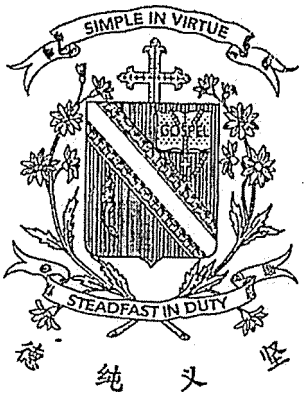
Name: _____( )

Class: Primary 6 _____

CHIJ ST NICHOLAS GIRLS' SCHOOL



Primary 6
2025
Term 1 Weighted Assessment

SCIENCE

BOOKLET A

Total Time for Booklets A and B: 50 minutes

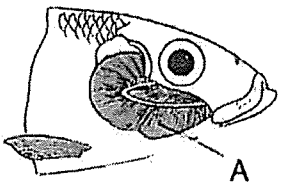
18 questions
36 marks

Do not open this booklet until you are told to do so.
Follow all instructions carefully.
Answer all questions.

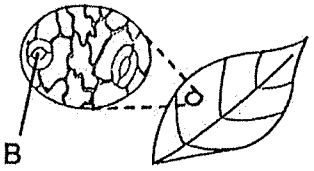
This booklet consists of 12 printed pages.

Section A (18 x 2 marks = 36 marks)
For each question from 1 to 18, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet provided.

1. Study the diagrams below.



fish

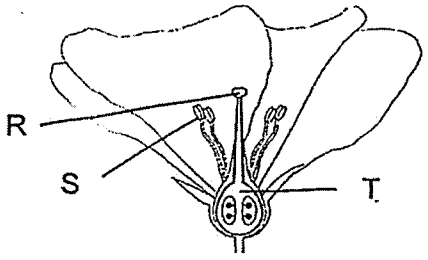


leaf

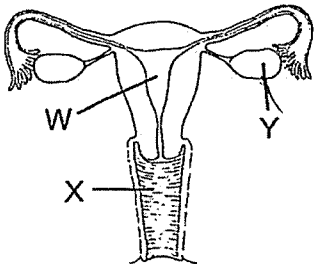
Which of the following statements is true of A and B?

(1) A and B store gases.
(2) A takes in water but B takes in light.
(3) A and B allows carbon dioxide to pass through.
(4) A takes in only oxygen but B takes in only carbon dioxide.

2. The diagrams below show a flower and the female human reproductive system.



flower



female human reproductive system

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

A R receives the pollen grains.
B Fertilisation occurs in R and X.
C T and Y perform the same function.
D Male reproductive cells are stored in S and W

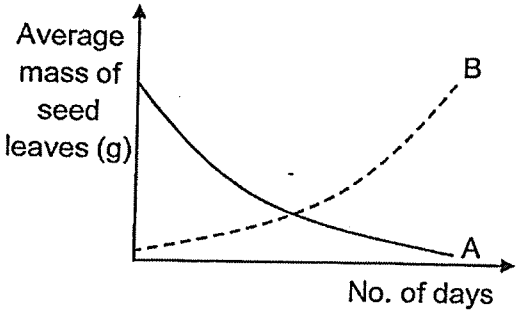
(1) A only
(2) D only
(3) A and C only
(4) B and C only

3. The table below shows the conditions in which some seeds of similar mass were planted.

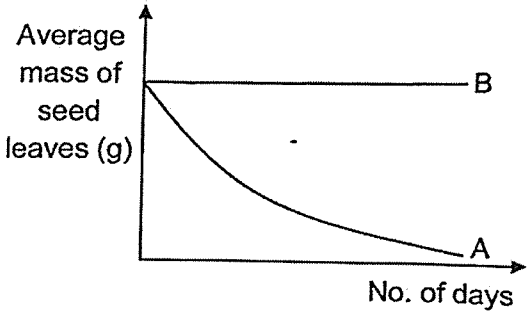
Tray	Number of seeds	Is water present?	Is light present?	Is oxygen available?
A	5	Yes	No	Yes
B	5	No	Yes	Yes

Both trays, A and B, were placed in a room with a temperature of 28 °C. Which of the following graphs best represents the changes in the average mass of the seed leaves over two weeks?

