METHODIST GIRLS' SCHOOL
Founded in 1887

END-OF-YEAR EXAMINATION 2025
PRIMARY 4
SCIENCE

BOOKLET A

Total Time for Booklets A and B: 1 hour 30 minutes

INSTRUCTIONS TO CANDIDATES
Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
Shade your answers in the Optical Answer Sheet (OAS) provided.

Name: _____ ( )

Class: Primary 4. _____

Date : 27 October 2025

This booklet consists of 15 printed pages including this page.

For each question from 1 to 24, 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). [48 marks]

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1 Which one of the following statements is true for **all** insects?

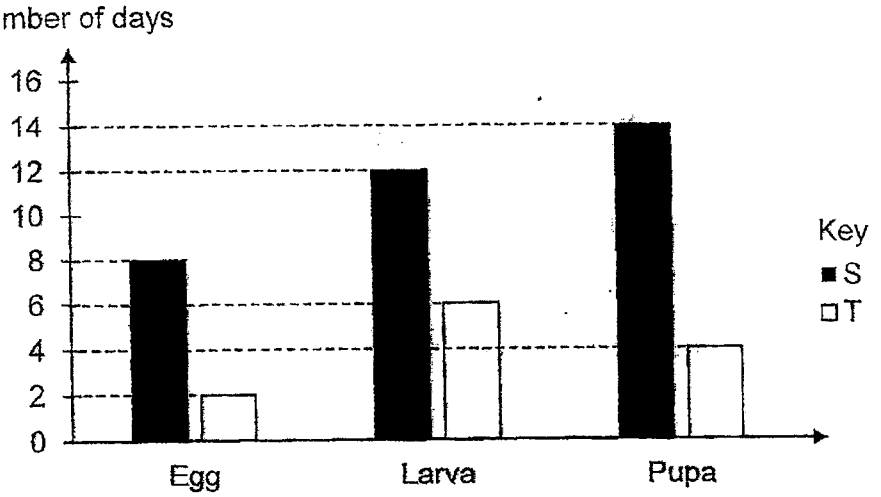
(1) They live on land.

(2) They have wings.

(3) They have scales.

(4) They have six legs.

2 The graph shows the length of each stage in the life cycle of organisms S and T.



Which statement is correct?

(1) S spent the shortest time as a pupa in its life cycle.

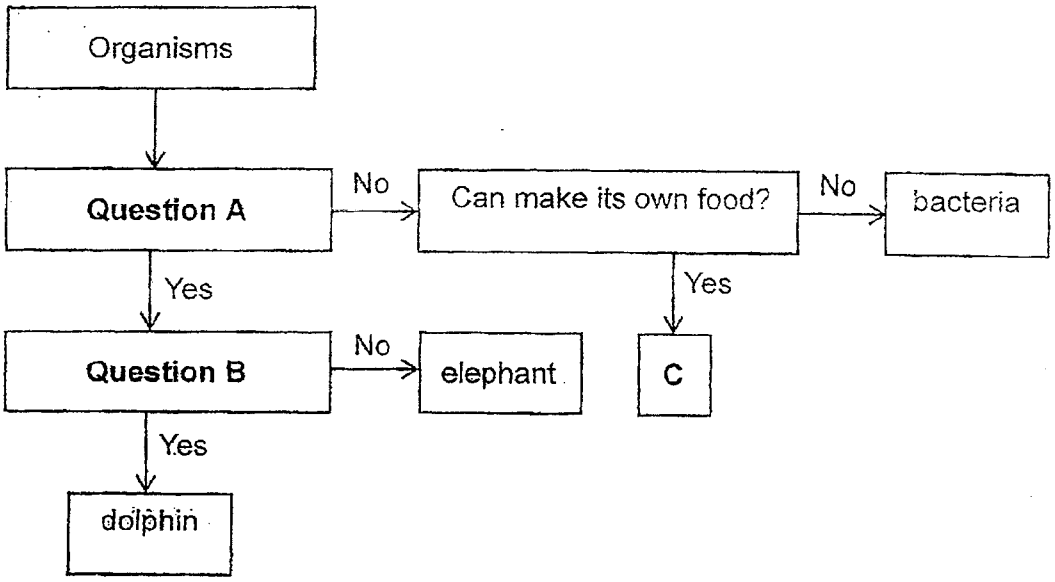
(2) T was at the larva stage 10 days after the egg hatched.

(3) T took a shorter time to become an adult as compared to S.

(4) T spent a total of 12 days more than S at the egg and larva stage.

(Go on to the next page)

3 Study the flowchart below.



Which one of the following is correct?

	Question A	Question B	C
(1)	Does it live in water?	Does it have hair?	moss
(2)	Does it have hair?	Does it live in water?	moss
(3)	Does it live in water?	Does it give birth to its young?	mushroom
(4)	Does it give birth to its young?	Does it live in water?	mushroom

4 Which statement is **not** true about animals?

(1) They can grow.

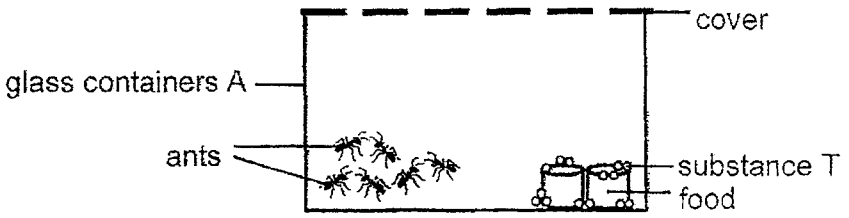
(2) They can move.

(3) They can reproduce.

(4) They can make food.

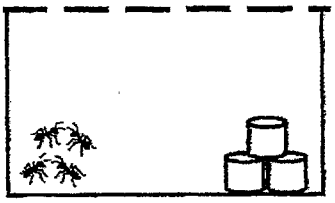
(Go on to the next page)

5 Alan wanted to know if substance T could keep ants away. He conducted an experiment using two identical glass containers A and B. In container A, he put some ants, food and substance T as shown below.

