MAHA BODHI SCHOOL
2025 END OF YEAR EXAMINATION
PRIMARY FOUR SCIENCE
(BOOKLET A)

Name : _____ ( )

Class : Primary 4 _____

Date : 27 Oct 2025

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

INSTRUCTIONS TO CANDIDATES:

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

This booklet consists of **18** printed pages.

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BOOKLET A : [28 x 2 marks = 56 marks]

For each question from 1 to 28, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). **Shade your answer on the Optical Answer Sheet.**

1. Which of the following is **not** a source of heat?

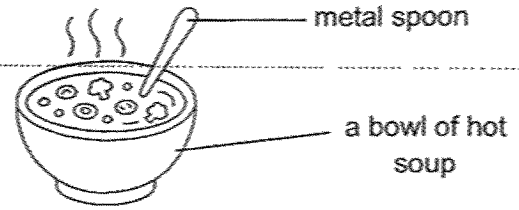
   (1) the sun

   (2) a campfire

   (3) a candle flame

   (4) a cotton jacket

2. Denise places a metal spoon in a bowl of hot soup.



The spoon becomes hotter after a while. Which one of the following explains this?

(1) The bowl loses heat to the hot soup.

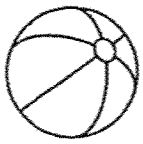
(2) The metal spoon loses heat to the hot soup.

(3) The hot soup gains heat from the metal spoon.

(4) The metal spoon gains heat from the hot soup.

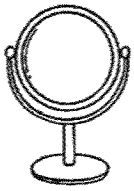
3. Which one of the following is a source of light?

(1)



ball

(2)



mirror

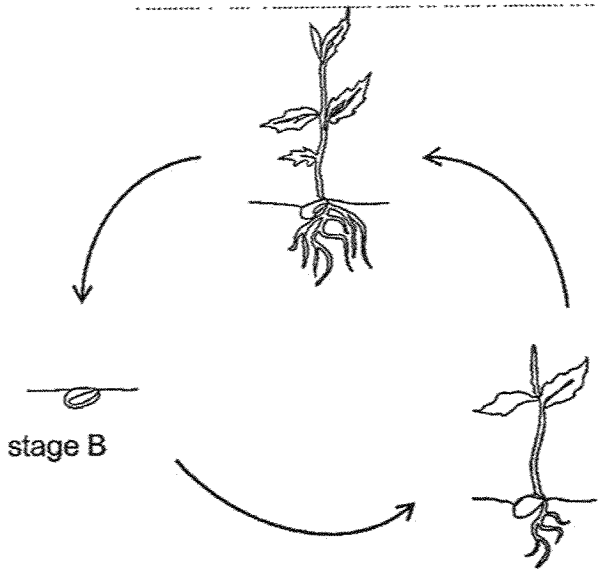
(3)

fire

(4)

the Moon

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



What is stage B?

(1) egg

(2) seed

(3) adult plant

(4) young plant

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

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

(1) air
(2) light
(3) soil
(4) water

6. Which of the following is a function of the stem?

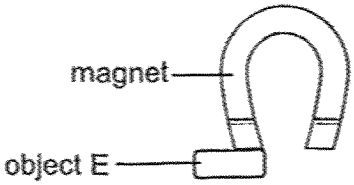
(1) keeps the plant upright
(2) makes food for the plant
(3) holds the plant firmly to the soil
(4) exchange gases with the surroundings

7. Study the diagram below.

Which human system is shown above?

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

8. Object E was attracted to a magnet, as shown below.



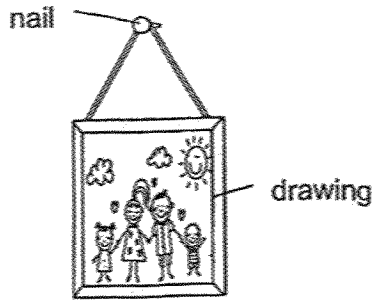
Object E is made of _____.

(1) steel
(2) plastic
(3) rubber
(4) wood

9. Which statement is **not** true about all animals?

(1) They can reproduce.
(2) They need water, food and air.
(3) They can respond to changes.
(4) They can make their own food.

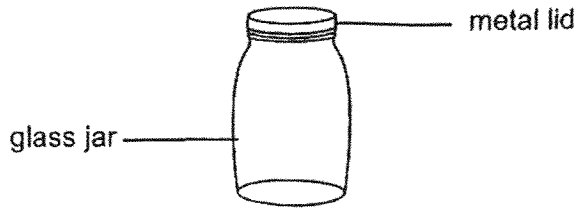
10. The diagram shows a drawing hanging on a wall.



Iron is used to make nails because iron _____.

(1) is shiny
(2) is strong
(3) sinks in water
(4) conducts heat well

11. Dennis had some difficulty removing a metal lid from a glass jar.



What is the best way to help him remove the metal lid?

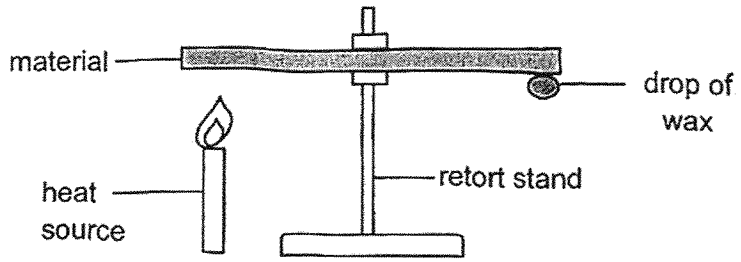
(1) Put the glass jar into a container of hot water.

(2) Put the glass jar into a container of ice cubes.

(3) Put the metal lid and glass jar into a container of hot water.

(4) Put the metal lid and glass jar into a container of ice cubes.

