AI TONG SCHOOL

2025 END-OF-YEAR EXAMINATION
PRIMARY FOUR SCIENCE

(BOOKLET A)

27 OCTOBER 2025

Total time for booklets A and B : 1 h 45 min

INSTRUCTIONS

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

Follow all instructions carefully.

Answer all questions.

Name : _____ ( )

Class : Primary 4 _____

Parent's Signature : _____

Booklet A	60
Booklet B	40
Total	100

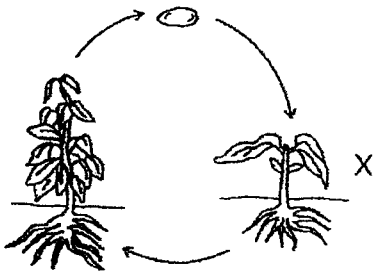
Section A (30 x 2 marks)

For each question from 1 to 30, four options are given. One of them is the correct answer. Make your choice and shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet.

1. Which statement is not true about animals?

   (1) They can grow.
   (2) They can reproduce.
   (3) They can make food.
   (4) They need air, food and water.

2. The diagram shows the life cycle of a plant.



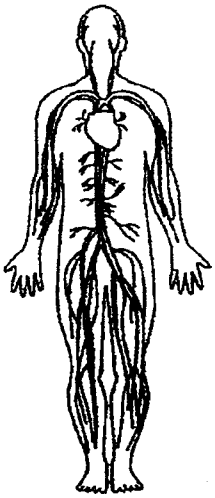
   What is the stage marked X?

   (1) egg
   (2) seed
   (3) adult plant
   (4) young plant

3. Which of the following is the function of a leaf on a plant?

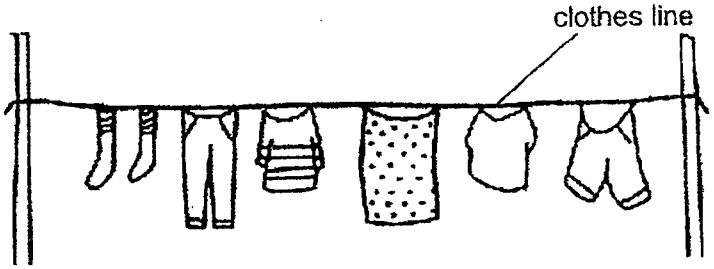
   (1) makes food
   (2) takes in water
   (3) takes in nutrients
   (4) holds the plant upright

4. Which human system is shown in the diagram?



(1) skeletal system
(2) digestive system
(3) circulatory system
(4) respiratory system

5. The diagram below shows clothes hanging on a clothes line.



Metal is used to make the clothes line because metal _____.

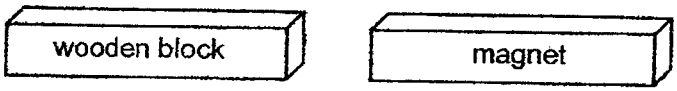
(1) can reflect light
(2) conducts heat well
(3) does not break easily
(4) does not allow light to pass through

6. Matter is anything that has mass and occupies space.

Which of the following is **not** matter?

(1) air
(2) sand
(3) water
(4) shadow

7. The diagram below shows a magnet brought near a wooden block.



What will happen to the wooden block?

(1) It will move up.
(2) It will not move.
(3) It will move to the left.
(4) It will move to the right.

8. Which of the following is a source of light?

(1)

an orange

(2)

the Moon

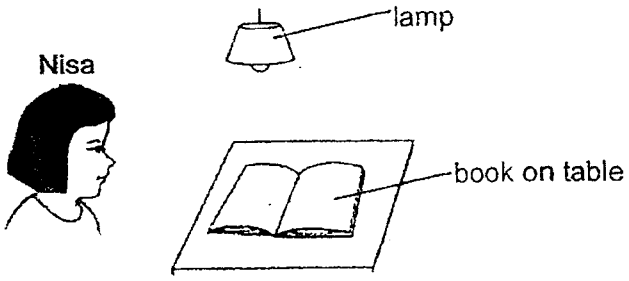
(3)

a flame

(4)

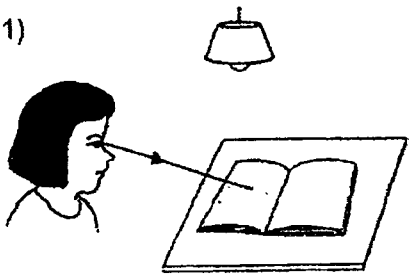
a leaf

9. Look at the picture below.



Which of the following shows how Nisa can see the book on the table?

(1)



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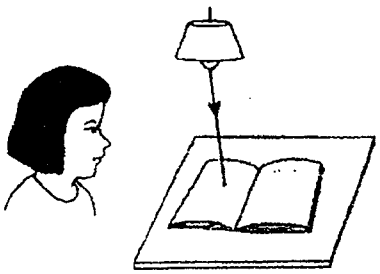

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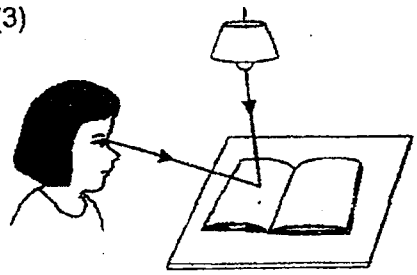
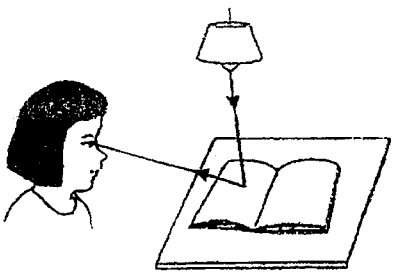


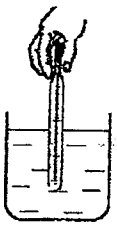
(4)



10. Cathy wants to measure the temperature of hot water in a beaker.

Which one of the following diagrams shows the correct position of the thermometer when taking the temperature reading?

(1)



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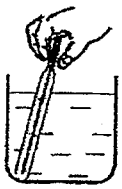
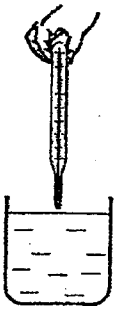


(3)



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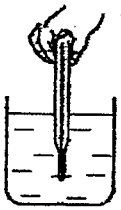


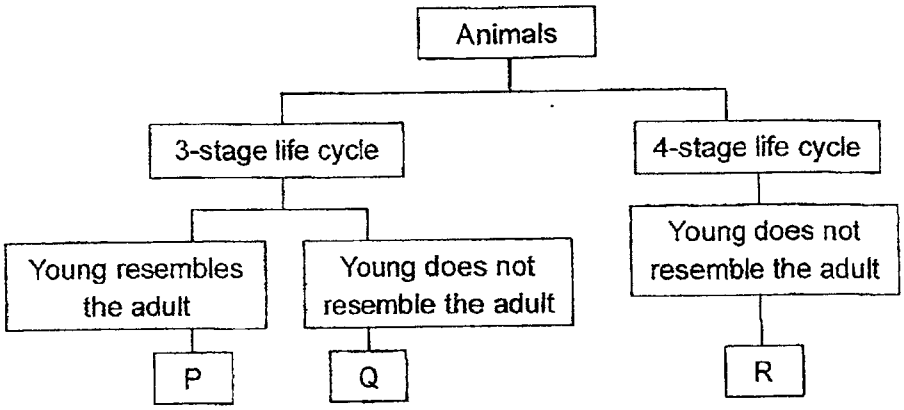
11. Ken saw three different animals, A, B, and C . He recorded their characteristics in a table as shown below. A tick (✓) represents that the characteristic is present.

