



# Rulang Primary School

MINI TEST 2  
SCIENCE  
2022

PARENT'S SIGNATURE:

Name: \_\_\_\_\_

Marks: \_\_\_\_\_ / 30

Level: Primary 5 Standard

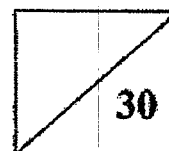
Total Time: 45 minutes

Class: Primary 5 (     )

Date: 22 Aug 2022

Setter: Mrs Yvonne Wong

Total Marks:



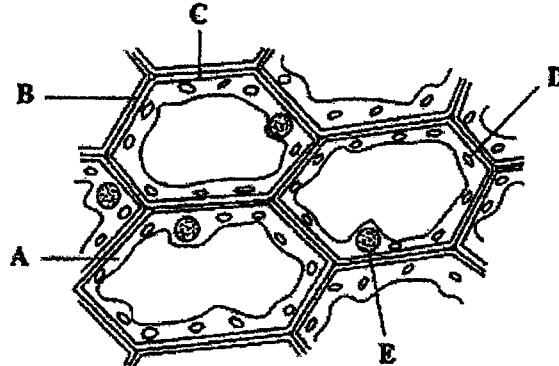
## Instructions to pupils:

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.
5. This question booklet consists of 12 printed pages, including the cover page.

**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. Make your choice and write the answer in the bracket provided.

1. Aqil observed some cells under a microscope as seen in the diagram below. He concluded that the cells come from plants.

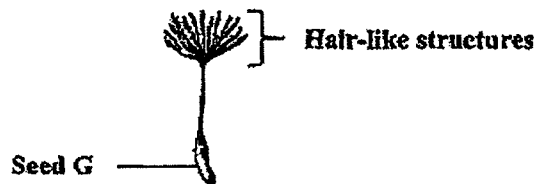


Which parts of the cells helped Aqil make that conclusion?

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

( )

2. Wendy wanted to find out how the time taken for seed G to reach the ground is affected by the number of hair-like structures found on the seed.



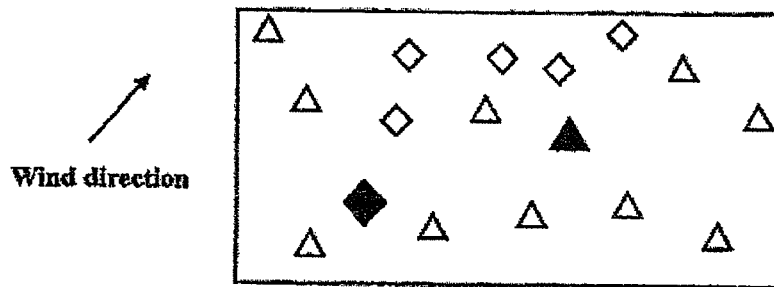
Which of the following variables should Wendy keep constant?

- A: Mass of seed
- B: Number of hair-like structures on seed
- C: Place where the seed was dropped
- D: Time taken for the seed to reach the ground

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

( )

3. The diagram below shows the growth of seedlings of two different plants A and B.



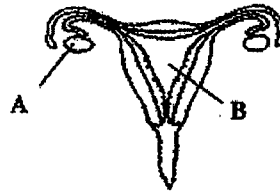
| <b>Legend</b>   |   |                      |   |
|-----------------|---|----------------------|---|
| Parent plant A: | ◆ | Seedling of plant A: | ◇ |
| Parent plant B: | ▲ | Seedling of plant B: | △ |

Based on the diagram above, which is the most likely method of seed dispersal for plants A and B?

|     | <b>Plant A</b> | <b>Plant B</b> |
|-----|----------------|----------------|
| (1) | By animals     | By animals     |
| (2) | By wind        | By water       |
| (3) | By wind        | By animals     |
| (4) | By water       | By splitting   |

( )

4. Study the diagram of the female human reproductive system.



Which one of the following sets best describes parts A and B?

