Rosyth School
Weighted Assessment One 2021
SCIENCE
Primary 5

Name: _____ Total Marks: /28

Class: Pr 5- _____ Register No. _____ Total time for Booklets A and B: 1 h

Date: 7 May 2021

Booklet A

Instructions to Pupils:

1. Do not open the booklet until you are told to do so.
2. Follow all instructions carefully.
3. This paper consists of 2 booklets, Booklet A and Booklet B.
4. For questions 1 to 14 in Booklet A, shade the correct ovals on the Optical Answer Sheet (OAS) provided using a 2B pencil.

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* This booklet consists of 12 printed pages (including cover page).

For each question from 1 to 14, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and shade your answer on the Optical Answer Sheet.

[28 Marks]

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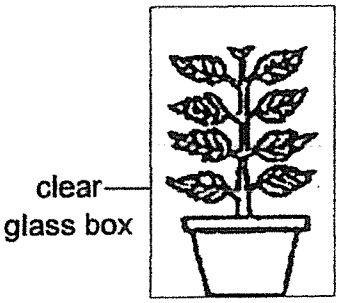
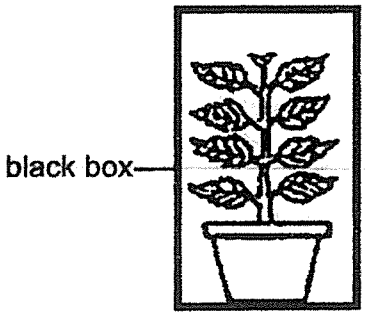
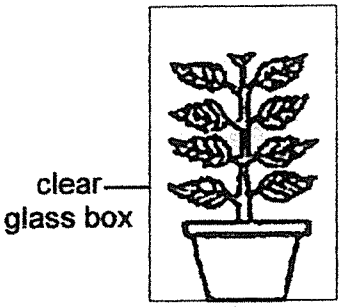
1 Jimmy prepared four set-ups, A, B, C and D, using similar plants as shown in the diagram below.



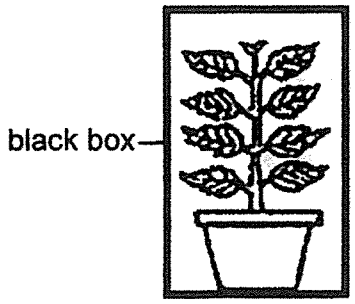
A: wet soil



B: dry soil



C: dry soil



D: wet soil

Which two set-ups should Jimmy choose to find out if plant needs water to survive?