Animal	Has wings	Has three body parts	Has feathers	Has six legs
A	✓		✓	
B	✓	✓		✓
C		✓		✓

Based on his observations, which animal(s) is/are definitely an insect?

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

12. Study the classification chart below.



Which one of the following represents P, Q and R?

	P	Q	R
(1)	frog	cockroach	mealworm beetle
(2)	cockroach	frog	mealworm beetle
(3)	cockroach	mealworm beetle	frog
(4)	mealworm beetle	frog	cockroach

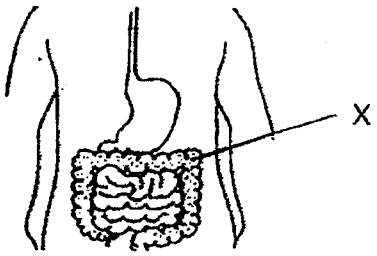
13. Shane wanted to find out which type of soil was suitable for growing plants. He planted three similar plants X, Y and Z of the same size into three pots and placed them in the garden.

	Plant X	Plant Y	Plant Z
Type of soil	sandy	garden	clay
Amount of soil	100 g	200 g	300 g
Material of pot	ceramic	ceramic	ceramic
Amount of water used daily	15 ml	15 ml	15 ml

Shane's teacher told him that the experiment was not conducted fairly.
Why is that so?

(1) The amount of soil in each pot was different.
(2) The type of soil used in each pot was different.
(3) The three pots used were of the same material.
(4) The three plants were given the same amount of water.

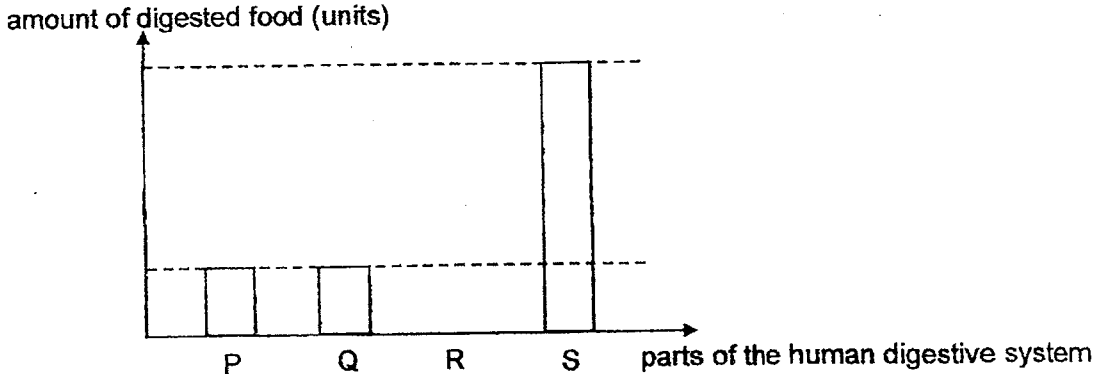
14. The diagram below shows the human digestive system.



What do you think would happen if part X is not functioning properly?

(1) Food would be digested more slowly.
(2) No digestive juices would be present at X.
(3) Waste materials passed out would be watery.
(4) Digested food would not be absorbed into the body.

15. The graph below shows the amount of digested food entering the different parts of the digestive system. The parts are not arranged in order.



Based on the graph above, what are parts P, Q, R and S?

	P	Q	R	S
(1)	gullet	stomach	mouth	large intestine
(2)	gullet	stomach	small intestine	mouth
(3)	mouth	gullet	large intestine	small intestine
(4)	gullet	stomach	large intestine	small intestine

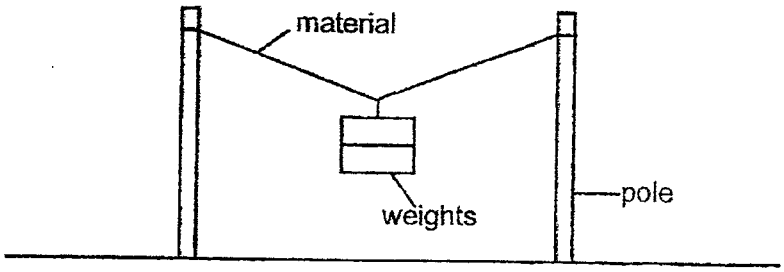
16. The table below shows the properties of materials W, X, Y and Z.
A tick (✓) shows that the material has the property.

Material	Flexible	Transparent	Waterproof
W		✓	
X		✓	✓
Y	✓		✓
Z			✓

Which of the materials, W, X, Y or Z, is the most suitable to make the lens of the snorkelling goggles?

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

17. Siti set up an experiment as shown below to find out the strength of four different types of materials A, B, C and D. She added weights onto each material until it broke.



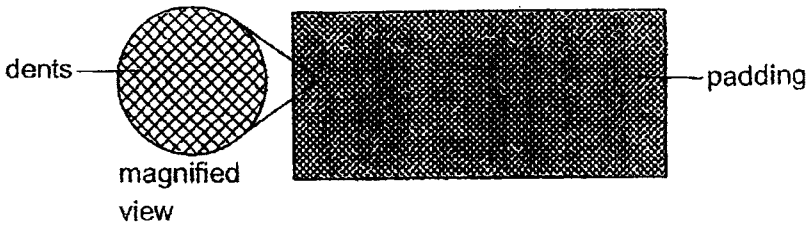
The results of the experiment were recorded in the table below.

Type of material	Number of weights added until material broke
A	8
B	5
C	21
D	17

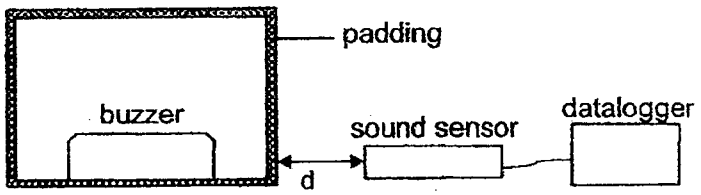
Based on the results above, which material is the strongest?