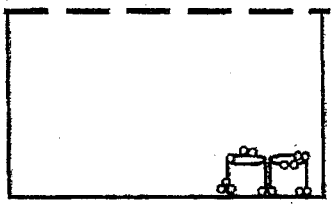


Which diagram below correctly shows what Alan must put into glass container B to carry out a fair test?

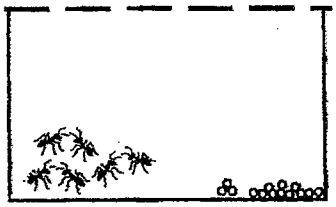
(1)



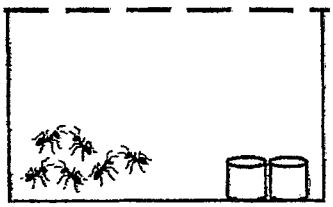
(2)



(3)



(4)



6 Sam made the following observations about the life cycle of an animal.

- There are three stages in the life cycle.
- The young looks like the adult.

Which animal was Sam observing?

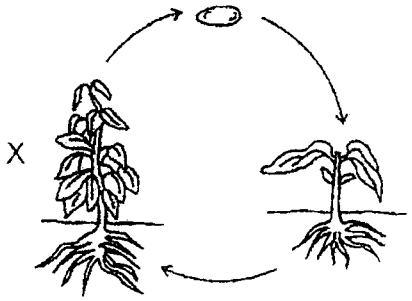
(1) Frog

(2) Beetle

(3) Butterfly

(4) Grasshopper

7 The diagram below shows the life cycle of a plant.



What is the stage marked X?

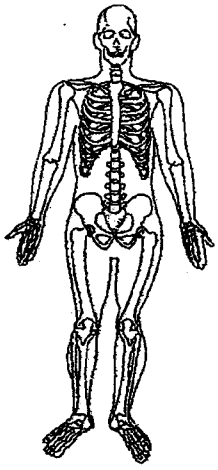
(1) egg

(2) seed

(3) adult plant

(4) young plant

8 Which human system is shown in the diagram?



(1) skeletal system

(2) muscular system

(3) circulatory system

(4) respiratory system

(Go on to the next page)

9 Which of the following is a correct function of the roots?

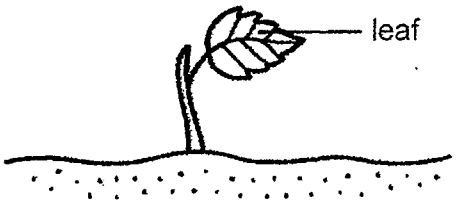
(1) keeps the plant upright

(2) takes in light for the plant

(3) makes food for the plant

(4) holds the plant firmly to the soil

10 The diagram below shows a young plant.



The leaf helps the plant to _____.

(1) make food

(2) grow upright

(3) absorb water

(4) absorb mineral salts

11 Which one of the following properties is true for both air and a pencil?

(1) They can be seen

(2) They take up space

(3) They have fixed shapes

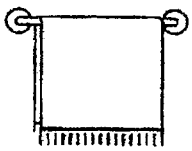
(4) They have fixed volumes

(Go on to the next page)

12 Which of the following objects is **not** made of waterproof material?

(1) 

metal spoon

(2) 

bathroom towel

(3) 

rubber gloves

(4) 

plastic umbrella

13 Ling Ling heated some dumplings with filling in the steamer as shown in Diagram 1.

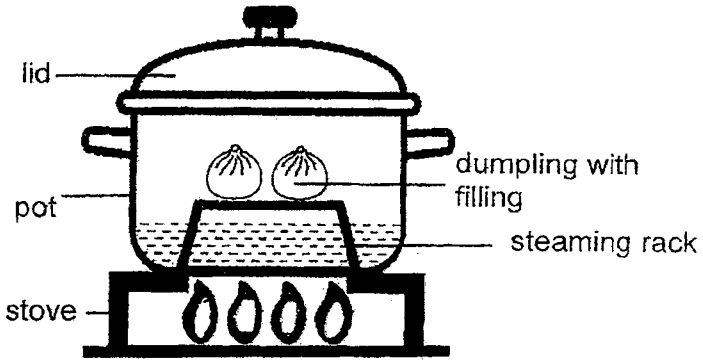


Diagram 1

Diagram 2

After a while, the filling burst through the skin of the dumpling as shown in Diagram 2.

Which of the following best explains why?

(1) The filling is hotter than the skin of the dumpling.

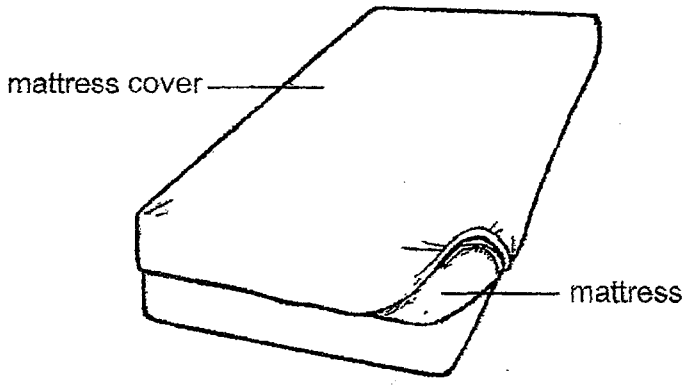
(2) The skin of the dumpling is hotter than the filling.

(3) The filling expanded more than the skin of the dumpling.

(4) The skin of the dumpling contracted more than the filling.

(Go on to the next page)

14 The diagram below shows a mattress protector covering a mattress. It prevents spills and sweat from being absorbed by the mattress.



Which of the following statements explain why the mattress protector is able to protect the mattress?

A It is flexible.

B It is waterproof.

C It can float in water.

D It is a poor conductor of heat.