12. Peter wanted to find out how different materials affect the amount of time taken for the wax to melt.



A drop of wax is placed at the end of the material. The material is then heated at the opposite end. The time taken for the wax to melt is recorded on the table below.

	Material			
	P	Q	R	S
Time taken for wax to melt (s)	25	55	40	70

Based on the results above, which material is the best conductor of heat?

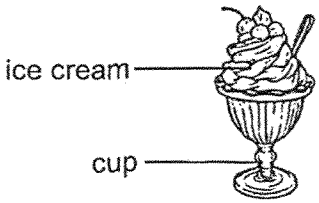
(1) P

(2) Q

(3) R

(4) S

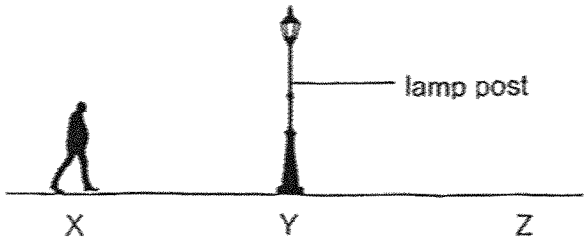
13. Brenda was eating ice cream in a cup.



Which of the following correctly shows the process of heat gain and heat loss between the cup, ice cream and Brenda's mouth?

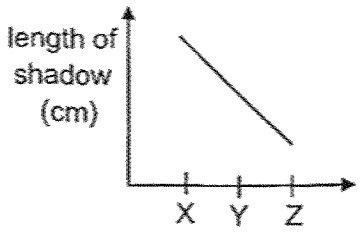
	cup	ice cream	Brenda's mouth
(1)	lost heat	gained heat	lost heat
(2)	gained heat	gained heat	lost heat
(3)	lost heat	lost heat	gained heat
(4)	gained heat	lost heat	gained heat

14. Timothy walked from point X to Z, walking past a lamp post at point Y as shown in the diagram below.

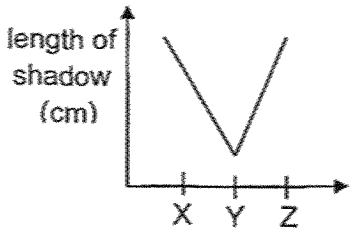


The lamp post is the only light source. Which one of the graphs below shows how the length of Timothy's shadow changes from points X to Z?

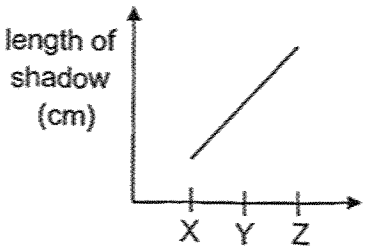
(1)



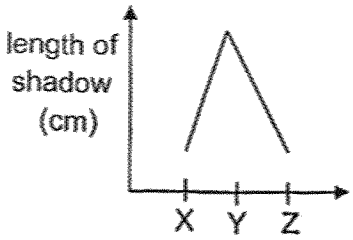
(2)



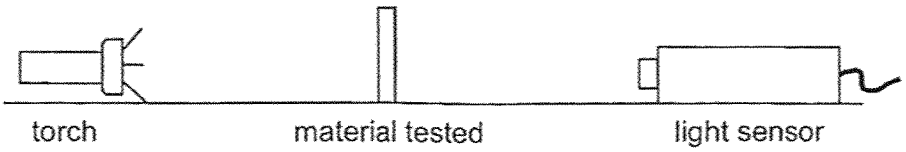
(3)



(4)



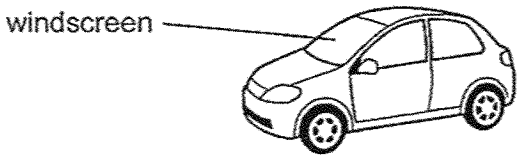
15. Four different materials A, B, C and D of equal size and thickness were used in the set-up as shown below.



A light sensor was used to measure the amount of light that passed through each material. The results are shown in the table below.

Material	Amount of light recorded with no material (units)	Amount of light recorded with material (units)
A	5000	4500
B	5000	0
C	5000	500
D	5000	1500

Study the diagram of the car. The windscreen of the car allows driver to see through it most clearly.



Based on the results above, which material A, B, C or D is most suitable for making the windscreen?

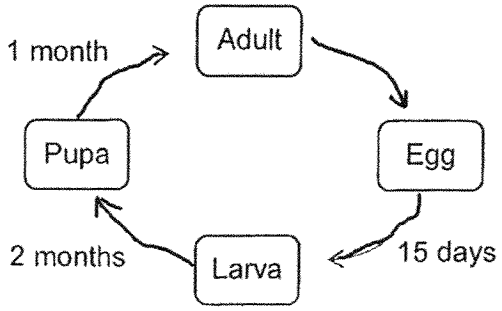
(1) A

(2) B

(3) C

(4) D

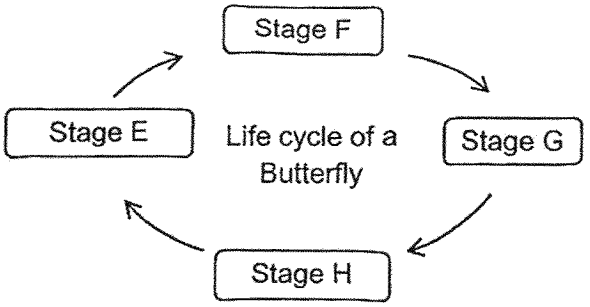
16. The diagram below shows the life cycle of animal W and the time taken for it to develop into the next stage.



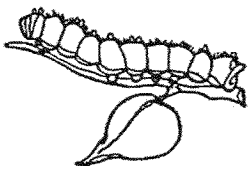
Based on the information given, which of the following statements is true?

(1) Animal W gives birth to its young.
(2) Animal W's young looks like its adult.
(3) Animal W can live for 3 months and 15 days only.
(4) Animal W is able to reproduce 3 months after hatching.

