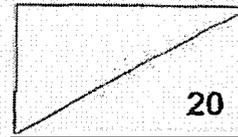


NANYANG PRIMARY SCHOOL  
Term 1 Weighted Assessment  
Science  
Primary 5



Name: \_\_\_\_\_ ( )

Date: \_\_\_\_\_

Class: 5\_\_\_\_\_

Parent's signature: \_\_\_\_\_

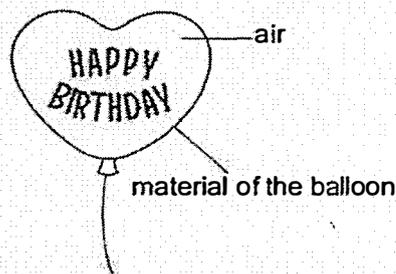
Dear Parent/Guardian,

Please sign the Weighted Assessment paper and have your child/ward return it the next day. Any query should be raised at the same time when returning the paper.

**Section A: Multiple Choice Questions (12 marks)**

For each question from 1 to 6, four options (1, 2, 3 and 4) are given. One of them is the correct answer. Indicate your choice in the brackets provided.

1. Jasper blew air into a balloon and tied it tightly. He left the balloon tied to a pole under the hot sun. After a few hours, he noticed that the balloon became bigger.

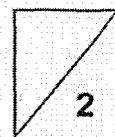


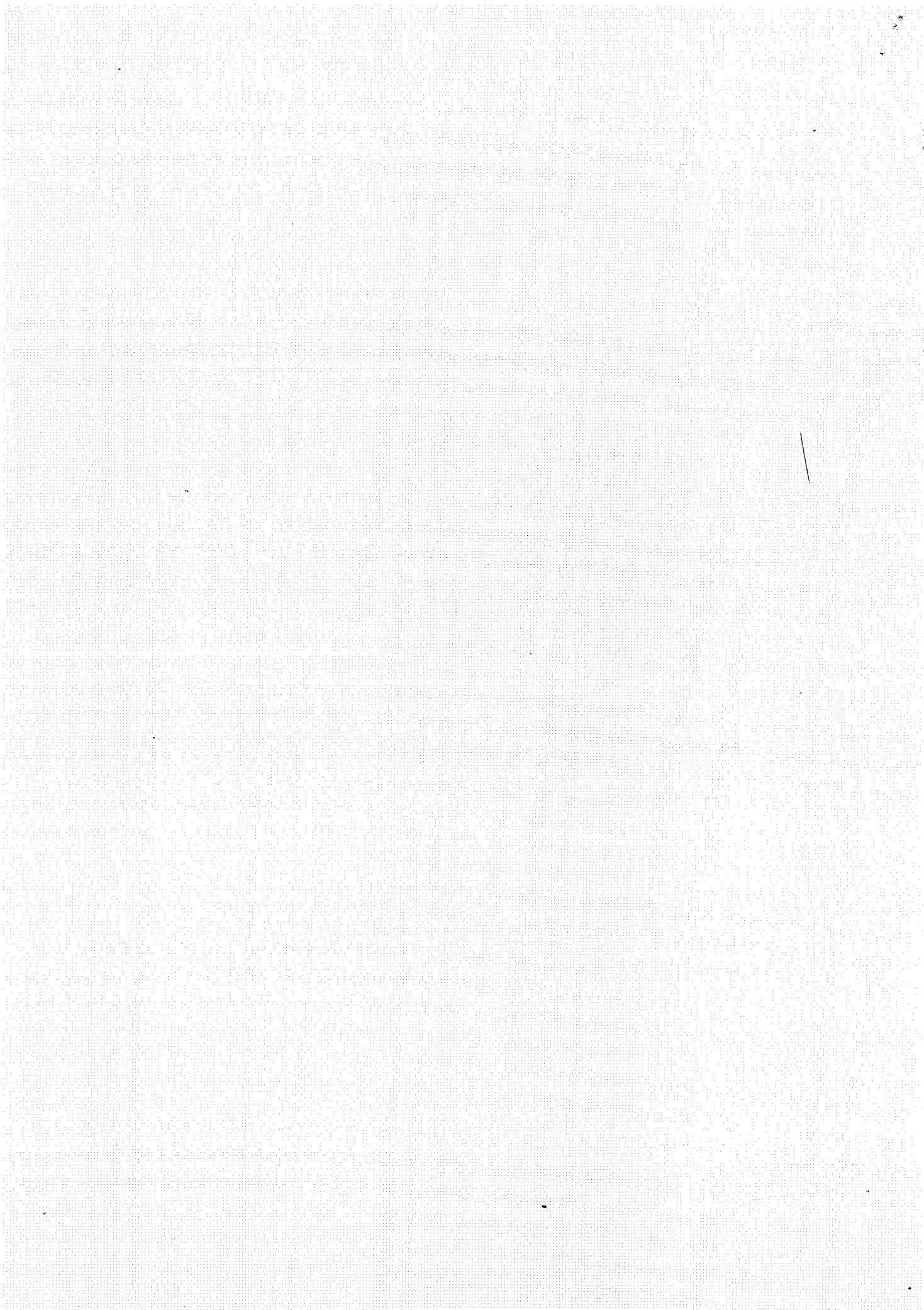
Which of the following is the correct explanation?