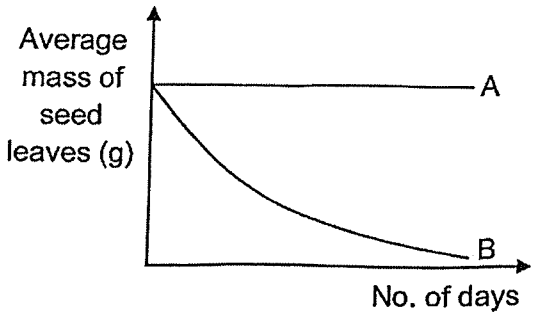
(1)



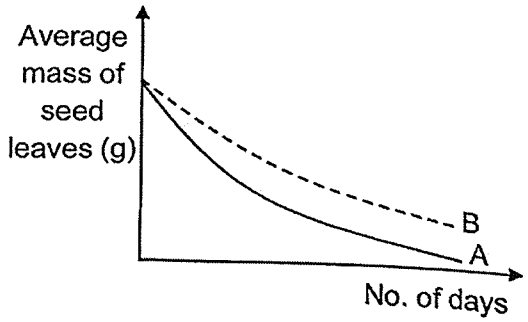
(2)



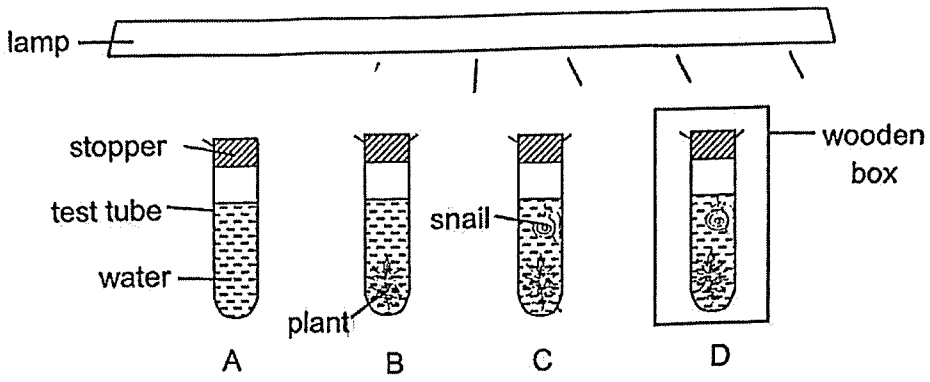
(3)



(4)



4. Study the set-ups below.



A drop of liquid K was added to the water in each tube before the experiment. Liquid K changes colour as shown below.

Amount of carbon dioxide (units)	Colour of water with liquid K
less than normal	purple
normal	red
higher than normal	yellow

After a few hours, which of the following shows the colour of water in each set-up?

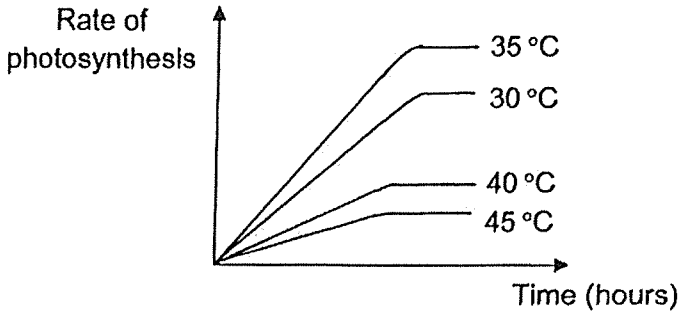
	A	B	C	D
(1)	red	red	yellow	yellow
(2)	yellow	purple	purple	red
(3)	red	purple	purple	yellow
(4)	purple	red	yellow	purple

5. Isabelle wanted to find out if the amount of light would affect the size of the tiny openings on a plant.
Which of the following should she keep constant for her experiment to be a fair one?

A size of the tiny openings
B amount of light given to the plant
C amount of water given to the plant
D amount of carbon dioxide given to the plant

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

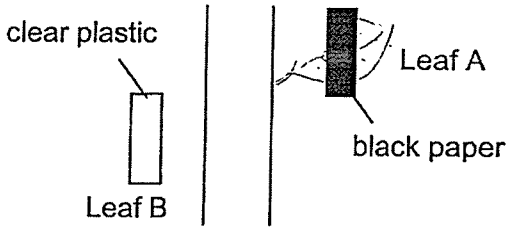
6. The graph below shows how the rate of photosynthesis of plant A changes with temperature.