17. The diagram below shows the life cycle of a butterfly and a picture of stage G.



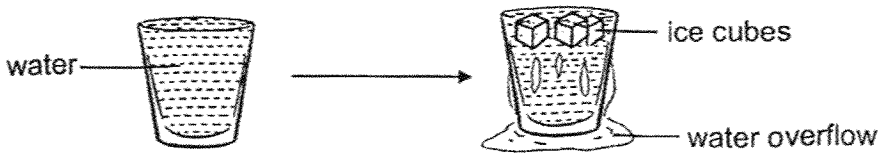
Picture of stage G



Based on the information above, at which stage will the butterfly be able to reproduce?

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

18. Mary filled a glass with water to the brim. When she placed some ice cubes into the glass of water as shown below, she observed that the water overflowed.



Which of the following best explains why the water overflowed?

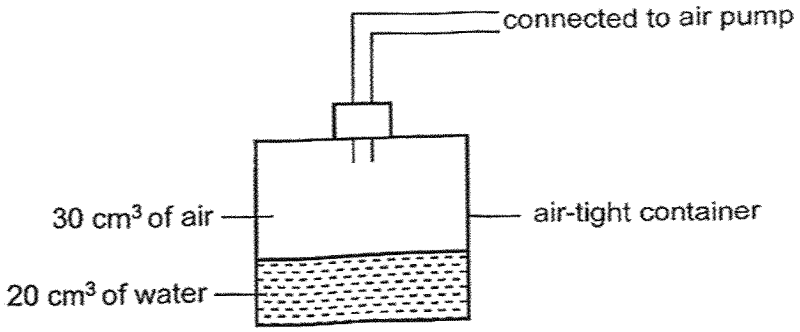
(1) Ice cubes take up space.

(2) Water has no definite volume.

(3) Ice cubes have a definite shape.

(4) Water exists in three different states.

19. Study the set-up below. The capacity of the container is 50 cm^3.



20 cm^3 of air was removed from the container using the pump.

What is the final volume of air in the container?

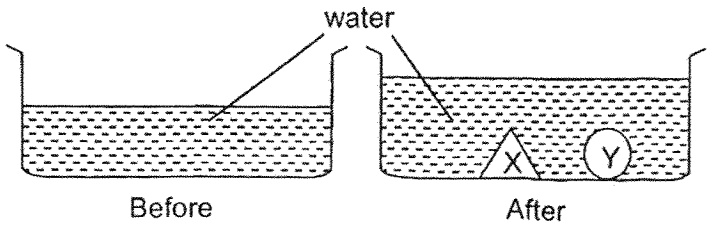
(1) 10 cm^3

(2) 20 cm^3

(3) 30 cm^3

(4) 50 cm^3

20. Mindy dropped two solid objects, X and Y, into a tank of water as shown below.



Based on the above diagram, she made some statements.

A. Both objects occupy space.
B. Both objects have the same mass.
C. Both objects have the same volume.

Which of the statement(s) is/are true?

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

21. Jolin wanted to find out if different amounts of water given to similar plants, P, Q and R, affect the growth of plants.

	Pot P	Pot Q	Pot R
size of pot (cm^3)	10	15	20
amount of water given (ml)	250	500	375
duration of experiment (days)	7	7	7
location of pot	garden	garden	garden

Jolin's teacher said she did not conduct a fair experiment.

What change must she make to make it a fair experiment?

(1) Use pots of the same size.
(2) Place the pots in different locations.
(3) Conduct the experiment for 14 days.
(4) Give the same amount of water to each plant.

22. Melissa observed the growth of a plant over a period of 4 days. The observations made at the end of each day are recorded on the table below.

Day	Height of plant (cm)	Number of leaves
1	3	0
2	3	0
3	4	1
4	6	2

On which day would the plant start making its own food?

(1) Day 1

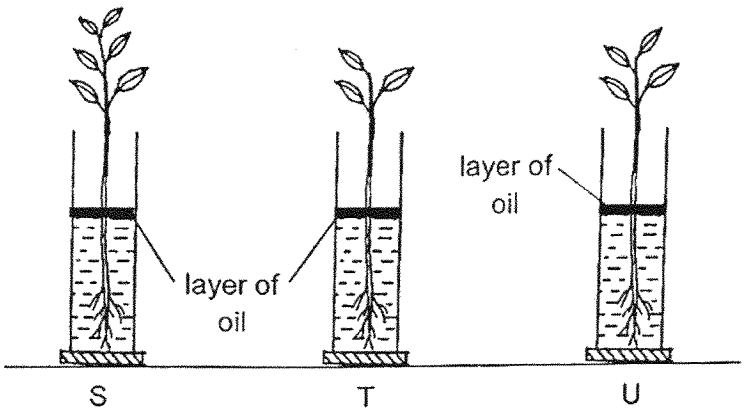
(2) Day 2

(3) Day 3

(4) Day 4

23. Alex wanted to find out if the number of leaves of a plant affects the amount of water taken in by the plant. Three similar plants, S, T and U, with different numbers of leaves were placed in a brightly lit place.

The layer of oil on top prevents water from being lost to the surroundings.



The table below shows the amount of water left in each set-up after a few days.

	Volume of water (ml)		
	S	**T**	**U**
Start of experiment	150	150	150
End of experiment	80	95	88

What can Alex conclude from the results of his experiment?

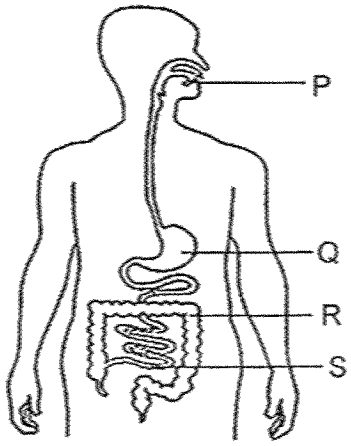
(1) The more leaves a plant has, the lesser the amount of water left.