- (1) The air in the balloon loses heat to the surrounding and contracted.
- (2) The air in the balloon gains heat from the surrounding and expanded.
- (3) The material of the balloon loses heat to the surrounding and contracted.
- (4) The material of the balloon gains heat from the surrounding and expanded.

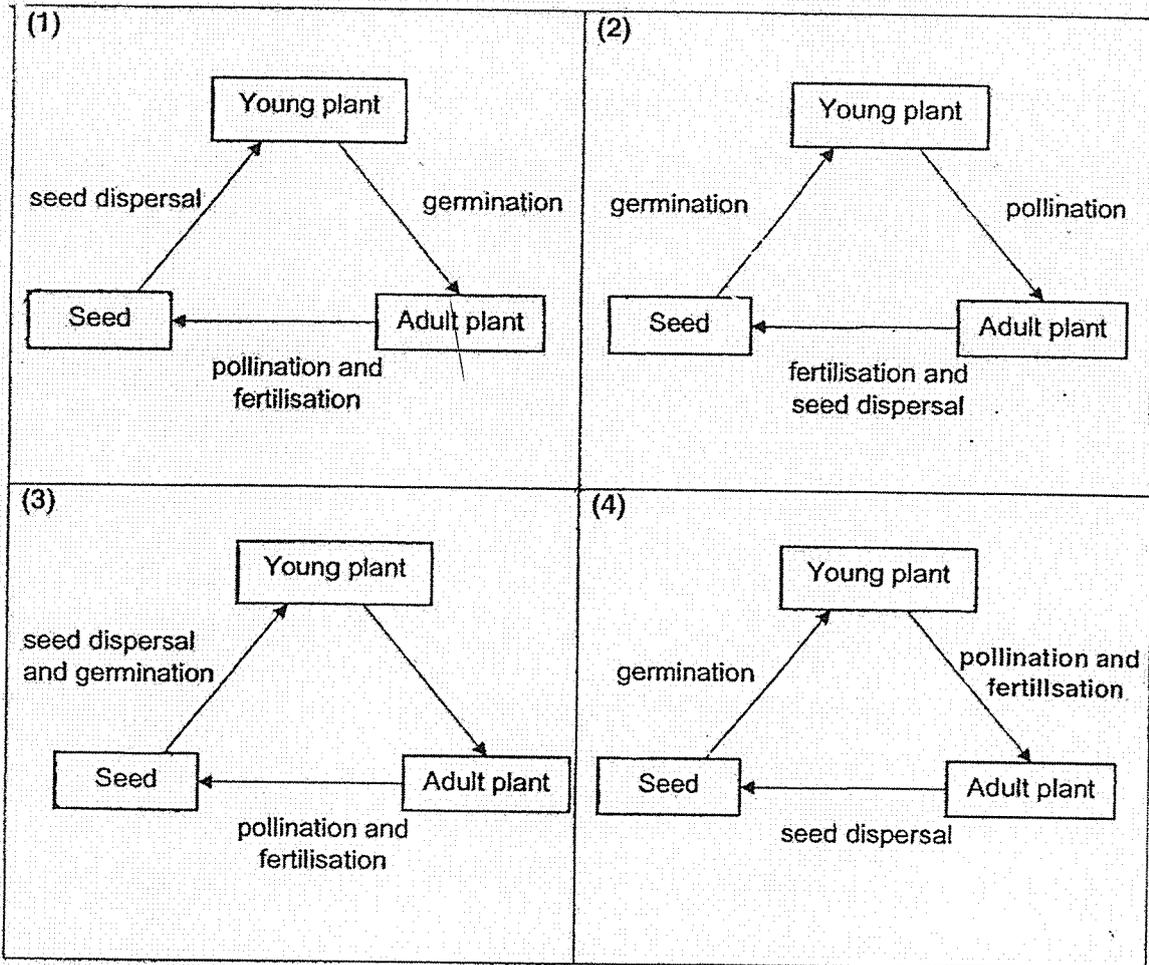
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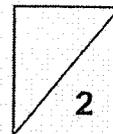