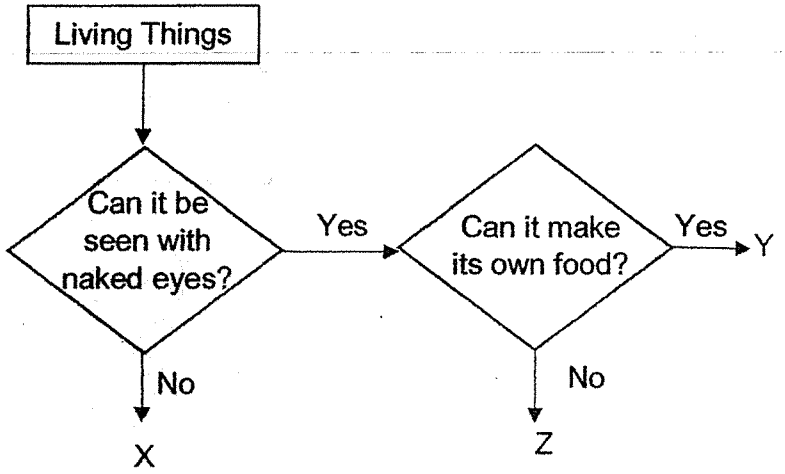
(1) A and B

(2) A and C

(3) B and D

(4) C and D

2 The chart below shows the similiarities and differences among three living things, X, Y and Z.



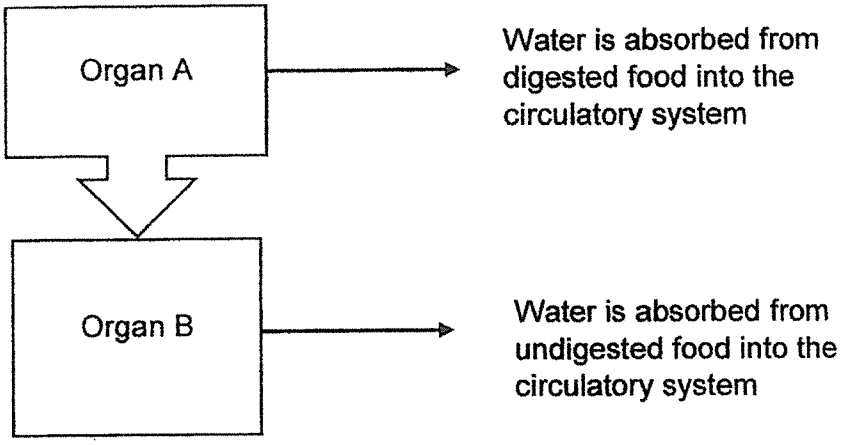
What do X, Y and Z represent?

	X	Y	Z
(1)	Yeast	Fern	Bacteria
(2)	Bacteria	Mushroom	Fern
(3)	Bacteria	Fern	Mushroom
(4)	Yeast	Bacteria	Fern

3 Which one of the following organ systems is matched correctly to its parts?

	Organ system	Parts of the organ system
(1)	Circulatory	heart, lungs, blood
(2)	Muscular	teeth, muscles, tongue
(3)	Respiratory	nose, gullet, lungs
(4)	Skeletal	skull, backbone, ribcage

4 Organ A and organ B are connected to each other in the human digestive system. The diagram below shows only the absorption of water from the digestive system into the circulatory system.



Based on the information given, organ A is the _____.

(1) mouth

(2) stomach

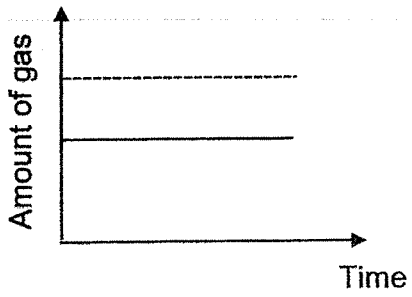
(3) small intestine

(4) large intestine

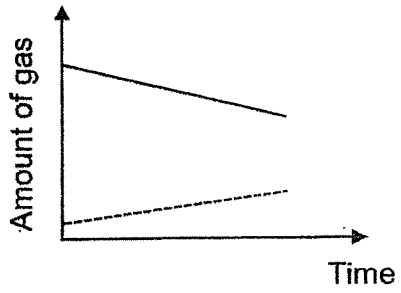
5 Some men were trapped in a lift. Which one of the following graphs shows the changes in the amount of gases in the room?

Key:
——— carbon dioxide
_____ oxygen

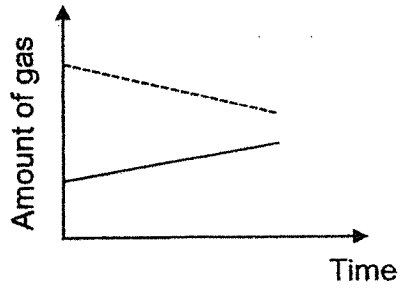
(1)



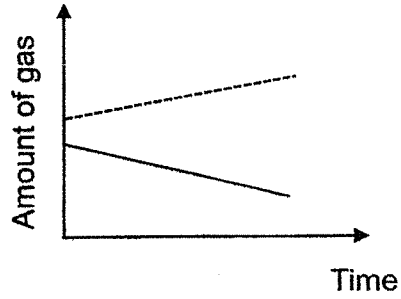
(2)



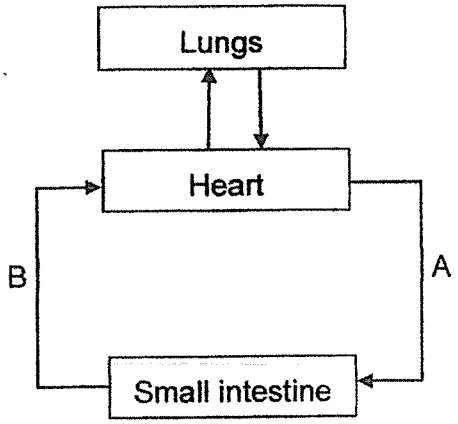
(3)



(4)



6 The diagram below shows the flow of blood in certain parts of the human body.



Which one of the following shows the amount of digested food and carbon dioxide in blood at A and B respectively when a person has just completely digested his food?