(1) A and B only

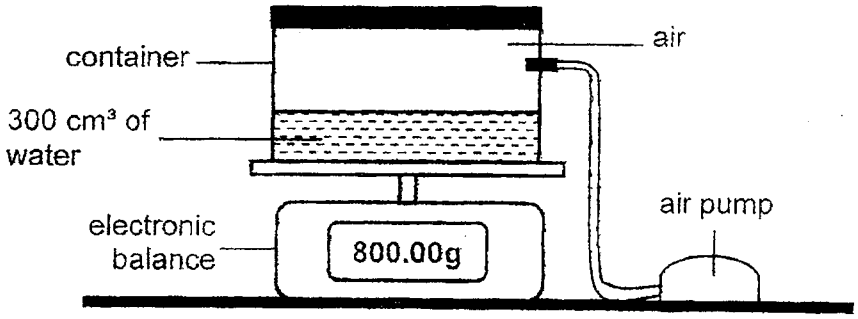
(2) A and D only

(3) B and C only

(4) C and D only

(Go on to the next page)

15 Study the set-up in the diagram below. The volume of the container is 900 cm^3. It contains 300 cm^3 of water.

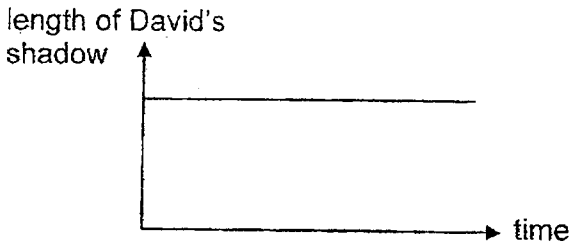


An additional 200 cm^3 of air was pumped into the container.

Which of the following states the volume of air in the container and the reading on the electronic balance?

	Volume of air (cm^3)	Reading on the electronic balance (g)
(1)	300	800
(2)	600	More than 800
(3)	500	800
(4)	800	More than 800

16 The length of David's shadow near a lamp post over some time is as shown below.



What was David doing during that time?

(1) walking towards the lamp post

(2) standing still near the lamp post

(3) walking away from the lamp post

(4) jumping up and down near the lamp post

(Go on to the next page)

17 Ling has a toy train as shown in Diagram 1.

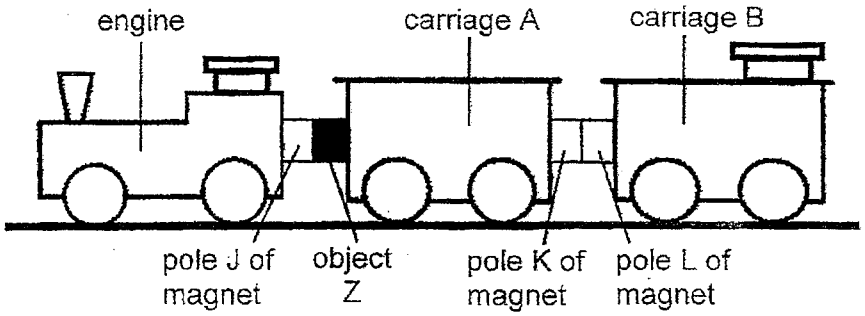


Diagram 1

When she turned carriage A around, it moved together with carriage B to the right and the engine moved away to the left as shown in Diagram 2.

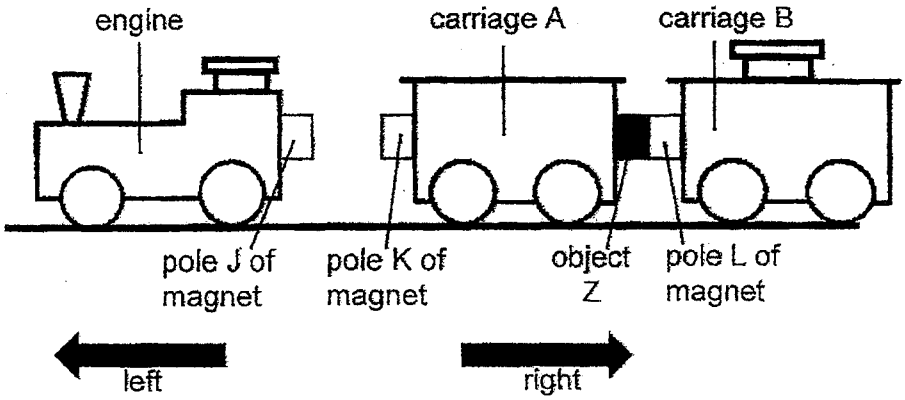


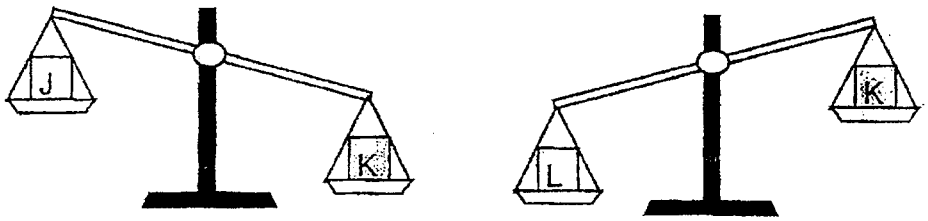
Diagram 2

Which of the following is correct about object Z and the poles, J, K and L, of the magnets?

	object Z	J	K	L
(1)	magnet	S	S	N
(2)	copper	N	N	S
(3)	iron	S	N	S
(4)	iron	N	N	S

(Go on to the next page)

18 Bala compared the masses of three objects, J, K and L, using two similar balances.



What could Bala conclude based on his observations?

