



## **2026 PRIMARY 6 PRELIMINARY EXAMINATION**

Name : \_\_\_\_\_ (    )

Date: 20 August 2026

Class : Primary 6 (    )

Time: 8.00 a.m. - 9.45 a.m.

Duration: 1 hour 45 minutes

# **SCIENCE BOOKLET A**

### **INSTRUCTIONS TO CANDIDATES**

1. Write your name, class and register number.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Shade your answers on the Optical Answer Sheet (OAS) provided.

**Booklet A (30 x 2 marks)**

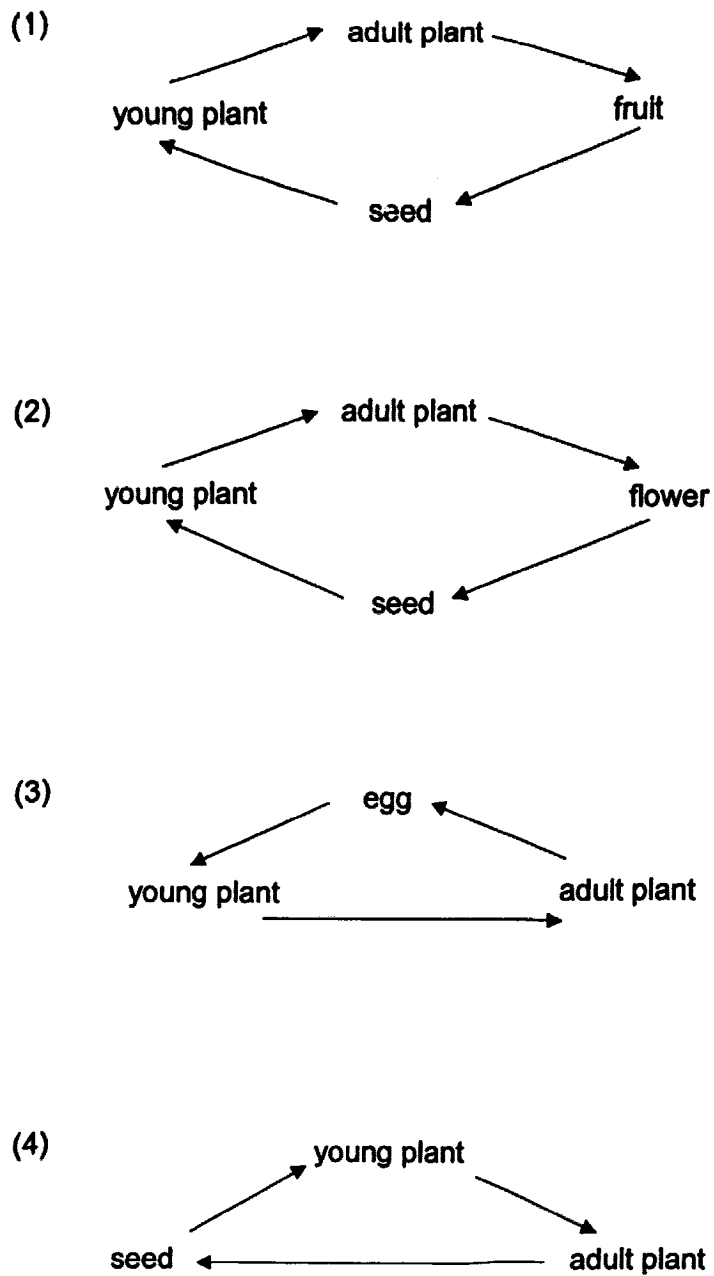
For each question from 1 to 30, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and shade your answer on the Optical Answer Sheet.

(60 marks)

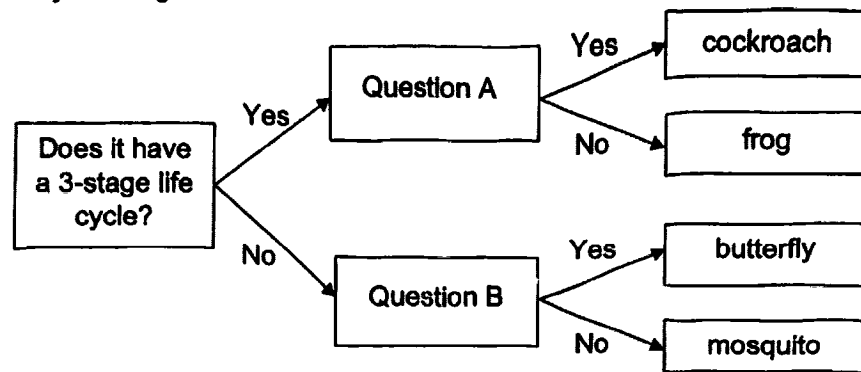
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1. Which of the following characteristics can be used to differentiate reptiles and mammals?
  - (1) way of moving
  - (2) number of legs
  - (3) method of breathing
  - (4) method of reproduction
  
2. Which of the following is true about reproduction in plants but not in humans?
  - (1) The egg is produced in the ovary.
  - (2) Reproductive cells are produced in testes.
  - (3) The ovule protects the female reproductive cell.
  - (4) Fertilisation occurs in the female reproductive part.

3. Which of the following correctly shows the life cycle of a flowering plant?



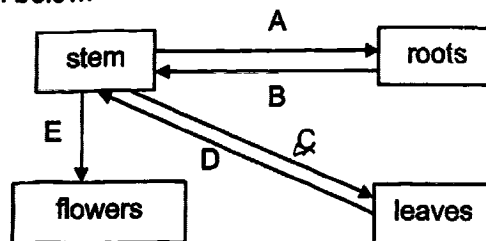
4. Study the diagram below.



Which of the following correctly represents questions A and B?

|     | Question A                         | Question B                         |
|-----|------------------------------------|------------------------------------|
| (1) | Does the adult have wings?         | Does the young resemble the adult? |
| (2) | Does the young live on land?       | Does the adult have wings?         |
| (3) | Does the young resemble the adult? | Does the young live on land?       |
| (4) | Does the adult live on land?       | Does the young resemble the adult? |

5. Study the diagram below.



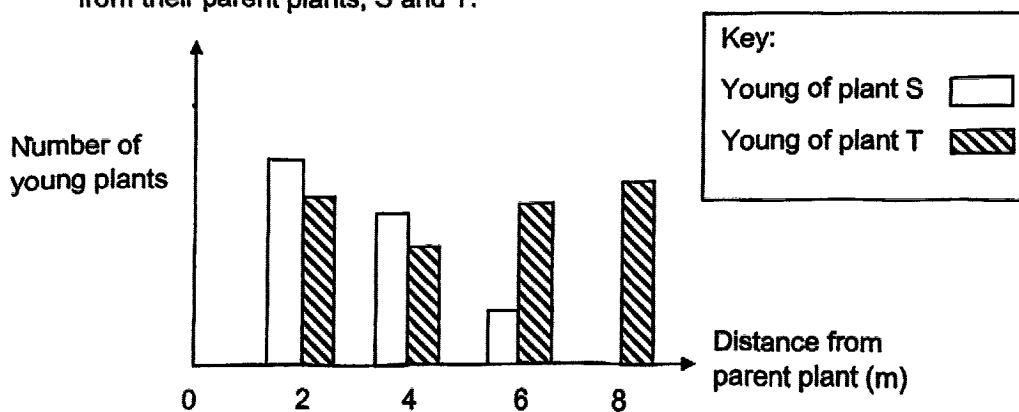
Which of the following correctly shows the arrows and substances transported?

|     | Arrows  | Substance transported |
|-----|---------|-----------------------|
| (1) | B and D | water                 |
| (2) | A and E | water                 |
| (3) | A and D | food                  |
| (4) | B and C | food                  |

6. Which statement about the human digestive system is correct?

- (1) The small intestine absorbs digested food.
- (2) Digestion is completed in the large intestine.
- (3) The large intestine digests food and absorbs excess water.
- (4) Food is digested and absorbed into the bloodstream in the stomach.