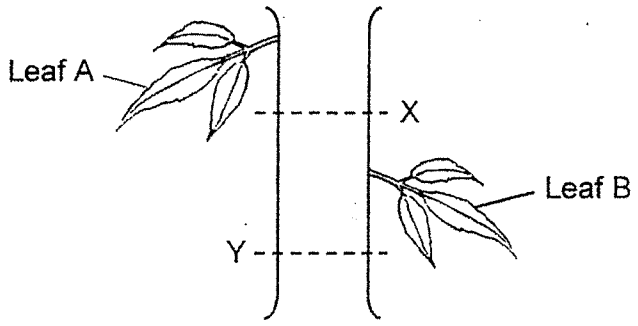
	Amount of digested food in		Amount of carbon dioxide in	
	A	B	A	B
(1)	High	Low	High	Low
(2)	Low	High	Low	High
(3)	Low	High	Low	Low
(4)	High	Low	Low	High

7 Which of the following substance(s) is/are <u>not</u> transported by the stem in a plant?

A: food
B: water
C: mineral salts
D: carbon dioxide

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

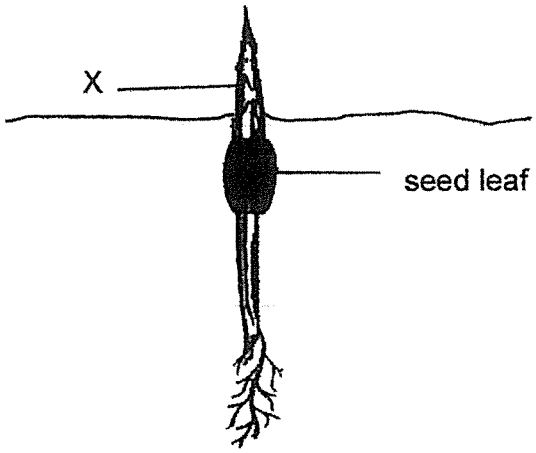
8 Ally removed a layer of bark from a healthy plant at two positions, X and Y. The layers removed are of different depths. The two positions are as shown below.



Which one of the following shows the tube/tubes removed at the two positions, X and Y, and the condition of the leaves, A and B, after a week?

	Tube removed at		Leaf	
	X	**Y**	**A**	**B**
(1)	Food-carrying tube only	None of the tubes are removed	Green	Green
(2)	None of the tubes are removed	Food-carrying and water-carrying tubes	Green	Withered
(3)	None of the tubes are removed	Food-carrying tubes only	Green	Withered
(4)	Food-carrying and water-carrying tubes	Food-carrying tube only	Green	Green

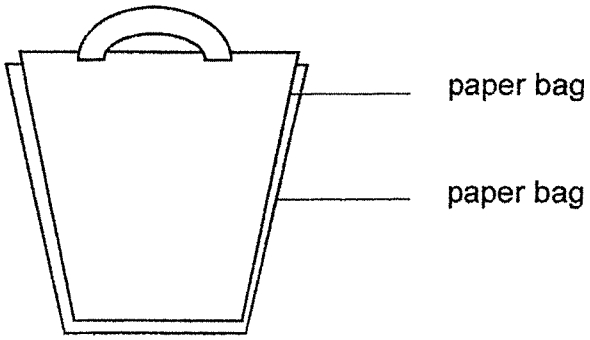
9 The diagram below shows a young seedling.



In which direction is food and water being transported at X respectively?

	Direction for transport of	
	food	**water**
(1)	upwards	upwards
(2)	upwards	downwards
(3)	downwards	upwards
(4)	downwards	downwards

10 Siew Fen saw a lady putting one paper bag inside another paper bag as shown below before putting her things inside.



Which property of the paper bag is she trying to increase?

