

## **RED SWASTIKA SCHOOL**

## SCIENCE 2018 MOCK TEST PRIMARY 5

Name :	(	)
Class : Primary 5/	·	
Date : 1 March 2018		

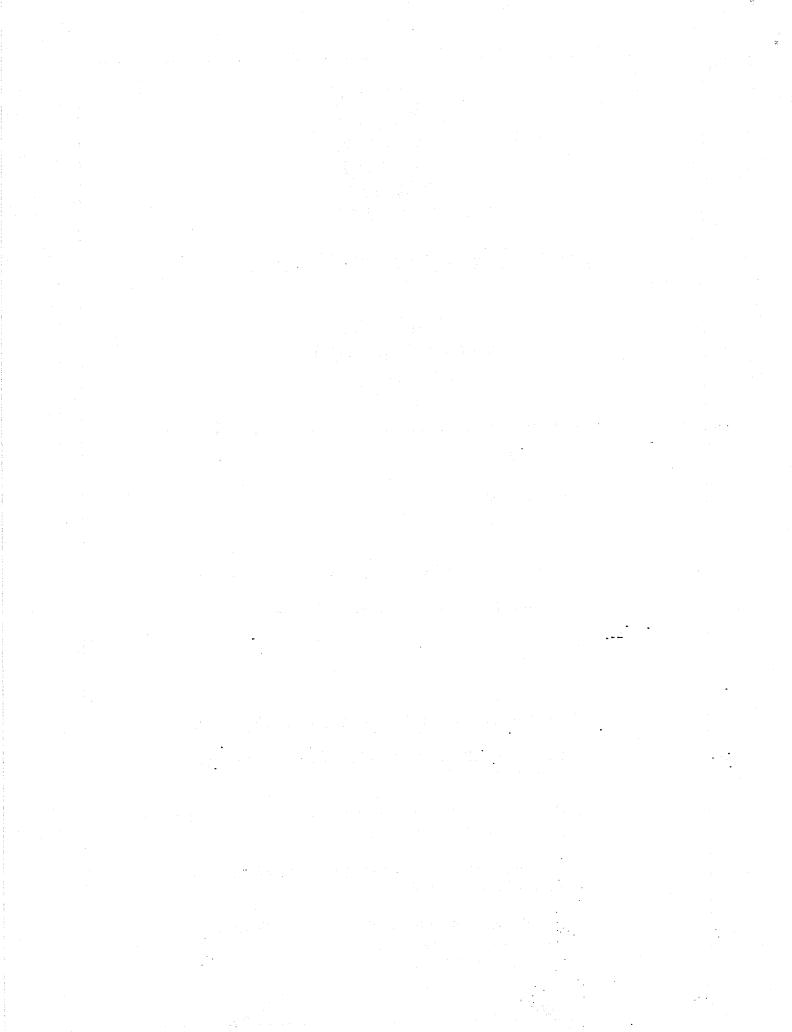
## **BOOKLET A**

Total time for Booklets A & B: 1h 45 min

**Booklet A: 28 questions (56 marks)** 

#### Note:

- 1. Do not open the booklet until you are told to do so.
- 2. Read carefully the instructions given at the beginning of each booklet.
- 3. Do not waste time. If the question is too difficult for you, go on to the next question.
- 4. Check your answers thoroughly and make sure you attempt every question.
- 5. In this booklet, you should have the following:
  - a. Page <u>1</u> to Page <u>18</u>
  - b. Questions 1 to 28



## Revised heading for Section A:

### Section A

For Questions 1 to 30, choose the most suitable answer and shade its number in the OAS provided.

## **Revised heading for Section B:**

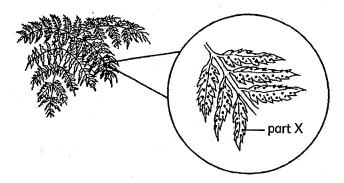
### Section B

Answer all the questions in the spaces provided.



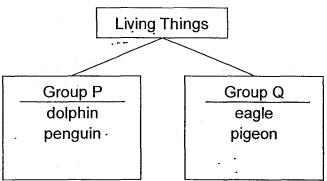
# For Questions 1 to 28, choose the most suitable answer and shade its number in the OAS provided.

1. Daisy found a fern in her garden and it contains black structures labelled as part X as shown below.



Which one of the following living things reproduce in the same way as the fern?

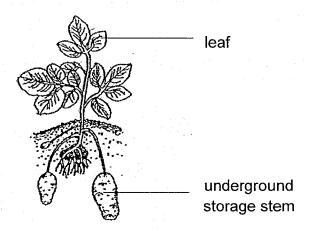
- (1) apple tree
- (2) chili plant
- (3) mushroom
- (4) green bean plant
- 2. Study the classification table below carefully.



Which one of the following pairs of headings is suitable for Group P and Group Q?