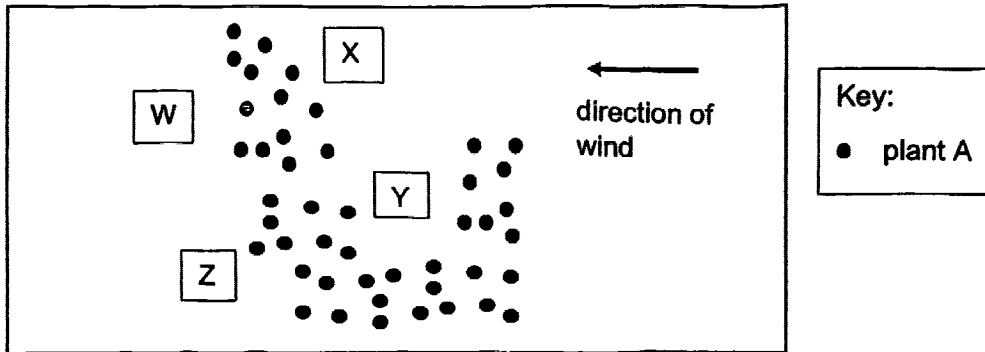
7. The graph below shows the number of young plants growing at different distances from their parent plants, S and T.



Which of the statements can be concluded about the fruits of plants S and T based on the information in the graph?

- (1) Fruit of plant S is heavier than fruit of plant T.
- (2) Fruit of plant S throws its seeds out forcefully.
- (3) Fruit of plant T has fruit walls that dry up and split open.
- (4) Fruit of plant T is juicy whereas fruit of plant S has wing-like structures.

8. Plant A only grows in places with clean air. The diagram shows plant A growing near four factories, W, X, Y and Z, some of which give out polluted gases.



**Which two factories do not give out polluted gases?**

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

9. The table shows the breathing rates of Ali and Jason after exercising.

| Time / min | Breathing rate / breaths per min |       |
|------------|----------------------------------|-------|
|            | Ali                              | Jason |
| 0          | 31                               | 31    |
| 2          | 26                               | 27    |
| 4          | 21                               | 23    |
| 6          | 17                               | 20    |
| 8          | 13                               | 17    |

**Which statement is definitely correct?**

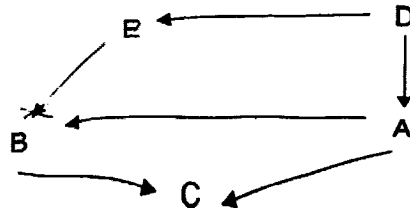
- (1) Jason's breath contained more water vapour than Ali's breath.
- (2) Jason's breathing rate decreased slower than Ali's breathing rate.
- (3) Jason breathed out more carbon dioxide per breath compared to Ali.
- (4) Ali's breathing rate increased more than Jason's breathing rate during the exercise.

10. Blood flows through blood vessels A to D as shown.



Which blood vessels transport oxygen-rich blood?

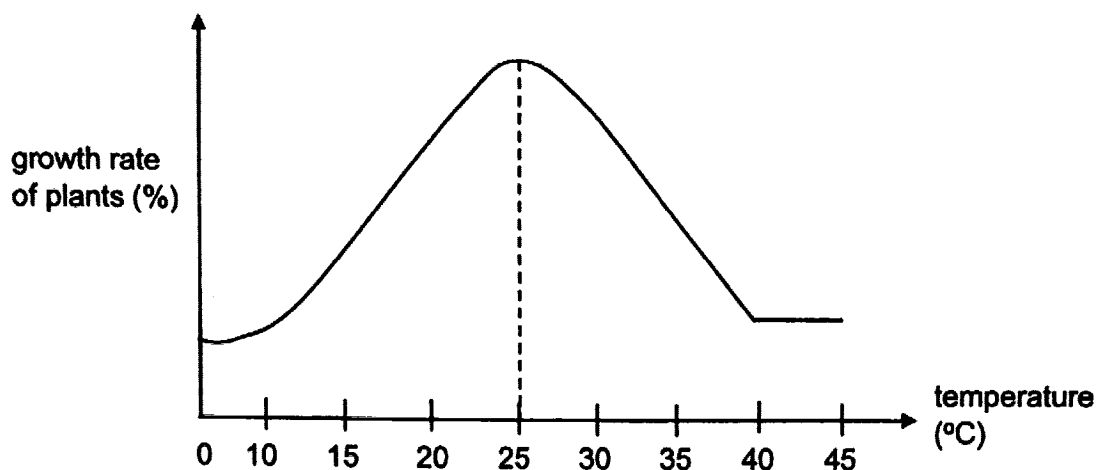
- (1) A and B only
  - (2) C and D only
  - (3) A, B and D only
  - (4) A, B, C and D
11. The diagram below shows a food web.



Which of the following will most likely take place within a week when a new disease kills organism E in the community above?

- (1) B will feed on more A
  - (2) Population of A will increase.
  - (3) C will have more A to feed on.
  - (4) Populations of all the other organisms will decrease.
12. Which of the following is an impact of increased emission of greenhouse gases?
- (1) land pollution
  - (2) burning of trees
  - (3) melting of polar ice
  - (4) usage of petrol-powered cars

13. The graph shows how temperature of the surroundings affects the growth rate of some plants.



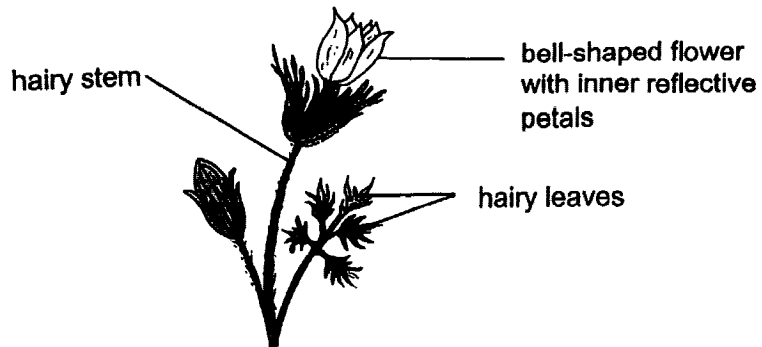
Andy and Bernard made the following statements.

|         | Statement                                                                                                       |
|---------|-----------------------------------------------------------------------------------------------------------------|
| Andy    | The growth rate of the plants decreases as temperature increases from 25°C to 45°C.                             |
| Bernard | As temperature of the surroundings increases from 40°C to 45°C, the growth rate of the plants remains the same. |

Who is/are correct?

- (1) Andy only
- (2) Bernard only
- (3) Both Andy and Bernard
- (4) Neither Andy nor Bernard

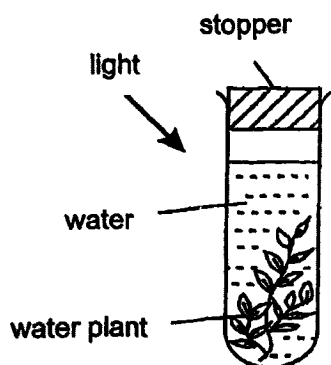
14. Plant H has bell-shaped flowers with inner reflective petals, and hairy leaves and stems that trap air.



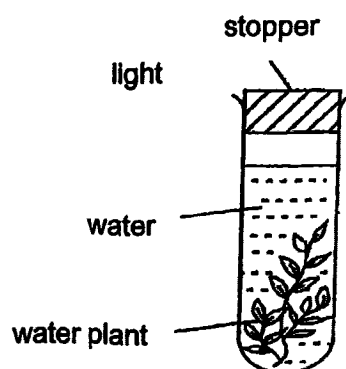
Which of the following best explains the adaptation of Plant H to survive in a cold environment?

|     | <b>Adaptation</b>                               | <b>Purpose</b>                                             |
|-----|-------------------------------------------------|------------------------------------------------------------|
| (1) | bell-shaped flower                              | To collect water for the plant to photosynthesise.         |
| (2) | bell-shaped flower with inner reflective petals | To reflect light into the surroundings to keep cool.       |
| (3) | hairy leaves and stems                          | To prevent the plant from being eaten by predators.        |
| (4) | hairy leaves and stems                          | To trap air to reduce heat loss to the colder environment. |

15. Angie placed two containers of identical plants in two different rooms. She counted the number of bubbles produced by the plant after some time.