(2) The fewer leaves a plant has, the lesser the amount of water left.

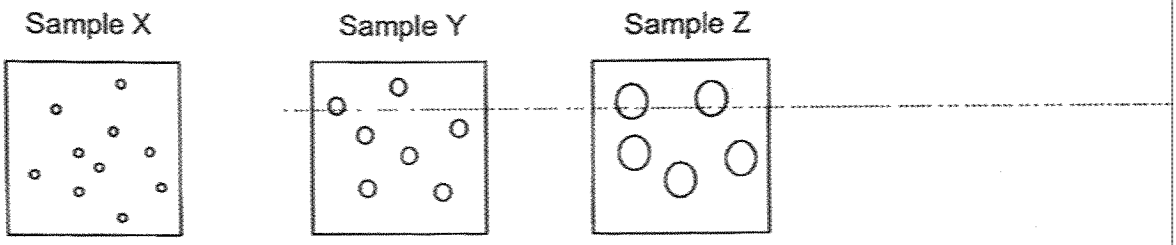
(3) The more leaves a plant has, the greater the amount of water left.

(4) The number of leaves of a plant does not affect the amount of water left.

24. The diagram below shows the human digestive system.



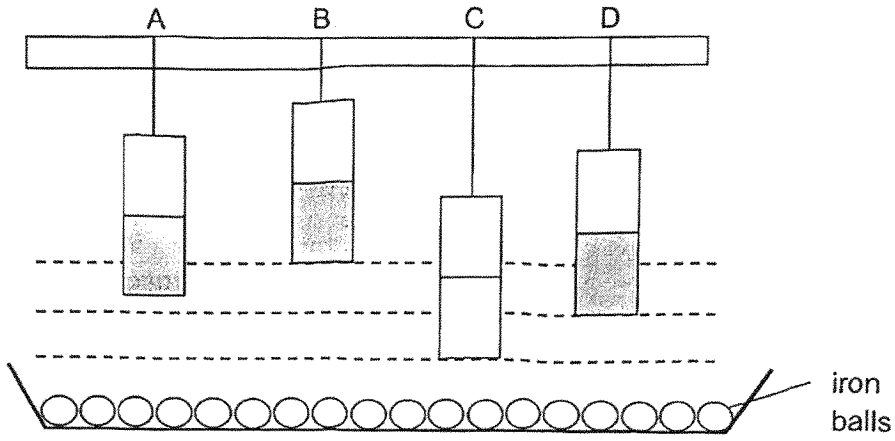
Samples X, Y and Z show the size of the same food taken from different parts of the digestive system.



Which part of the digestive system were samples X, Y and Z be taken from?

	Sample X	Sample Y	Sample Z
(1)	P	R	Q
(2)	Q	R	S
(3)	S	Q	P
(4)	S	R	P

25. Megan used the set-up shown below to compare four magnets, A, B, C and D.



She recorded her findings on the table below.

Magnet	Number of iron balls attracted
A	2
B	4
C	6
D	4

Based on the information above, which of the following statements is definitely true?

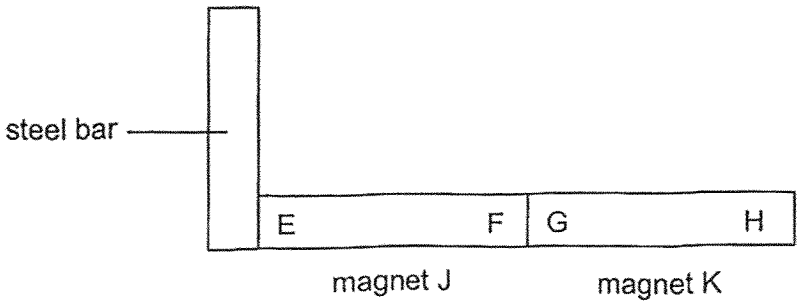
(1) Magnet A is the weakest magnet.

(2) Magnet C is the strongest magnet.

(3) Magnet B is as strong as magnet D.

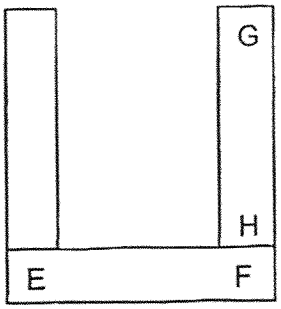
(4) Magnet D is weaker than magnet B.

26. The arrangement of two magnets, J and K, and a steel bar are shown below.

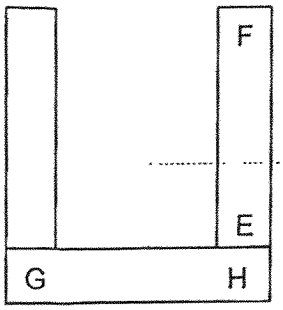


Which one of the following arrangements is not possible?