Group P	Group Q	
give birth	lay eggs	
cannot fly	can fly	
skin as outer covering	feathers as outer covering	
breathe through gills	breathe through lungs	
	give birth cannot fly skin as outer covering	

3. The diagram below shows a sweet potato plant. It is a plant with underground storage stems.



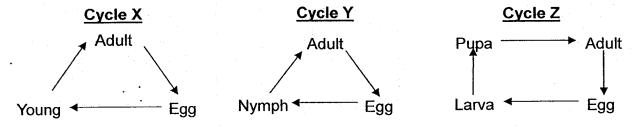
A tick ( ) represents the presence of a cell part.

cell	cell wall	chloroplasts	cell membrane
Α	<b>√</b>	<b>✓</b>	✓
В			<b>✓</b>
С	<b>√</b>		<b>√</b>

Which one of the following is correct?

	underground storage stem	leaf
(1)	A	В
(2)	В	Α
(3)	С	C
(4)	C	Α

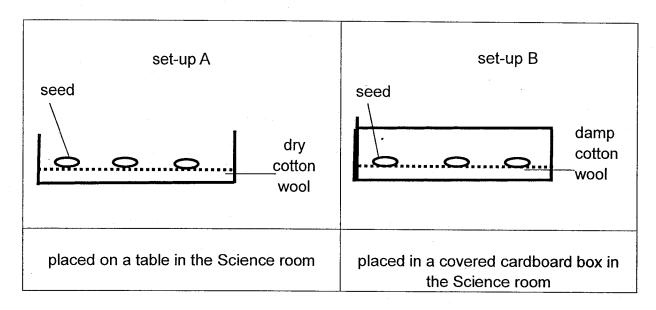
4. The life cycle of three different animals are shown below.

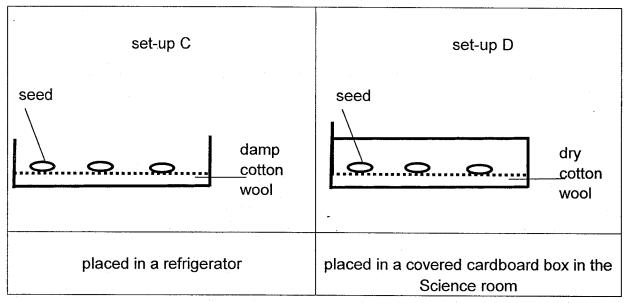


Which of the following animals are correctly matched to the life cycles above?

	Cycle X	Cycle Y	Cycle Z
(1)	chicken	grasshopper	frog
(2)	mealworm beetle	cockroach	butterfly
(3)	frog	grasshopper	mosquito
(4)	cockroach	chicken	butterfly

5. Study the following set-ups on the germination of seeds.

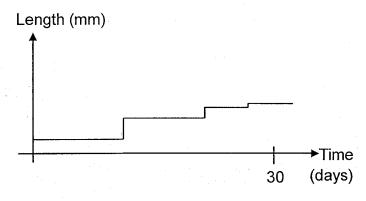




Tom wanted to find out if warmth is needed for seeds to germinate. Which of the following pair of set-ups should he use to ensure a fair test?

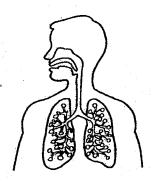
- (1) A and C
- (2) A and D
- (3) B and C
- (4) B and D

covering. This process is called moulting. The graph shows the growth of the young of insect X.



Based on the graph, how many times did the young of insect X moult in 30 days?

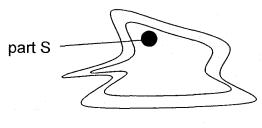
- $(1) \cdot 7$
- (2) 2
- (3) 3
- (4) 4
- 7. The diagram below shows one of the systems in a human.



Which of the statements about the system is/are true?

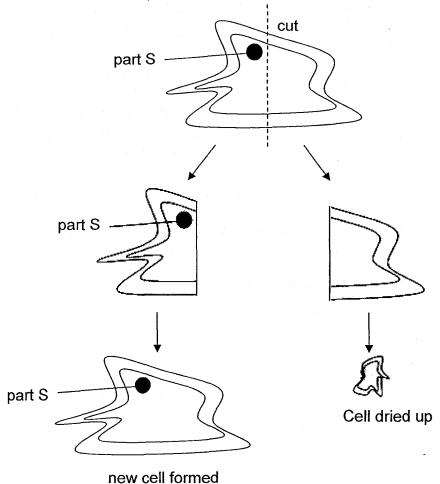
- A: It takes in oxygen into the body...
- B: It transports oxygen to all parts of the body.
- C: It removes carbon dioxide from the body.
- D: It is made up of the nose, gullet and the lungs.
- (1) A and C only
- (2) B and D only
- (3) A, B and C only
- (4) A, C and D only
- 8. Xiwei looked at a specimen of organism Z under a microscope and drew it as shown

below.



Organism Z

She cut the cell into two and found out that one half of the cell grew to form a new cell while the other half dried up.



From her experiment, what can she conclude about part S?

- (1) It controls substances that can move in and out of the cell.
- (2) It allows the cell to trap light and make food.
- (3) It allows substances to move around within the cell.
- (4) It allows the cell to regrow and repair parts of the cell.
- 9. Four pupils were having a discussion about the systems in living things.



Our heart tends to beat faster when we do exercises like running.

The digestive system needs oxygen absorbed by the respiratory system.



Alic

We breathe in only oxygen and breathe out only carbon dioxide.

9

Caleb

Our blood transports only digested food and oxygen in the circulatory system.

( w)

**Daisy** 

Which pupils have made the correct statements?

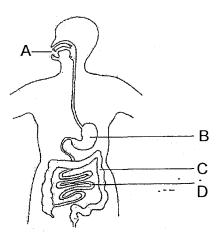
- (1) Alice and Ben only
- (2) Ben and Daisy only
- (3) Alice, Caleb and Daisy only
- (4) Alice, Ben, Caleb and Daisy

10. The table below shows the function of parts, A, B, C and D, of the digestive system. A tick (✓) indicates the function(s) performed by parts of the digestive system.

