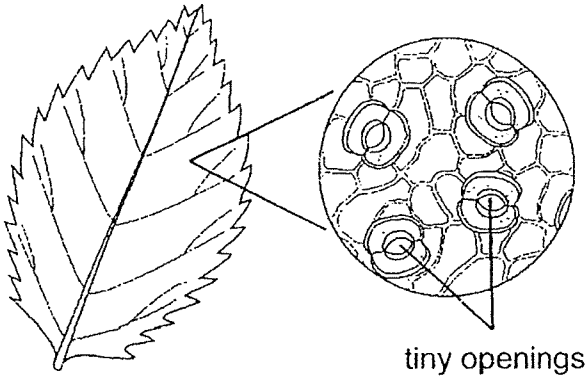
Ai Tong School
P5 Science
2024 Term 3 Review

Name: _____ ( ) Class: 5_____
Date: _____ Marks: _____ / 30
Duration: 40 minutes Parent's Signature: _____

Section A (14 marks)

For each question from 1 to 7, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and write your answer in the bracket provided.

1. Ms Lee placed a leaf under a microscope. She observed some tiny openings on the underside of the leaf as shown in the diagram below.



What is the function of these tiny openings on the leaf?

(1) They allow water and food to enter the plant.
(2) They take in nutrients for the plant to grow better.
(3) They trap sunlight for the plant to photosynthesize.
(4) They allow exchange of gases with the surroundings.

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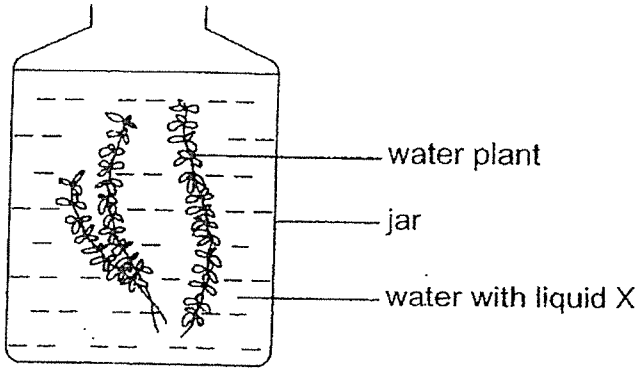
2. June used the set-up below to find out whether water plants affect the amount of carbon dioxide in water at different times of the day.



She placed the set-up near the window and added a few drops of liquid X to the water. Liquid X changes colour as shown below.

Amount of carbon dioxide in water	Colour of water with liquid X
less than normal	purple
normal	red
higher than normal	yellow

What colour would the water with liquid X be at noon and at midnight?

	At noon	At midnight
(1)	purple	red
(2)	purple	yellow
(3)	yellow	red
(4)	yellow	purple

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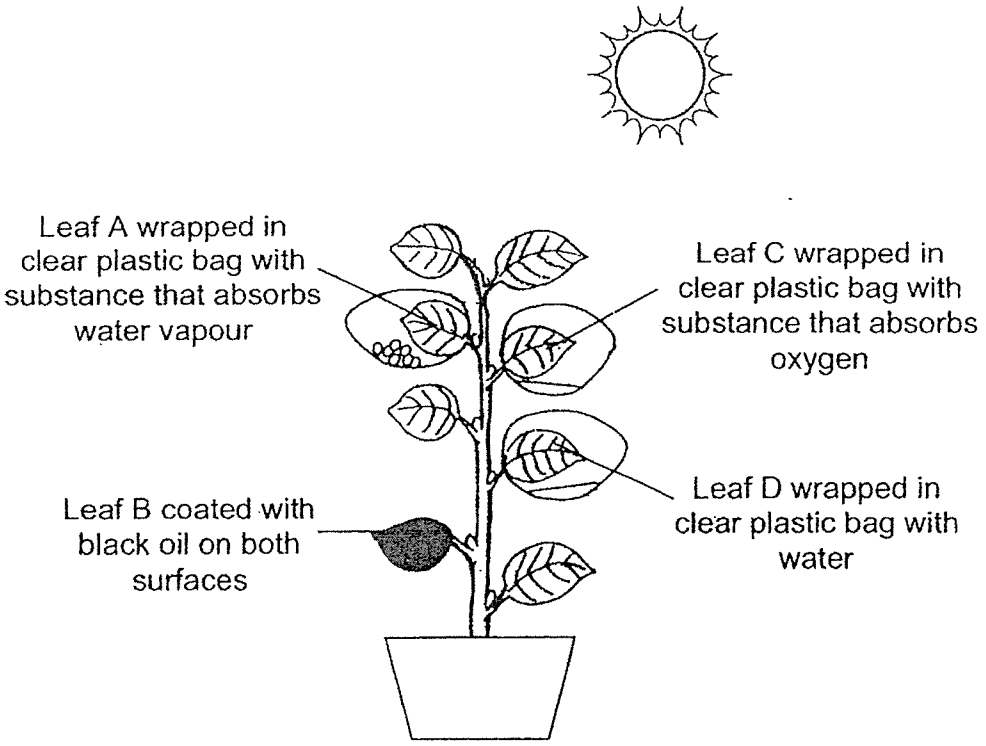
3. Mr Tan placed a plant in the dark for two days before putting it under the sun as shown below.