2. Which of the following correctly shows the processes that have taken place in the life cycle of a plant?



( )





5 Which of the following characteristics is **not** passed on to the young?

- (1) hair colour
- (2) length of hair
- (3) type of eyelid
- (4) type of earlobe

( )

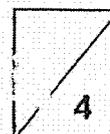
6. Four students made the following statements about sexual reproduction in plants and humans.

- A The fertilised egg develops in the womb.
- B Fertilisation occurs in a female reproductive part.
- C Male reproductive cells are produced in the anthers.
- D Female reproductive cells are produced in the ovary.

Which of the statements are correct about sexual reproduction in plants and humans?

	Plants	Humans
(1)	A	A and C
(2)	A and D	B, C and D
(3)	B and C	A and C
(4)	B, C and D	A, B and D

( )



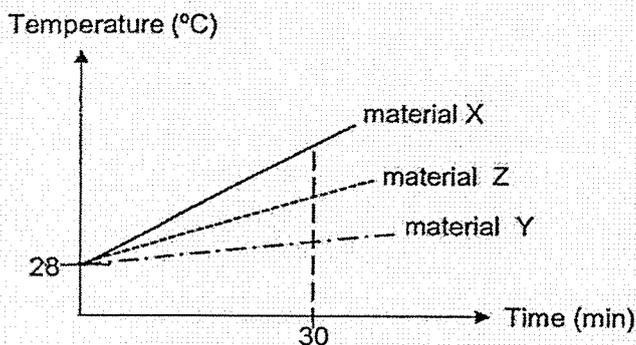
**Section B: Open-Ended Questions (8 marks)**

For questions 7 and 8, fill in your answers in the spaces provided.

7. Jasper conducted an experiment using the set-up below. He measured the temperature of material X and placed material X in a beaker of water at 100°C. He then measured the temperature of material X over 30 minutes with a data logger.



He repeated the experiment for materials Y and Z. He recorded the results in the table below.



Before the start of the experiment, Jasper measured materials, X, Y and Z, and ensured that the materials were at 28°C.

- (a) Give a reason why Jasper had to measure the temperature of the materials at the start of the experiment. [1]

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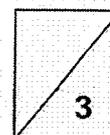
Jasper wanted to make a cup to keep his hot tea warm for the longest period of time.

- (b) Based on his experiment, which material is the most suitable for making a cup to keep his hot tea warm for the longest period of time? Explain your answer. [2]

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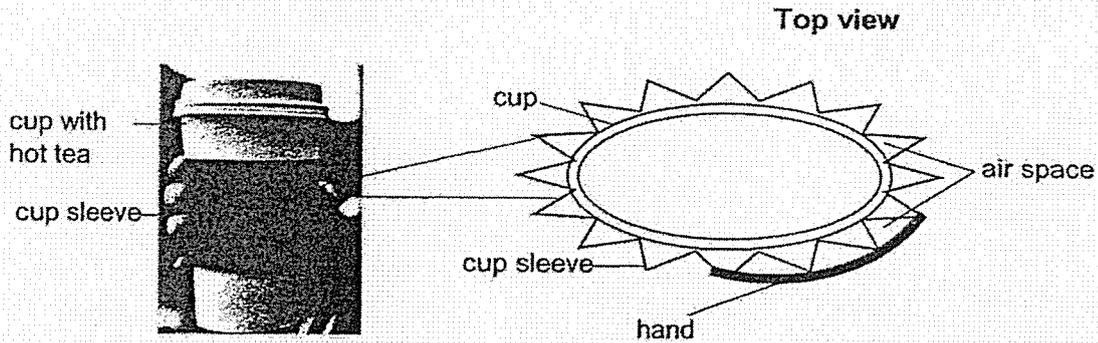
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(Continue from Question 7)

Jasper added a cup sleeve to protect his hand from the heat from the hot tea as shown in the diagram below.