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

18. Paddings can be used to keep noise out of work areas.



Ali wanted to find out if the number of dents on a padding affects the amount of sound that could pass through it. He set up an experiment as shown below.



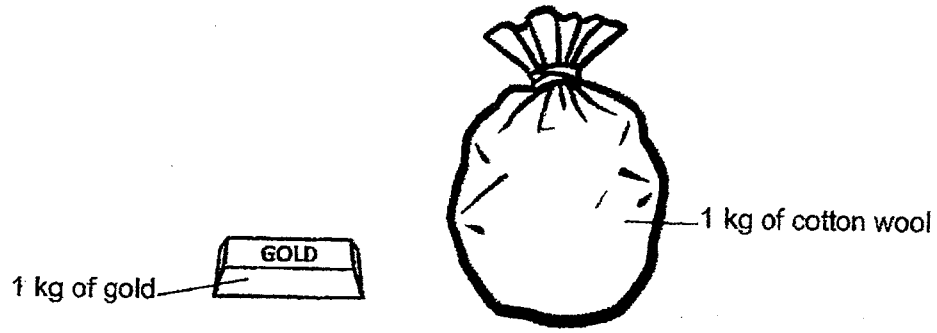
The table below shows the set-ups that he had prepared for the experiment.

Set-up	A	B	C	D
Thickness of padding (mm)	1	2	2	2
Number of dents per unit area	50	60	50	60
Distance d (cm)	10	10	10	5

Which two set-ups should he use to conduct a fair test?

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

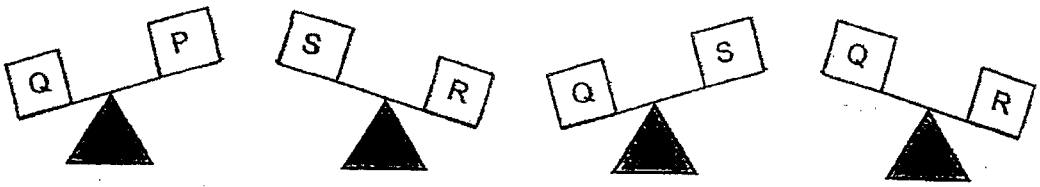
19. Study the two objects below.



Which of the following statements about the two objects above is true?

(1) The gold has a greater mass than the cotton wool.
(2) The cotton wool has a greater volume than the gold.
(3) Both the gold and the cotton wool have the same volume.
(4) Both the gold and the cotton wool have the same mass and volume.

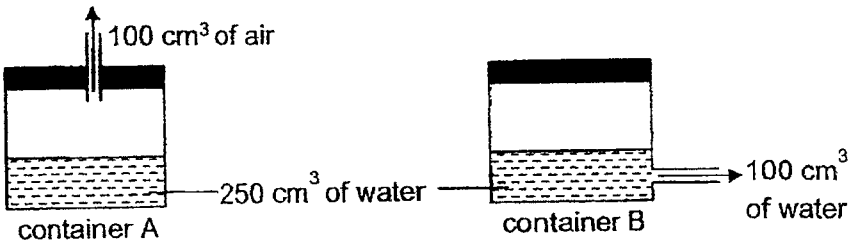
20. Objects P, Q, R and S were placed on balances to compare their masses as shown in the diagram below.



Based on the observations, which box has the greatest mass?

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

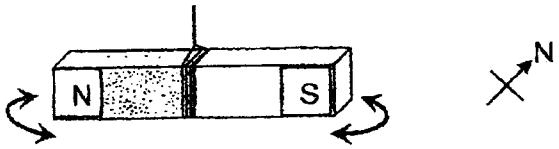
21. Two containers, each of capacity 600 cm^3, are attached to pumps as shown below. 250 cm^3 of water is poured into each container. 100 cm^3 of air is pumped out from container A and 100 cm^3 of water is pumped out from container B.



Which of the following shows the volumes of air left in containers A and B?

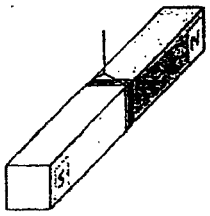
	Volume of air in container A (cm^3)	Volume of air in container B (cm^3)
(1)	250	350
(2)	250	450
(3)	350	350
(4)	350	450

22. A bar magnet is suspended freely with a string as shown in the diagram below.

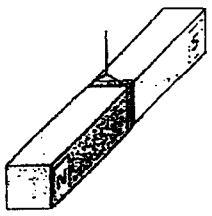


Which of the following shows the final position of the magnet?

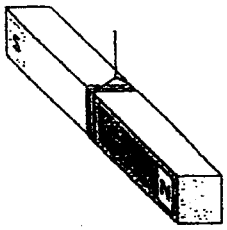
(1)



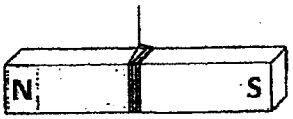
(2)



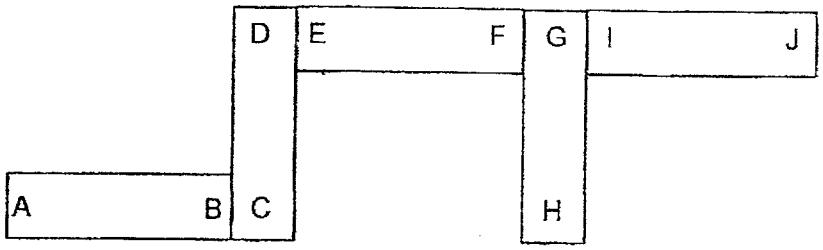
(3)



(4)

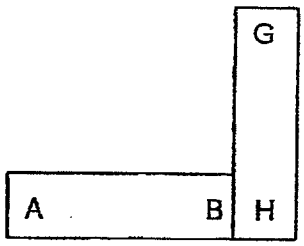


23. Five bar magnets with their ends marked A to J are arranged as shown below.

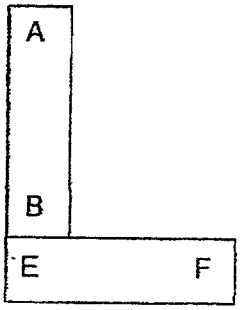


Which of the following shows a possible arrangement of two of the magnets?