After a few hours under the sun, he removed the leaves A, B, C and D and performed a starch test on the leaves. Iodine solution changes to dark blue when starch is present and remains yellowish-brown when there is no starch present.

Which leaves would turn the iodine solution dark blue?

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

( )

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4. Which statement about boiling is correct?

(1) It happens at any temperature.
(2) It happens at a fixed temperature.
(3) Oxygen bubbles are formed during boiling.
(4) It is the process by which liquid gains heat and changes to mist.

( )

5. The table below shows the melting point of substances M, N, O and P.

Substance	Melting point (°C)
M	10
N	30
O	50
P	120

Which of the following statements is correct?

(1) Substance M is a gas at 25°C.
(2) Substance N is a liquid at 25°C.
(3) Substances N and O are solids at 25°C.
(4) Substances O and P are liquids at 80°C.

( )

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6. Ying Ying prepared four set-ups P, Q, R and S as shown in the table below. She wants to investigate whether glass or plastic is a better conductor of heat.

	Set-up			
	P	**Q**	**R**	**S**
Material of container	glass	glass	plastic	plastic
Temperature of water	100°C	50°C	50°C	100°C
Volume of water	40ml	40ml	40ml	40ml

Which two set-ups should Ying Ying compare in order to draw a correct conclusion?

(1) P and Q
(2) P and S
(3) R and S
(4) Q and S

( )

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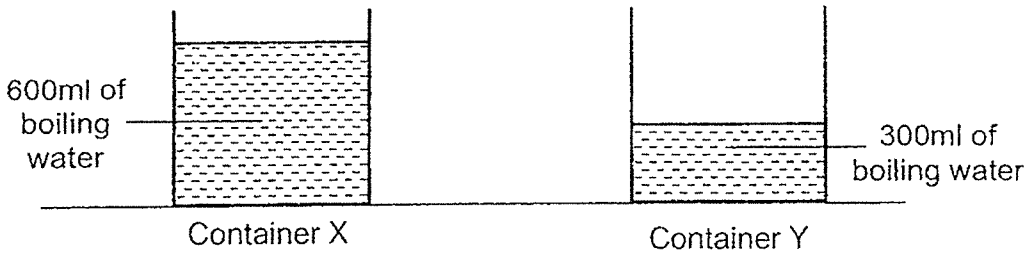
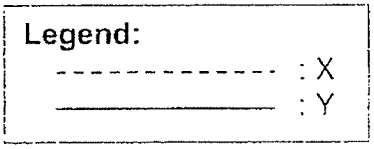
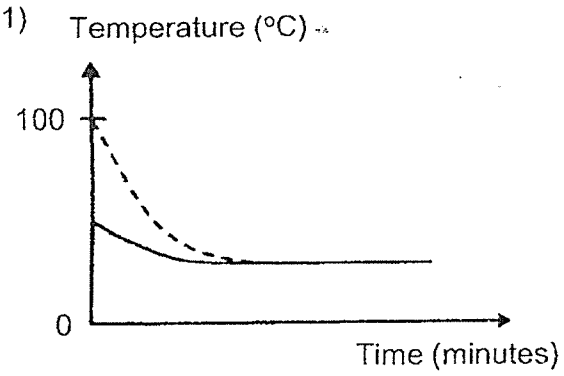
7. Gopal poured 600 ml of boiling water into container X and 300 ml of boiling water into container Y. He recorded the temperatures of water in X and Y every minute over a period of time.