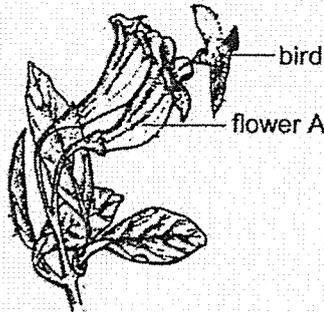


(c) Explain how the cup sleeve helps to protect his hand from the heat from the hot tea. [1]

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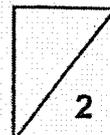
8. In Island X, birds are commonly found near flower A.



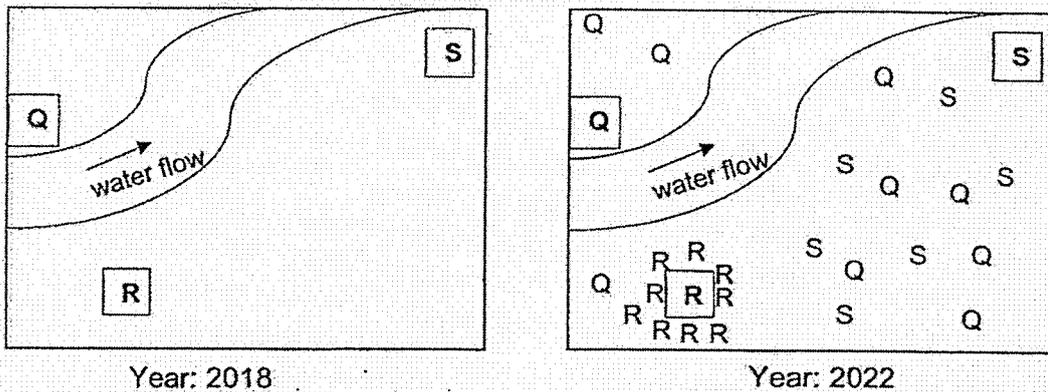
(a) How do birds help plant A to reproduce? [1]

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The diagram below shows part of an island where 3 types of plant, Q, R and S are growing. The parent plants are indicated with a box.



(b) Explain why it is important for seeds to be dispersed from the parent plant. [1]

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(c) Based on the diagram above, state the most likely method of seed dispersal for plants Q and R. [1]

(i) Plant Q: \_\_\_\_\_

(ii) Plant R: \_\_\_\_\_

The seeds of Plant S are dispersed by wind.

(d) Other than the size and weight of the seed, **state** one physical characteristic of seeds of plant S and **explain** how this physical characteristic helps the seeds to be dispersed further from the parent plant. [1]

Physical characteristic of seed: \_\_\_\_\_

Explanation: \_\_\_\_\_

- End of Paper -





3. Shu Qin wanted to find out how the rate of evaporation is affected by the exposed surface area of a container.

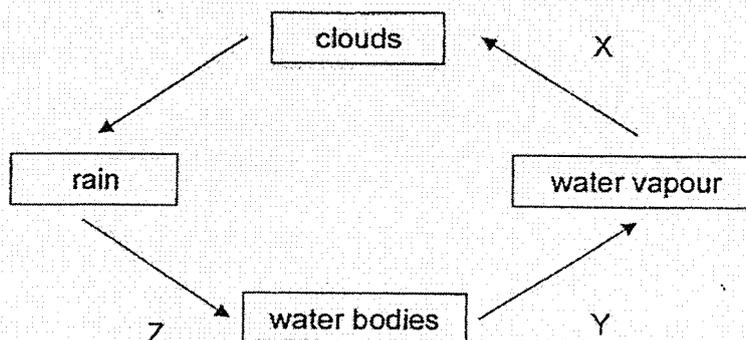
Set-up	Exposed surface area of container (cm <sup>2</sup> )	Volume of water in container (ml)	Temperature (°C)	Wind
A	80	570	25	absent
B	180	500	32	absent
C	180	570	25	absent
D	80	500	32	present

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

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

( )

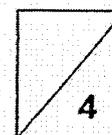
4. Study the water cycle below.