Placed in Room 1



Placed in Room 2

Part of the results are shown below.

| Container | Amount of carbon dioxide in the water (cm <sup>3</sup> ) | Amount of light (units) | Number of bubbles produced per minute |
|-----------|----------------------------------------------------------|-------------------------|---------------------------------------|
| 1         | 200                                                      | <i>P</i>                | 35                                    |
| 2         | 200                                                      | 500                     | 45                                    |

She repeated the experiment using another two containers of identical plants with different amounts of carbon dioxide in the water.

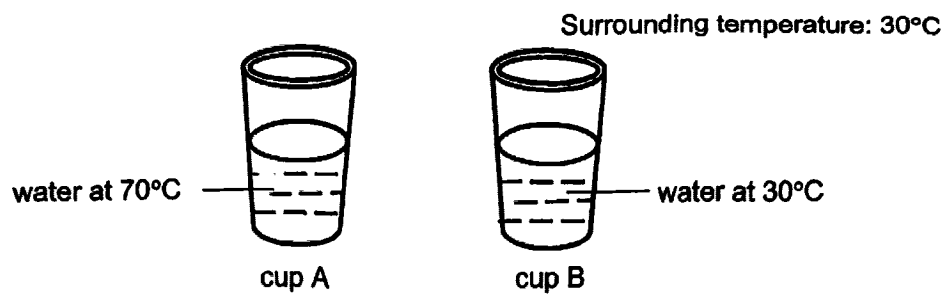
Part of the results are shown below.

| Container | Amount of carbon dioxide in the water (cm <sup>3</sup> ) | Amount of light (units) | Number of bubbles produced per minute |
|-----------|----------------------------------------------------------|-------------------------|---------------------------------------|
| 3         | 200                                                      | 500                     | 20                                    |
| 4         | <i>Q</i>                                                 | 500                     | 30                                    |

What are the possible values of *P* and *Q*?

|     | <i>P</i> | <i>Q</i> |
|-----|----------|----------|
| (1) | 400      | 150      |
| (2) | 400      | 300      |
| (3) | 600      | 150      |
| (4) | 600      | 300      |

16. An equal volume of water was poured into two identical cups.



Water droplets were seen after 5 minutes. Which of the following shows the correct location of the water droplets?

- (1) cup A      cup B
- (2) cup A      cup B
- (3) cup A      cup B
- (4) cup A      cup B

17. Which is **not** an effect of a force?

- (1) Rain falling from the sky.
- (2) A marble rolling to a stop.
- (3) Light bouncing off a mirror.
- (4) A balloon inflating when air is blown into it.

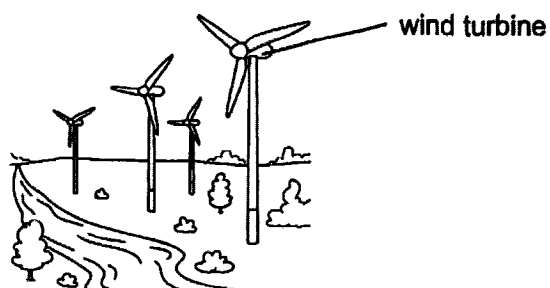
18. Jenson saw a reflection of himself in a mirror.



Which statement explains why he could see his reflection?

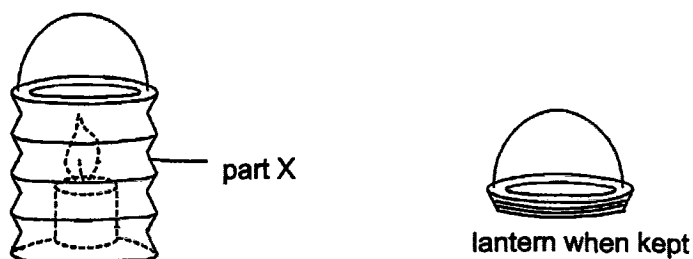
- (1) Light is reflected by the mirror.
- (2) Jenson's reflection gives off light.
- (3) The mirror allows light to pass through.
- (4) Jenson's eyes produce light so he can see.

19. The diagram below shows some wind turbines.



Which energy received by the wind turbine is used to produce electricity?

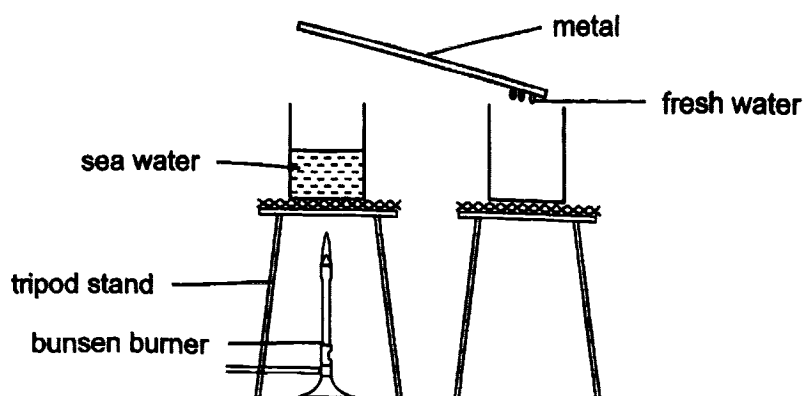
- (1) Heat energy
  - (2) Sound energy
  - (3) Kinetic energy
  - (4) Potential energy
20. Kayley placed a lit candle in a lantern as shown below. She carried her lantern around the dark neighbourhood during the Mid-Autumn festival celebrations. It can be folded so that it can be kept easily.



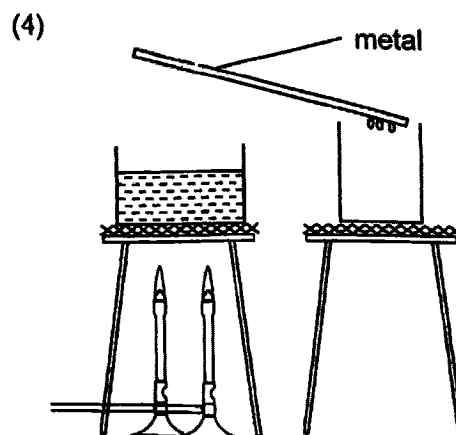
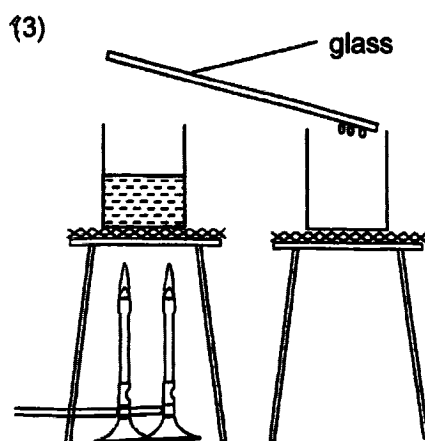
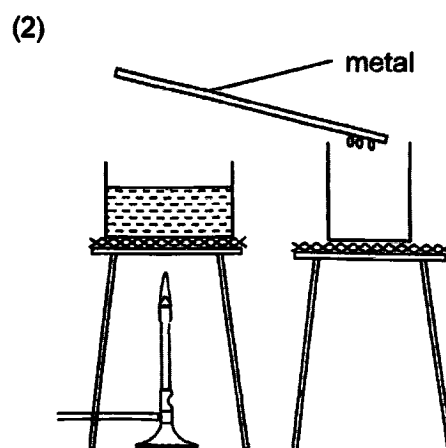
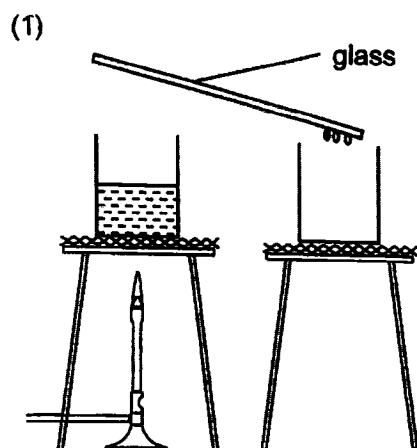
Which row correctly shows the properties of the material for making part X?

|     | Allows some light to pass through | Flexible |
|-----|-----------------------------------|----------|
| (1) | yes                               | yes      |
| (2) | yes                               | no       |
| (3) | no                                | yes      |
| (4) | no                                | no       |

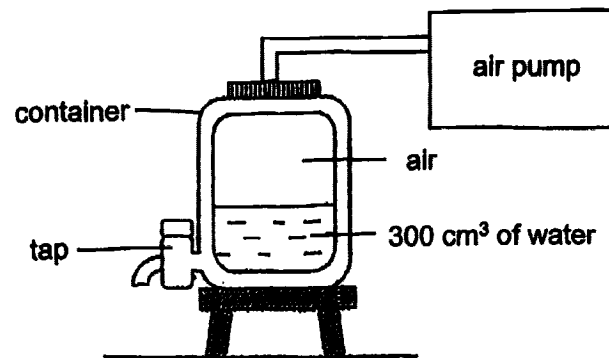
21. Ahmad boiled sea water to collect fresh water as shown in the diagram below.