Which one of the following is the correct graph for his results?



1)



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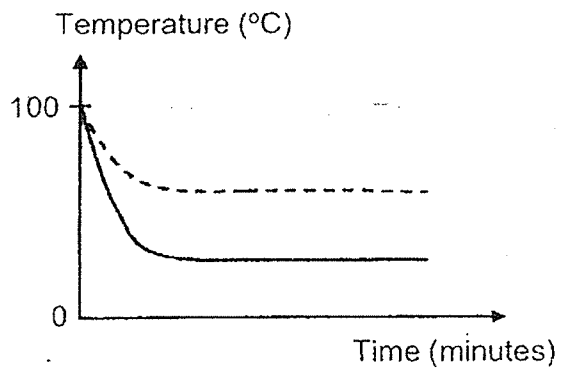

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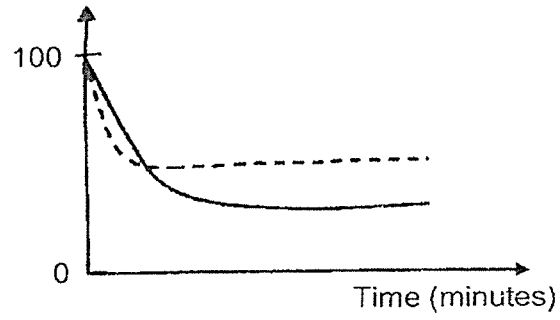

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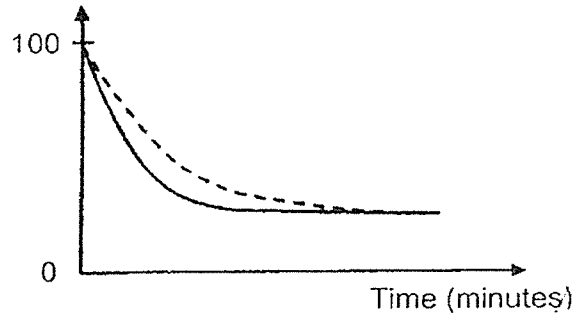

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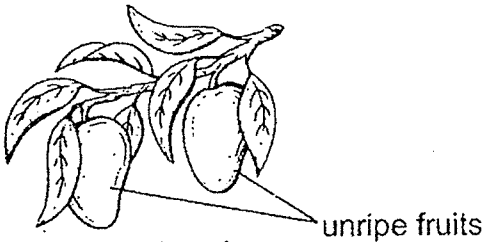
Section B (16 marks)

For questions 8 to 12, write your answers in the spaces provided. The number of marks available is shown in bracket [ ] at the end of each question or part question.

8. The diagram below shows the unripe fruits of plant A.



plant A

The unripe fruits are green and contain chlorophyll.

(a) Explain how having chlorophyll helps the fruits of plant A to grow. [1]

_____

_____

(b) Ripe fruits of plant A are yellow and give out gas X. Keira wants to investigate whether gas X will help unripe fruits to ripen more quickly.

She has only the items below. She may use some or all of them.

