions A, B and C.

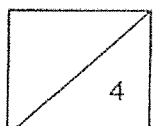
Position	Observation
A	Toy lights up
B	Toy does not light up and there is no sound
C	Toy lights up and emits a beep sound

- (a) Explain why the toy did not light up or emit a sound when the switch is at Position B. [1]

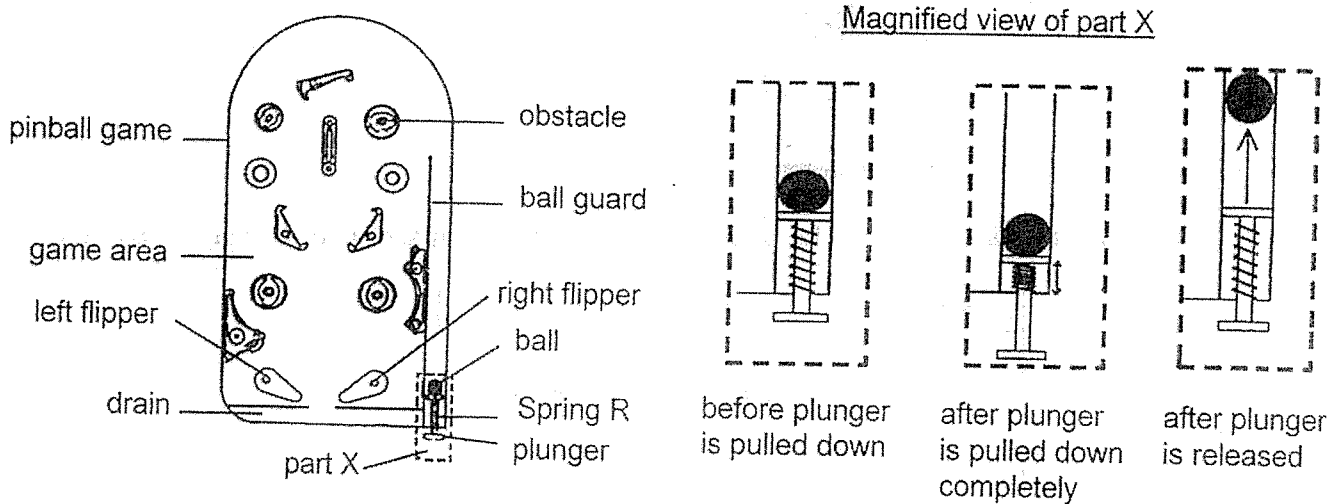
- (b) The diagram shows part of the circuit in the toy. Based on the table above, complete the circuit so that the toy works as described. [2]



- (c) State and explain one disadvantage when the switch is at Position C. [1]



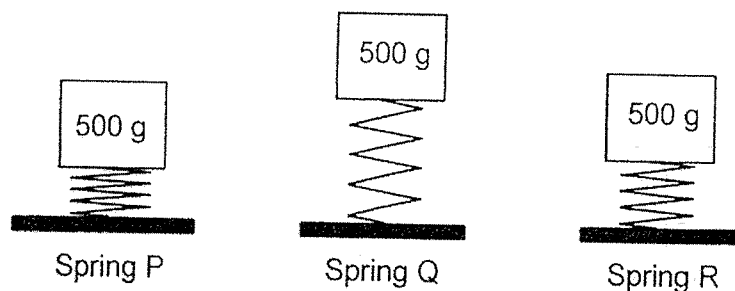
- 41 Ariel made a pinball game for a toy-making competition. She lay the pinball game flat on a table. To play the game, she pulled the plunger down fully before releasing it. The ball is then pushed into the game area before landing in the drain.



- (a) Identify the force applied on the ball immediately only after the plunger is released.

[1]

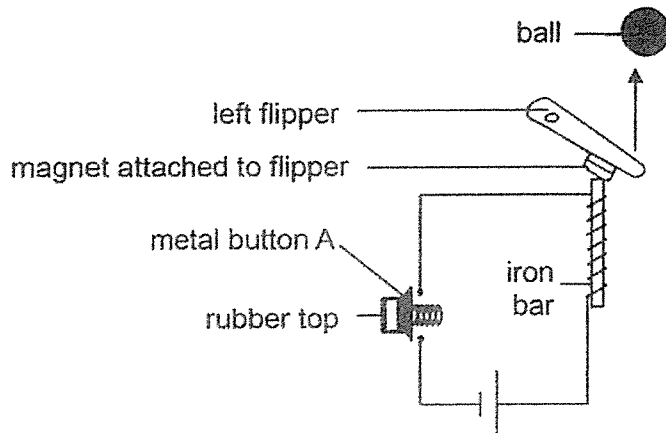
Ariel observed that even after the plunger was pulled down completely and released, the ball was not pushed far enough to enter the game area. She decided to replace spring R with either spring, P or Q, as shown below. She placed a 500 g weight on each spring. The springs were of the same original length.