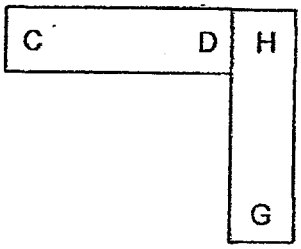
(1)



(2)



(3)



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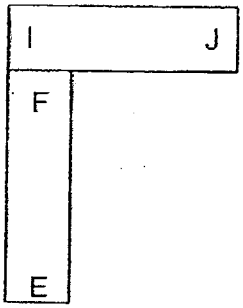
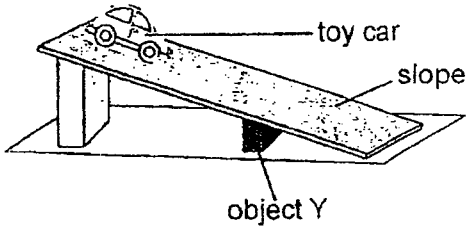


24. Study the diagram below carefully.

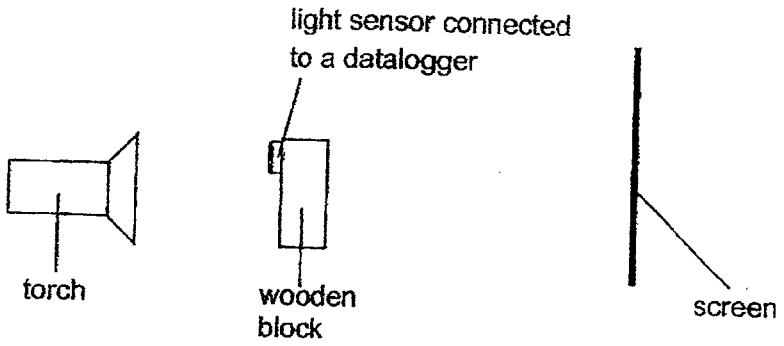


Muthu released a toy car which moved down the slope. The toy car came to a stop when it reached the part of the slope attached to object Y.

Which of the following is correct?

	property of the toy car	object Y is a/an ...
(1)	magnetic	magnet
(2)	magnetic	electrical conductor
(3)	magnetic	non-magnetic material
(4)	non-magnetic	magnetic

25. Susie conducted an experiment using the set-up as shown below.



She attached the light sensor on the wooden block to record the amount of light received. As Susie moved one object in the set-up, the height of shadow decreased but the light sensor reading remained the same.

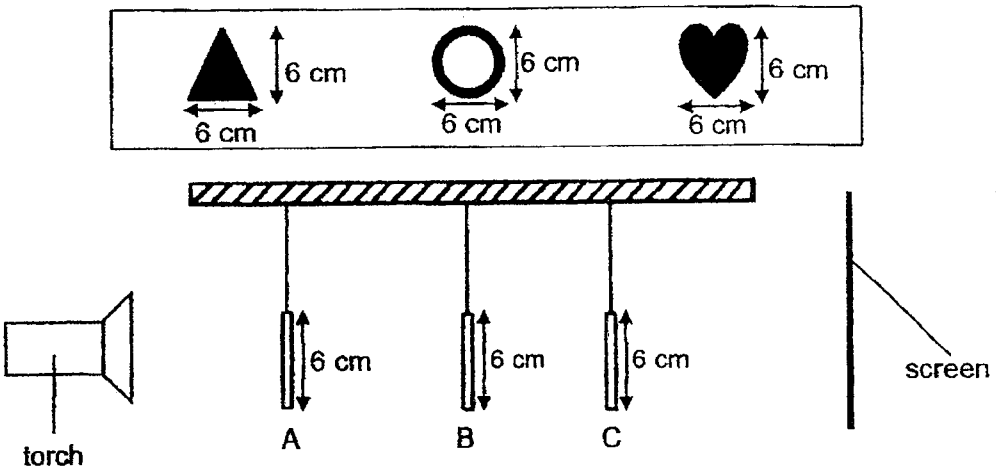
The results are recorded below.

Readings	Height of shadow (cm)	Light sensor reading (units)
First reading	25	8
Second reading	20	8
Third reading	16	8

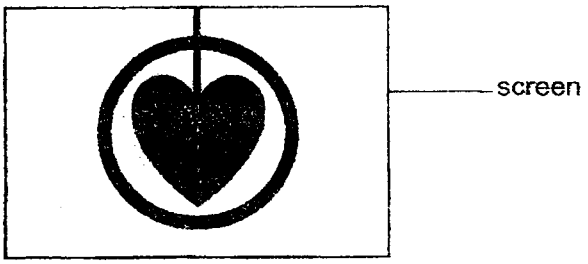
What object did Susie move and in which direction?

(1) She moved the wooden block closer to the torch.
(2) She moved the torch closer to the wooden block.
(3) She moved the screen closer to the wooden block.
(4) She moved the screen further away from the wooden block.

26. Sam conducts an experiment as shown below. He shines light on three shapes, A, B and C made of the same material. Each shape has a height of 6 cm. The shapes are placed at different distances from the torch.



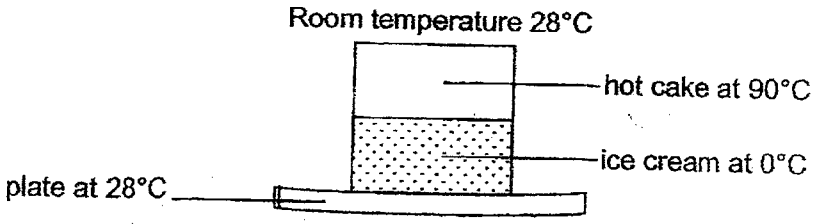
The diagram below shows the shadow that was seen on the screen.



What one of the following correctly represents shapes A, B and C?

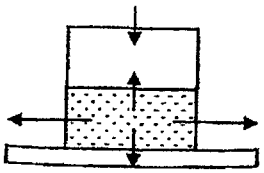
	A	B	C
(1)	▲	○	♥
(2)	▲	♥	○
(3)	○	♥	▲
(4)	○	▲	♥

27. Lilian took out a slice of ice cream of 0°C from the freezer and placed it on a plate at 28°C. She placed another slice of hot cake of 90°C onto the ice cream as shown below.



Which of the following correctly shows how heat travels for the hot cake and the ice cream?

(1)



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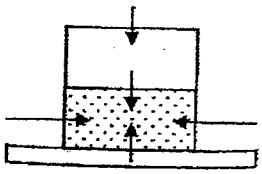

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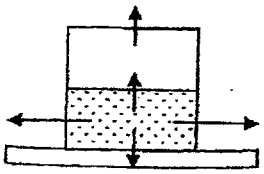
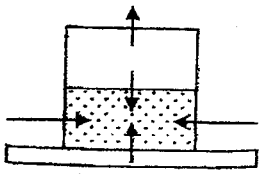
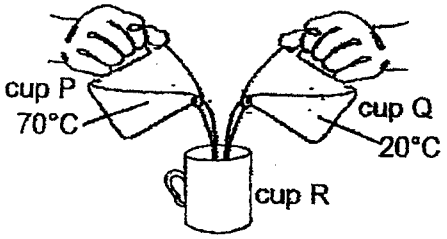


(4)



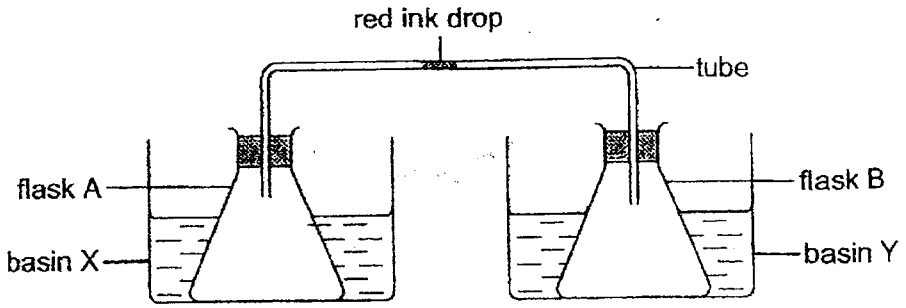
28. Tom poured the same volume of water from cups P and Q into cup R as shown below.



