# Rulang Primary School

**MINI-TEST 2**
**SCIENCE**
**2025**

**Name:** _____ ( ) **Time:** **45 minutes**

**Level:** **Primary 5** **Date:** **5 Aug 2025**

**Class:** **Primary 5 ( )** **Marks:** /30

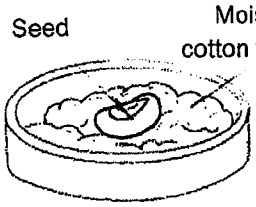
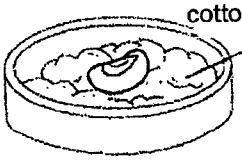
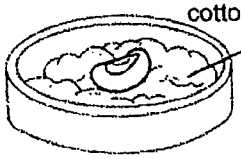
**Instructions to pupils:**

1. **Do not open this booklet until you are told to do so.**
2. You are required to answer **all** the questions in this booklet.
3. This question booklet consists of **14** printed pages, including the cover page.

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**Section A (8 x 2 marks)**
**For each of the questions from 1 to 8, four options are given. One of them is the correct answer. Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet.**

1. John conducted an experiment to investigate a factor that affects seed germination using three set-ups, X, Y and Z, as shown below.

| Set-up X: in the cupboard | Set-up Y: next to the window | Set-up Z: next to the window |
|---|---|---|
|   |   |   |

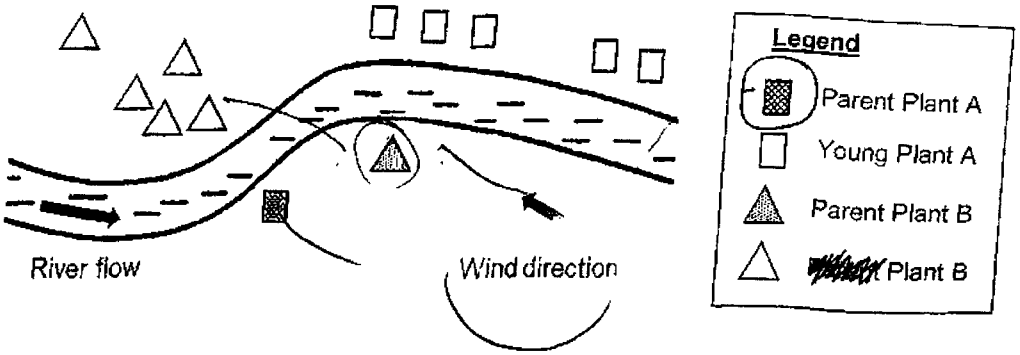
Which two set-ups should John use to investigate the factor that affects seed germination?

| | Set-ups | Factor investigated by John |
|---|---|---|
| (1) | X and Y | water |
| (2) | X and Y | light |
| (3) | X and Z | oxygen |
| (4) | Y and Z | light |



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2. Study the diagram below.



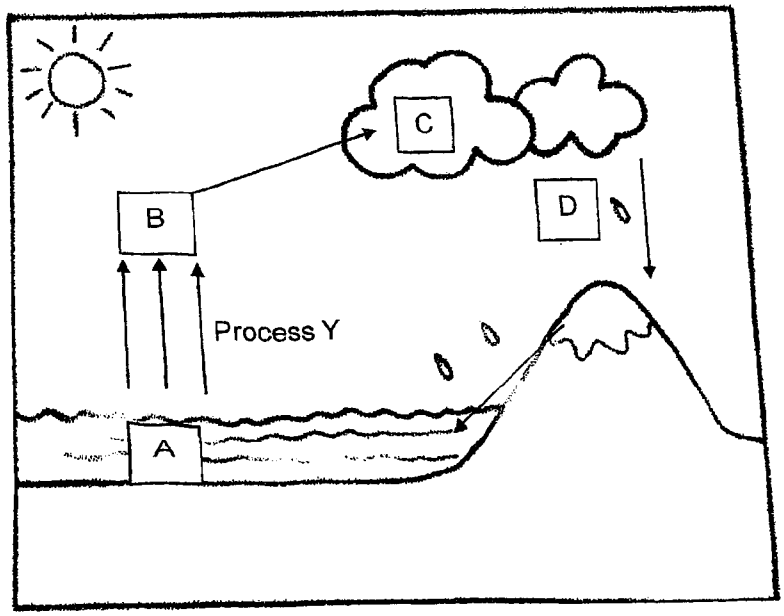

What are the likely methods of seed dispersal for plants A and B?