(1)



(2)



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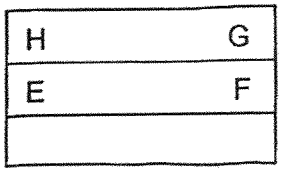
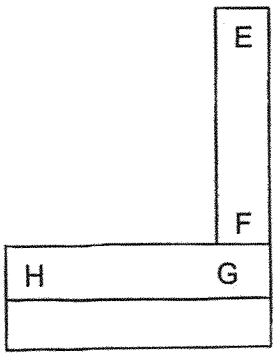
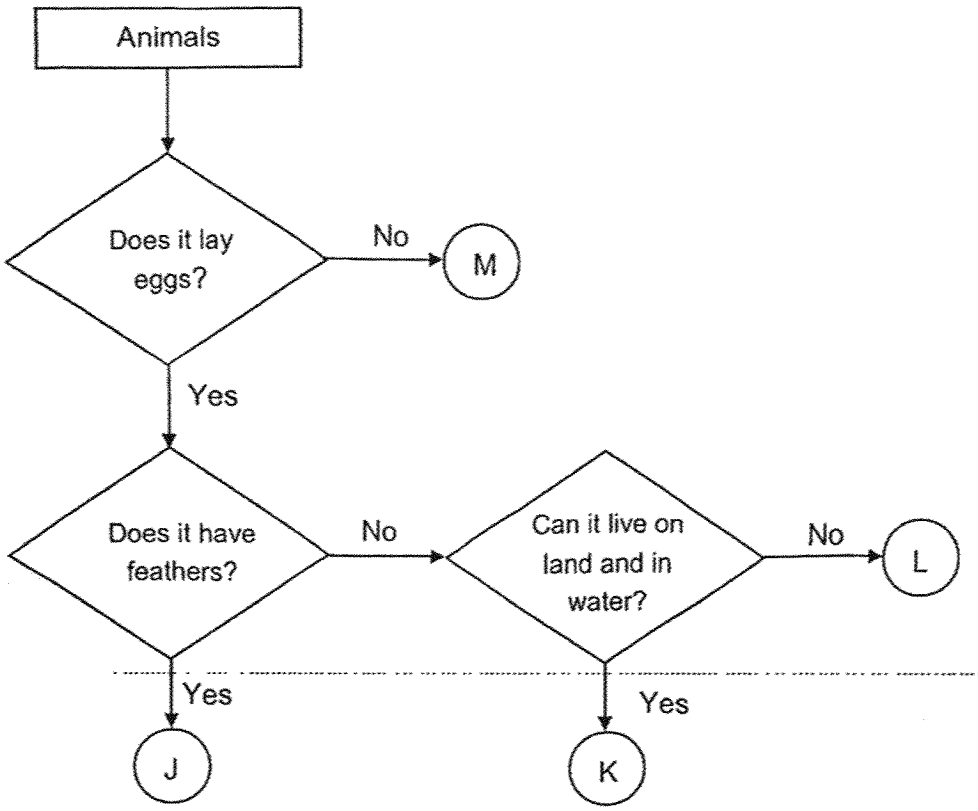


(4)



27. Study the flowchart below.



Betsy observed an animal and made the following observations.

- It lays eggs.
- It does not have a beak.
- It can move well in water.
- It has gills to breathe underwater.

Based on her observations above, where should Betsy place the animal in the flowchart above?

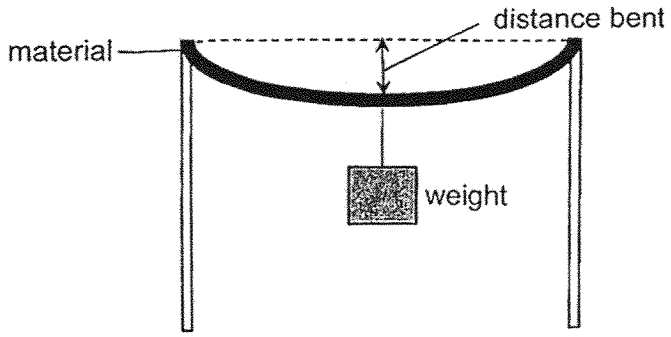
(1) J

(2) K

(3) L

(4) M

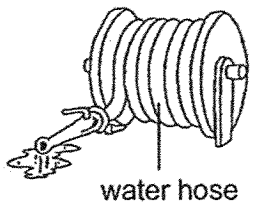
28. An experiment was set up using four different materials, P, Q, R and S of the same length and thickness. When a 500g weight was hung onto each material, it bent as shown below.



The distance bent by the different materials are shown on the table below.

Material	P	Q	R	S
Distance bent (cm)	1	0	4	2

Study the water hose below.



Which of the materials, P, Q, R or S, is most suitable to make the water hose as shown above?

(1) P

(2) Q

(3) R

(4) S

END OF BOOKLET A

GO ON TO BOOKLET B

MAHA BODHI SCHOOL

2025 END OF YEAR EXAMINATION

PRIMARY FOUR SCIENCE

(BOOKLET B)

Name: _____ ( )

Class: Primary 4 _____

Date : 27 Oct 2025

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

INSTRUCTIONS TO CANDIDATES:

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Write all your answer in this booklet.

Booklet	Marks Obtained	Max Marks
A		56
B		44
Total		100

Parent's signature: _____

This booklet consists of 13 printed pages.

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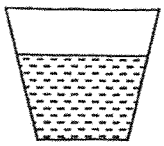
BOOKLET B : [44 marks]
For questions 29 to 40, write your answers in this booklet.

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

29. The diagram shows a cup of water.



Fill in the blanks using the correct words in the box.

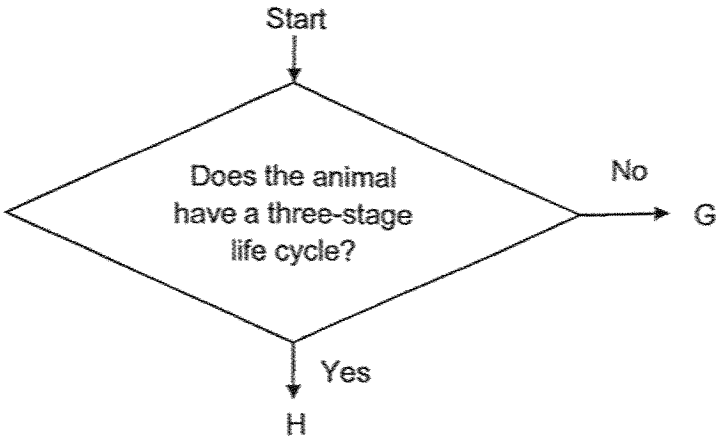
liquid	increases	solid
remains the same		decreases

(a) When water gains heat, its temperature ___ _____. [1]

(b) The cup of water is placed in a freezer. After some time, the water will change its state to _____. [1]

Marks : / 2

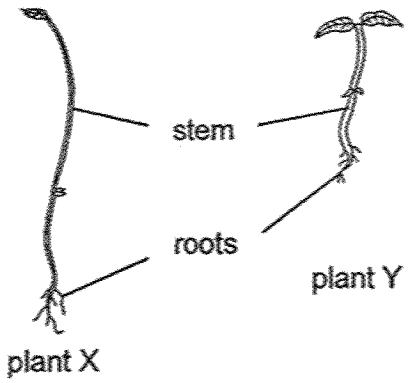
30. G and H are two animals in the chart below.