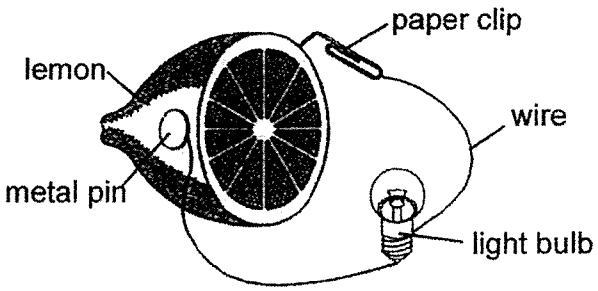
(1) Strength

(2) Flexibility

(3) Waterproof

(4) Transparency

11 The diagram below shows an electrical system made of different objects.



Which is the energy source of the electrical system above?

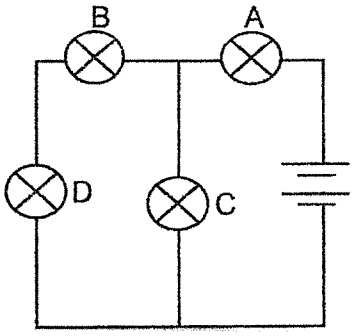
(1) lemon

(2) metal pin

(3) light bulb

(4) paper clip

12 The diagram below shows four bulbs A, B, C, D and two batteries connected in a circuit.



When one of the bulbs fused, the other three bulbs will remain lit.
Which bulb is fused?

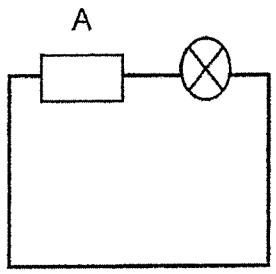
(1) A

(2) B

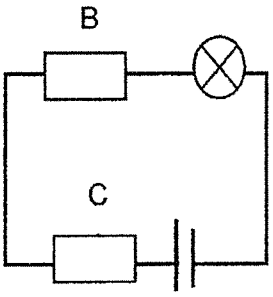
(3) C

(4) D

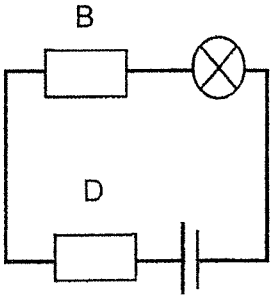
13 All the bulbs and batteries in the three circuits below are identical and are in working conditions. A, B, C and D are materials which are either electrical conductor or insulator.



Bulb does not light up



Bulb lights up



Bulb does not light up

Which of the following materials is/are definitely an electrical insulator ?

(1) C only

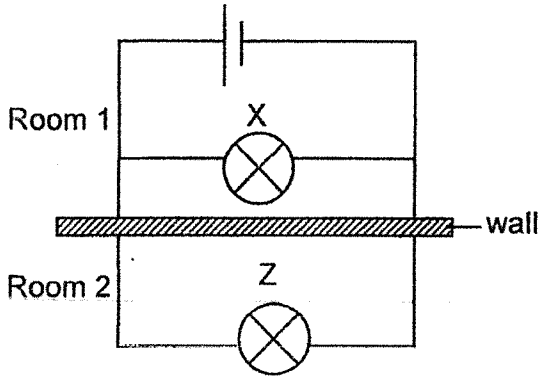
(2) D only

(3) A and D only

(4) B and D only

14 Ziming set up two identical bulbs in his toy house. Bulb X is in Room 1 and Bulb Z is in Room 2. The brightness of each room is the same.

The two rooms are separated by a wall as shown below.



He wanted Room 2 to be brighter than Room 1.

What should he do?

(1) Add in a bulb in series to bulb Z.

(2) Add in a bulb in parallel to bulb Z.

(3) Add in more batteries in the circuit.

(4) Add in an electrical conductor in series to bulb Z.

(Go to booklet B)

Rosyth School
Weighted Assessment One 2021
SCIENCE
Primary 5

Name: _____ Total Marks: /22

Class: Pr 5- _____ Register No. _____ Total time for Booklets A and B: 1 h

Date: 7 May 2021 Parent's Signature: _____

Booklet B

Instructions to Pupils:

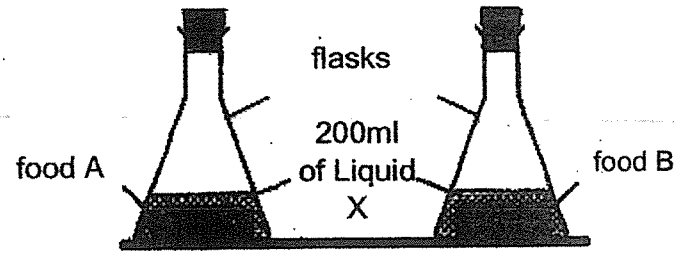
For questions 15 to 20, write your answers in the spaces given in this booklet.