| | Plant A | Plant B |
|---|---|---|
| (1) | animal | splitting |
| (2) | wind | water |
| (3) | water | wind |
| (4) | water | animal |



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3. The diagram below shows the water cycle.



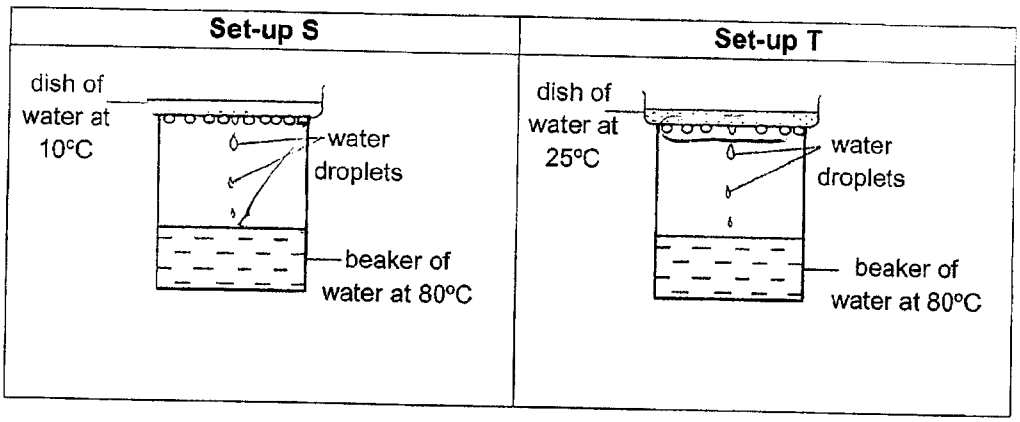

Which of the following best represents process Y and water in its gaseous state?

| | Process Y | Water in its gaseous state |
|---|---|---|
| (1) | Evaporation | B only |
| (2) | Evaporation | B and C only |
| (3) | Condensation | A and D only |
| (4) | Condensation | C and D only |



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4. Study set-ups S and T shown below.



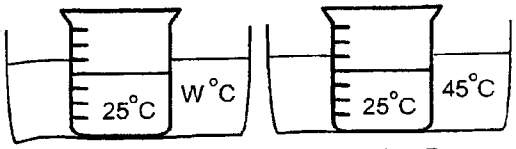

Which statement correctly explains why there are more water droplets observed at the base of the dish in set-up S as compared to that in set-up T?

(1) The same amount of hot water in the beaker is used.
(2) The cooler surface prevents evaporation from happening.
(3) The cooler surface of the dish cools down the water vapour faster.
(4) The cooler surface of the dish causes evaporation to take place faster.



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5. Ian conducted an experiment as shown below. Beakers A and B, both containing 100ml of water at 25°C, were kept in basins containing water at different temperatures. The volumes of water remaining in Beakers A and B were measured after some time and recorded in the table as shown below.




Beaker A Beaker B

| Beaker | Temperature of water in basin (°C) | Exposed surface area of water in beaker ($cm^2$) | Volume of water remaining (ml) |
|---|---|---|---|
| **A** | W | 30 | 85 |
| **B** | 45 | 30 | 92 |

Ian repeated the experiment using another two beakers with 100ml of water at 25°C. The water had different exposed surface area in the two beakers.

| Beaker | Temperature of water in basin (°C) | Exposed surface area of water in beaker ($cm^2$) | Volume of water remaining (ml) |
|---|---|---|---|
| **C** | 45 | X | 88 |
| **D** | 45 | 30 | 92 |

What are the possible values of W and X?

| | W (°C) | X ($cm^2$) |
|---|---|---|
| (1) | 25 | 25 |
| (2) | 30 | 25 |
| (3) | 65 | 20 |
| (4) | 70 | 40 |



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6. Study the table as shown below.