Read the following statements and tick (✓) the true/false box. [3]

	Statement	True	False
(a)	Both animal G and H have a three-stage life cycle.		
(b)	Animal G can be a cockroach.		
(c)	Animal H can be a frog.		

31. The diagram below shows two plants.



(a) What is one difference between the stem of plant X and the stem of plant Y? [1]

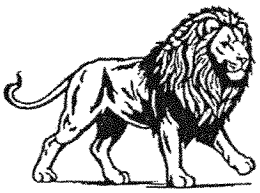
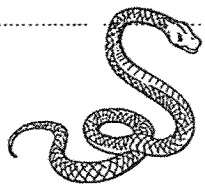
The stem of plant X is _____ than the stem of plant Y.

(b) The roots help both plants to absorb _____ and minerals from the surroundings. [1]

Marks : / 5

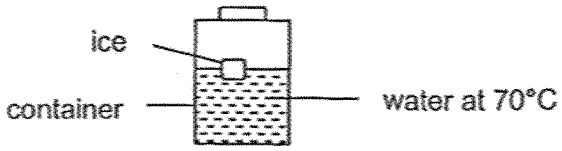
32. Identify the outer covering of each animal group by choosing the words from the box. [3]

moist skin	hair	scales	hard outer covering

	Animal group	Outer covering
(a)	 mammal	
(b)	 reptile	
(c)	 amphibian	

Marks : / 3

33. An ice cube was placed into a container of water at a temperature of 70°C as shown in the diagram below.

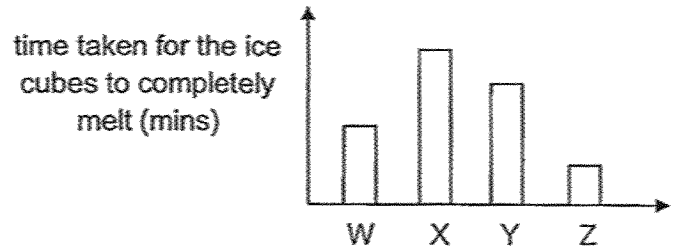


(a) After 10 minutes, would the temperature of water in the container be higher than, the same or lower than 70°C? [1]

(b) Give a reason for your answer in part (a). [1]

Four similar ice cubes are placed in four containers, W, X, Y and Z, made of different materials.

The time taken for the ice cubes to melt completely in each container is shown in the bar graph below.

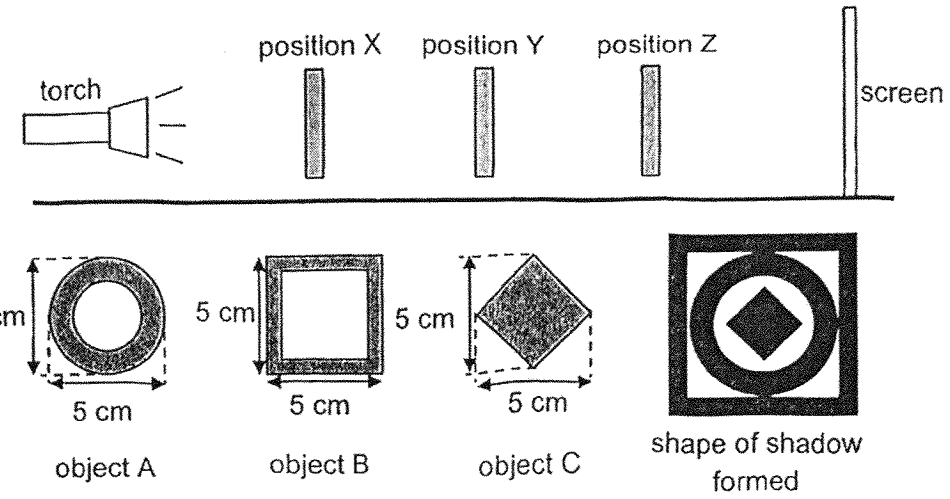


(c) Which container, W, X, Y or Z, is most suitable to make a storage box so that cold drinks will remain cold the longest? [1]

(d) Explain your choice in part (c). [2]

Marks : / 5

34. Metallic objects A, B and C are of similar sizes, but different shapes. The objects are placed at different positions, X, Y and Z, in front of a lit torchlight and casted a shadow on the screen as shown below



(a) State one property of light that allows the shadows of the objects to be formed on the screen. [1]

(b) Based on the shape of the shadow formed, identify the correct positions where the objects were placed in front of the torch.
Write X, Y and Z in the space below. [1]

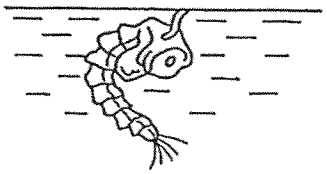
Objects	A	B	C
Position			

(c) Without moving the objects, suggest one way to increase the size of the shadow cast on the screen. [1]

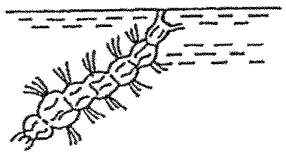
(d) The material of object C was changed, and the shadow of C can no longer be seen. State the property of the new material used to make C. [1]