Which of the following is most likely to be the temperature of the water in cup R immediately after the water was poured into it?

(1) 75°C
(2) 90°C
(3) below 20°C
(4) between 20°C and 70°C

29. David set up an experiment as shown below.

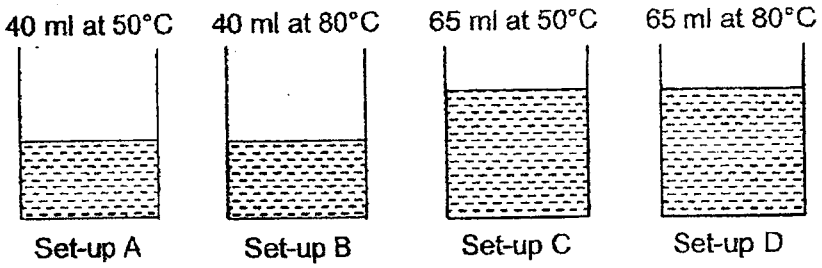


After 5 minutes, he noticed that the red ink drop moved towards flask B.

What could be the possible temperature of the water in basin X and Y?

	Temperature of water in basin X (°C)	**Temperature of water in basin Y (°C)**
(1)	10	80
(2)	10	30
(3)	80	10
(4)	80	80

30. Mona set up an experiment as shown below using identical containers. Set-ups A, B, C and D contain water of different temperatures and volumes.



Which of the following statements is correct?

(1) Water in set-ups A and C have the same amount of heat energy.

(2) Water in set-up C has less heat energy than the water in set-up D.

(3) Water in set-ups B and D will reach room temperature at the same time.

(4) It takes the same amount of time to heat the water in set-ups B and D to the same temperature.

AI TONG SCHOOL

2025 END-OF-YEAR EXAMINATION
PRIMARY FOUR SCIENCE

(BOOKLET B)

27 OCTOBER 2025

Total time for booklets A and B : 1 h 45 min

INSTRUCTIONS

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

Follow all instructions carefully.

Answer all questions.

Write your answers in this booklet.

Name : _____ ( )

Class : Primary 4 _____

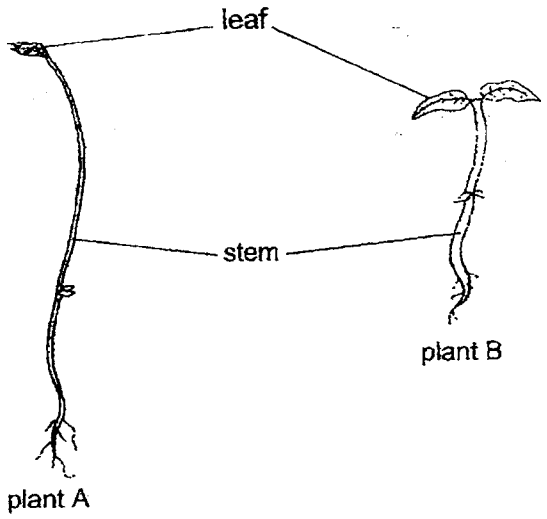
Parent's Signature : _____

40

Section B: 40 marks

Read the questions carefully and write down your answers in the spaces provided.

31. The diagram below shows two plants.



(a) Fill in the blanks using the correct words in the box. [1]

taller than	shorter than	the same height as

The stem of plant A is _____ the stem of plant B.

(b) Fill in the correct parts of a plant in the table below. [2]

Function of plant part	Plant part
It keeps the plant upright.	
It takes in water for the plant.	

3

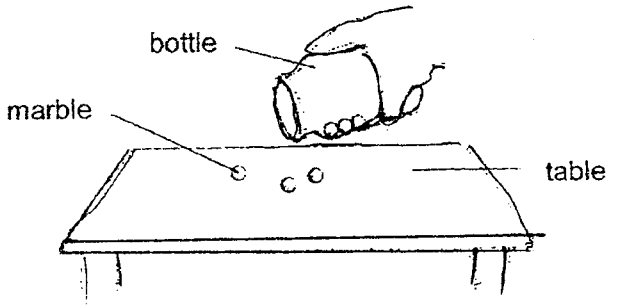
32. (a) Draw lines to match the three human systems to their functions. [3]

human system	function
skeletal system	takes air into and out of the body
circulatory system	supports the body and gives it shape
respiratory system	breaks down food into simpler substances
	transports digested food, water and oxygen to all parts of the body

(b) Explain the importance of chewing food. [1]

4

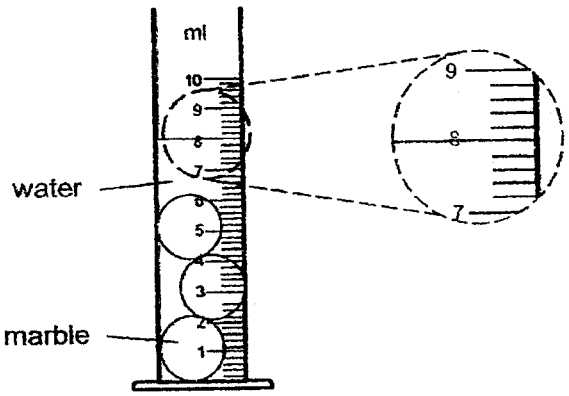
33. Harry pours some marbles from a bottle onto a table as shown below.



(a) Circle the correct answer. [1]

The shape and volume of the marbles remain the same. This shows that a marble is a (*solid / liquid / gas*).

The remaining marbles are put into a measuring cylinder containing some water.



(b) State the reading of the water level. [1]

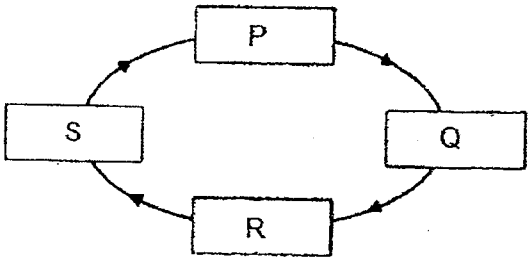
_____ ml

(c) Circle the correct answer. [1]

Water can fill the spaces between the marbles because water has no definite (*mass / shape / volume*).