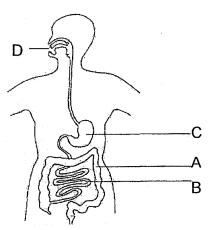
	Parts of a digestive system			
Function	Α	В	С	D
Digests food		<b>~</b>	<b>✓</b>	<b>✓</b>
Absorbs excess water	<b>/</b>			
Absorbs digested food		<b>✓</b>		
Cuts food into smaller pieces				1

Based on the table above, which one of the following diagrams correctly shows the parts labelled A, B, C and D?

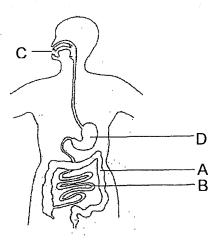
(1)



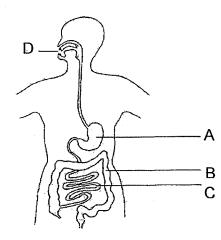
(2)



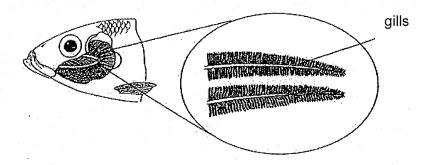
(3)



(4)

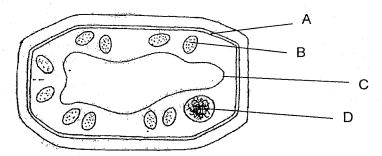


11. The diagram shows the gills of a fish.



Which of the following statements is/are true?

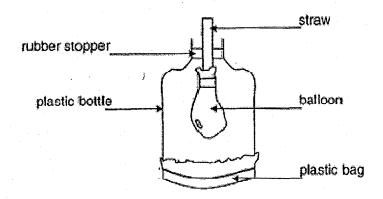
- A: The gills digest food and transport the digested food to all parts of the body.
- B: The gills have a large surface area so that more oxygen can be absorbed.
- C: The heart of the human circulatory system has the same function as the gills.
- (1) B only
- (2) A and C only
- (3) B and C only
- (4) A, B and C
- 12. The diagram below shows a plant cell.



Which one of the following parts shows where chlorophyll can be found?

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

13. The diagram shows a model of the human respiratory system.



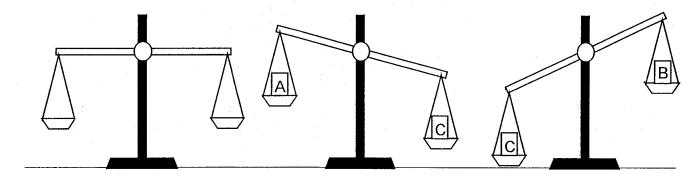
When the plastic bag is pulled downwards, the balloon inflates slightly. Which parts of the human respiratory system do the straw and balloon represent?

	Straw	Balloon	
(1)	blood vessel	heart	
(2)	windpipe	lung	
(3)	blood vessel	lung	
(4)	gullet	stomach	

14. Which one of the following shows the correct changes in the amount of oxygen, carbon dioxide and water vapour in exhaled air compared to inhaled air for a human being?

	Amount of oxygen in exhaled air	Amount of carbon dioxide in exhaled air	Amount of water vapour in exhaled air
(1)	increased	increased	increased
(2)	decreased	increased	increased
(3)	decreased	decreased	decreased
(4)	decreased	increased	remained the same

15. Vanessa compared the masses of three objects, A, B and C, using the same type of beam balance.



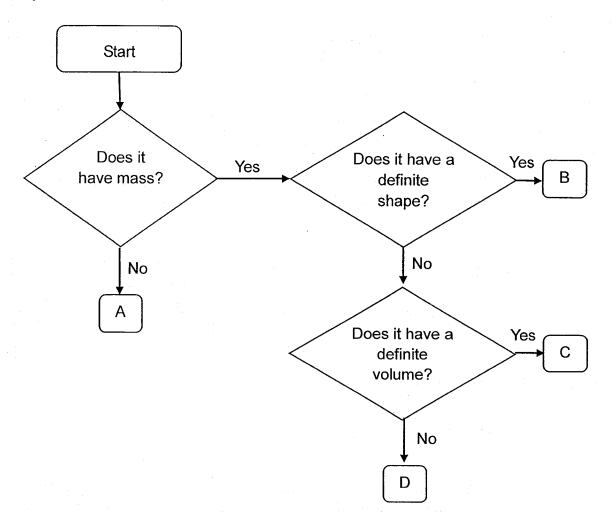
What can she conclude based on her observations?

- (1) Object B has the least mass.
- (2) Object B has more mass than Object A.
- (3) Object A and Object B have the same mass.
- (4) Object C has less mass than Object A.
- 16. Study the diagram below carefully.

At which of the processes, W, X, Y and Z, is heat lost?

- (1) W and X only
- (2) X and Z only
- (3) Y and Z only
- (4) W and Y only

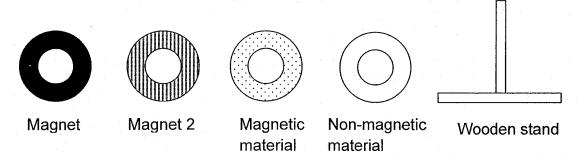
# 17. Study the flow chart shown.



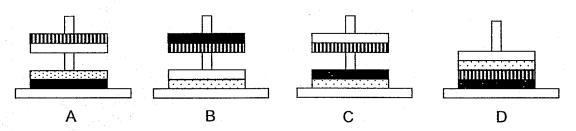
Which one of the following correctly shows what A, B, C and D can most likely be?