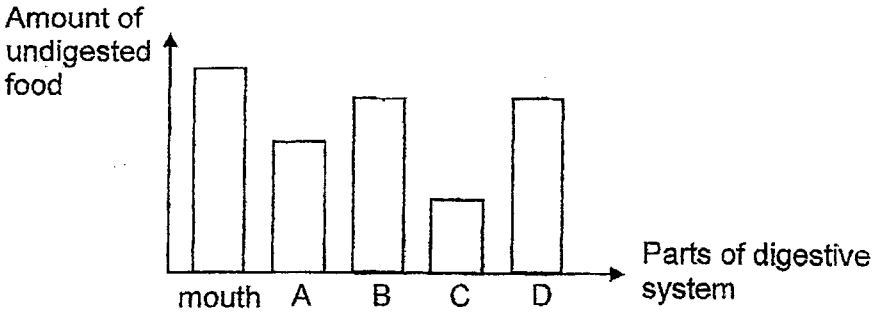
(1) Object J has the least mass

(2) Object K has less mass than Object J

(3) Object J and object L have the same mass

(4) The mass of object L is the total mass of object J and object K

19 The graph below shows the amount of undigested food entering parts of the human digestive system.

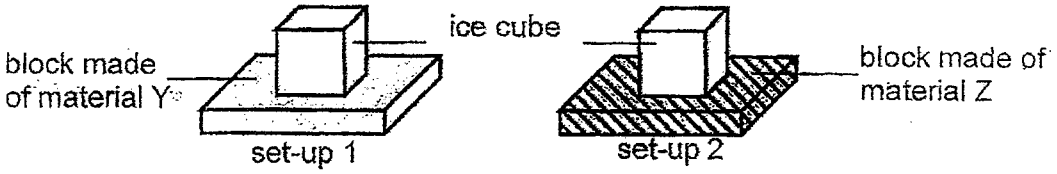


Which of the following correctly shows the part of the human digestive system represented by A, B, C or D?

	stomach	large intestine	small intestine
(1)	A	B	C
(2)	B	C	A
(3)	C	A	D
(4)	D	B	A

(Go on to the next page)

20 Sally conducted an experiment using two set-ups, 1 and 2, as shown below. The ice cubes and the blocks used were of the same size and thickness. Both blocks were at room temperature before the start of the experiment.



She observed that the ice cube in set-up 1 melted completely in 15 minutes, while the ice cube in set-up 2 melted completely in 5 minutes.

Which of the following can Sally conclude from the experiment?

A Both ice cubes lost heat to the blocks.

B Both ice cubes gained heat from the blocks.

C Heat will flow through Material Y faster than Material Z.

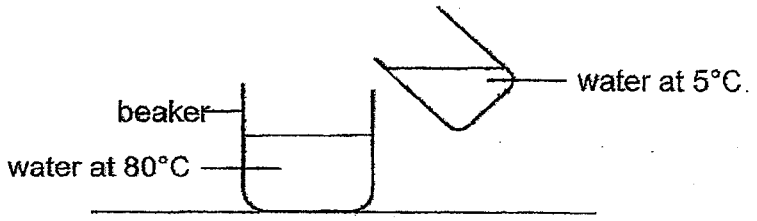
(1) A only

(2) B only

(3) A and C only

(4) B and C only

21 Warm water at 80°C is mixed with cold water at 5°C.



What is a possible final temperature of water in the beaker?

(1) 5°C

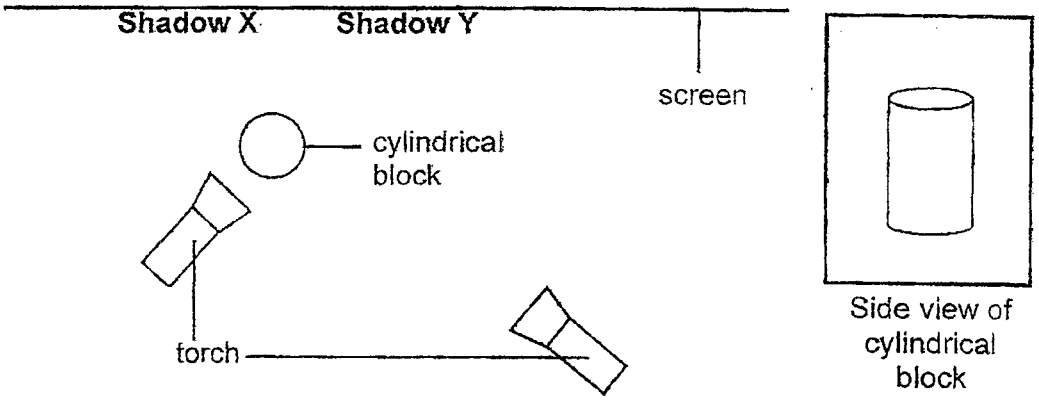
(2) 50°C

(3) 80°C

(4) 85°C

(Go on to the next page)

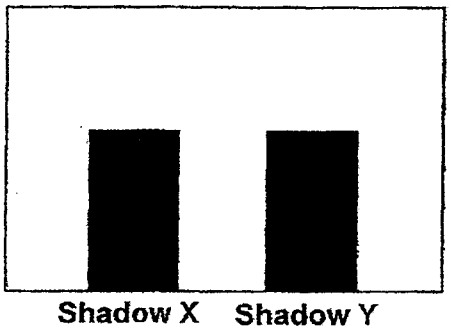
22 Siva prepared a set-up with two torches and a cylindrical block. The diagram below shows the **top view** of the set-up.



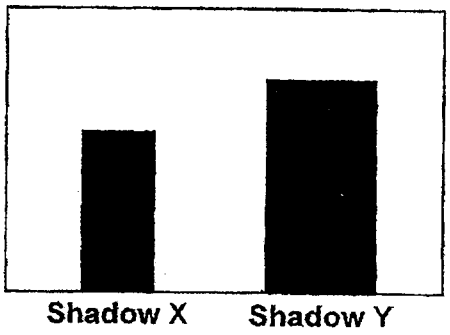
He turned on the torches and two shadows, X and Y, were cast on the screen.

Which one of the following correctly shows the shadows cast on the screen?