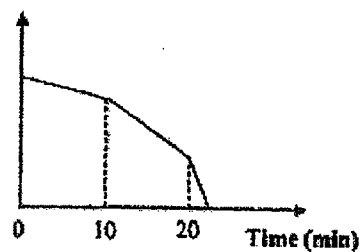
|     | Part A                                      | Part B                               |
|-----|---------------------------------------------|--------------------------------------|
| (1) | It produces reproductive cells.             | It allows the baby to develop there. |
| (2) | It produces reproductive cells.             | It protects the reproductive cells.  |
| (3) | It allows the baby to develop there.        | It produces reproductive cells.      |
| (4) | It fuses with a sperm during fertilisation. | It allows the baby to develop there. |

( )

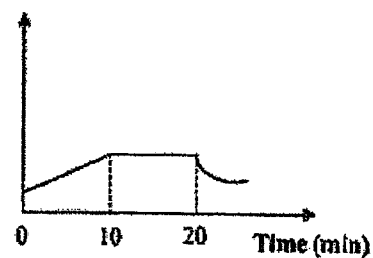
5. Della heated a pot of tap water for 10 minutes until it started boiling. She continued boiling it for 10 minutes. She then took five eggs from the refrigerator and added them to the pot.

Which one of the graphs correctly shows the change in the temperature of the water?

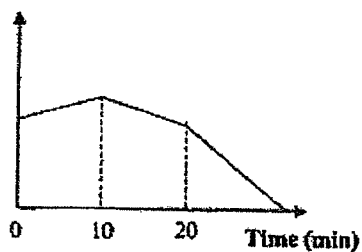
(1) Temperature ( $^{\circ}\text{C}$ )



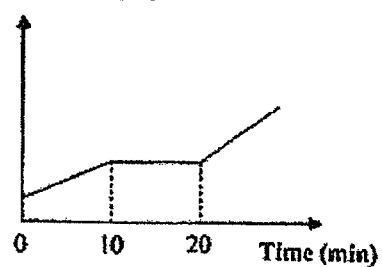
(2) Temperature ( $^{\circ}\text{C}$ )



(3) Temperature ( $^{\circ}\text{C}$ )

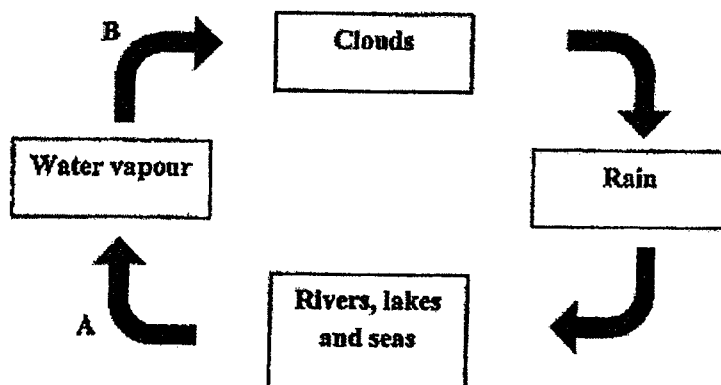


(4) Temperature ( $^{\circ}\text{C}$ )



( )