Which set-up would allow Ahmad to collect the most fresh water in the shortest duration?



22. Study the diagram below.



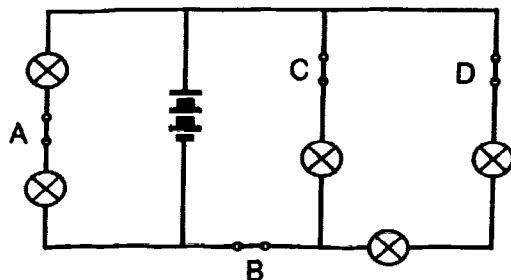
The capacity of the container is 800 cm<sup>3</sup>. The tap was opened to remove 100 cm<sup>3</sup> of water and 100 cm<sup>3</sup> of air was pumped into the container.

What is the final volume of air in the container?

- (1) 100 cm<sup>3</sup>
- (2) 500 cm<sup>3</sup>
- (3) 600 cm<sup>3</sup>
- (4) 700 cm<sup>3</sup>

Use the information below to answer Questions 23 and 24.

23. Gopal set up a circuit as shown.

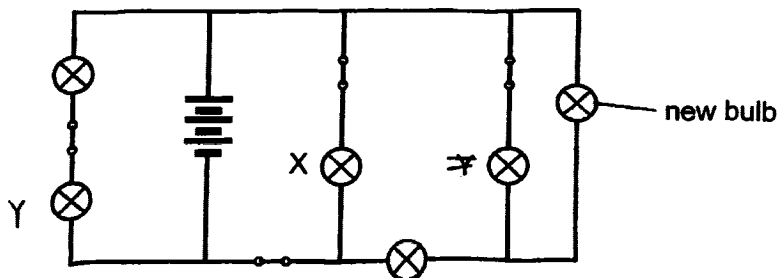


All five bulbs were lit when all four switches were closed.

Gopal wanted the least number of bulbs to be lit by opening only one switch. Which switch should he open?

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

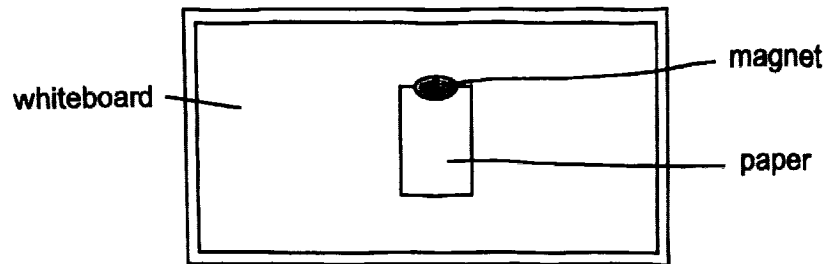
24. A new bulb is connected to the circuit as shown below.



What will happen to the brightness of bulbs X and Y?

|     | Brightness of bulb X | Brightness of bulb Y |
|-----|----------------------|----------------------|
| (1) | increases            | increases            |
| (2) | increases            | decreases            |
| (3) | remains the same     | does not light up    |
| (4) | remains the same     | remains the same     |

25. A magnet is used to hold a piece of paper on a whiteboard as shown below.

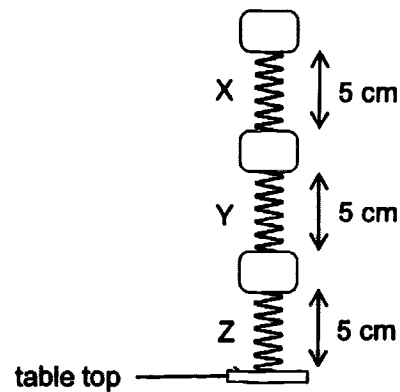


Which of the following statement(s) is/are correct?

- A There is friction between the paper and the magnet.
- B Gravitational force is not acting on the piece of paper.
- C There is a magnetic force of attraction between the paper and the magnet.

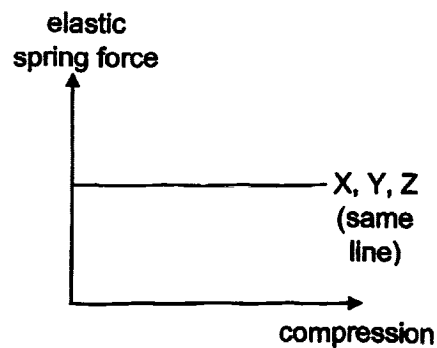
- (1) A only
- (2) C only
- (3) A and B only
- (4) A and C only

26. Three springs, X, Y and Z have the same length. Three identical blocks were attached to a table top using the springs. The springs were compressed.

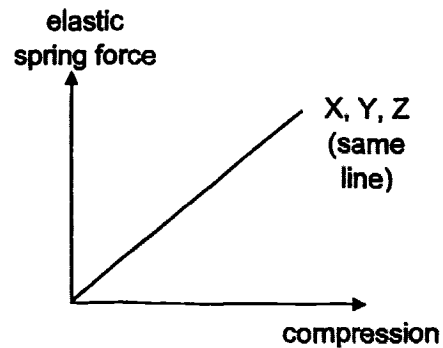


Which of the following correctly shows the relationship between elastic spring force and compression for springs X, Y and Z?

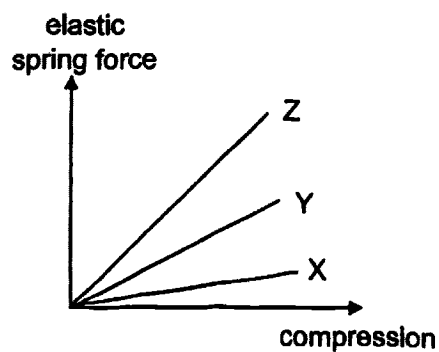
(1)



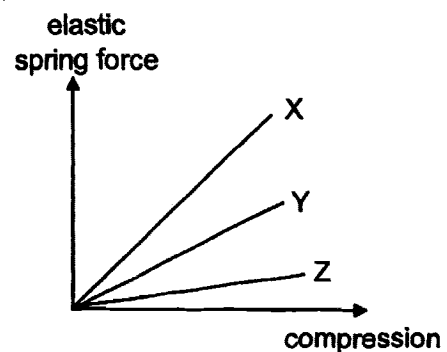
(2)



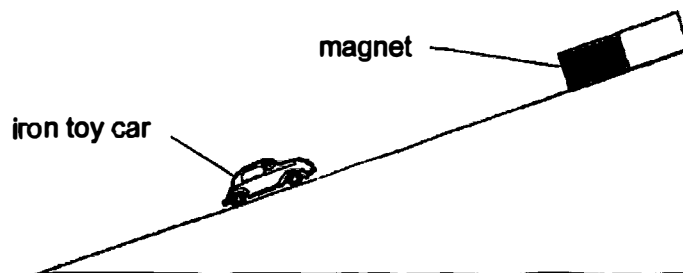
(3)



(4)



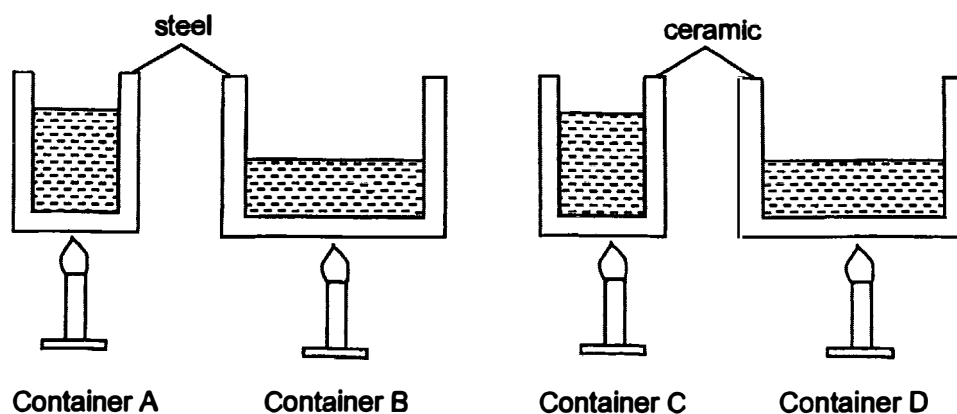
27. The diagram below shows an iron toy car moving up a slope.