	. A	В	С	D
(1)	shadow	oil	wood	water vapour
(2)	water vapour	oil	wood	fire
(3)	oxygen	wood	oil	fire
(4)	light	wood	water	oxygen

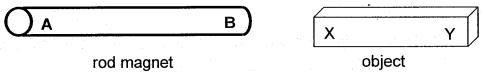
18. The diagram below shows four similar rings made from different materials.



Which of the following are possible observations when all four rings are placed through the wooden stand one on top of the other?



- (1) A and C only
- (2) B and D only
- (3) C and D only
- (4) A, B and C only
- 19. Felicia placed pole A and pole B of a rod magnet near part X and part Y of three different objects, P, Q and R, as shown below. She recorded her observation in a table below.

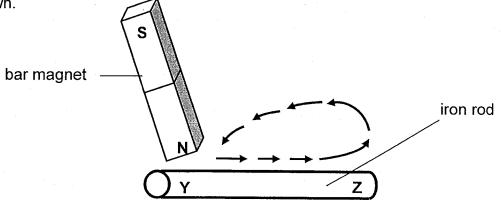


Objects	Pol	le A	Pole B	
Objects	Part X	Part Y	Part X	Part Y
Р	attract	attract	attract	attract
Q	attract	repel	repel	attract
R	no reaction	no reaction	no reaction	no reaction

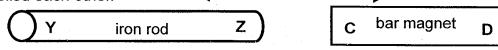
What could P, Q and R be?

. [	Р	Q	R
(1)	iron bar	bar magnet	copper bar
(2)	steel bar	aluminium bar	bar magnet
(3)	bar magnet	iron bar	silver bar
(4)	copper bar	bar magnet	steel bar

20. Gabriel stroked an iron rod repeatedly with a bar magnet in the same direction as shown.



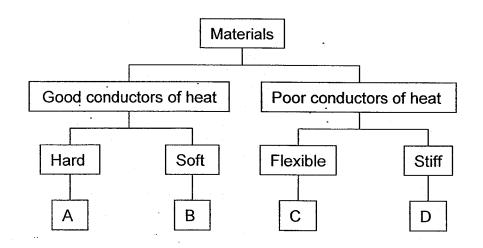
Then he placed the iron rod next to a bar magnet as shown below. He found that they repelled each other.



What were the poles at Y, Z, C and D?

	Υ	Z	С	D
(1)	N-pole	S-pole	N-pole	S-pole
(2)	N-pole	S-pole	S-pole	N-pole
(3)	S-pole	N-pole	N-pole	S-pole
(4)	S-pole	N-pole	S-pole	N-pole

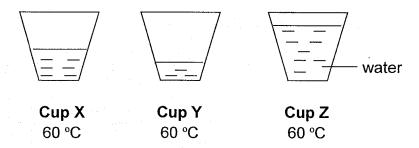
21. Study the table below which shows the properties of four materials.



Which one of the above materials is most suitable for making a pair of oven gloves?

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

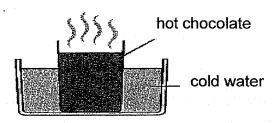
22. Three similar cups are filled with different amounts of water of the same temperature.



Arrange the cups in order from the cup containing water with the least heat to the one containing water with the most heat.

Water with the least heat		Water with the most hea
Υ	X	Z
<b>X</b>	Υ	Z
Z	X	Y
Y	Z	X

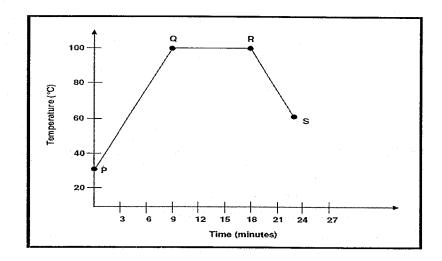
23. Devi wants to have a glass of chocolate drink but finds it too hot to drink. She places it in a container of cold water as shown below.



Which of the following is correct?

- (1) The hot chocolate gains coldness from the cold water and cools down.
- (2) The temperature of the hot chocolate becomes lower than the cold water.
- (3) The temperature of the cold water rises as the cold water gains heat from the hot chocolate.
- (4) The temperature of the cold water decreases as the cold water loses heat to the hot chocolate.

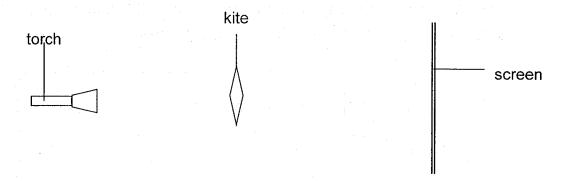
24. Wan Ting heated some water in a beaker until it boiled. She continued to allow the water to boil for some time before it was left on a table to cool down. She plotted the graph using the results obtained from the experiment.



Which of the following statements correctly states what had happened at the different stages?

- (1) Water gained heat at PQ and RS.
- (2) Water was at boiling point for 24 minutes.
- (3) Water took 18 minutes to start boiling.
- (4) Water lost heat at RS.

25. Jean set up an experiment as shown.



What can Jean do to get a larger shadow of the kite cast on the screen?