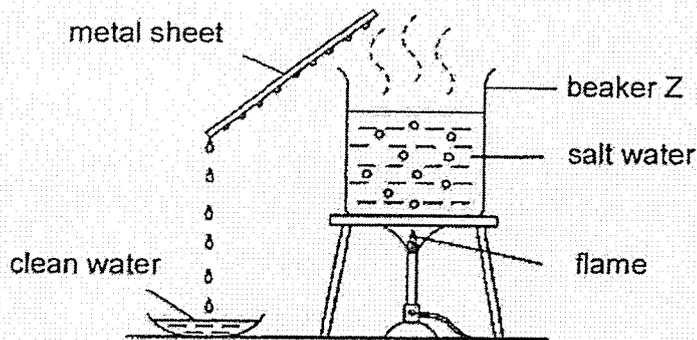
Which one of the following statements about the water cycle is true?

- (1) Heat loss is needed during process Z.  
 (2) Heat gain is needed during process Y.  
 (3) There is no heat loss during process X.  
 (4) There is a change of state during processes X and Z.

( )



5. Julia conducted an experiment using the set-up below.



The salt water in beaker Z was heated for some time. It was noticed that less water droplets formed on the metal sheet as time passed.

Which one of the following statements would explain why less water droplets formed?

- A The metal sheet had become hotter.
- B The water in Beaker Z had become hotter.
- C The rate of evaporation for the salt water had increased.
- D The rate of condensation had decreased.

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

( )

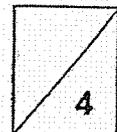
6. Which of the following are ways to reduce water usage?

- A Washing clothes on a half load
- B Turning off the shower when soaping
- C Treat seawater so that it can be drinkable
- D Use water from washing rice to water the plants

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

- (2) A and D only
- (4) B and D only

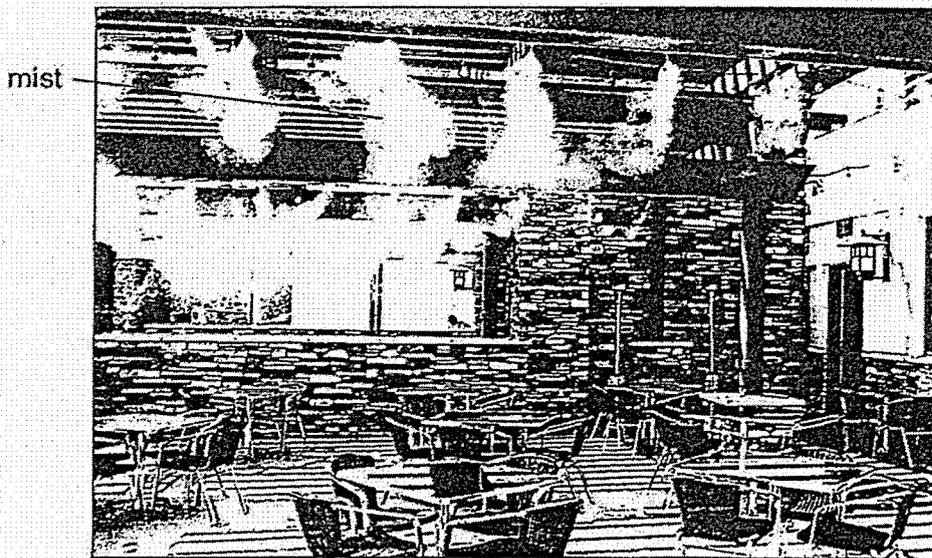
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**Section B: Open-Ended Questions (8 marks)**

For questions 7 and 8, fill in your answers in the spaces provided.

7. Some restaurants use a water mist system to cool the surrounding air. Mist consists of tiny water droplets as shown below.