What are the forces acting on the toy car?

|     | Gravitational force | Frictional force | Magnetic force |
|-----|---------------------|------------------|----------------|
| (1) | ✓                   | ✓                |                |
| (2) |                     | ✓                | ✓              |
| (3) | ✓                   |                  | ✓              |
| (4) | ✓                   | ✓                | ✓              |

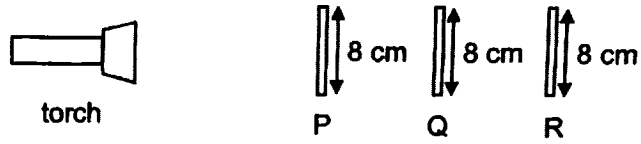
28. The diagram below shows four containers A, B, C, and D, filled with the same volume of boiling water.



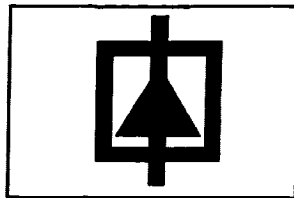
Which container of water would cook a frozen dumpling the fastest?

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

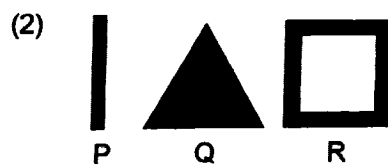
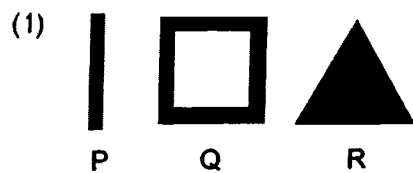
29. The set-up below shows light shining on three different wooden objects P, Q, and R. They are placed at different distances from the torch.



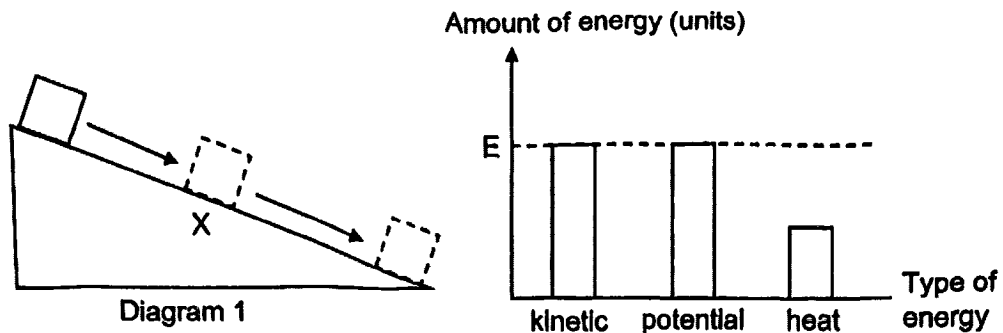
The diagram below shows the shadows of the objects on the screen.



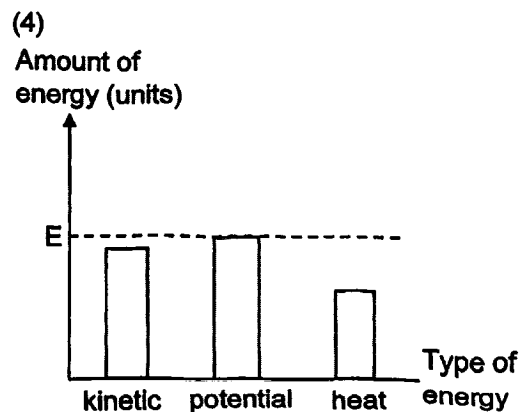
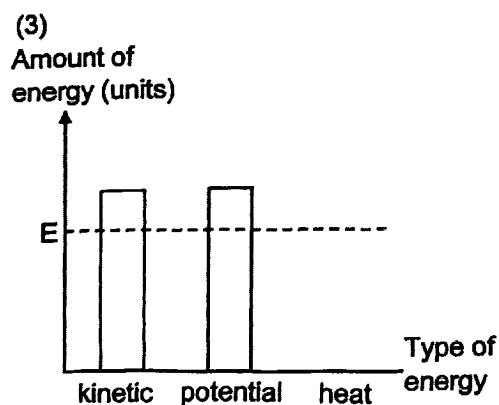
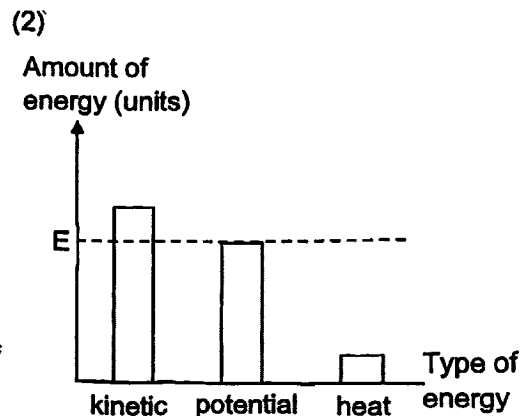
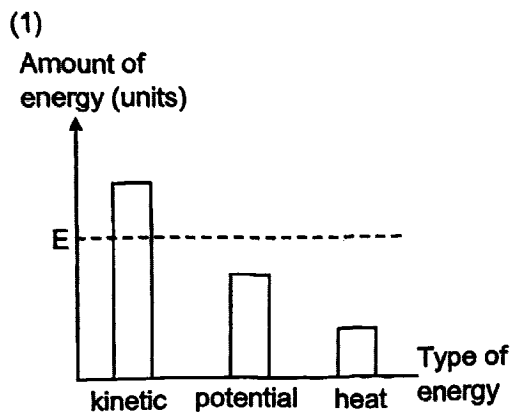
Which are objects P, Q and R?



30. A block slid down a slope after it had been released from the top as shown in Diagram 1. The graph shows the amount of the different types of energy of the block at point X.



The slope was covered with oil and the experiment was repeated. Which graph correctly shows the amount of the different types of energy at X?





## **2026 PRIMARY 6 PRELIMINARY EXAMINATION**

Name : \_\_\_\_\_ (   )

Date: 20 August 2026

Class : Primary 6 (   )

Time: 8.00 a.m. – 9.45 a.m.

Parent's Signature : \_\_\_\_\_

Duration: 1 hour 45 minutes

# **SCIENCE**

## **BOOKLET B**

### **INSTRUCTIONS TO CANDIDATES**

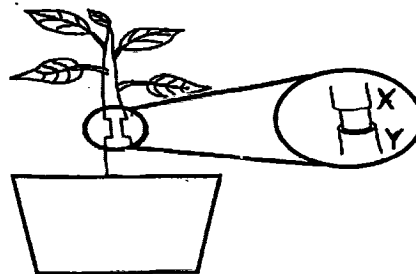
1. Write your name, class and register number.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Use a dark blue or black ballpoint pen to write your answers in the space provided for each question.
6. Do not use correction fluid/ tape.
7. Do not use highlighters on any part of your answers.

|           |     |
|-----------|-----|
| Booklet A | 60  |
| Booklet B | 40  |
| Total     | 100 |

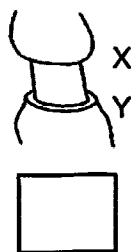
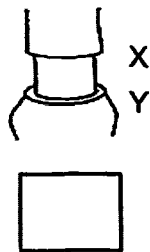
For questions 31 to 41, write your answers in this booklet. The number of marks available is shown in brackets [ ] at the end of each question or part question.