6. Study the water cycle below.

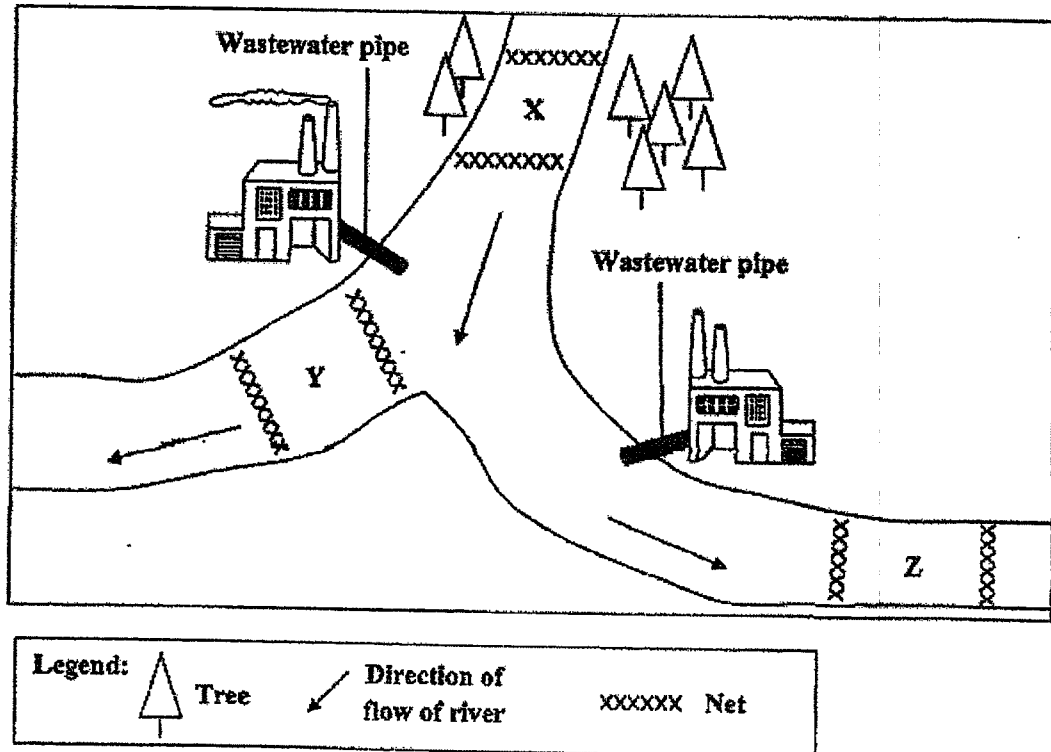


Which one of the following sets represents processes A and B?

|     | A            | B            |
|-----|--------------|--------------|
| (1) | Condensation | Evaporation  |
| (2) | Condensation | Freezing     |
| (3) | Evaporation  | Condensation |
| (4) | Evaporation  | Melting      |

( )

7. Two factories are found along different parts of the river as shown below. Each factory has a pipe that discharges chemical waste water into the river.



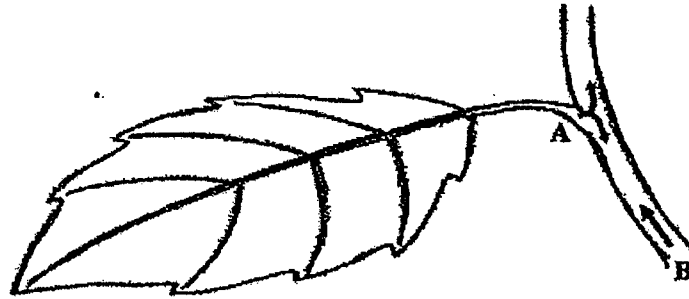
10 fish were released into each of the three parts of a river, X, Y and Z. The fish were kept in a fixed place between two nets.

Which one of the following best represents the number of fish still alive at X, Y and Z after one week?

|     | X  | Y  | Z  |
|-----|----|----|----|
| (1) | 5  | 7  | 10 |
| (2) | 8  | 10 | 7  |
| (3) | 10 | 10 | 10 |
| (4) | 10 | 5  | 3  |

( )

8. The diagram below shows how a plant transports A and B.



What do A and B represent?

|     | A      | B      |
|-----|--------|--------|
| (1) | oxygen | food   |
| (2) | water  | food   |
| (3) | food   | oxygen |
| (4) | food   | water  |

( )