- (a) Explain how the mist system helps to make the surrounding air cooler. Give a reason for your answer. [2]

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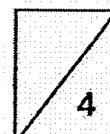
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- (b) Would adding fans increase or decrease the rate of cooling the surrounding air? Explain. [2]

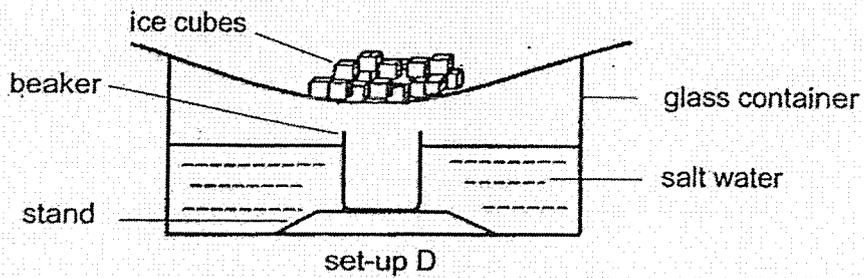
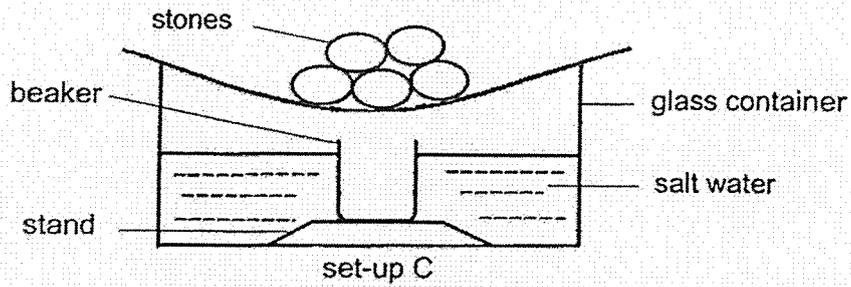
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8. Ali prepared set-ups, C and D, to find out if the presence of ice cubes on the plastic sheet affects the rate of condensation.



After three hours, water was collected in both beakers in set-ups, C and D.

- (a) Would the water in the beaker be salty? Give a reason for your answer. [1]

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- (b) Which set-up will most likely collect more water in the beaker? Explain your choice. [2]

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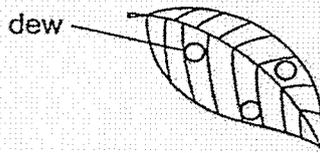


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The picture below shows dew formed on a leaf. Dew, which consists of water droplets, is formed when the surrounding water vapour condenses on the leaf's surface.



When lost in a forest, people who have ran out of drinking water can collect the dew on leaves to drink.

The graph below shows the average temperature in a forest from 6 a.m. to 6 p.m.

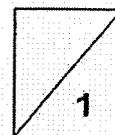
Time	Temperature on the surfaces of the leaves ( $^{\circ}\text{C}$ )
6 a.m.	25
9 a.m.	29
12 p.m.	31
3 p.m.	30
6 p.m.	28

- (c) From the graph, what would be the best time to collect the most dew from the surfaces of the leaves when the temperature of the surrounding air is  $28^{\circ}\text{C}$ ? Explain your answer. [1]