3

34. Osman observes the life cycle of a mosquito as shown below.



At stage P, the mosquito is harmful to humans as it can spread diseases.

(a) State one way the mosquito at stages R and S is different. [1]

_____

_____

(b) Osman wants to investigate whether the amount of food given to the mosquito in stage R will affect how fast it changes to stage S. He used identical clear containers filled with water for his investigation

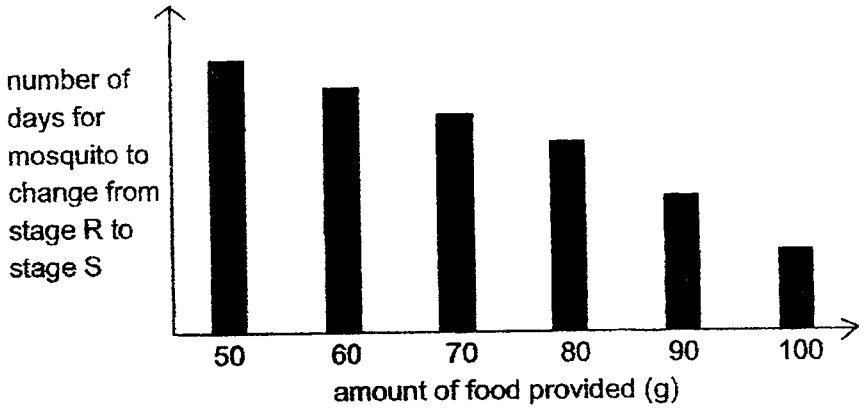
Tick (√) the variable(s) that should be kept the same in the table below. [1]

Variable	To be kept the same (√)
type of food	
mass of food	
volume of water	
number of days the mosquito stay in stage R	

Question 34 continues on the next page.

2

(c) Osman recorded the number of days it took for the mosquito to change from stage R to stage S as shown in the graph below.



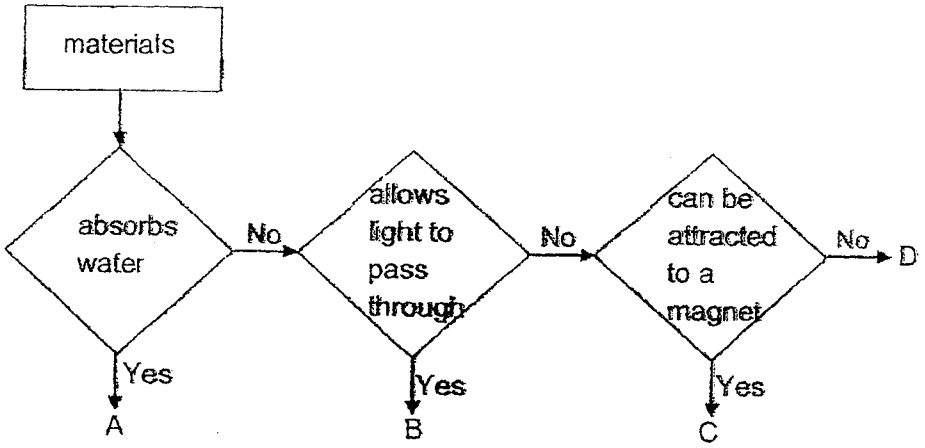
What can he conclude from this experiment? [1]

_____

_____

1

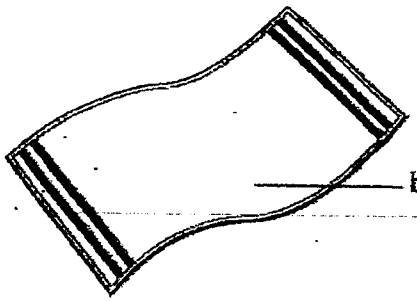
35. Study the flow chart below. Materials A, B and C are classified as shown.



(a) Based on the chart, state the properties of material B. [1]

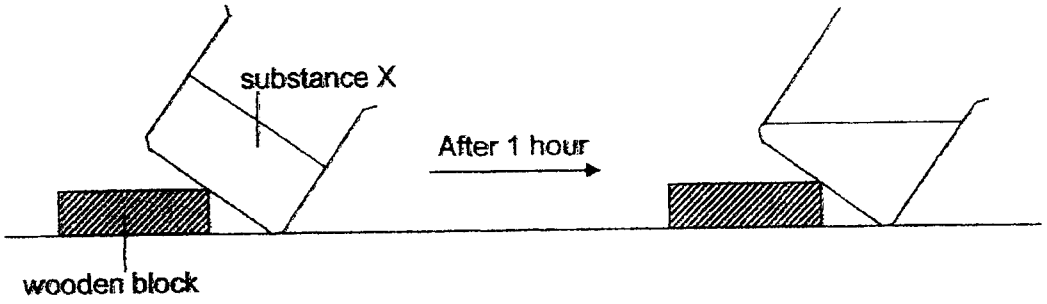
(b) Sarah concluded that C must be a magnet. Do you agree? Explain your answer. [1]

(c) The diagram below shows a bath towel. State which material A, B, C or D is the most suitable to make the bath towel? Explain your answer. [1]



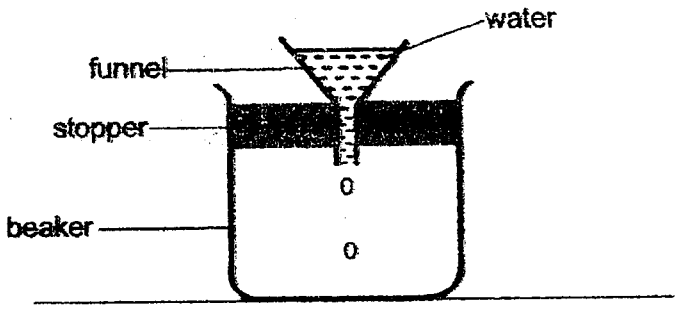
3

36. Priya set up an experiment as shown below.



(a) After one hour, she observed a change in substance X.
Describe what has happened to substance X. [1]

(b) In another beaker, Priya poured some water into a funnel as shown below. She noticed that the water flowed in slowly.

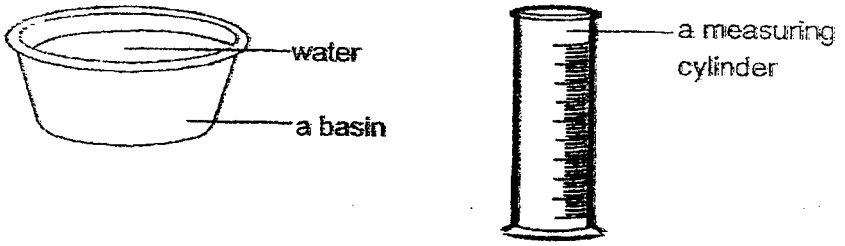


Suggest a way to allow the water to flow in faster. Explain your answer. [2]

3

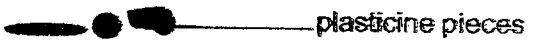
37. Aisha kneaded a block of plasticine into a small sculpture as shown below.