Item	Quantity
Ripe fruits of plant A	4
Unripe fruits of plant A	4

Keira used two identical clear containers for her investigation. What item(s) should she put inside the container for each set-up? [2]

Experiment set-up: _____

Control set-up: _____

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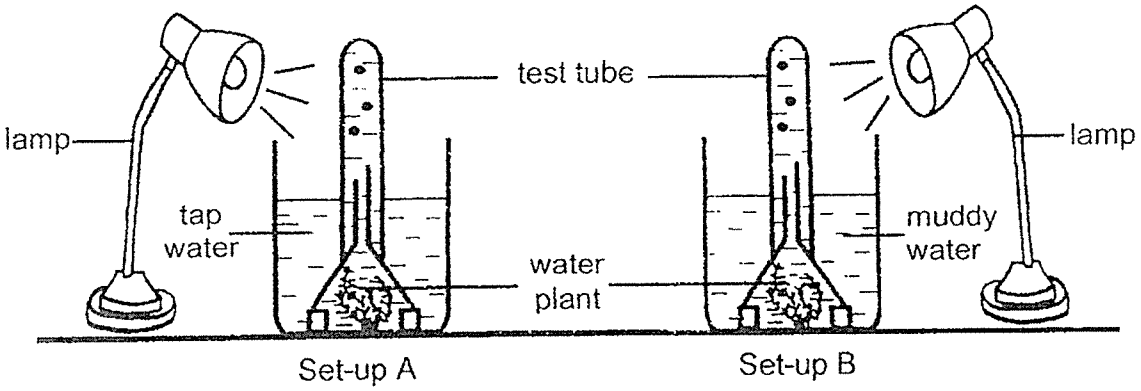
9. Layla sets up an experiment to find out if the type of water affects the rate of photosynthesis in water plant. Two similar water plants are placed in similar beakers with different types of water as shown below. The set-ups are then placed under light for 12 hours.



Layla hypothesises that the rate of photosynthesis is faster for the water plant in set-up A.

(a) What will Layla see at the end of the experiment to confirm her hypothesis? [1]

_____

_____

(b) Why does Layla make her hypothesis as stated? Explain your answer. [1]

_____

_____

(c) Other than using similar water plants and beakers, state another variable that should be kept the same to ensure a fair test. [1]

_____

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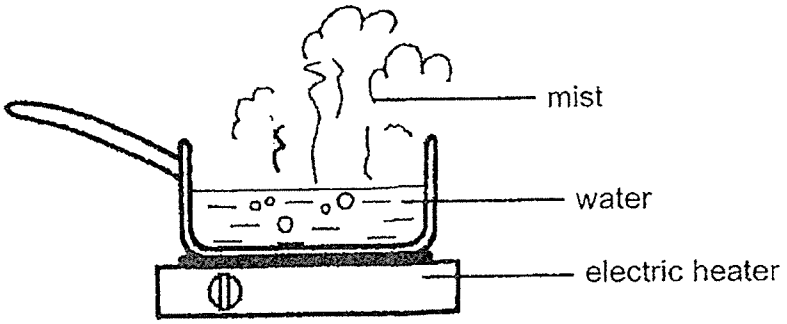
3

10. Devi heated up some water in a pot as shown below.



(a) Explain how the mist was formed above the pot of water. [2]

_____

_____

(b) The mist disappeared after a short time. Explain why. [1]

_____

_____

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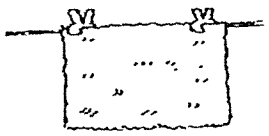
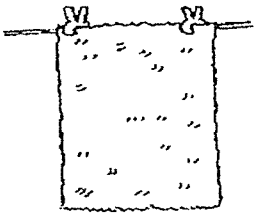
3

11. Rahman wanted to find out if the amount of exposed surface area of a towel affects the rate of evaporation. Three identical towels, A, B and C, were soaked in equal amount of water and then left in the bedroom in different ways to dry as shown below.



towel A
(folded half and held on a rope with pegs)

towel B
(crumpled and placed on the floor)



towel C
(spread out and held on a rope with pegs)

The towels were weighed after two hours. The results are recorded in the table below.

Towel	Mass of towel at the start (g)	Mass of towel after two hours (g)
A	90	65
B	90	80
C	90	55

(a) State the relationship between the amount of exposed surface area of the towel and the rate of evaporation. [1]

(b) Rahman was thinking of placing a fan in front of towel B. Suggest how it will affect the time taken for towel B to be completely dry? Explain your answer. [1]

Question 11 continues on the next page

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Question 11 continues on this page.