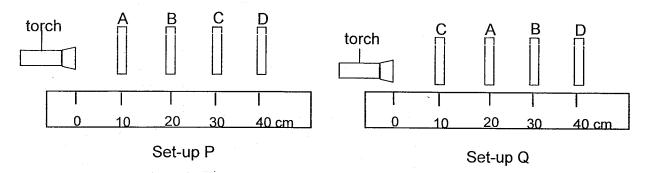
- A: Move the torch closer to the kite.
- B: Move the kite closer to the torch.
- C: Move the kite closer to the screen.
- (1) A only
- (2) A and B only
- (3) B and C only
- (4) A and C only
- 26. Sally used a datalogger to measure the amount of light that can pass through material P, Q and R. She recorded three readings for each of the materials in the table below.

	Amount of li	ght passing thr	ough (units)
	Р	Q	R
1 <sup>st</sup> reading	40	10	0
2 <sup>nd</sup> reading	48	8	0
3 <sup>rd</sup> reading	45	11	0

Which one of the following correctly identifies the materials P, Q and R?

	Р	Q Q	R
(1)	tracing paper	clear plastic sheet	cardboard
(2)	clear plastic sheet	tracing paper	cardboard
(3)	clear plastic sheet	cardboard	tracing paper
(4)	cardboard	tracing paper	clear plastic sheet

27. An experiment was conducted to investigate whether light can pass through four sheets, A, B, C and D, made of different materials. The sheets were arranged in two set ups, P and Q, as shown below.



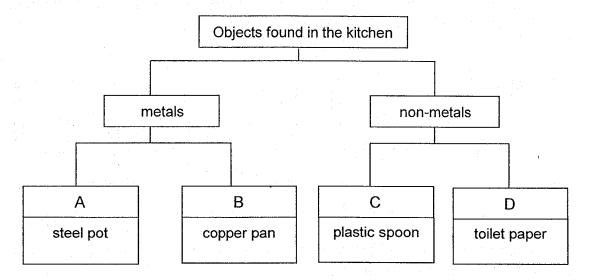
The distance travelled by the light for each set-up was measured and the results are shown in the table below.

Set-up	Distance travelled by light
	(cm)
Р	20
Q	30

Which one of the following correctly describes sheets A, B, C and D?

	Doe	s it allow light	to pass throu	ıgh?
	Α	В	С	D
(1)	no	not possible to tell	yes	no .
(2)	yes	no	yes	not possible to tell
(3)	not possible to tell	yes	no	yes
(4)	yes	no	not possible to tell	no

28. Herman classified four objects in the kitchen using the classification table shown below.



Which of the following are suitable sub-headings for A, B, C and D?

	A	В	С	D
(1)	good conductor of heat	poor conductor of heat	magnetic	non-magnetic
(2)	non-magnetic	magnetic	non-waterproof	waterproof
(3)	good conductor of heat	poor conductor of heat	allow some light to pass through it	do not allow light to pass through it
(4)	magnetic	non-magnetic	waterproof	non-waterproof

#### End of booklet A



# **RED SWASTIKA SCHOOL**

## SCIENCE 2018 MOCK TEST PRIMARY 5

Name	:	(,	1
Class	: Primary 5/		
Date	1 March 2018		

## **BOOKLET B**

Booklet B: 13 questions (44 marks)

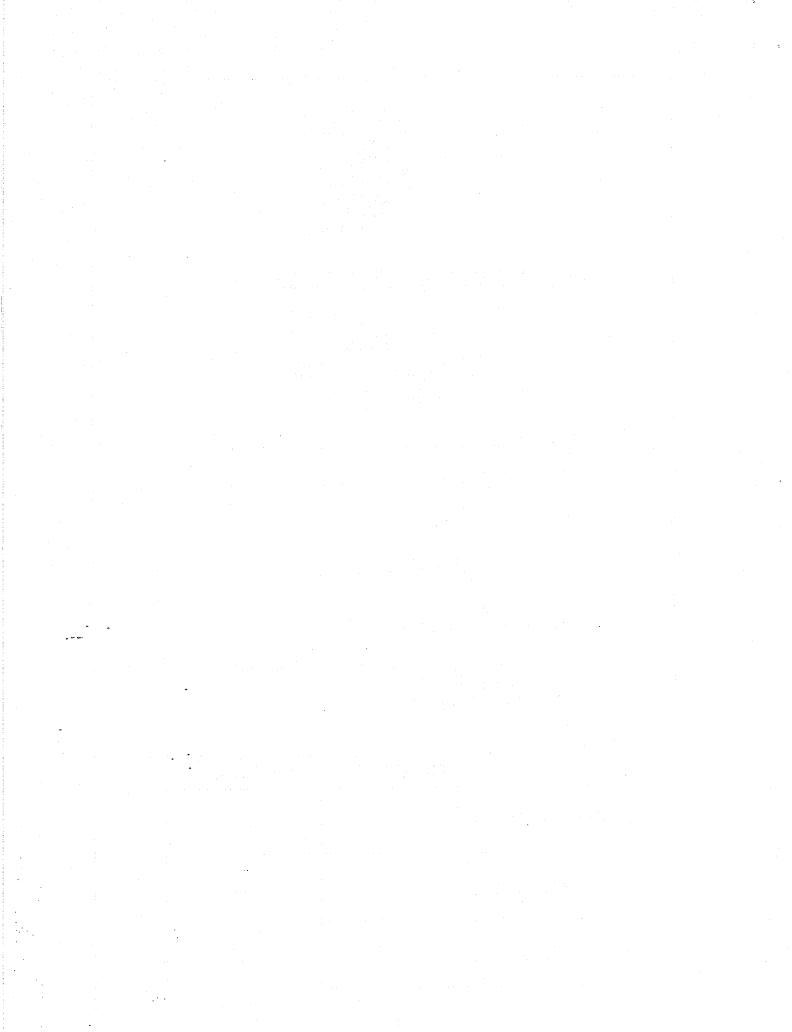
In this booklet, you should have the following:

a. Page <u>19</u> to Page <u>36</u>

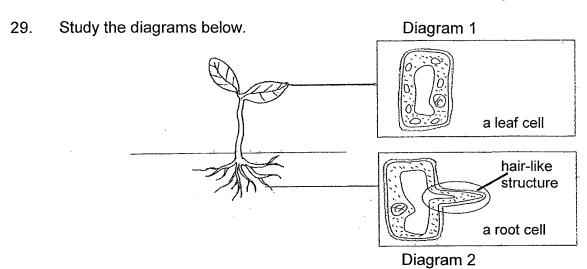
b. Questions 29 to 41

## **MARKS**

	OBTAINED	POSSIBLE
BOOKLET A		56
BOOKLET B		44
TOTAL		100



## Read the questions carefully and write the answers in the space provided.



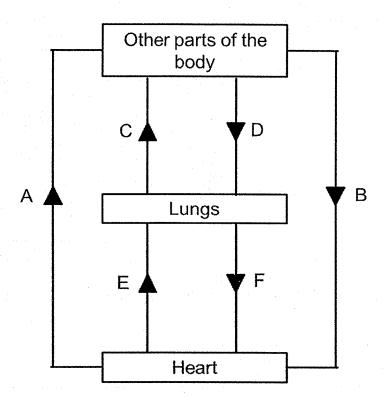
(a)	How does the hair-like	e structure help the	root cell to at	sorb more wat	.er? (1m)

The table below shows the characteristics of three organisms, X, Y and Z.

		Characteristics	
Organism	Outer Covering	Breathing Method	Reproduction Method
X	feathers	lungs	lay eggs
Υ	scales	gills	lay eggs
Z	hair	lungs	give birth

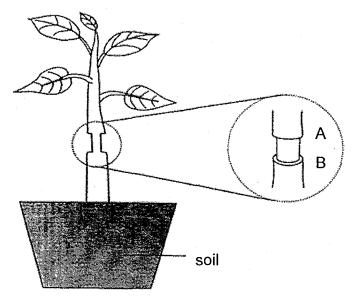
(b)		above, classify the three s, X, Y or Z, in the blanks	organisms into the groups below s provided. (1m)	1
	Mammals:	Birds:	Fish:	
(c)	Which organism, X	, Y or Z, will most likely r	not survive on land? Why? (1m)	

30. The diagram below shows how blood flows in our body.

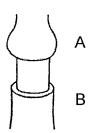


- (a) Which two arrows should be removed from the diagram? (1m)
- (b) The blood at A contains a greater amount of a gas than the blood at B. What is this gas? (1m)
- (c) Based on the diagram, which two body systems work together to ensure that our body gets sufficient oxygen to survive? (1m)

31. Mrs Lee had the outer ring of the stem (between positions A and B) of a plant removed as shown in the picture below.

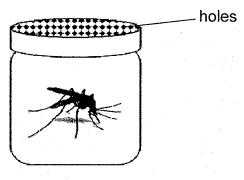


After a few weeks, she noticed that the stem at position A looked swollen as shown in the picture below.

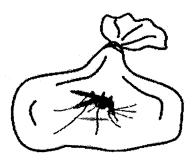


Explain why the swelling occurred at position A of the stem. (2m)

32. Anthony caught two mosquitoes and kept one of them in a sealed container with holes and the other in a tightly sealed transparent bag as shown below.

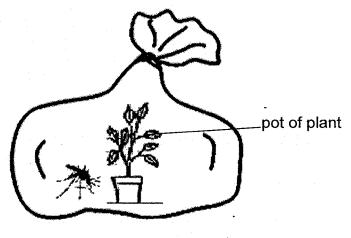


Set-up A: A mosquito in a sealed container with holes.



Set-up B: A mosquito in a tightly sealed bag.

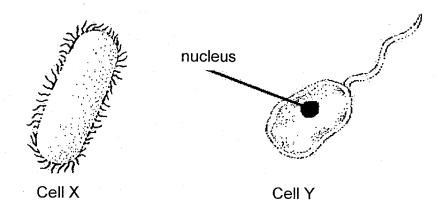
(a) After one day, the mosquito in set-up A was alive but the one in set-up B died. Explain why. (1m)



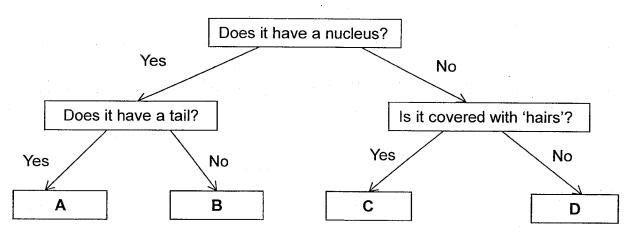
Set-up C

(b) Anthony placed a small pot of plant in set-up C as shown above. The set-up was placed in a brightly-lit room. The mosquito was still alive after one day. Explain why. (2m)

33. Andrew observed cell X and cell Y under a microscope as shown in the diagram below.



Study the flow chart below.