(40 marks)

31. A ring of the stem between positions X and Y has been removed from a plant as shown below. Only the food-carrying tubes have been removed.



- (a) Tick the correct box which shows the possible appearance of the stem after some time. [1]



- (b) Based on your answer in (a), explain why the plant died after some time. [1]

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- (c) Organism P breaks down dead plants during a process. Identify the process and explain why it slows down when the surrounding temperature is lower. [1]

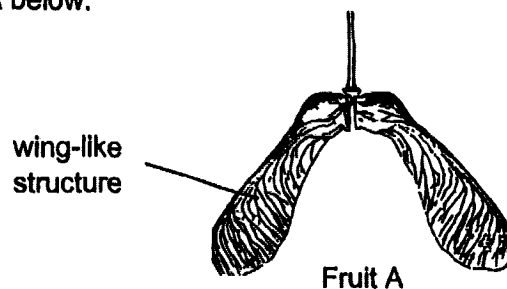
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|       |   |
|-------|---|
| Score | 3 |
|-------|---|

32. Study fruit A below.



- (a) Identify the method of seed dispersal for fruit A. Explain your answer. [1]

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Pat uses only fruit A to investigate how the length of the wing-like structure of the fruit affects the distance it travels.

- (b) Explain why Pat needs to use the same fruit in the investigation. [1]

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- (c) Describe the steps Pat has to take to conduct the investigation. [2]

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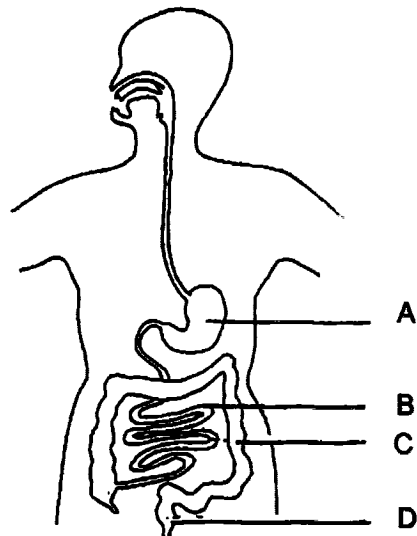
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|       |   |
|-------|---|
| Score | 4 |
|-------|---|

33. The diagram below shows a human digestive system.



- (a) In which parts of the digestive system, A, B, C or D, are digestive juices present? [1]

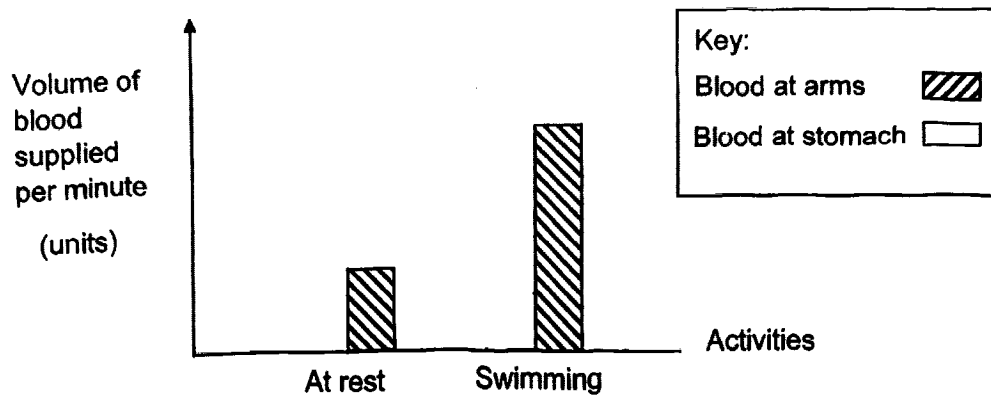
\_\_\_\_\_

- (b) How does the amount of undigested food change as it moves from part C to part D? [1]

\_\_\_\_\_

|       |   |
|-------|---|
| Score | 2 |
|-------|---|

The graph below shows the volume of blood supplied to two parts of the body after a meal when Ali was at rest and swimming.



- (c) Based on the information in the graph, explain why more blood was supplied to Ali's arms when he was swimming. [1]

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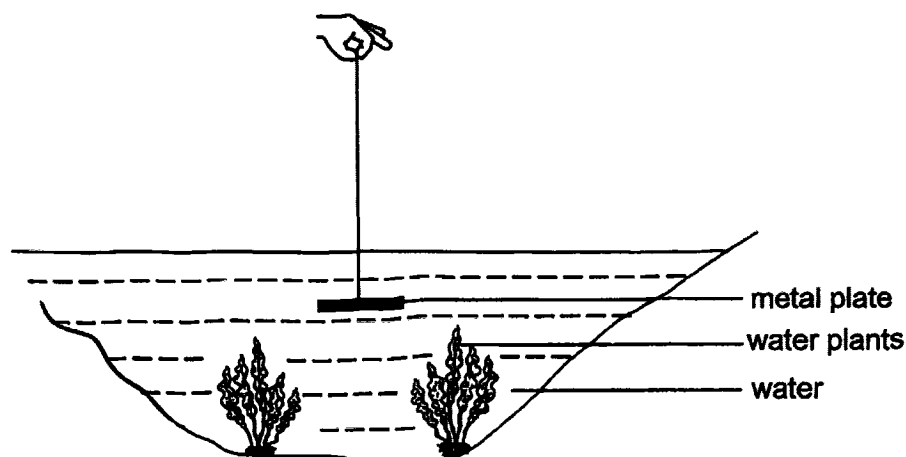


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- (d) Draw the missing bar in the graph above to represent the volume of blood supplied to the stomach when Ali was at rest. [1]

|       |   |
|-------|---|
| Score | 2 |
|-------|---|

34. Jeremy wanted to find out how polluted the water is for 3 different ponds, A, B and C. Polluted water has dirt in it. He lowered a metal plate into pond A until the plate could no longer be seen from above the pond as shown in the diagram below.



He repeated the investigation for ponds B and C. The table below shows his results.

| Pond | Depth at which metal plate could no longer be seen (cm) |
|------|---------------------------------------------------------|
| A    | 100                                                     |
| B    | 200                                                     |
| C    | 150                                                     |

- (a) Based on his results, which ponds, A, B or C, allows the water plants to grow the fastest? Explain why. [2]

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- (b) If the metal plate is replaced with a glass plate, would the results still be accurate? Explain your answer. [1]

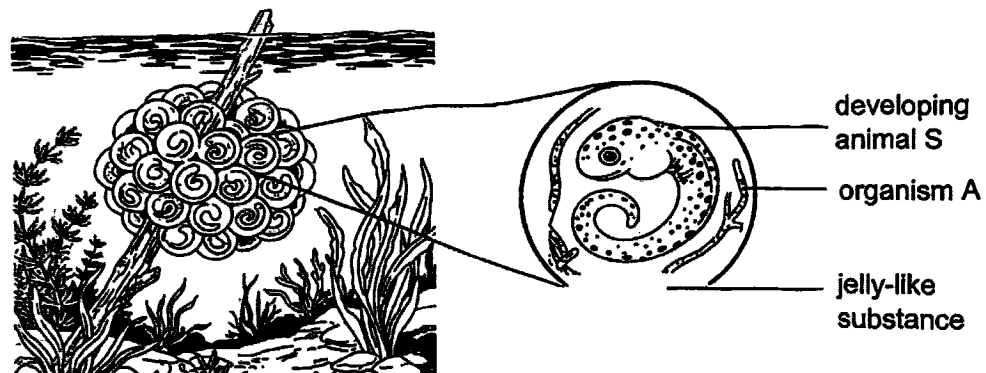
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|       |   |
|-------|---|
| Score | 3 |
|-------|---|

35. The eggs of animal S are normally found near the surface of a pond and are of a bright green color because of organism A growing in them. The developing animal S does not feed on organism A.