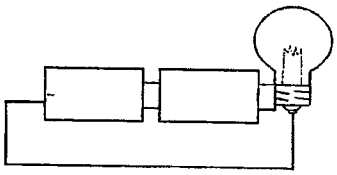
| Item | Material item is made of |
|---|---|
| A | Plastic |
| B | Wood |
| C | Copper |
| D | Glass |
| E | Steel |

Which of the following items cannot conduct electricity?

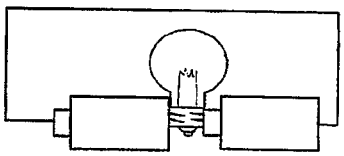
(1) A and B only
(2) B and D only
(3) C and E only
(4) A, B and D only

7. In which of the following circuits will the bulb light up?

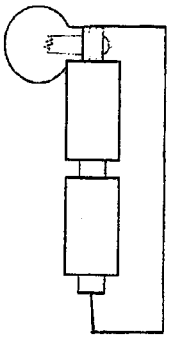
(1)



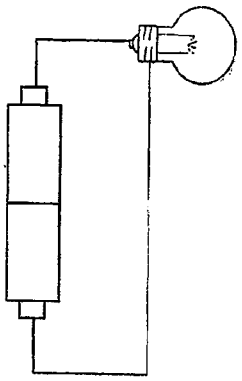
(2)



(3)



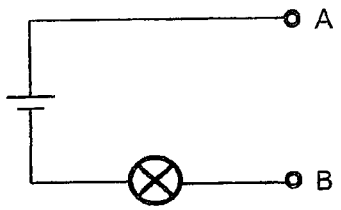
(4)



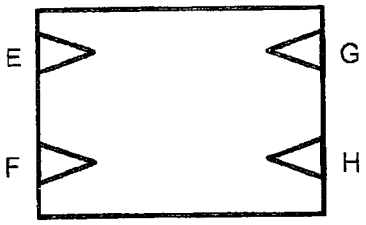


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8. Fredrick conducted an experiment using a circuit tester and a circuit card with four metal clips, E, F, G and H. The metal clips were connected by wires on the underside of the circuit card.




circuit tester



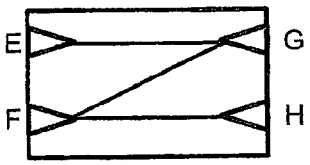

circuit card

Fredrick connected Points A and B to two metal clips on the circuit card each time. He recorded the observations in the table below.

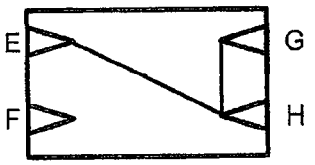
| Clips tested | Bulb of circuit tester |
|---|---|
| E and F | Does not light up |
| F and G | Does not light up |
| E and G | Lights up |
| G and H | Lights up |

Based on the above results, which of the following connections on the underside of the circuit card is possible?

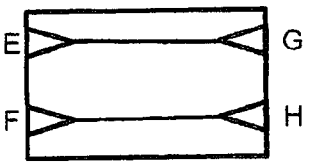
(1)



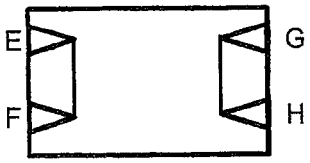

(2)




(3)




(4)