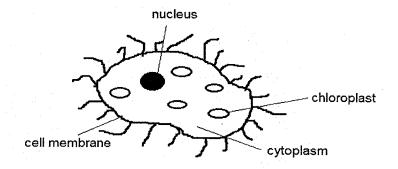


(a) Which of the letters (A, B, C or D) best represent cell X and cell Y? (2m)

Cell X:

Cell Y:

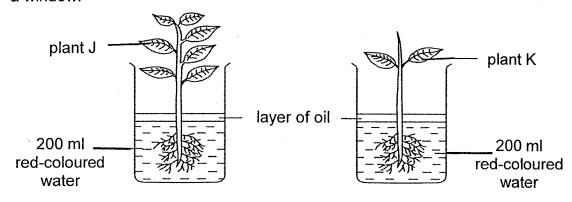
33. Andrew observed micro-organism P under the microscope. Micro-organism P displays characteristics of both plant and animal cells.



micro-organism P

cell. (1m)	
l II:- 414-1	the body about and any and a sign of the s
	old him that micro-organism P can photosynthesise.
What did his te	old him that micro-organism P can photosynthesise. eacher observe from the diagram to suggest this? Explain yo
What did his te	
What did his te	

34. Suriani set up an experiment as shown. She placed the two beakers near a window.



A few hours later, Suriani measured and recorded the amount of water left in the beakers in the table below.

	Amount of water left in the beakers (ml)					
	At the start of experiment	After a few hours				
Plant J	200	150				
Plant K	200	180				

(a)	How	did the	leaves o	of the	plants	get the	water	that they	need?	(1m	)
-----	-----	---------	----------	--------	--------	---------	-------	-----------	-------	-----	---

(b) Based on the results, how did the number of leaves affect the amount of water taken in by the plants? (1m)

(c) Suriani coated the upper and lower surfaces of all the leaves on plant J with a transparent layer of oil.

All the leaves died after five days. Explain why. (2m)

Carl wanted to find out if material A or B is a better conductor of heat. He compared 35. two rods of different lengths made of material A and two rods of different lengths made of material B. A small drop of wax was placed at one end of each of the rods. The rods were heated at the opposite end using a flame. He recorded his observation in the table below.

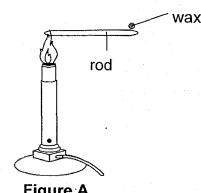
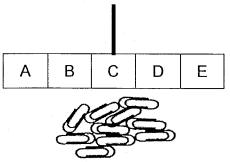


Figure A

	Time taken for the wa	x on each rod to melt
Length of rod	Material A	Material B
10 cm	5 minutes	3 minutes
20 cm	8 minutes	5 minutes

			•	
	,		· · · · · · · · · · · · · · · · · · ·	
fter the wa			vay from the fla re. Explain why	me. The rod be

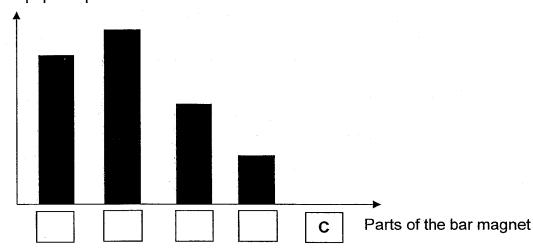
36. Siu Ting had a bar magnet and she divided it into five parts, A, B, C, D and E. She hung it above some paper clips as shown below.



As she moved the bar magnet nearer to the paper clips, she observed that each part attracted some paper clips. However, the number of paper clips attracted to the different parts of the bar magnet were different. She plotted a graph as shown below.

(a) Write the letters A, B, D or E in the correct boxes in the graph below. (1m)

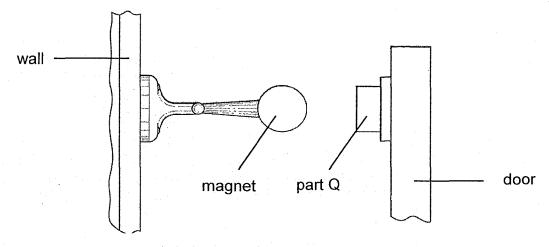
Number of paper clips attracted



(b) State one property of magnets that you use to find the answer in (a). (1m)

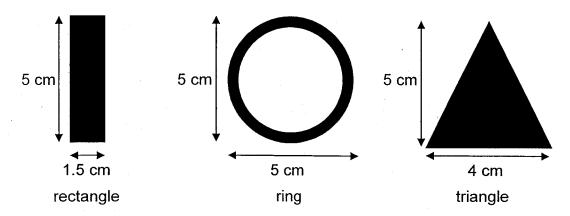
(c) Draw in the graph above, the correct bar for part C of the magnet. (1m)

36. The diagram below shows a magnetic door stopper commonly used in many homes.



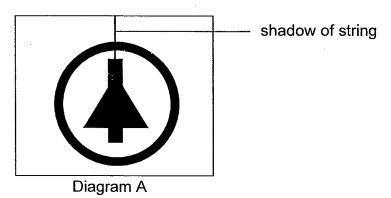
(d) Explain how the magnetic door stopper works. (2m)

37. Glenn cut out three shapes from black cardboards as shown below.



He hung the three shapes at different distances from a lighted torch (see Figure 1).

Diagram A below shows the shadow he saw on the screen.