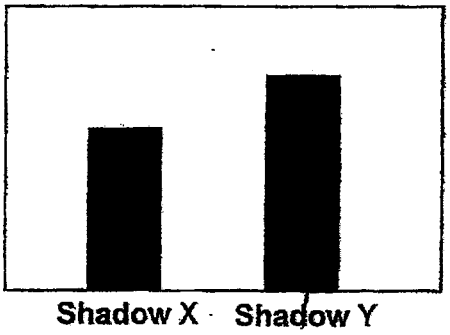
(1)



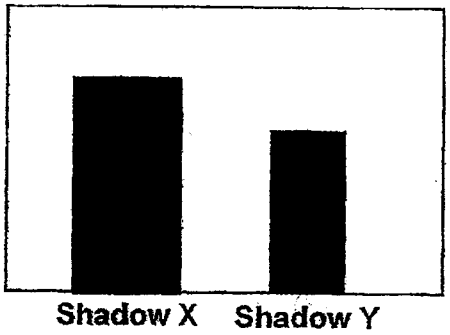
(2)



(3)



(4)



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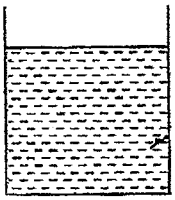
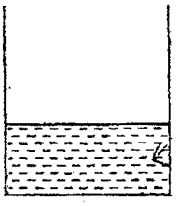
23 Imran placed two empty identical containers, S and T, both initially at room temperature on a table. He then poured 500 cm³ of 8°C water into container S and 250 cm³ of 8°C water into container T.



container S

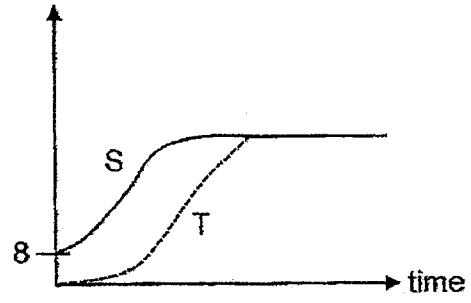


container T

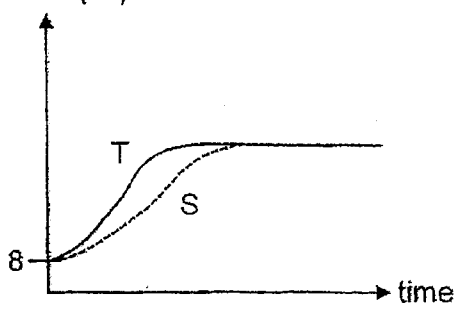
The temperature of water in S and T were recorded every minute for some time.

Which one of the following is the correct graph for his results?

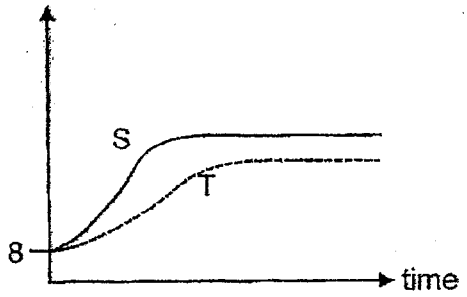
(1)



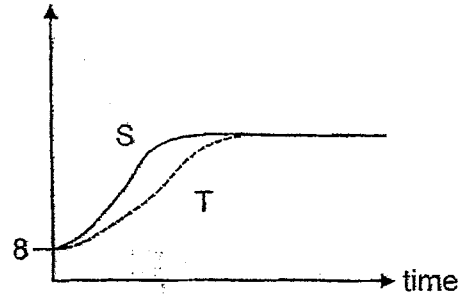
(2)



(3)



(4)



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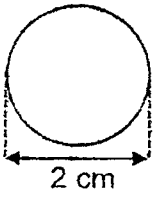
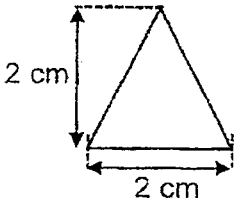
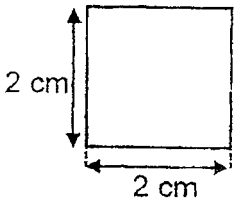
24 Wendy has three sheets of different materials, each with a different shape. One sheet is made of a material that allows some light to pass through. While the other two of the sheets are made of the same material.



sheet X

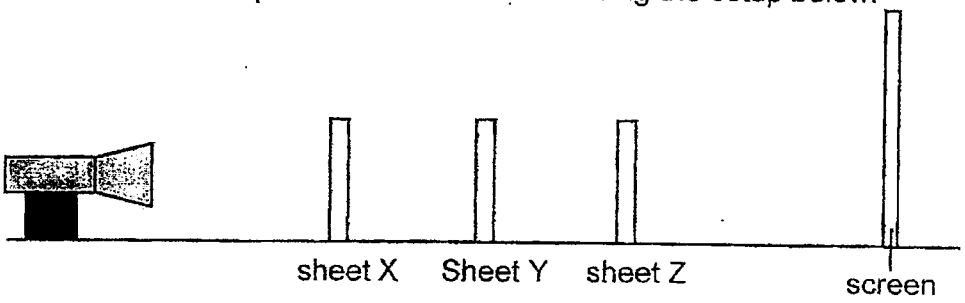


sheet Y



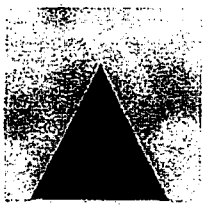
sheet Z

She conducted an experiment in a dark room using the setup below.

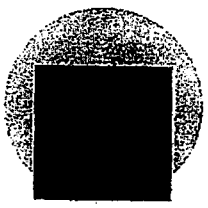


Which of the following could be seen on the screen?

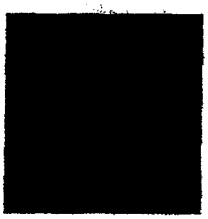
(1)



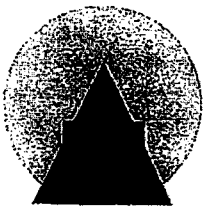
(2)



(3)



(4)



End of section A

METHODIST GIRLS' SCHOOL
Founded in 1887

END-OF-YEAR EXAMINATION 2025
PRIMARY 4
SCIENCE

BOOKLET B

Total Time for Booklets A and B: 1 hour 30 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 4._____

Date : 27 October 2025

Booklet A	48
Booklet B	32
Total	80
Parent's Signature	

This booklet consists of 10 printed pages including this page.