Marks : / 4

35. The diagram below shows 2 stages in the life cycle of a mosquito.



stage X



stage Y

(a) Identify stage X and stage Y. [2]

stage X : _____ stage Y : _____

(b) Without comparing the size, state a difference between the mosquito in stage X and stage Y. [1]

_____

_____

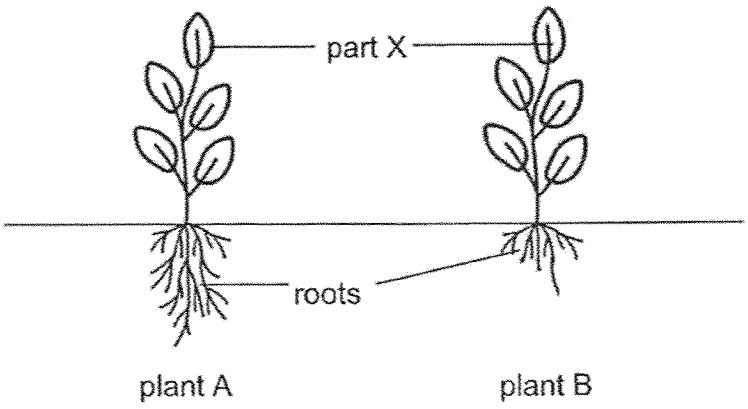
(c) Explain why the mosquito is the most difficult to kill at the adult stage. [1]

_____

_____

Marks : / 4

36. The diagram shows two plants of the same type planted in soil.



(a) Identify part X of the plant. [1]

_____

(b) State a function of part X. [1]

_____

(c) State one difference between the roots of plant A and plant B. [1]

_____

_____

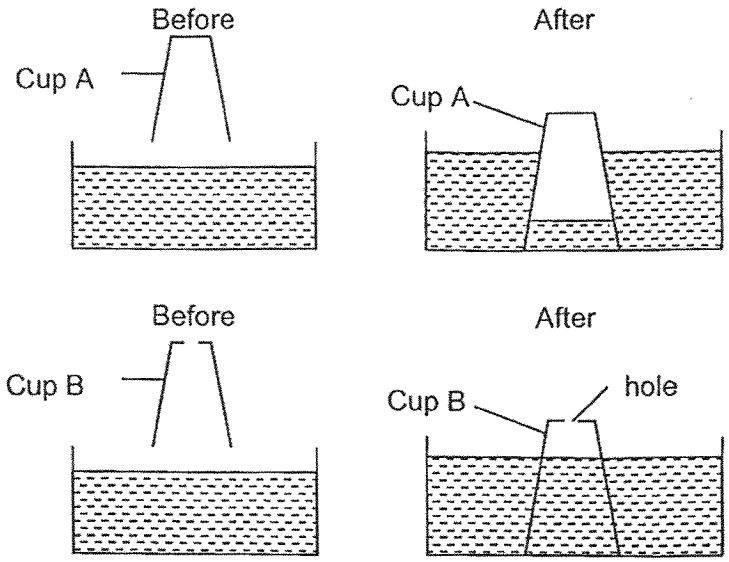
(d) If it rains heavily and there are strong winds blowing, which plant, A or B, will be washed away more easily? Explain why. [1]

_____

_____

Marks : / 4

37. Ben conducted an experiment where he pushed cups, A and B, into a basin of water as shown below. He found it more difficult to push Cup A than Cup B into the basin of water. Cup B had a hole at the base.



(a) Which property of matter can be observed from Ben's experiment? [1]

_____

(b) Explain why the water level in Cup B is higher than the water level in Cup A. [2]

_____

_____

_____

_____

Marks : / 3

37. (c) Ben then made different numbers of holes of the same size in another 2 cups and recorded the time taken for cups B, C and D to be pushed into the basin.

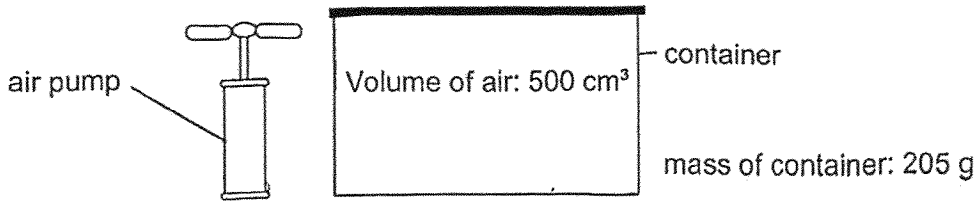
Cup	Number of holes on the base of the cup	Time taken for the cup to be pushed into the basin (sec)
B	1	3
C	3	2
D	5	1

(i) State the relationship between the number of holes at the base of the cups and the time taken for the cups to be pushed into the basin. [1]

(ii) Explain your answer in c(i) [1]

Marks : / 2

38. The diagram below shows a container which has a capacity of 500 cm³.

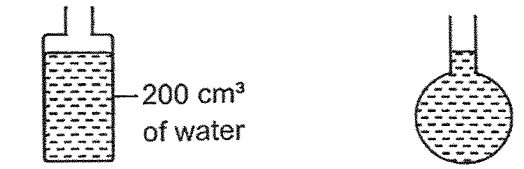


Alex pumped 200 cm³ of air into the container.

(a) What is the volume of the air and the mass of container after 200 cm³ of air has been pumped into the container?
Circle the correct answers in the table below. [2]

	After pumping
Volume of air (cm³)	300 / 500 / 700
Mass of container (g)	198 / 205 / 207

(b) Alex poured 200 cm³ of water into container Q. He then poured all the water from container Q into container R.