(a) Describe how she could find the volume of the sculpture using the materials provided below. [2]



(b) What property of matter helped Aisha find out the volume of the sculpture? [1]

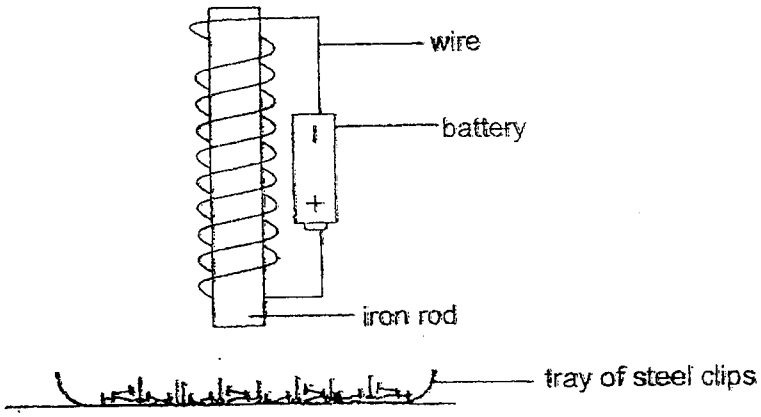
(c) The sculpture was kneaded and torn into three pieces as shown below.



Would the total volume of the plasticine pieces be greater than, less than or the same as the sculpture? Explain your answer. [1]

4

38. Fred conducted an experiment to find out how the number of turns of wire affects the strength of an electromagnet. He set up an experiment as shown below.



After the electromagnet was working, he recorded the results as shown below.

Number of turns of wire	Number of clips attracted
10	5
20	9
30	15
40	18

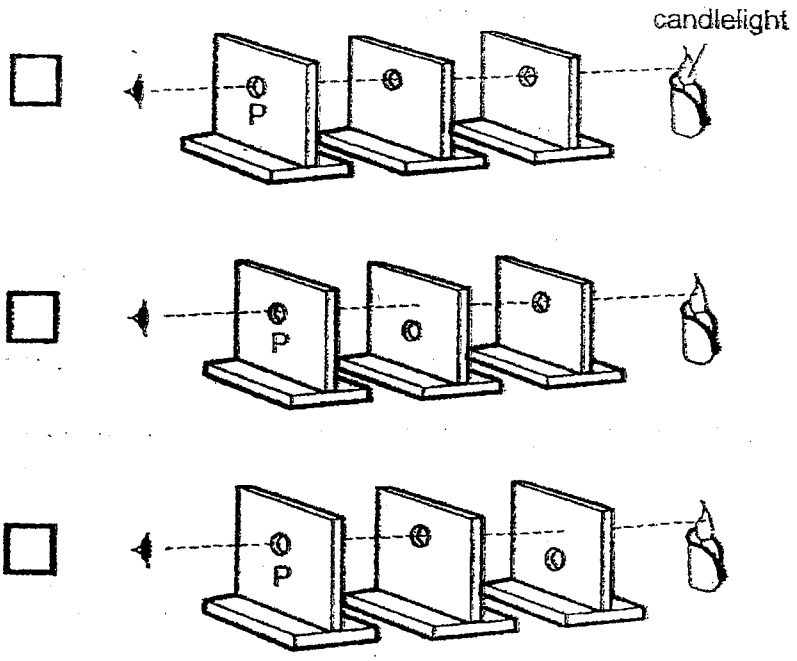
(a) Based on the results, what is the relationship between the number of turns of wire and the strength of the electromagnet? [1]

(b) Fred replaced the steel clips with copper clips. Predict the number of copper clips attracted when the number of turns of wire is 30. [1]

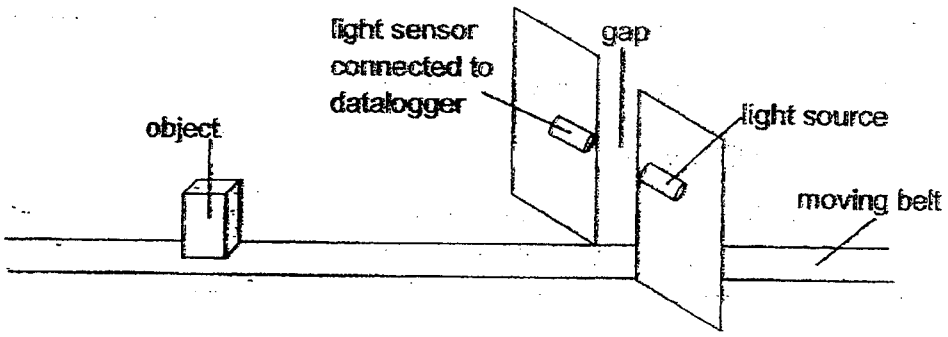
(c) Fred replaced the iron rod in the setup with a plastic rod and repeated the experiment. Predict his observation. Explain your answer. [2]

39. (a) Mandy conducts an experiment to investigate how she sees things.

Tick (√) the box for the set-up which allows her to see the candlelight when she looks through the hole at P. [1]



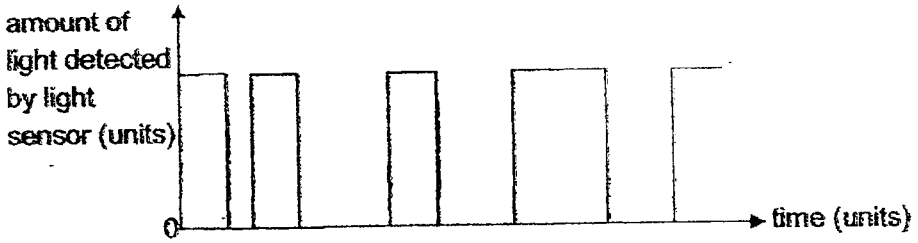
A light source and a light sensor are set up to count the number of objects on a moving belt. The objects are moving at the same speed.



Question 39 continues on the next page.

1

When an object moves between the light source and the sensor, it blocks light from reaching the sensor. The amount of light recorded over a period of time is shown in the graph below.