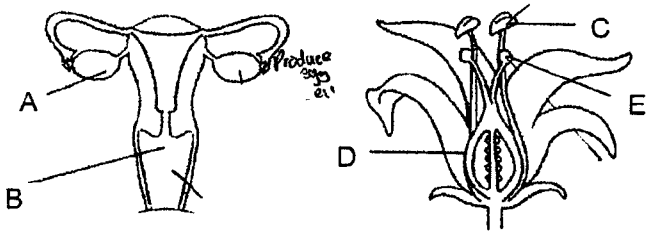





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**Section B [14 marks]**
**For questions 9 to 13, write your answers in this booklet.**
**The number of marks available is shown in brackets [ ] at the end of each question or part question.**

9. The diagram below shows the human reproductive system and plant reproductive system.




Human Reproductive System

Plant Reproductive System

(a) Which part, C, D or E, of the plant reproductive system has the same function as part A of the human reproductive system? Name the part. [1]

_____

(b) Olivia used a brush to rub part C before rubbing part E. A few days later, she noticed that the petals fell off and part D swelled. What were the two processes that occurred before part D swelled? [1]

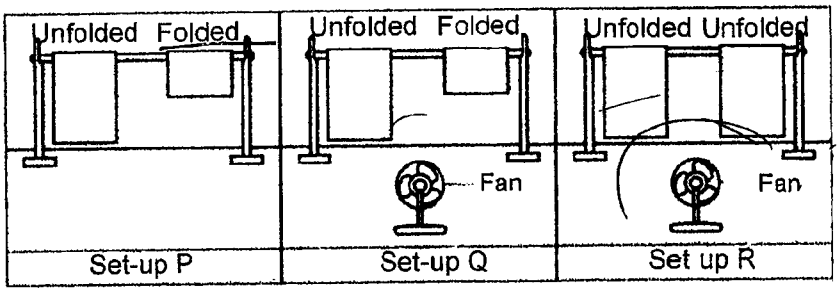
[ ] followed by [ ]



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10. In the living room, Patricia prepared three set-ups, P, Q and R, as shown below. The six towels were wet with the same amount of water.




(a) Patricia wanted to investigate the effect of wind on the rate of evaporation of water. Which two set-ups should she use for a fair test? [1]

Set-ups _____ and _____

(b) Patricia used set-up Q only for her experiment. What was the aim of her experiment? [1]

_____

_____

(c) Patricia moved set-up R outdoors where the towels were exposed to the sun. Predict the rate of evaporation of water at the new location. Explain your answer. [1]

_____

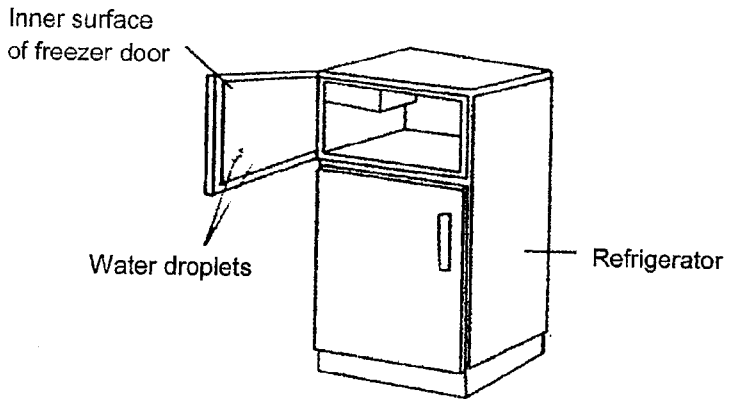
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11. Cindy opened the freezer door of the refrigerator for a few minutes. She observed some water droplets on the inner surface of the freezer door as shown below.




(a) Explain why water droplets were formed on the inner surface of the freezer door? [2]

(b) Cindy then closed the freezer door and opened it two hours later. Instead of the water droplets, she noticed some 'white solids' formed on the inner surface of the freezer door.

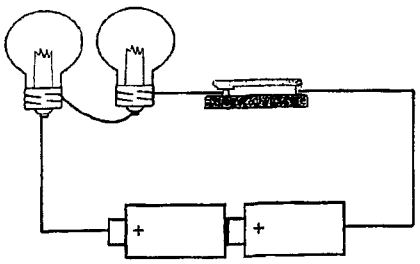
Explain how the 'white solids' were formed. [1]



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12. The diagram below shows an electric circuit.