For questions 25 to 35, 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.

[32 marks]

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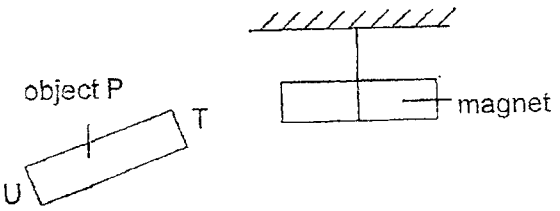
25 When end T of object P is brought near a pole of a magnet as shown, the magnet moves away.



(a) This shows that object P is a _____. [1]

(b) When end U is brought near the same pole of the magnet, it _____ the magnet. [1]

26 Look at the pictures below. Tick (✓) the sources of light. [2]

☐ eyes

☐ mirror

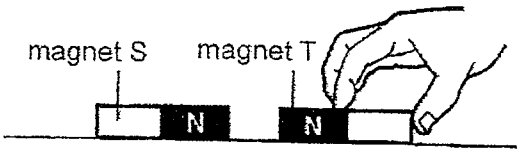
☐ Lamp

☐ fire

4

(Go on to the next page)

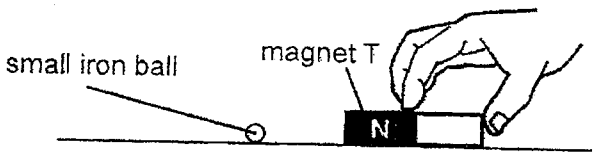
27 Magnet T is brought near another magnet S.



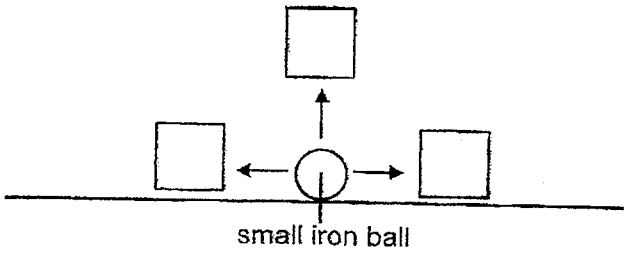
(a) As the like poles of both magnets are facing each other, magnet S and T will

_____. [1]

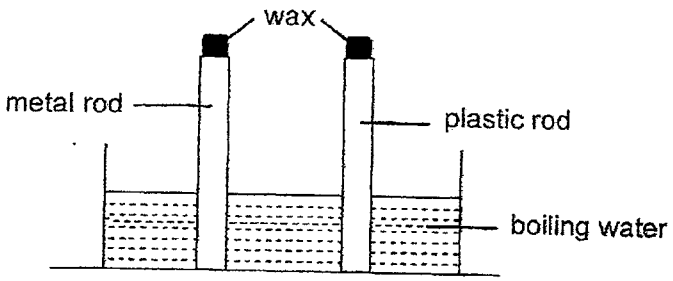
(b) Magnet T is then brought near a small iron ball.



Tick (✓) the box that shows the direction the iron ball will move. [1]



28 Jia Le placed a metal rod and a plastic rod into a tank of boiling water as shown below. Equal amounts of wax were put on both rods.



What would Jia Le observe and why? [2]

The wax on the metal rod melted _____ than the wax on the plastic rod, as metal is a _____ conductor of heat than plastic.

4

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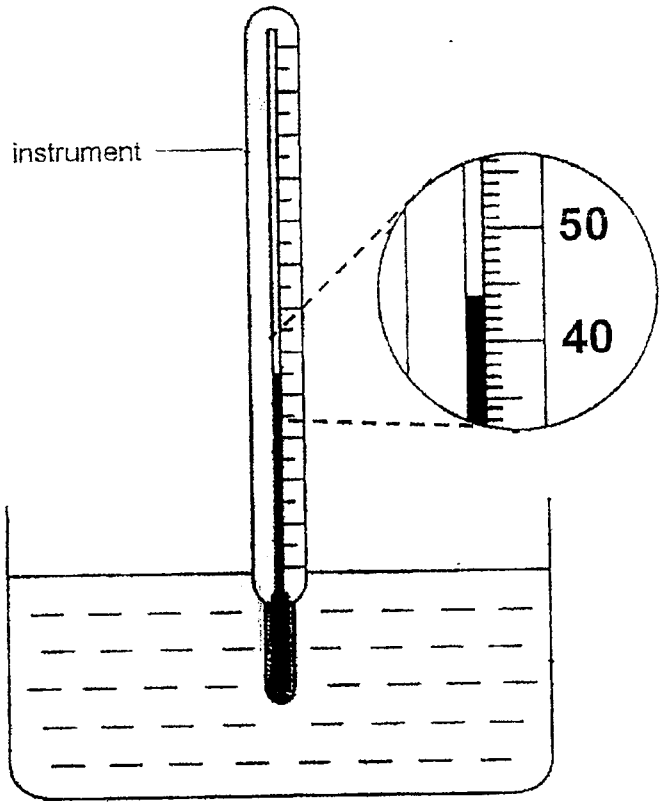
29 Jane used an instrument to measure the temperature of water in a container.



(a) Name the instrument. [1]

_____

(b) What is the temperature of the water in the container? [1]

_____

2

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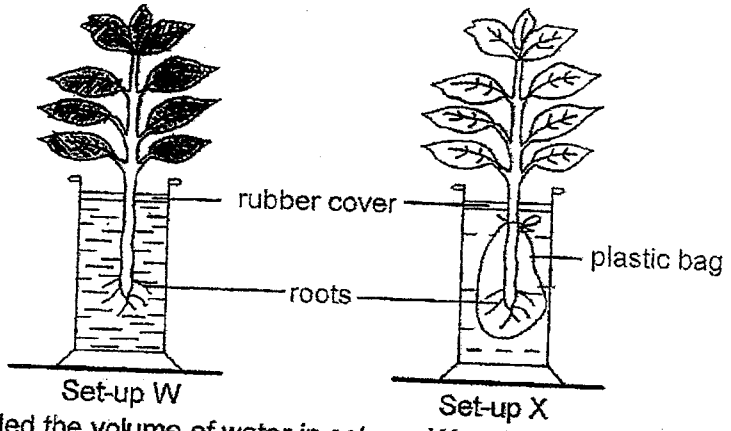
30 Halim set up an experiment with two similar plants. A rubber cover was used to prevent any water loss.