	Maximum	Marks Obtained
Booklet A	**28 marks**	
Booklet B	**22 marks**	
Total	**50 marks**	

* This booklet consists of 9 printed pages (including cover page).

For questions 15 to 20, write your answers in the space provided. [22 Marks]

15 Liquid X is similar to the digestive juice found in the stomach. Amin prepared the two set-ups as shown below using similar-sized foods, A and B. He was investigating the rate of digestion for foods, A and B. He recorded the results of his experiment after an hour.



He concluded that food A digested faster than food B in liquid X.

(a) What would be the evidence to support the above conclusion? [2]

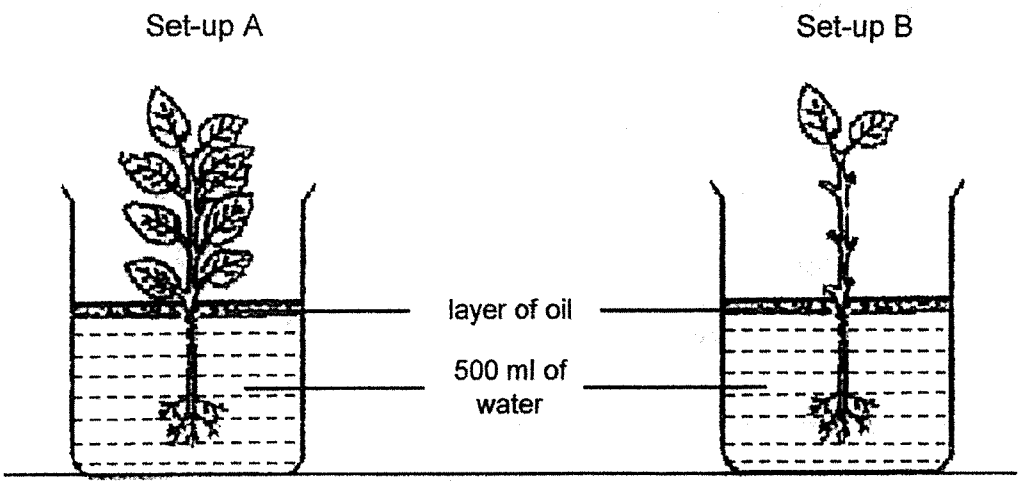
Amin wanted to find out what is the best temperature for digesting food A in liquid X.

He prepared three experimental set-ups with liquid X at 20^0C, 30^0C and 40^0C respectively. Using the results, he concluded that the best temperature for food A to be digested is at 30^0C.

(b) His teacher asked him to prepare another set-up with liquid X at 37^0C. Explain why that set-up is needed. [1]

16 Sam carried out an experiment to find out how the number of leaves on a plant affects the rate of absorption of water by the plant. He placed two similar plants in identical beakers, each containing the same amount of water as shown in the diagram below.

He then placed the two set-ups next to a window for five days.



He recorded part of his experimental results in the table below.

	Volume of water left in the beaker (ml)	
Day	**Set-up A**	**Set-up B**
0	500	500
2	450	490
4	400	470

(a) State the changed variable in this experiment [1]

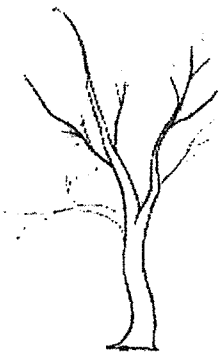
_____

(b) What can Sam do to make the results more reliable? [1]