- (a) Organism A can photosynthesise. Explain how a developing animal S would benefit from its relationship with organism A. [1]

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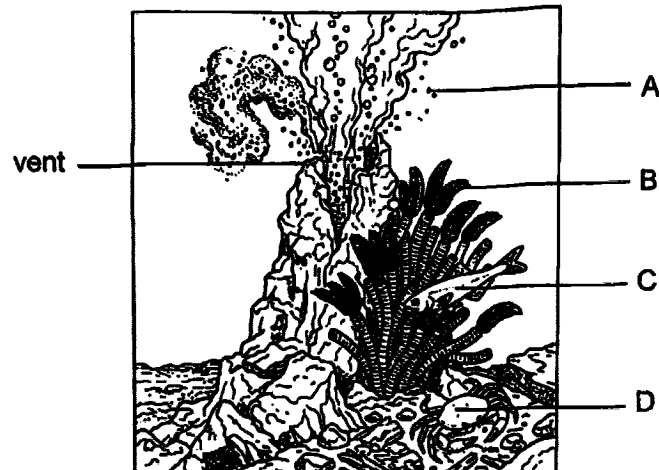
- (b) Organism A can also be found floating freely in the water. Explain why it is an advantage for organism A to grow in the eggs of developing animal S instead of growing in the water. [1]

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36. A scientist made the following observations of organisms A, B, C and D found on the deep ocean floor.

- A produces its own food using chemicals released by a vent.
- B and D live on the vent and feed on A.
- C swims near the vent and feeds on both B and D.



(a) Draw a food web to show the relationships among all the organisms above.  
[2]

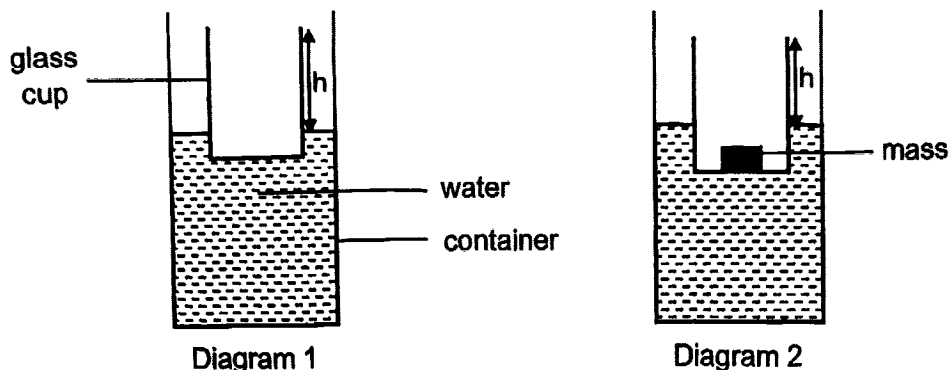
(b) How would the population of C change when the population of A increased?  
Explain your answer.  
[2]

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|       |   |
|-------|---|
| Score | 4 |
|-------|---|

37. Danielle placed an empty glass cup in a container of water as shown in Diagram 1 and measured the height,  $h$ , of the glass cup which was above the water surface. She then placed a 10 g mass into the glass cup and measured the new height,  $h$ , as shown in Diagram 2, with a ruler.



She measured the height,  $h$ , each time a 10 g mass was added. The table below shows her results.

| Mass added (g) | Height, $h$ (cm) |
|----------------|------------------|
| 0              | 5                |
| 10             | 4                |
| 20             | 3                |
| 30             | 2                |
| 40             | 1                |

- (a) State how the height,  $h$ , changed with mass added. [1]

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- (b) The set-up cannot be used to measure the mass of an object heavier than 50 g when placed in the cup. Explain why. [1]

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- (c) Without using other apparatus and materials, describe one way to obtain an accurate measurement of height,  $h$ . [1]

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|       |   |
|-------|---|
| Score | 3 |
|-------|---|

38. Ali poured hot tea from one mug to another mug.



- (a) Explain how this action cools down the tea faster.

[2]

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- (b) Explain how the mist was formed.

[2]

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- (c) The mist disappeared after a short time. Explain why.

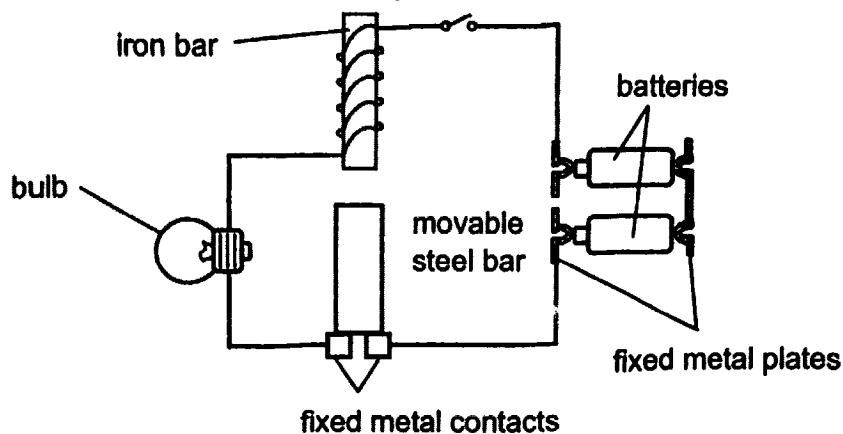
[1]

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|       |   |
|-------|---|
| Score | 5 |
|-------|---|

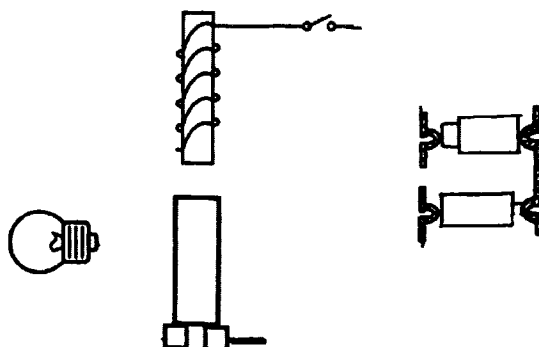
39. In the circuit below, all the components are working.



When the switch was closed, the bulb did not light up.

- (a) Draw a circuit below to correct the mistake(s).

[2]



- (b) State an observation of the steel bar when the switch is closed after the mistake(s) has/ have been corrected.

[1]

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- (c) Explain your answer in (b).

[2]

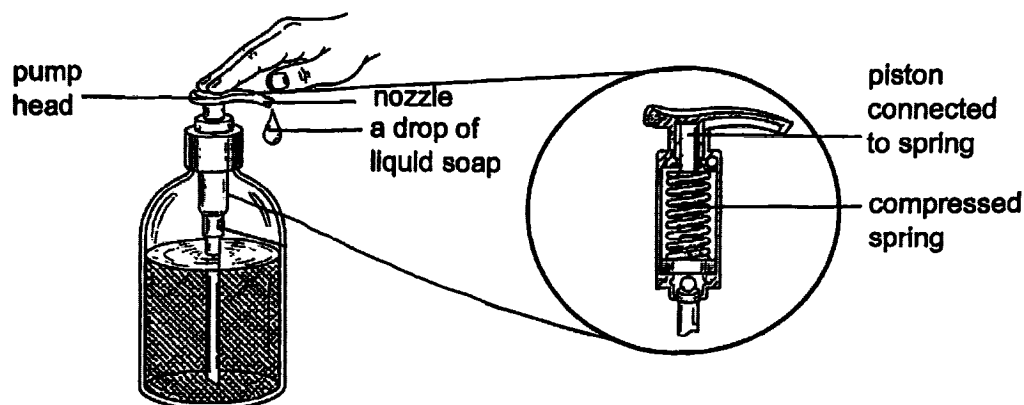
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|       |   |
|-------|---|
| Score | 5 |
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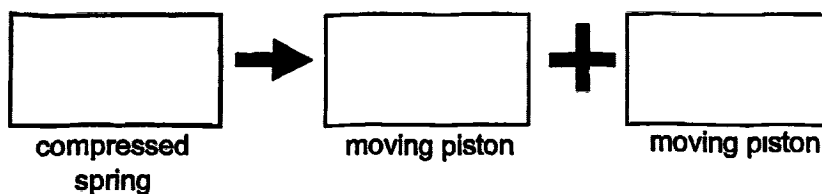
40. Liquid soap flows out of the soap dispenser when the pump head is pressed down as shown.