He recorded the volume of water in set-ups W and X at the start of the experiment and two days later in the table below.

(a) Fill in the blank in the table to state the amount of water left in set-up X on day 2. [1]

	Volume of water at the start of experiment (ml)	Volume of water left on day 2 (ml)
Set-up W	400	330
Set-up X	400	

(b) State the change in the volume of water in set-up W on day 2. Explain your answer. [1]

(c) State what will happen to the plant in set-up X after three weeks. Explain your answer. [2]

4

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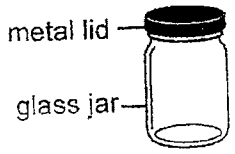
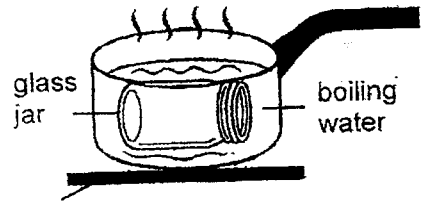
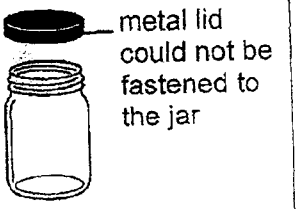
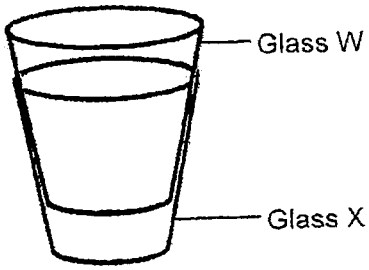
31 Jun Jie conducted an experiment as shown below. He separated the metal lid from the glass jar and placed the jar into boiling water for ten minutes.

Before boiling	Boiling	After boiling
		

(a) After ten minutes, Jun Jie observed that he could not fasten the metal lid to the glass jar. Explain why. [1]

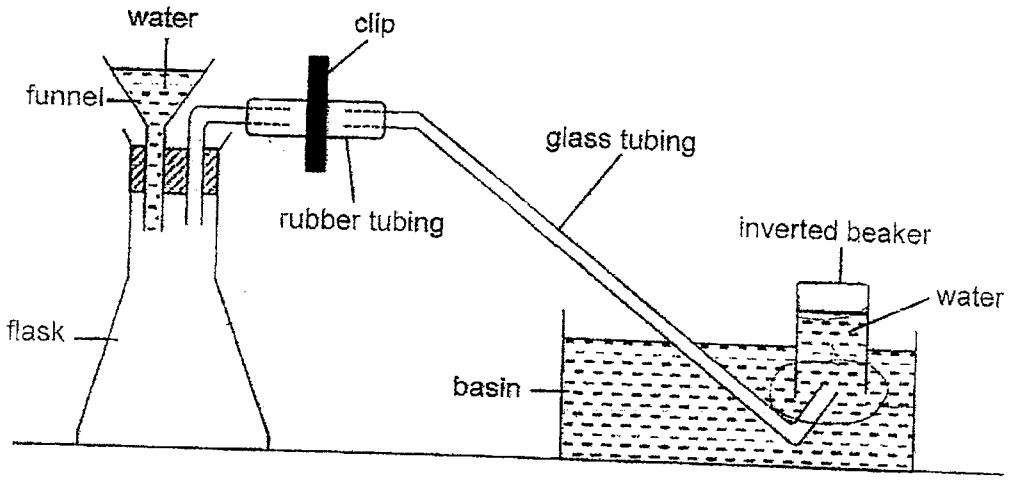
Jun Jie was then asked by his mother to separate two glasses, W and X, which were stuck to each other tightly as shown below.



(b) Explain how Jun Jie could separate the two glasses using only cold water. [2]

3

32 Study the experiment below.



(a) At the beginning of the experiment, the clip was closed. Water from the funnel could not enter the flask. Explain why. [2]

(b) Will the water level in the inverted beaker increase, decrease or remain the same when the clip is removed? Explain your answer. [1]

3

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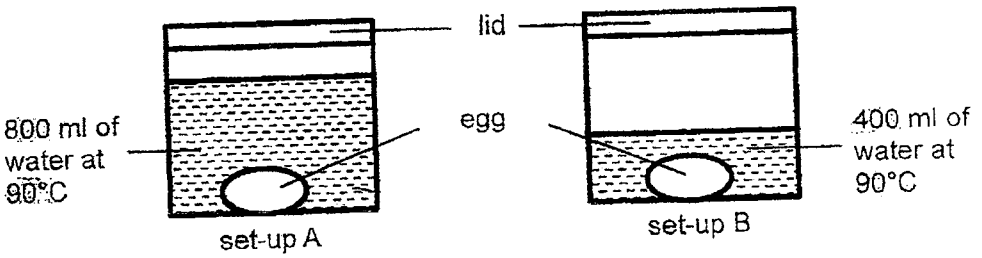
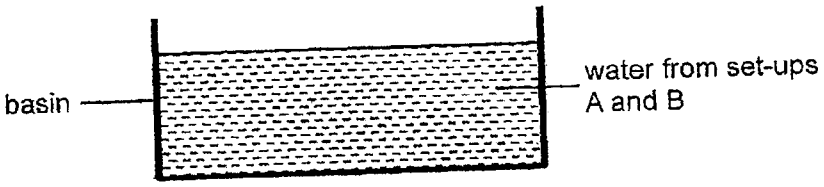
33 Jia Hui placed two similar eggs in two identical containers of water as shown below.