Based on the graph above, which of the following statements is true?

(1) Temperature does not affect the rate of photosynthesis.
(2) 35 °C is the best temperature for photosynthesis to take place.
(3) Rate of photosynthesis increases with increasing temperature.
(4) Rate of photosynthesis increases with increasing light intensity.

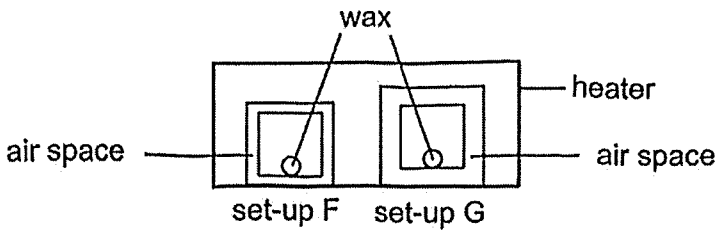
7. An experiment was conducted on a plant which had been kept in the dark for a day and watered. Leaf A and leaf B were then covered on both sides with clear plastic and a piece of black paper respectively as shown above. The plant was then placed under bright sunlight for a day. Both leaves were then tested for starch.



Which of the following is correct?

	Leaf	Starch test result	Reason
(1)	A	partly dark blue	Light can pass through the black paper so the leaf can make food.
(2)	A	completely yellowish-brown	The part covered was not able to make food as there was no light.
(3)	B	partly yellowish-brown	The part covered was not able to make food as there was light.
(4)	B	completely dark blue	Light can pass through the clear plastic so the leaf can make food.

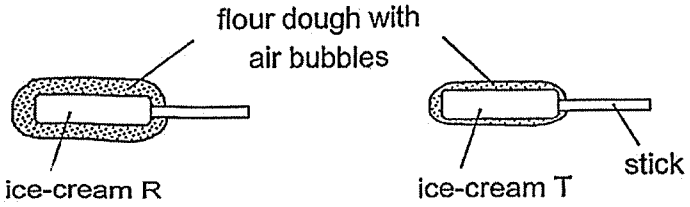
8. Ling conducted an experiment with two containers as shown below.



The table below show the results of her experiment.

	Time taken for wax to melt completely (s)
set-up F	30
set-up G	75

Ling used a mixture of water, baking soda and flour to create a flour dough. She then covered 2 identical ice-creams with different amounts of flour dough as shown below.

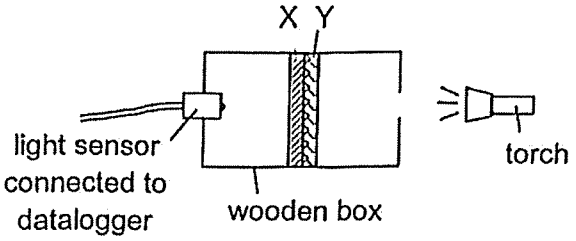


The ice-creams were then deep fried using the same amount of heat for fifteen seconds. She observed that one of the ice-creams melted after being heated.

Which of the following is likely to be possible?

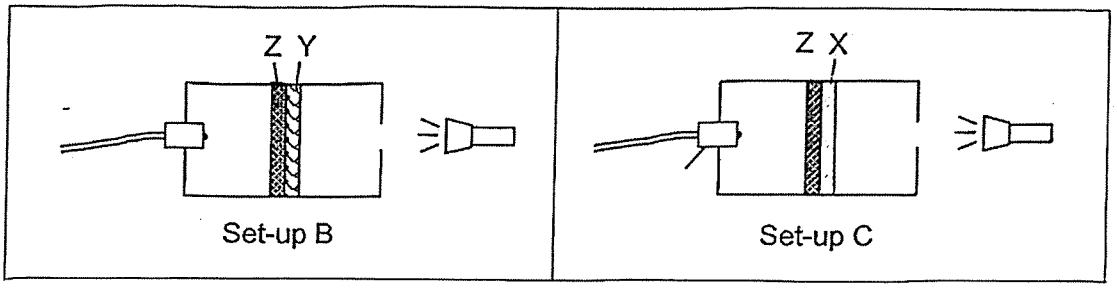
	Ice-cream that melted	Reason
(1)	R	The air in the flour dough is a poor conductor of heat.
(2)	R	There was more air bubbles in the flour dough so the ice-cream lost heat faster.
(3)	T	There were less air bubbles in the flour dough so the ice-cream gained heat faster.
(4)	T	The air in the flour dough was a good conductor of heat.