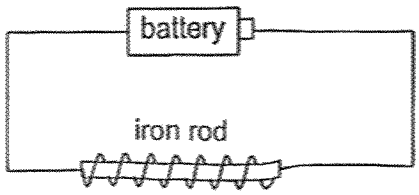


(i) What did Alex observe after he poured the water from container Q to container R? [1]

(ii) Did the volume of water change after it was poured into container R? Explain your answer. [1]

Marks : / 4

39. (a) Calvin wanted to find out if the number of batteries affects the magnetic strength of an electromagnet. He conducted an experiment using iron rod as shown in the diagram below.



He placed iron rod near some paper clips and recorded the number of paper clips attracted by the iron rod.

He repeated the experiment by increasing the number of batteries connected to the electromagnet and recorded the results in the table below.

Number of batteries	Number of paper clips attracted
1	7
2	15
3	?
4	28

(i) What could be the possible number of paper clips attracted by iron rod when 3 batteries are connected to the set-up? [1]

_____

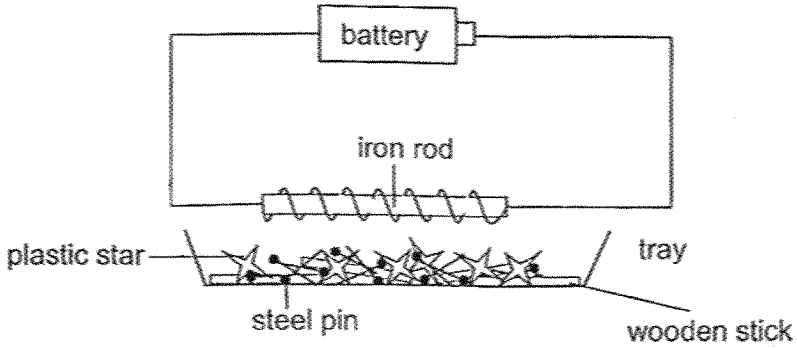
(ii) State the relationship between the number of batteries connected and the number of paper clips attracted. [1]

_____

_____

Marks : / 2

(b) Calvin then placed a tray of plastic stars, wooden sticks and steel pins under the electromagnet as shown below.



(i) Which object(s) would be attracted by the electromagnet?
Put a tick (✓) in the correct box(es) below. [1]

Object	Tick (✓)
plastic star	
wooden stick	
steel pin	

(ii) He noticed that the heavier objects that could be picked up by the magnet are not being attracted.

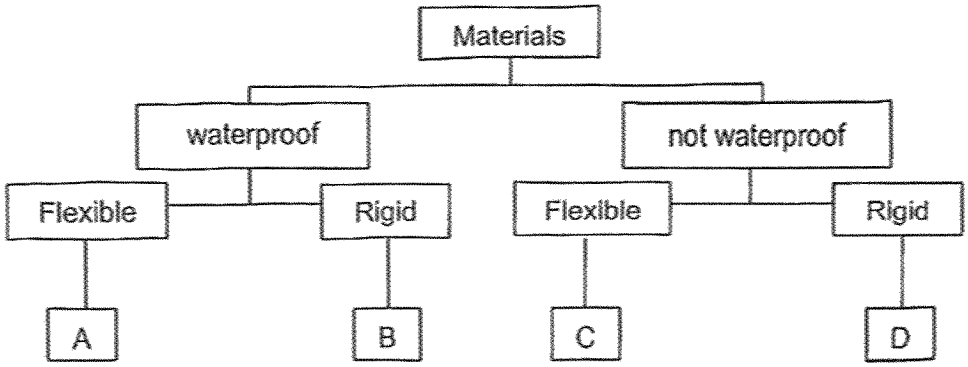
Without moving the tray, suggest one change to the setup for the electromagnet to attract a heavier object. [1]

_____

_____

Marks : / 2

40. Study the classification chart below.



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

_____

_____

(b) Based on the chart above, what is the difference between the properties of materials A and C? [1]

_____

_____

(c) The diagram below shows an umbrella.

Based on the chart above, which material, A, B, C or D, is most suitable to make each of the above parts. [2]

(i) R : material _____

(ii) S : material _____

Marks : / 4

~ END OF PAPER ~

Name: _____
Class _____

BOOKLET A:

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

29a increases

29b solid

30a

Statement	True	False
(a) Both animal G and H have a three-stage life cycle.		✓
(b) Animal G can be a cockroach.		✓
(c) Animal H can be a frog.	✓	

31a longer

31b water

32a hair

32b scales

32c moist skin

33a lower

33b The ice cube gained heat from the water

33c Container X

33d The ice cube in X took the longest most time to melt so it is the poorest conductor of heat.

34a Light travels in a straight line. A shadow is formed when light is blocked

34b

	Objects		
	A	B	C
Position	Y	X	Z

33c Move the torch closer to the objects.

33d The material allows most light to pass through./ The material is transparent.

35a X: pupa Y: larva

35b Organism in stage X does not eat but the organism in stage Y eats a lot.

35c It has wings at adult stage and can fly.

36a Leaves

36b Part X makes food (for the plant). / Part X exchange gases (with the surroundings).

36c Plant A has longer roots than plant B.

36d Plant B. Plant B has shorter roots roots than Plant A. Plant B's short roots cannot hold the plant (firmly) to the ground.

37a Matter occupies space

37b Air trapped inside the cup A takes up the space and this prevents the water from entering the cup A.

37ci As the number of holes increases, the time taken for the cup to be pushed into the water decreases.

37cii The (hole) allowed the air to escape

38a Volume of air: 500 Mass of container: 207

38bi The shape of water changed.

38bii No. Water/Liquid has a definite volume.

39ai Any numbers between 16 - 27

39aii As the number of batteries connected increases, the number of paper clips attracted also increases.

39aiii) Turn more coils of wire around the iron rod./ Add more batteries

40a Material B is waterproof and rigid.

40b Material A is waterproof but material C is not waterproof

40ci material A

40cii material B

39)i)steel pin