- (b) Which spring, P or Q, should Ariel use to push the ball further into the game area? Explain your answer in terms of forces.

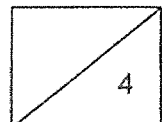
[1]

The diagram below shows a magnified view of the pinball game left flipper which is designed to stop the ball from dropping into the drain. Ariel added a metal button A in the circuit so that when the button is pressed, the narrow end of the flipper moves upwards to hit the ball.



- (c) Explain how the flipper moves upwards to hit the ball when metal button A is pressed.

[2]



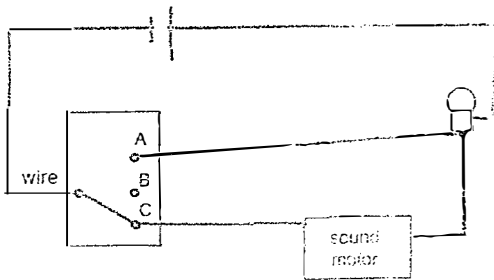
YEAR : 2026
LEVEL : PRIMARY 6
SCHOOL : METHODIST GIRLS' SCHOOL (PRIMARY)
SUBJECT : SCIENCE
TERM : PRELIMINARY EXAMINATION

(BOOKLET A — MCQ)

Q1	3	Q2	1	Q3	3	Q4	1	Q5	4
Q6	4	Q7	4	Q8	2	Q9	4	Q10	3
Q11	3	Q12	1	Q13	4	Q14	4	Q15	2
Q16	3	Q17	1	Q18	4	Q19	2	Q20	1
Q21	3	Q22	3	Q23	3	Q24	2	Q25	4
Q26	3	Q27	2	Q28	3	Q29	1	Q30	4

(BOOKLET B — OPEN-ENDED)

Q31	a)	B: Digestive system C: Respiratory system
	b)	To take in oxygen and remove carbon dioxide from the body.
	c)	Digested food is absorbed into the bloodstream through the walls of the small intestine. The heart pumps blood containing digested food to all parts of the body.
Q32	a)	Respiration is a process that uses digested food and oxygen to release energy, together with carbon dioxide and water, for life processes.
	b)	With or without light, organism A respire and produces carbon dioxide.
	c)	In the presence of light, plant B makes food and produces oxygen during photosynthesis.
Q33	a)	Pollination and fertilisation.
	b)	Fruit: ovary or ovaries Seeds: ovule or ovules
	c)	The parent plant passes down genetic characteristics to the new plant.
	d)	Food made by leaves below the cut cannot be transported up to the fruits through the food-carrying tubes. Therefore, less food is transported to the fruits.
Q34	a)	At 5 minutes, the amount of bacteria W at 5 °C is less than at 30 °C. At 1 hour, the increase in bacteria W at 5 °C is less than at 30 °C.
	b)	The amount of bacteria W increases because the bacteria reproduce.
Q35	a)	Animal X. It has webbed feet, allowing it to swim faster in the water.
	b)	Animal Y. It has a long, sharp beak to reach the nectar stored deep at the bottom of the flower.
	c)	It has a sharp, hooked beak to tear the flesh of its prey. It also has sharp claws to catch and grip its prey easily.
Q36	a)	As the mass of the weights placed on the device increases, the depth increases.
	b)	Depth d decreases. There is less air in the device, and air has mass.
Q37	a)	Warmer water vapour in the surrounding air came into contact with the cooler surface of the cup, lost heat and condensed into water droplets.
	b)	The temperature of the air inside her car is higher.
	c)	Lower the temperature of the air-conditioner or the air inside the car. This reduces the temperature difference between the air inside and outside the car, so less condensation takes place.

Q38	a)	The liquids lost heat to the basin of tap water and contracted.
	b)	Liquid Y. The lid gains heat the fastest from liquid Y and therefore expands the fastest.
Q39	a)	The greater the surface area of the wind-turbine blades, the shorter the time taken for the bulb to light up.
	b)	Kinetic energy → kinetic energy → electrical energy → light energy
	c)	More kinetic energy of the wind is converted to more kinetic energy of the wind turbine. This is converted to more electrical energy by the motor, causing the bulb to light up faster.
Q40	a)	The circuit is open.
	b)	
	c)	The bulb and sound motor are connected in series. When the bulb does not work, the sound motor will not work either.
Q41	a)	Elastic spring force.
	b)	Spring Q. It compressed less when the same 500 g weight was placed on it, so it is stiffer. More force is needed to compress it completely, producing more elastic spring force to push the ball farther.
	c)	When the button is pressed, a closed circuit is formed and electric current flows. The iron bar becomes an electromagnet. Like poles of the electromagnet and the flipper magnet face each other and repel, causing the flipper to push the ball away from the drain.