9. Karin conducted an experiment using the set-up shown below. Materials X and Y have the same thickness.



Set-up A

She then repeated the same experiment using the same apparatus but different combinations of materials X, Y and Z as shown below.



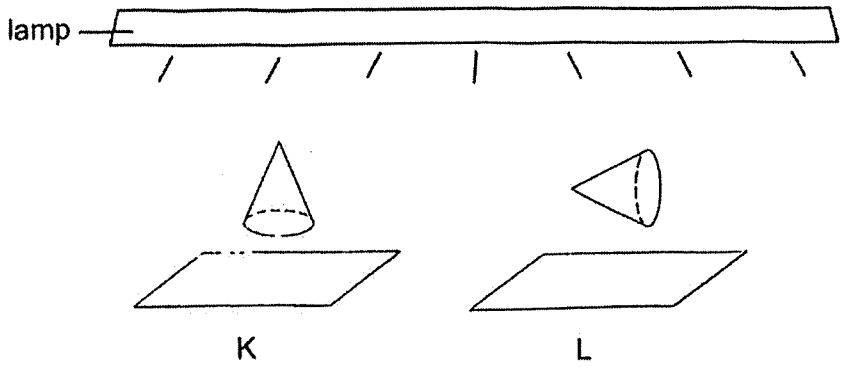
The table below shows her results.

Set-up	Materials tested	Amount of light detected (units)
A	X and Y	180
B	Z and Y	100
C	Z and X	70

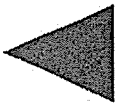
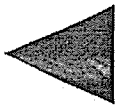
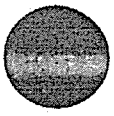
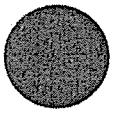
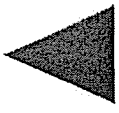
Which of the following shows the correct arrangement of the degree of transparency of the materials X, Y and Z?

	Allow least light to pass through →		Allow most light to pass through
(1)	X	Y	Z
(2)	Z	X	Y
(3)	Y	X	Z
(4)	Y	Z	X

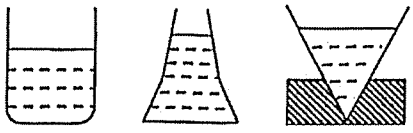
10. Meena conducted an experiment using two identical cones in a dark room as shown below. Shadows were formed on screens K and L.



Which of the following shadows would be observed for each screen?

	Screen A	Screen B
(1)		
(2)		
(3)		
(4)		

11. The diagram below shows three containers of different shapes. 500 ml of water was poured into each container. The containers were then left in a room.



A B C

The amount of water remaining in the containers were measured after three days. Which of the following shows correctly the comparison of the amount of water left in the containers after three days?

	Most amount of water →		Least amount of water
(1)	B	C	A
(2)	C	B	A
(3)	C	A	B
(4)	A	B	C

12. The table below shows the conditions for four set-ups Q, R, S and T. Same amount of water was used for all the set-ups.

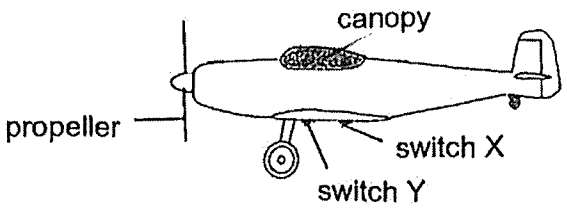
Set-up	Surrounding temperature (°C)	Strength of wind	Exposed surface area of water (cm^2)
Q	26	breeze	25
R	26	breeze	50
S	35	breeze	50
T	26	strong wind	25

Based on the set-ups above, which of the following are possible aims?