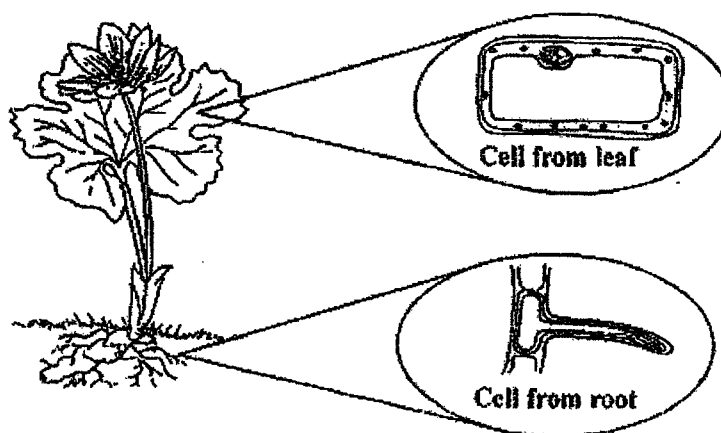


**Section B: [14 marks]**

For questions 9 to 12, 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 a flowering plant. Liam observed some cells from the leaf and root under a microscope.



- (a) Based on the above diagram, state a similarity between the cell from the leaf and that from the root. (Do not compare their sizes and shapes.) [1]

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- (b) Liam observed a cell part that is found in the leaf cell but not the root cell. [2]  
(i) Identify this cell part.

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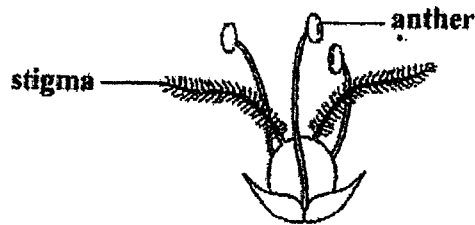
- (ii) Explain why this cell part is not found in the root cell.

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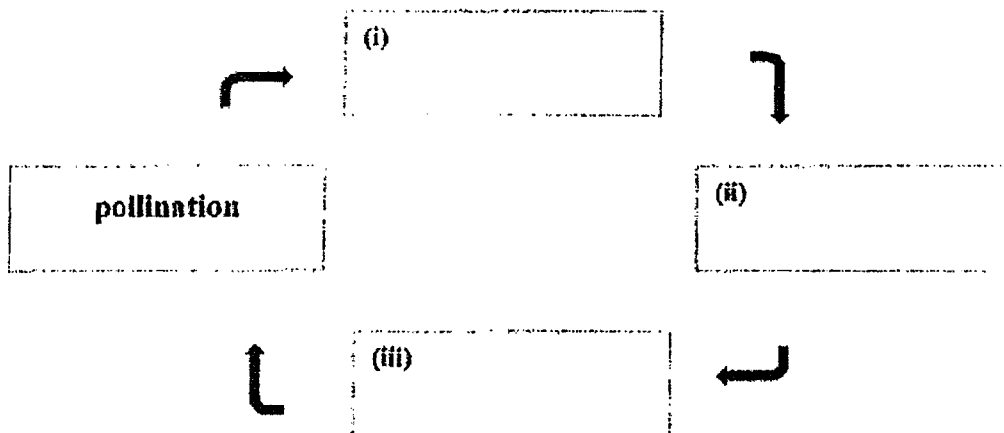
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10. Study the diagram of a flower below.



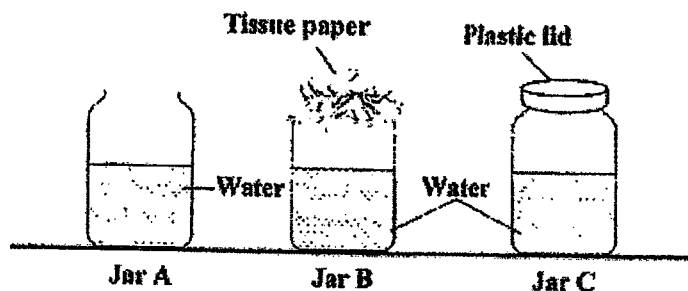
- (a) Draw an arrow in the diagram above to show how the flower is pollinated. [1]
- (b) Based on the diagram above, describe how the characteristic of the stigma would increase the chance of it being pollinated by wind. [1]

- (c) Complete the diagram below to show the processes in the reproduction of flowering plants. [2]