(a) In which set-up, A or B, will the egg be cooked first? Explain your answer. [1]

(b) If Jia Hui poured 100 ml of 10°C water into the container in set-up B, how would it affect the time taken for the egg to cook? Explain your answer. [2]

After the eggs were fully cooked, Jia hui poured all the water into a basin as shown below.



(c) Which material, wood or steel, should the basin be made of for the water to cool down quicker? Explain your answer. [1]

4

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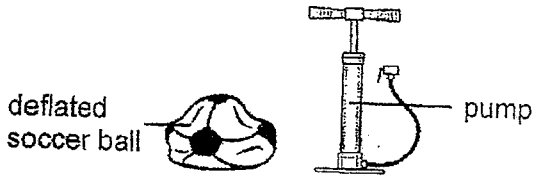
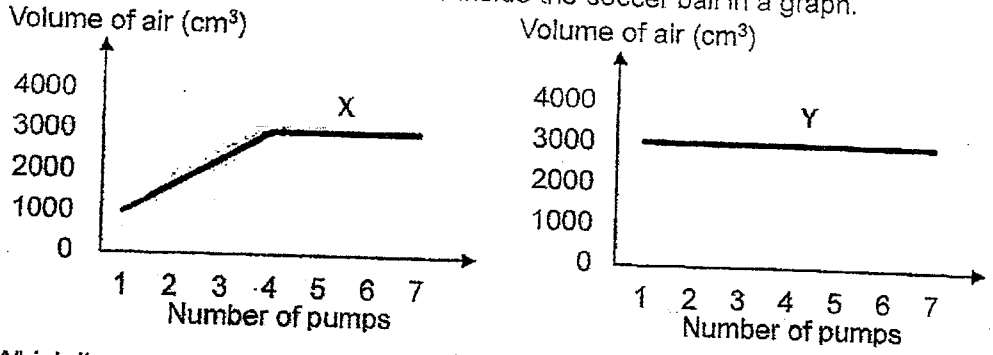
34 Rachel pumped air into a soccer ball until it was fully inflated. She recorded the volume of air inside the soccer ball in a graph. The fully inflated soccer ball has a maximum volume of 3000 cm^3.



She then recorded the volume of air inside the soccer ball in a graph.



(a) Which line graph, X or Y, shown above correctly shows the change in the volume of air in the soccer ball as it becomes fully inflated? Explain your answer. [2]

(b) Did the mass of the soccer ball increase, decrease or remain the same after Rachel pumped more air into it? Give a reason for your answer. [1]

(c) Rachel observed that the soccer ball became firmer when she left it under the hot sun. What is the reason for her observation? [1]

4

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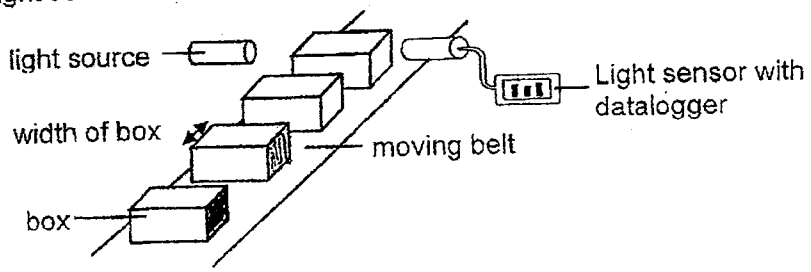
35 The set-up below uses a light sensor to count the number of boxes on a moving belt. The light sensor is used to detect the amount of light.



The belt moves at the same distance at the same time. When a box is between the light source and the sensor, it blocks most of the light from reaching the sensor. The data recorded is shown in the graph below.

(a) State one property of light that enables the sensor to detect the box. [1]

(b) Based on the graph, how many boxes passed the light sensor within the recorded time? [1]

(c) The light source and the sensor are placed 30 cm above the belt. State whether a box that is less than 30 cm in height can be counted. Give a reason for your answer. [1]

(d) Based on the results, Sam concluded that not all the boxes have the same width. Explain how Sam came to this conclusion. [1]

4

End of Booklet B

YEAR : 2025
LEVEL : PRIMARY 4
SCHOOL : METHODIST GIRLS' SCHOOL
SUBJECT : SCIENCE
TERM : END-OF-YEAR EXAMINATION

BOOKLET A

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

Methodist Girls' School (Primary)
P4 Science EOY Examination 2025
Suggested Answers

Section B:

25a	magnet
25b	attracts
26	picture with the fire and lamp
27a	repel
27b	to the right
28	faster, quicker, more quickly better
29a	thermometer
29b	44 °C
30a	400
30b	The volume of water decreased because the roots of the plant absorbed water.
30c	The plant (in set-up X) will die. As the plastic bag did not allow water to pass through/ is waterproof, so the roots of the plant could not absorb water to make food.
31a	The glass jar had gained heat from the boiling water and expanded.
31b	He could pour the cold water into glass W so that glass W would lose heat to the cold water and contract.
32a	Air occupied space in the flask. Air in the flask could not escape so water could not enter.
32b	Water level in the inverted beaker will decrease (when the clip is removed) as air from the flask can escape (through the glass tubing) and take up space in the inverted beaker.
33a	Set-up A. The container in set-up A has more water at 90°C than B. Therefore, the water contains more heat energy to cook the egg.
33b	The time taken for the eggs to cook will be longer. The cold water will decrease the temperature of the water in set-up B so there will be less heat energy to cook the egg.
33c	Steel. Steel is a better conductor of heat. Heat from the water will be lost to the surrounding air faster.
34a	Graph X. The volume of air will increase with each pump until it reaches the maximum volume of 3000 cm^3. After that, the volume of air will remain the same / constant.
34b	The mass of the soccer ball will increase as air has mass.
34c	The air inside the soccer ball gained heat from the hot Sun / surroundings and expanded.
35a	Light cannot pass through opaque material.
35b	3
35c	No. A box that is less than 30 cm in height cannot block light from the light source.
35d	The time when (most) light is blocked by the boxes was not the same.

END