A To find out if the presence of light affects rate of evaporation.
B To find out if the presence of wind affects the rate of evaporation.
C To find out if the surrounding temperature affects the rate of evaporation.
D To find out if the amount of exposed surface area of water affects the rate of evaporation

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

13. The diagram below shows a toy aeroplane that works on batteries.

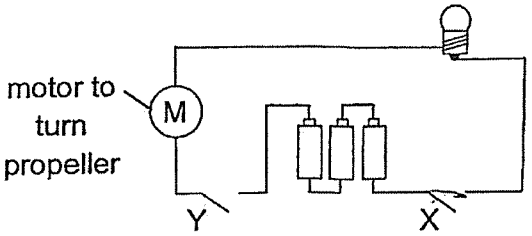


When Leon played with the toy, he made the following observations.

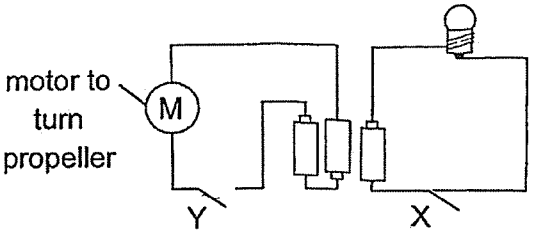
Switch closed	Observation
X only	Propeller did not move. Canopy was lit.
Y only	Propeller moved. Canopy did not light up.
Both X and Y	Propeller moved. Canopy was lit.

Which of the following shows the correct circuit inside the toy aeroplane?

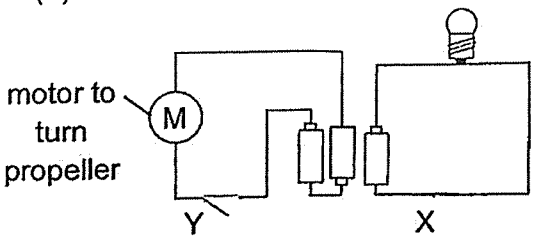
(1)



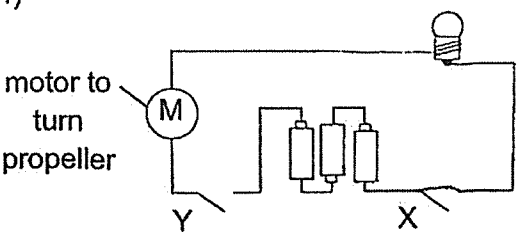
(2)



(3)



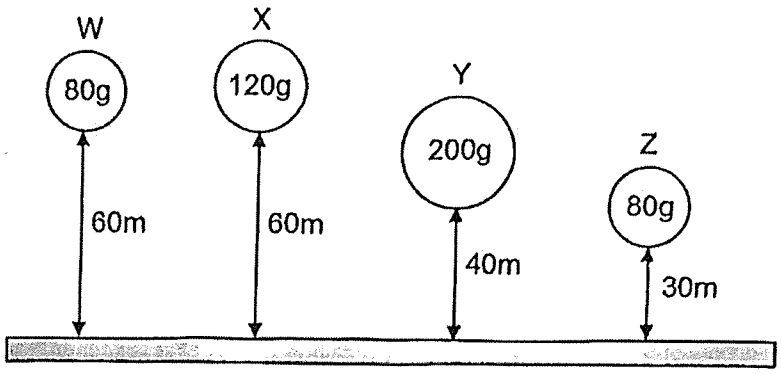
(4)



14. Which of the following is a not safe way to use electricity?

(1) Hiring an electrician to fix faulty electrical appliance.
(2) Plugging only one electrical appliance to one electrical socket.
(3) Drying wet hands before switching on an electrical supply.
(4) Inserting a metal rod to the electrical outlet to insert a 2-pin plug easily.

15. Four balls of the same material W, X, Y and Z, were dropped from different heights as shown below.



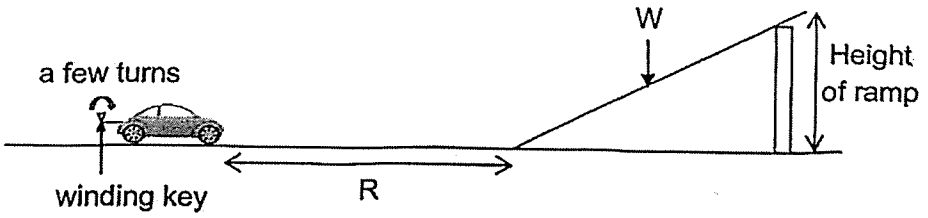
Which of the following statements about the four balls in the diagram above are true?