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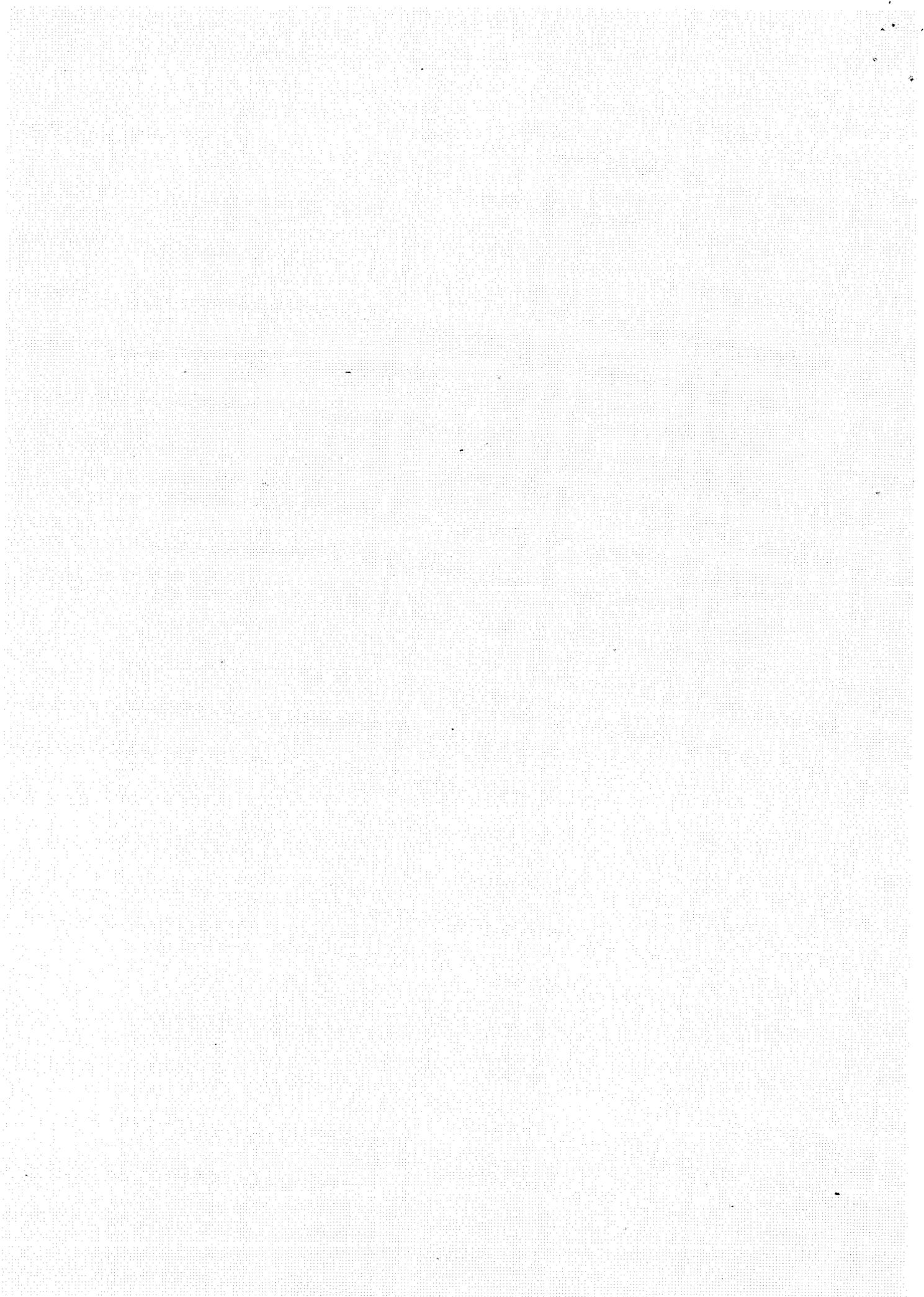
- End of Paper -



**Suggested Answer Key – P5 WA1 2022**

Qns No	Answer	Qns No	Answer
1	2	6	void
2	3		
3	3		
4	1		
5	2		

Qns No	Answer
7	(a) Any increase in temperature is solely due to the differences in material and not due to any other factors
	(b) Material Y. The temperature of material Y increases the slowest. <sup>loses</sup> Material Y is the poorest conductor of heat so material Y transfers heat the slowest from the tea to the surrounding.
	(c) The air spaces (between her hand and the sleeve) is a poor conductor of heat. The air spaces slows down the <del>transfer</del> <sup>gain</sup> of heat from the tea to her hand.
8	(a) Birds help to transfer pollen grains from the anther to the stigma of the flowers.
	(b) It is to reduce competition for space, water, light and mineral salts.
	(c) Plant Q : animal / wind Plant R: explosive action / splitting
	(d) Wing-like structure. The wing-like structure allows fruit/seed of plant S to stay longer in the air.



**Suggested Answer Key – P5 WA2 2022**

Qns No	Answer	Qns No	Answer
1	3	6	4
2	2		
3	2		
4	2		
5	2		

Qns No	Answer
7	a The surrounding air lost heat to the mist. The mist evaporated.
	b Increase. Wind increases the rate of evaporation. Surrounding air will lose heat faster to the mist.
8	a No. The water in the saltwater evaporates and the salt is left behind.
	b Set up D. The plastic sheet in set up D is cooler. This increases the rate of condensation.
	c Question voided

2  
END