_____

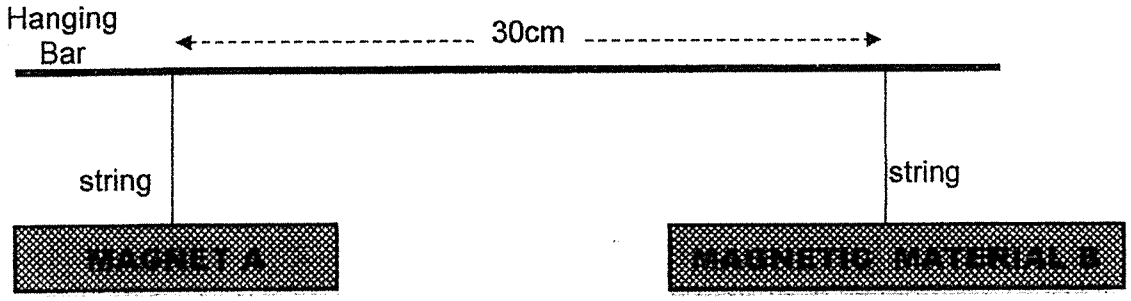
Question 16 continues on page 4

(c) The picture below shows a tree that has shed its leaves during the dry season.



Using the results, explain how shedding its leaves would help the plant. [2]

17 David hung a magnet A, 30cm away from a magnetic material B.

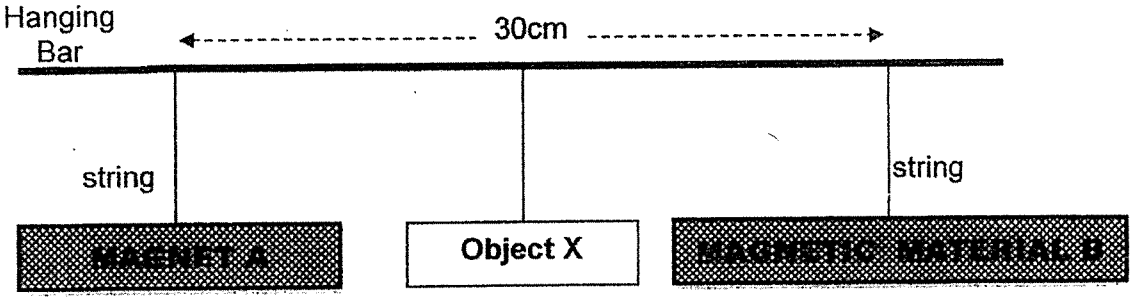


(a) He observed that magnet A and the magnetic material B were not attracted to each other. Explain why. [1]