A Ball X has more potential energy than Ball Z.
B Ball X has the same amount of potential energy as Ball W.
C Ball Y makes a louder sound when it hits the ground than Ball Z.
D Gravitational potential energy is converted to kinetic energy when the balls are dropped.

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

3

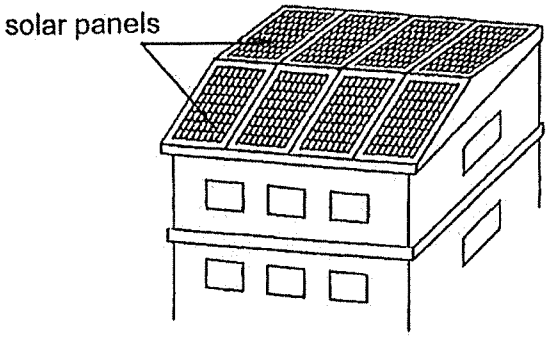
16. A toy car was wound a few times and released as shown in the diagram below. The toy car was only able to travel a short distance up the ramp to point W.



Which of the following shows the changes that could be made to the set-up above to allow the car to travel as high up the ramp as possible?

	Number of turns	Distance R	Height of the ramp
(1)	decrease	decrease	increase
(2)	increase	increase	increase
(3)	increase	decrease	decrease
(4)	decrease	increase	decrease

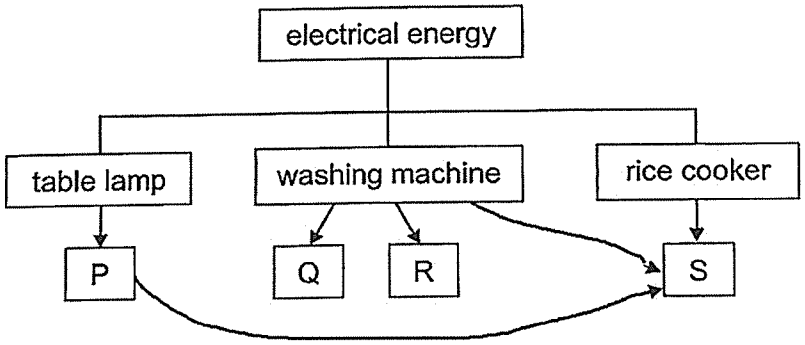
17. The diagram below shows some solar panels installed on the roof of a house.



Which of the following shows the main energy conversion that allows a lamp in the house to work?

(1) Heat energy → Kinetic energy → Light energy
(2) Potential energy → Electrical energy → Light energy
(3) Heat energy → Electrical energy → Light energy + Heat energy
(4) Light energy → Electrical energy → Light energy + Heat energy

18. The diagram below shows the conversion of electrical energy to other forms of energy by some electrical appliances.



Which of the following best represents the forms of energy in P, Q, R and S respectively?

	P	Q	R	S
(1)	light	sound	kinetic	heat
(2)	light	kinetic	sound	potential
(3)	heat	potential	kinetic	sound
(4)	heat	sound	potential	light

~ End of Booklet A ~

Name : _____ ( )

Class : Primary 6 _____

CHIJ ST NICHOLAS GIRLS' SCHOOL

Primary 6
2025
Term 1 Weighted Assessment

SCIENCE

BOOKLET B

Booklet A	36
Booklet B	14
Total	50

Total Time for Booklets A and B: 50 minutes

5 questions
14 marks

Do not open this booklet until you are told to do so.
Follow all instructions carefully.
Answer all questions.

This paper consists of 5 printed pages.