(a) Based on the circuit above, construct a circuit diagram using circuit symbols. [2]

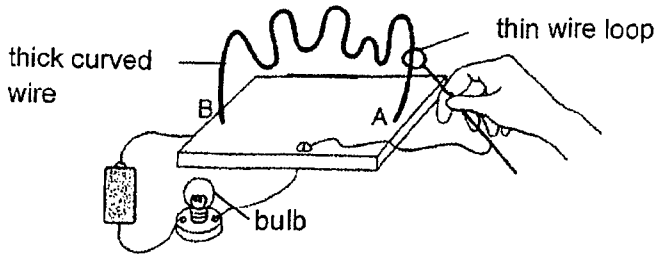
(b) Would the bulbs still light up if one bulb is replaced with a plastic tile? Explain your answer. [1]



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13. Jane created a game which requires the player to move the thin wire loop through the thick curved wire. If the thin wire loop touches the thick curved wire, the bulb will light up.




(a) Explain why the bulb will only light up when the thin wire loop touches the thick curved wire. [1]

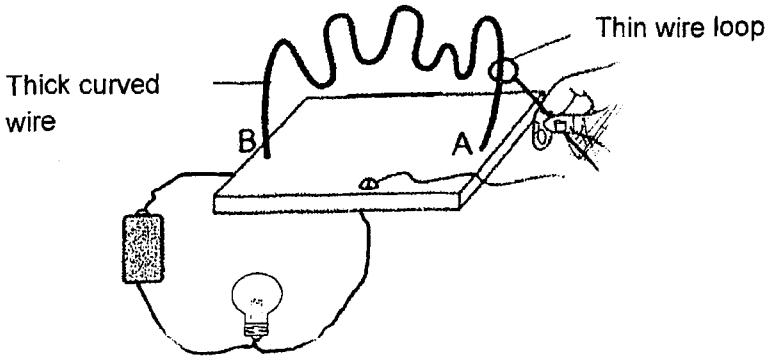
(b) State the material the thin wire loop is made of. Explain your answer. [1]



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Sam tried to create the same game as shown in the diagram below.




(c) The thin wire loop touched the thick curved wire while it was being moved through it. However, the bulb did not light up. How should Sam correct the set-up so that the bulb would light up? [1]

**END OF PAPER**



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LEVEL : PRIMARY 5
SUBJECT : SCIENCE
TERM : TEXT 2 2025

| | |
|---|---|
| Q1) | 2 |
| Q2) | 3 |
| Q3) | 1 |
| Q4) | 3 |
| Q5) | 4 |
| Q6) | 4 |
| Q7) | 1 |
| Q8) | 2 |
| Q9) | a) D, the ovary<br>b) Pollination followed by Fertilisation |
| Q10) | a) Set-up P and Q<br>b) The aim of her experiment was to see if the amount of exposed surface area of the towel affects the rate of evaporation.<br>c) The rate of evaporation of water would be faster. As the towels were moved under the sun and outdoors this makes the towels gain more heat from the surrounding air. |
| Q11) | a) As the warm water vapour from the surrounding air came in contact with the cold inner surface of the freezer door causing the warm water vapour to lose heat and condense into ting water droplets.<br>b) Lost heat to the colder air in the freezer and froze to become ice. |
| Q12) | a)<br><br>b)No the bulb would not light up as the plastic tile is an electric insulator so the current would not flow through the plastic tile. |
| Q13) | a) As there is a gap in the circuit making it an open circuit, so when the thin wire loop touches the thick curved wire it will be an closed circuit and current can flow through the circuit. |



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| | |
|---|---|
| | b) Metal. As metal is an conductor of electric so it will be able to let current flow through it.<br>c) One wire should connected to the metal casing. |



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