(c) Without adding any equipment, suggest one way Rahman can do so that all the towels can dry in a shorter time. [1]

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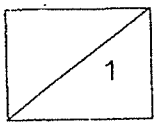
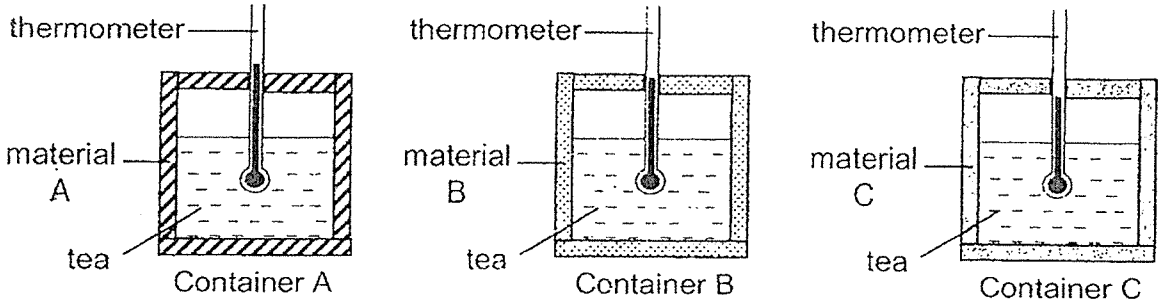


12. Containers A, B and C are of the same size and thickness but made of different materials. Dr. Johnson first poured 100ml of hot tea into container A then measured the temperature of hot tea at the start. He continued the same steps for container B, using the same pot of hot tea he used for A. Then, he repeated the steps for container C.



For each container, he measured the temperature of the tea at five-minute intervals for 15 minutes. The temperatures of the tea were recorded in a table shown below.

Container	Temperature of tea (°C) at			
	0 min	5 min	10 min	15 min
A	95	83	79	70
B	85	82	75	65
C	80	74	68	65

(a) What was the aim of Dr. Johnson's experiment? [1]

(b) Give a reason why the temperature of hot tea in the three containers is not the same at the start of the experiment even though Dr. Johnson used the same pot of hot tea for all the set-ups. [1]

Question 12 continues on the next page

2

Question 12 continues on this page.

(c) Suggest what Dr. Johnson can do to obtain more reliable results. [1]

_____

_____

(d) Dr. Johnson wanted to bring a container of cold drink for a hiking trip. He wanted to keep the drink cold for the longest time. Which container, A, B or C, is most suitable to be used to keep the cold drink? Explain your answer. [1]

_____

_____

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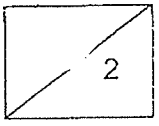

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SCHOOL : AI TONG PRIMARY SCHOOL
LEVEL : PRIMARY 5
SUBJECT : SCIENCE
TERM : 2024 TERM REVIEW 3

Q1	Q2	Q3	Q4	Q5	Q6	Q7			
4	2	4	2	3	2	4			

8	a) The chlorophyll helps the plant by trapping sunlight so the plant can make food. b) Experiment set up: 2 unripe fruits and 2 ripe fruits Control set up : 2 unripe fruits.
9	a) Layla will see more bubbles in test tube A than B b) Tap water allows more light to pass through than muddy water, so the rate of photosynthesis will be faster c) The lamp
10	a) Water in the pot gained heat and evaporated into hot water vapour come in contact with the surroundings air, lost heat and condensed to form mist. b) The mist gain ed heat and evaporated.
11	a) At the amount of exposed surface area of the towel increases the rate of evaporation increases. b) Time taken will be shorter. The wind from the fan increases the rate of evaporation. c) Put it somewhere that has sunlight.
12	a) To find out if the type of material affects the temperature of Tea. b) The pot of hot tea lost heat to the surrounding air while he was preparing his experiment. c) Repeat this experiment a few more times d) C. The decreased temperature is the least for C, Heat transfer from the surrounding air to the cold drink will be the slowest.

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