_____

Parent's Signature/Date

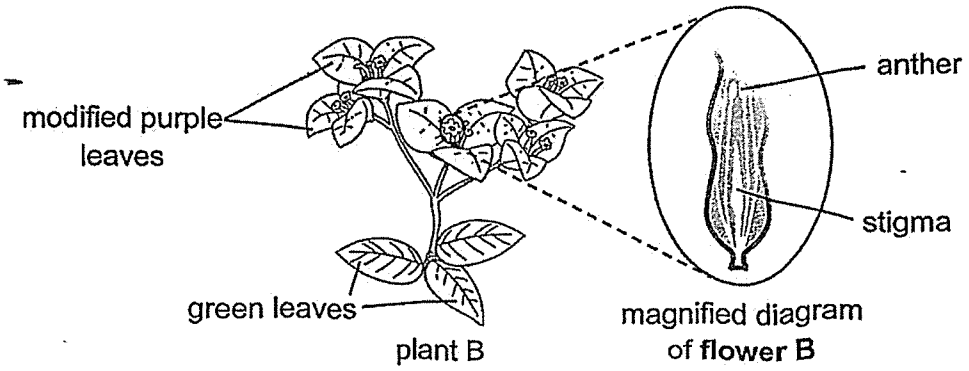
Section B (14 marks)
For questions 19 to 23, write your answers in this booklet.
The number of marks available is shown in the brackets at the end of each question or part question.

19. (a) What is pollination? [1]

_____

_____

The diagram below shows the flowers of plant B. The small white flowers are surrounded by modified purple leaves that help in reproduction. The rest of the leaves of plant B are green.

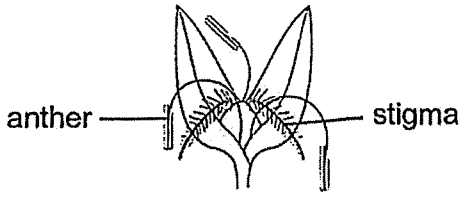


(b) Explain how the purple leaves help the flowers in reproduction. [1]

_____

_____

The diagram below shows the flower C. It is also small and white.



(c) State how flower C is pollinated. Explain why. [1]

_____

_____

20. Mandy carried out an experiment using the set-ups shown in diagram 1 below. Same amount of baking soda was added to the water in all the set-ups.

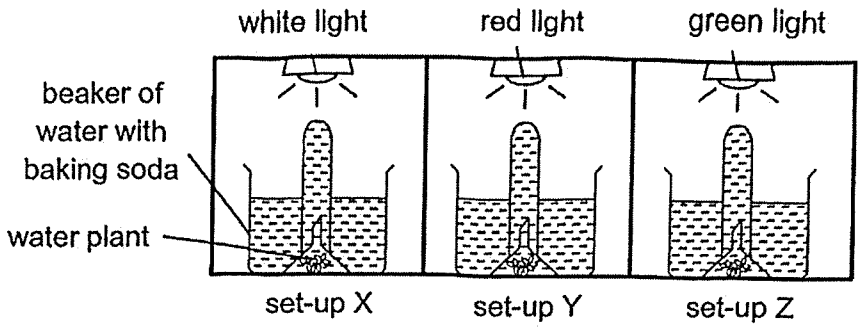


Diagram 1

After three hours, the observations are shown in diagram 2 below.

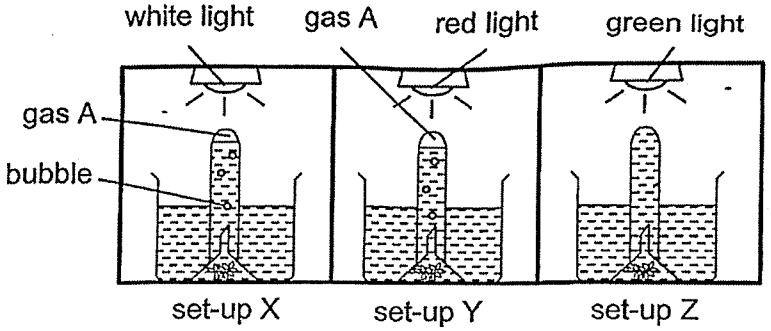


Diagram 2

(a) State what gas A is. [1]

_____

(b) What is the purpose of set-up X? [1]

_____

_____

(c) Mandy plucked a leaf from set-ups Y and Z above and performed an iodine test on them. Based on her observations in diagram 2, what would be the likely results of her iodine test? [1]

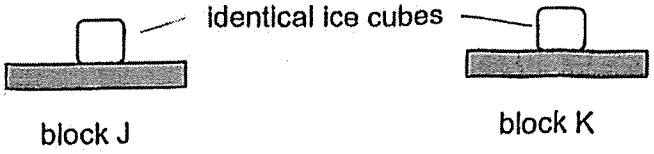
Leaf from set-up Y: _____

Leaf from set-up Z: _____

(d) Other than measuring the amount of gas A collected, suggest one other observation that Mandy can make to measure the rate of photosynthesis. [1]