(b) State the property of light that allows this set-up to work. [1]

(c) Based on the results, how many objects were counted? [1]

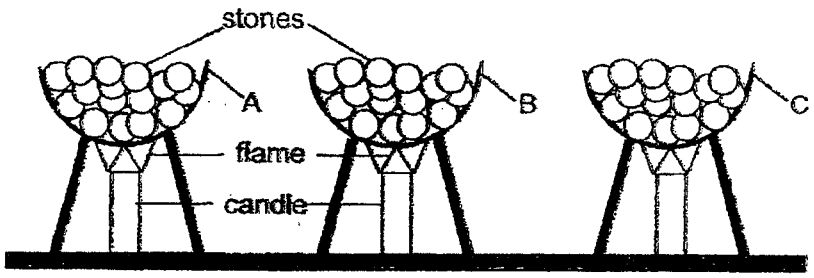
(d) Compare the first two objects counted. State one physical difference between them. [1]

(e) An object X went through the gap but was not detected. State a possible reason for this observation. [1]

4

40. (a) What is temperature? [1]

(b) Mary wanted to find out how materials A, B and C affect the temperature of the stones. She set up the experiment as shown below.



(i) State two variables that must be kept constant to ensure that the experiment is a fair test. [1]

First variable: _____

Second variable: _____

She measured the temperature of the stones in each container and recorded the results in the table below.

Time (min)	Material A (°C)	Material B (°C)	Material C (°C)
10	25	30	28
20	43	54	43
30	90	80	63

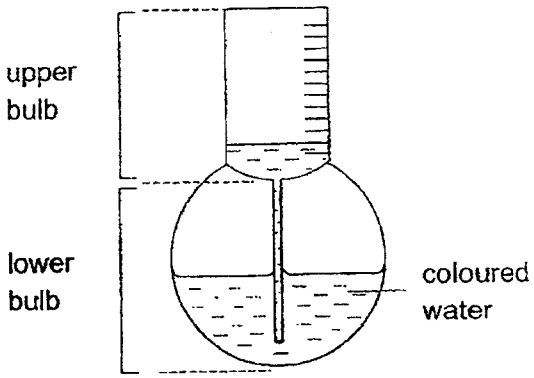
(ii) Which material A, B or C is best for wrapping around drinks to keep them cold for the longest time? Explain your answer. [2]

_____

_____

4

41. Phoebe has a toy as shown below.



When Phoebe covered the lower bulb with her hands, the coloured water rose up into the upper bulb.

(a) Suggest a reason why coloured water is used. [1]

(b) Explain how the coloured water rose up into the upper bulb. [1]

(c) Without turning the toy, what could Phoebe do to make the coloured water return back to the lower bulb faster? Explain your answer. [2]

4

END OF PAPER

P4 Science End of Year Examination 2025

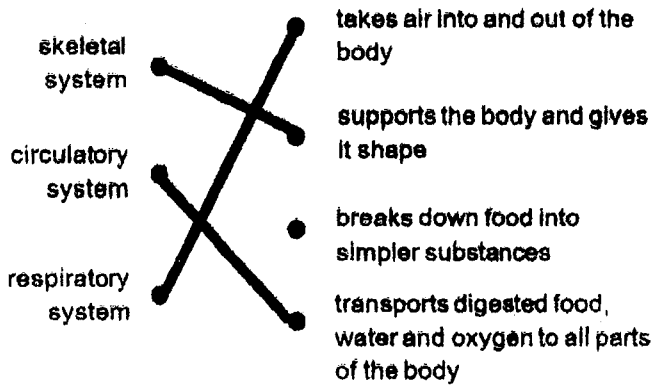
Correction Template

Name: _____ ( ) **Date:** _____

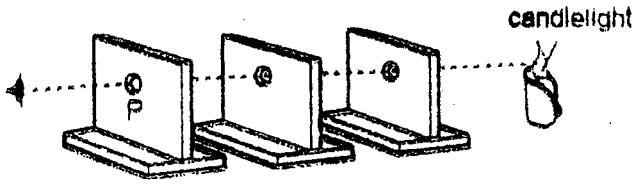
Class: _____

Section A

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

No.	
31a	Taller than
31b	<table><tr><th>Function of plant part</th><th>Plant part</th></tr><tr><td>It keeps the plant upright.</td><td>Stem</td></tr><tr><td>It takes in water for the plant.</td><td>Root</td></tr></table>
32a	
32b	Chewing food well increases the surface area of the food for faster digestion.
33a	Solid
33b	8 *ml*
33c	shape

34a	In R, the larva ___eats___ but in S, the pupa does not.
34b	<table><tr><th>Variable</th><th>To be kept the same (✓)</th></tr><tr><td>type of food</td><td>✓</td></tr><tr><td>mass of food</td><td></td></tr><tr><td>volume of water</td><td>✓</td></tr><tr><td>number of days the mosquito stay in stage R</td><td></td></tr></table>
34c	As the amount of ___food___ provided increases, the number of days for mosquito to change from stage R to stage S ___decreases___
35a	B does not absorb water / B is ___waterproof___ and allows light to pass through.
35b	No. Only ___repulsion___ is the test for magnetism. C could be a magnetic material or a magnet.
35c	A. A absorbs water.
36a	Substance X has changed from ___solid___ state to ___liquid___ state. / X melted.
36b	**Action:** Make a hole in the stopper / lift the funnel / remove the stopper. **Explain:** To allow more air in the beaker to ___escape___ and water will occupy the ___space___ previously occupied by air.

37a	**Step 1 - Pour some water into the measuring cylinder and measure the initial volume.** **Step 2 - Put sculpture into the** measuring cylinder **Step 3 - Read the final volume.** **Step 4 - Find the difference between the initial and final volume.**
37b	Any one of the following: • Liquid has a definite volume • Solid has a definite volume • Matter occupies space • Liquid has no definite shape
37c	**Choice** : Remains the same. **Data**: No plasticine was added or removed. Plasticine has a definite volume.
38a	As the number of turns of wire increases, the strength of the electromagnet increases.
38b	0 clips
38c	No steel clips attracted to plastic nail. Plastic is not a magnetic material.
39a	

39b	Light travels in straight lines. OR Light cannot pass through an opaque object. Only some light can pass through a translucent object.
39c	4
39d	First object is thiner / has a smaller volume than the second object.
39e	X is farther than where the light source and sensor is located. OR X is transparent.
40a	It is a measurement of how hot or cold an object is.
40bi	Any 2 of the following: • Size / type / temperature of the flame • Thickness / size of materials / size of containers A, B, C • Size of the stones / amount of stones / type of stones / shape of stones / temperature of stones at the start of the experiment • number of candles / types of candles / size of candles • distance between candles and materials
40bii	Choice: C. Data: The increase in temperature in Material C is the least. Explain: It is the poorest conductor of heat / gained heat the slowest, keeping them cold.

41a	Enables her to read the water level ___more___ easily / accurately / clearly.
41b	Water / air in the lower bulb ___gained___ **heat from her hands** and ___expanded___, pushing the water into the upper bulb.
41c	**About upper bulb** Action: Place her hands over the ___upper___ bulb. Explain: The water / air in the upper bulb **will gain heat** and **expands**. OR **About lower bulb** Action: Put the **lower bulb** in cold water Explain: The water / air in the lower bulb would ___loss___ **heat** to surroundings / cold water and **contract**, occupying less space.

END