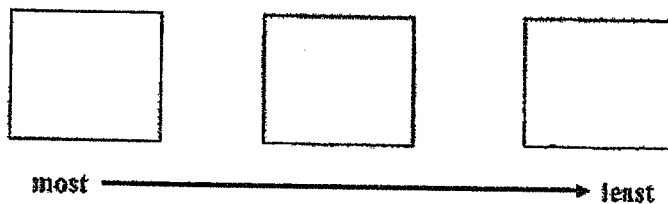


- (d) Which one of the processes stated in (c) also occurs in the reproduction of humans? [1]

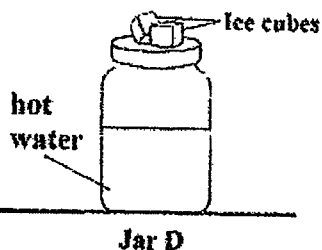
11. Lennon conducted an experiment using three jars, A, B and C, containing water at  $80^{\circ}\text{C}$ . Jar A was uncovered while jars B and C were covered with tissue paper and a plastic lid, respectively, as shown below.



- (a) Lennon observed the amount of water left in the jars one week later. Arrange the jars in order of the amount of water left in each jar, starting from the most to the least. [1]



Lennon then conducted another experiment. He placed some ice cubes on jar D containing some hot water.



- (b) What would he observe under the lid inside jar D after some time? [1]

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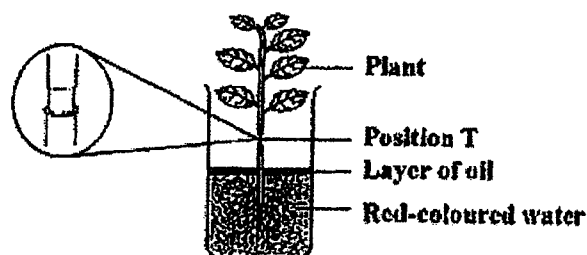
- (c) Explain your answer in (b). [1]

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12. Tessa placed a plant in a beaker containing some red-coloured water. She wanted to find out if removing the food-carrying tubes would affect the growth of the plant. She cut off only the food-carrying tubes in the outer ring of the plant at position T shown below.



- (a) Tessa observed that the leaves of the plant turned red after 24 hours. Give a reason for her observation. [1]

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- (b) What should Tessa measure every day over a period of time to make a conclusion for her experiment? [1]

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- (c) Tessa also observed that the plant's growth started to slow down after two weeks. Explain why this happened. [1]

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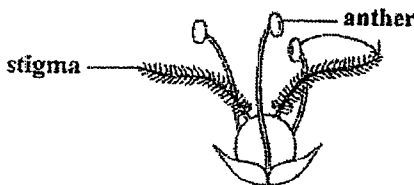


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**END OF PAPER**

SCHOOL : RULANG PRIMARY SCHOOL  
 LEVEL : PRIMARY 5  
 SUBJECT : SCIENCE  
 TERM : 2022 WA2

| Q 1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 |
|-----|----|----|----|----|----|----|----|
| 2   | 1  | 3  | 1  | 2  | 3  | 4  | 4  |

|      |                                                                                                                                                                                                                                                                                                               |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Q9)  | <p>a) The cell from the leaf and cell from the root both have cell wall.</p> <p>b) i) Chloroplast</p> <p>ii) It does not make food for the plant.</p>                                                                                                                                                         |
| Q10) | <p>a)</p>  <p>b) The stigma has many hairs used to trap pollen grains from the anther.</p> <p>c) i) Fertilisation</p> <p>ii) Seed dispersal</p> <p>iii) Germination</p> <p>d) Fertilisation</p>                             |
| Q11) | <p>a) Jar C Jar B Jar A</p> <p>b) He would observe water droplets under the lid.</p> <p>c) Hot water evaporated into water vapour and condensed on the cool surface of the lid and former into water droplets.</p>                                                                                            |
| Q12) | <p>a) The roots absorbed the red-coloured water which was then carried by the water-carrying tube to all parts of the plant.</p> <p>b) She should measure the height of the plant.</p> <p>c) The roots could not get food from the leaves, slowing down the process of absorbing water and mineral salts.</p> |