_____

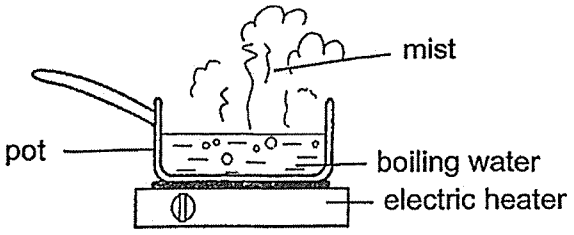
21. Derrick conducted an experiment using two blocks, J and K, of the same size as shown below. Before placing the identical ice cubes on the blocks, he noted that block K felt much cooler than block J.



(a) Explain why block K felt much cooler than J. [1]

(b) On which block, J or K, would the ice cube melt slower? Give a reason for your answer. [1]

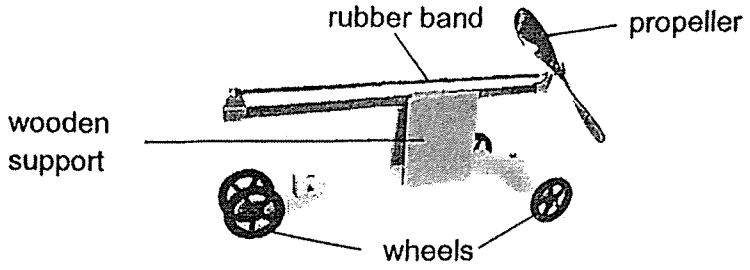
22. The diagram below shows a pot of water boiling on an electric heater.



(a) State what the mist is. [½]

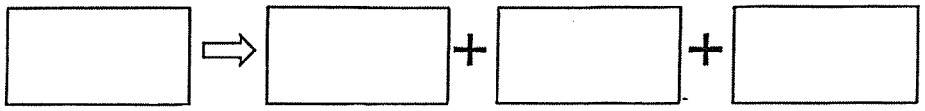
(b) Explain how the mist is formed. [1½]

23. The diagram below shows a toy car.



When Bob turned the propeller a few times and released the toy on the floor, it moved over a distance across the floor before coming to a stop.

(a) Complete the energy conversion below that has occurred to enable the toy car to move the moment it was released on the floor. [1]



(b) Bob wanted to find out if the number of turns of the propeller would affect the distance travelled by the toy car.

Suggest a suitable hypothesis for his experiment. [1]

_____

_____

(c) Why did the toy car eventually come to a stop? [1]

_____

_____

~ End of Booklet B ~

SCHOOL : CHIJ PRIMARY SCHOOL
LEVEL : PRIMARY 6
SUBJECT : SCIENCE
TERM : 2025 WEIGHTED ASSESSMENT 1

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
3	1	2	3	3	2	4	3	2	4
Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18		
1	4	2	4	3	3	4	1		

Q19)	a) Transfer pollen grains from the anther to the stigma on the same flower. b) The purple leaves will attract animals to the flower to help to pollinate the flower as the white leaves does not attract animas. c) By wind, the stigma and anther are hanging outside the flower to catch pollen grains in the wind easily. The stigmas is also hairy will trap the pollen grains easily.
Q20)	a) Oxygen gas b) X acts as a control set-up top ensure that the amount of gas A collected and any changes to the experiment is solely due to the colour of the light. c) Y: Blue Z: Yellow d) Count the number of oxygen bubbles given out by the plant for a minute.
Q21)	a) K is a better conductor of heat and will gain more heat from his hand than block J does. Thus, his hand will lose more heat to K and feel colder. b) J, it is a poorer conductor of heat, J will conduct heat from the surroundings to the ice cube slower, causing the ice cube to melt slower.
Q22)	a) Tiny water droplets. b) Hot water vapour from the boiling water touches the cooler air surface lose sheal and condenses to form tiny water droplets.

Q23)	a) elastic potential energy → kinetic energy + sound energy + heat energy b) When the number of turns of the propeller increases, the distance travelled by the car increases. c) All of the kinetic energy has been converted into heat and sound energy.