- (a) Identify the force(s) acting on the drop of liquid soap shown in the diagram. [1]

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- (b) Fill in the boxes below to show the energy conversion when the pump head is pressed down for the drop of soap to be dispensed. [1]



- (c) Explain how the nozzle is able to go back to original position after the hand is removed from the pump head. [2]

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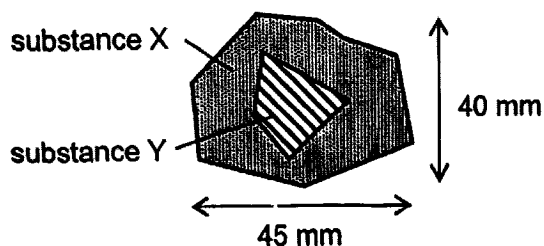
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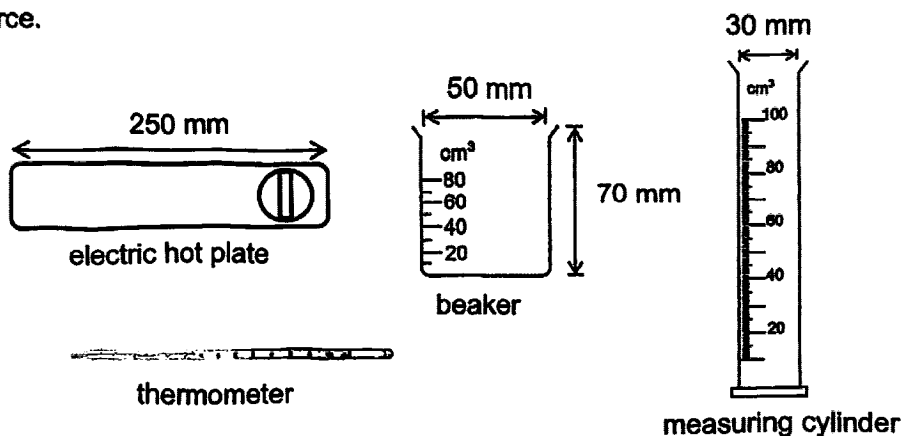
|       |   |
|-------|---|
| Score | 4 |
|-------|---|

41. Dylan has a solid made from substances X and Y that have different melting points.



| Substance | Melting point ( $^{\circ}\text{C}$ ) |
|-----------|--------------------------------------|
| X         | 45                                   |
| Y         | 62                                   |

He has some apparatus as shown. The electric hot plate is connected to a power source.



Describe how the volume of substance X can be obtained using the apparatus selected. [3]

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End of Booklet B

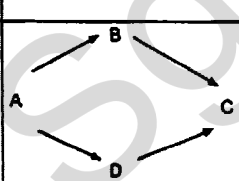
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| Score | 3 |
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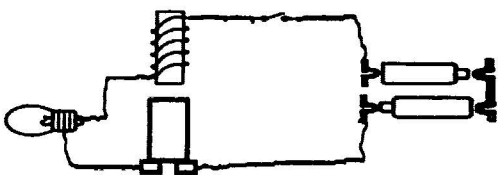
|     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Q1  | Q2  | Q3  | Q4  | Q5  | Q6  | Q7  | Q8  | Q9  | Q10 |
| 4   | 3   | 4   | 3   | 3   | 1   | 2   | 1   | 2   | 2   |
| Q11 | Q12 | Q13 | Q14 | Q15 | Q16 | Q17 | Q18 | Q19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

**Tao Nan School**  
**P6 Science Preliminary Examination 2026**  
**Simplified Answer Key (Booklet B)**

Name: \_

This answer key only serves as a reference. Variations of students' answers have been accepted if they have shown conceptual understanding.

| Qn  | Suggested Answer                                                                                                                                                                                                                                                     |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 31a | Tick the third box.                                                                                                                                                                                                                                                  |
| b   | Food made by the leaves cannot be transported to the roots.                                                                                                                                                                                                          |
| c   | Decomposition. When temperature is lower, there will be less warmth for decomposition to take place.                                                                                                                                                                 |
| 32a | By wind. Fruit A has a wing-like structure that enables it to be carried by the wind or glide/stay in the air.                                                                                                                                                       |
| b   | So that the mass of the fruit is kept the same.                                                                                                                                                                                                                      |
| c   | 1. Release fruit A from a height.<br>2. Measure the distance travelled by it.<br>3. She can cut part of the wing-like structure of fruit A to change/ decrease its length.<br>4. Then release fruit A from the same height and measure the distance travelled by it. |
| 33a | Parts A and B                                                                                                                                                                                                                                                        |
| b   | The amount of undigested food remained the same.                                                                                                                                                                                                                     |
| c   | Heart has to pump blood faster to transport/ carry /send more oxygen and digested food to the muscles to release energy/ for respiration.                                                                                                                            |
| d   | The Stomach bar for 'At rest' should be higher than Swimming.                                                                                                                                                                                                        |
| 34a | C: Pond B.<br>E: The metal plate can be seen from the greatest depth.<br>R: Most light reaches the plants so they can make the most food/ rate of photosynthesis is highest.                                                                                         |
| b   | No. Glass allows most light to pass through/is transparent so the person is not able to see/measure how far the plate can be lowered.                                                                                                                                |
| 35a | Developing animal S gets oxygen from organism A to survive.                                                                                                                                                                                                          |
| b   | Organism A is protected by the jelly-like substance from the food consumers. OR<br>A can receive carbon dioxide (from S) to photosynthesise/make food.                                                                                                               |
| 36a |  <pre> graph LR     A --&gt; B     A --&gt; C     A --&gt; D     B --&gt; C     D --&gt; C </pre>                                                                                 |
| b   | C will increase in population size. B and D will have more A to feed on and increase in population size. C will have more B and D to feed on.                                                                                                                        |

| Qn  | Suggested Answer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 37a | As the mass added increases, the height, $h$ , decreases.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| b   | The cup would sink or be completely submerged in water.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| c   | The base/start/ bottom of the ruler should be on surface of the water. (must have reference to 0cm of the ruler.) OR To read the measurement on the ruler at eye level.<br>OR Wait for water to stop moving before measuring the height.                                                                                                                                                                                                                                                                                                                                                                                         |
| 38a | There is more exposed surface area of the tea to the (cooler) surrounding air, so the tea will lose more heat/lose heat faster (to the surroundings) OR so the tea will evaporate faster.                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| b   | Water vapour from the hot tea lost heat to/ touched the cooler surrounding air (near the tea), and condensed (to form water droplets/ mist).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| c   | The mist evaporated.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 39a |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| b   | The steel rod will move up and down repeatedly.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| c   | When the switch is closed, the iron bar becomes an electromagnet/is magnetised and attracts the steel bar. The circuit becomes open and the iron bar stops attracting the steel bar/iron bar loses its magnetism. The steel bar drops onto the fixed metal contacts and closing the circuit again.                                                                                                                                                                                                                                                                                                                               |
| 40a | Gravity and friction/air resistance.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| b   | (E)PE $\rightarrow$ KE + HE/SE/(G)PE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| c   | The (compressed) spring returns to original length/size/shape.<br>The spring pushes the piston/nozzle up<br>OR The spring exerts an elastic spring force on the piston<br>OR elastic potential energy (stored in compressed spring) is converted to kinetic energy, causing piston to move up.                                                                                                                                                                                                                                                                                                                                   |
| 41a | <ol style="list-style-type: none"> <li>Put the solid into the beaker and heat up this beaker on the electric hot plate.</li> <li>Use the thermometer to check that the temperature of the melted substance X is above <math>45^{\circ}\text{C}</math> and below <math>62^{\circ}\text{C}</math>/ Heat up the solid to <math>\text{---}^{\circ}\text{C}</math> (any temperature within the range <math>46^{\circ}\text{C}</math> to <math>61^{\circ}\text{C}</math>).</li> <li>Pour only the melted substance X into the measuring cylinder and read the marking/ measurement at eye level or read under the meniscus.</li> </ol> |