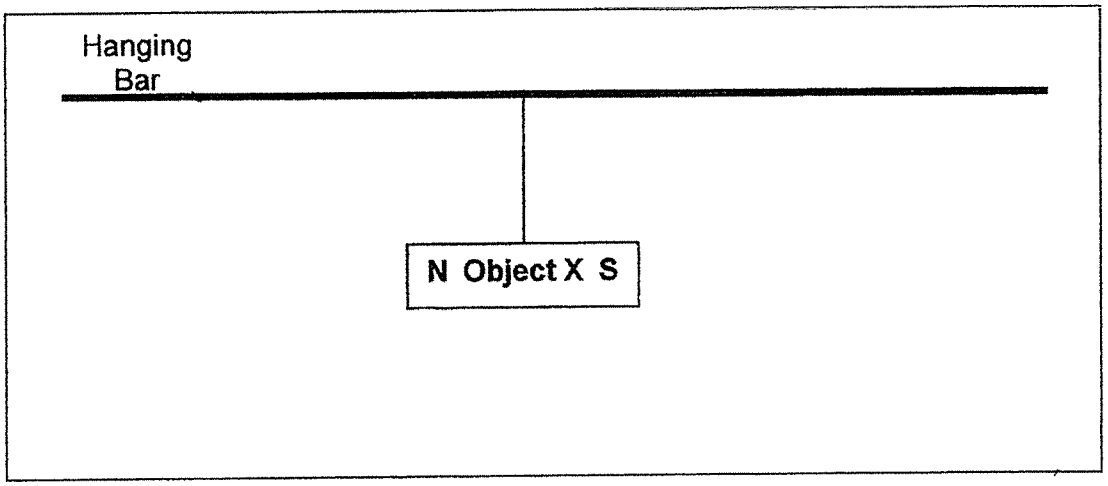
_____

_____

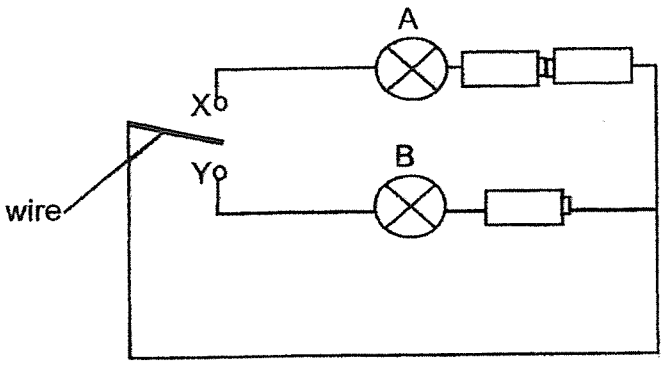
(b) Then he hung object X in between magnet A and magnetic material B as shown below.



If object X is a magnet hung in between A and B, what would **possibly happen** to A and B? Draw in the box given below to show one possible result. (Label all the magnetic poles in your drawing.) [2]



18 Ben wants to set up a circuit to light up his toy building as shown below using identical bulbs and batteries.



Study the circuit above and answer the following questions. [3]
State if statements 1 and 2 are true or false and give the reasons.

Statement 1 : When the wire is at X, bulb A will light up.

Tick : True ☐ False ☐

Reason for your choice: _____

_____

Statement 2 : When the wire is at Y, bulb B will light up.

Tick : True ☐ False ☐

Reason for your choice: _____

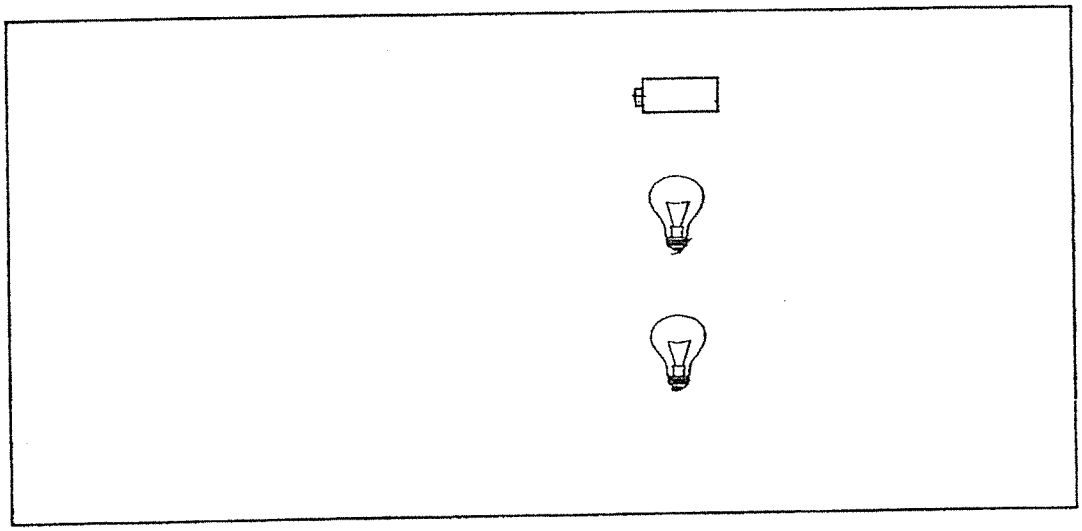
_____

19 Mary set up a circuit using two bulbs and a battery.

She wants the following condition to be met.

There are two pathways for the electrical current to flow.

(a) Complete the circuit below. [2]



(b) State one disadvantage of the above circuit. [1]

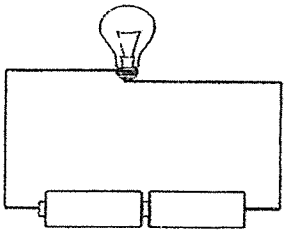
_____

(c) Suggest how the two bulbs can be controlled independently. [1]

_____

_____

20 Ruth sets up an electric circuit using a bulb and two batteries as shown below.

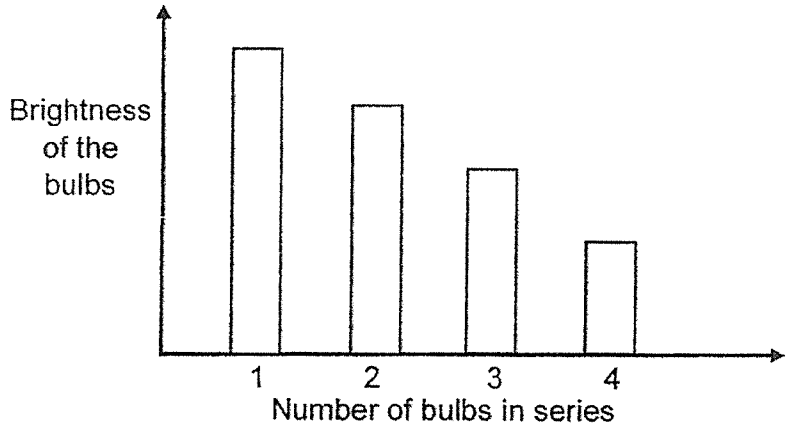


She wants to find out how the number of bulbs arranged in series will affect the brightness of each bulb.

(a) To ensure a fair test, state one variable she must keep constant. [1]

_____

(b) The graph below shows the relationship between the number of bulbs arranged in series in the circuit and the brightness of the bulbs.



From the graph above, state the relationship between the number of bulbs arranged in series and the brightness of the bulbs. [1]

_____

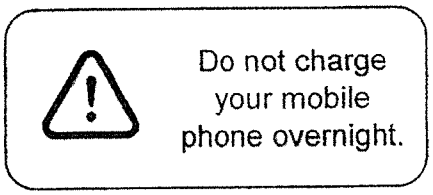
_____

Question 20 continues on page 9

(c) Ruth carried out the experiment in a dark room.

Explain how carrying out the experiment in a dark room helped to make the experiment accurate. [1]

(d) Ruth saw a notice as shown below.



Explain the reason for the above notice. [2]

End of Paper

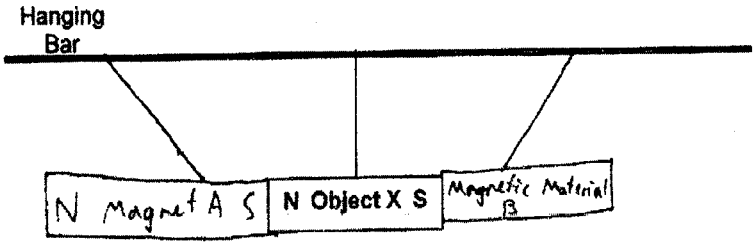
ANSWER KEY

YEAR : 2021
LEVEL : PRIMARY 5
SCHOOL : ROYSTH
SUBJECT : SCIENCE
TERM : WEIGHTED ASSESSMENT 1

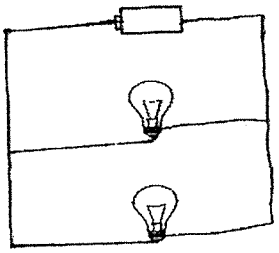
BOOKLET A

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

BOOKLET B

Q15	(a)	Food A be smaller than Food B at the end of the experiment.
	(b)	37°C is the body temperature so Amin can use it 30°C is the best for food A to be digested.
Q16	(a)	The numbers of leaves
	(b)	She should test experiment more than one time and compare the overall results.
	(c)	With less leaves, less water is absorbed by the plant so the plant can survive with less water during dry season.
Q17	(a)	As the magnetism of magnet A is not strong enough to attract magnetic material B from 30cm away.
	(b)	

Q18	Statement 1:	False ☑
	Reason for your choice:	Both positive points are facing each other and it will not allow electricity to pass through to light up bulb A

	Statement 2:	True ☑	
	Reason for your choice:	As it will be a close circuit and will allow electricity to pass through to light up Bulb A.B	
Q19	(a)		
	(b)	It uses more electricity	
	(c)	By adding a switch beside the light bulb for them to be controlled independently.	
Q20	(a)	Number of batteries	
	(b)	As the number of bulbs increase, the brightness of the bulbs decrease.	
	(c)	So that the difference in brightness of the bulbs measures accurately.	
	(d)	The phone might be overheated and catch on fire	

END