(a) Identify the correct position of the three shapes by writing "rectangle", "ring" and "triangle" in the correct boxes provided. (1m)

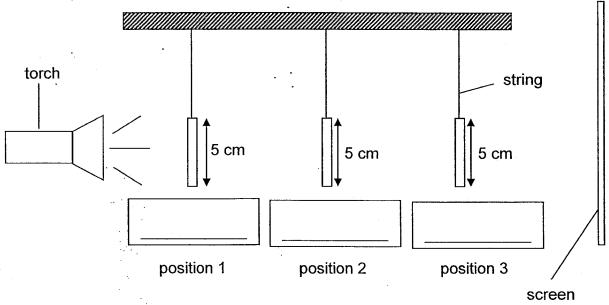
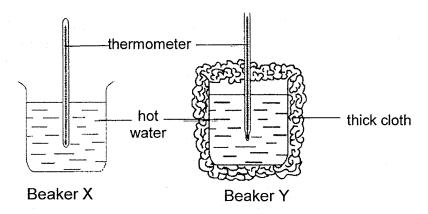


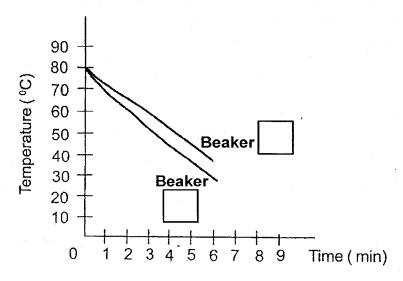
Figure 1

37(b)	State how the shadow in diagram A was formed. (1m)
(c)	State what Glenn will observe about the size of the shadow on the screen in shifts the torch further away from the screen without moving the shapes. (1m)

38. Shu Ling set up an experiment in a room as shown below. She poured an equal amount of hot water at 80°C into two identical beakers, X and Y. She then used a thermometer to record the results.



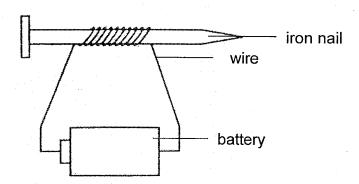
The graph below shows the change in temperature of the water in the beakers.



- (a) Label the lines with X or Y in the graph above to show the correct change in temperature in each beaker. (1m)
- (b) Explain your answer for part (a). (2m)

3

39. An iron nail can be made into an electromagnet by coiling some wires around it and connecting it to a battery as shown.



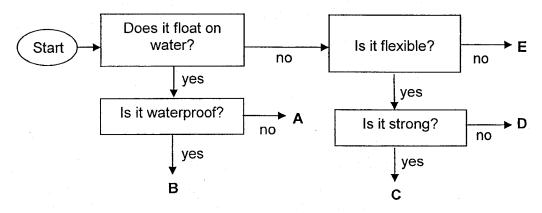
Pillay wanted to find out how the number of turns of wires around the iron nail would affect the magnetic strength of a magnet. He drafted out his plan shown in the table below. For each arrangement, he tested the magnetic strength of the magnet by counting the number of paper clips the iron nail could attract.

Set-up	Number of batteries used	Number of turns of wires
Α	1	10
В	3	10
С	2	20
D	3	20

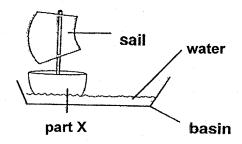
- (a) Which two set-ups should he choose to conduct a fair test? (1m)
- (b) What is Pillay trying to find out if he uses set-up A and B? (1m)



40. Study the flow chart below.

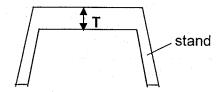


Hafiz wants to make a toy sailboat that can move on water as shown below.



- (a) Which material, A, B, C, D or E, can Hafiz use to make part X of the boat? (1m)
- (b) State one similarity between material C and E based on the flow chart. (1m)

40. Hafiz uses one of the materials to make a stand as shown below. He makes four such stands with different thickness, T. He then places some identical books, one by one, on the stand until the stand breaks.

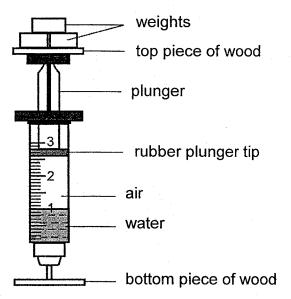


The results are recorded in the table below.

	Stand	Thickness, T (cm)	Number of books
	J	0.5	2
	K	1	4
-	L	1.5	7
	М	2	10

(c) Based on the results shown above, what is the relationship between the strength and thickness of the stand? (1m)

41. Jane placed a syringe between two pieces of wood. The syringe contained some water and air trapped in it. Weights were placed on the top piece of wood as shown in the diagram below.



(a)	Explain the change in the volume of air and water in the syringe respectively
	when the weights were placed on the syringe. (2m)

Volume of air

er:		
ts were added would	the rubber plungs	ar tin reach the m
	lain your answer.	
CIDE WAIELIEVELLEYN		
	ts were added, would	ts were added, would the rubber plunge

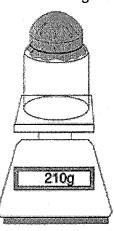
41. Jane conducted another experiment. She covered a jar tightly with a piece of plastic wrap. She measured the mass before and after the jar was heated.

Jar at room temperature

plastic
 jar
 air

scale 210g

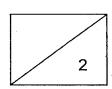
Jar after being heated



(c) State two conclusions on the properties of the air in the jar based on the observations in Jane's experiment. (2m)

Conclusion 1 : \_\_\_\_\_\_

End of booklet B Please check your answer



SCHOOL: RED SWASTIKA PRIMARY SCHOOL

LEVEL: PRIMARY 5 SUBJECT: SCIENCE TERM: 2018 CA1

## **SECTION A**

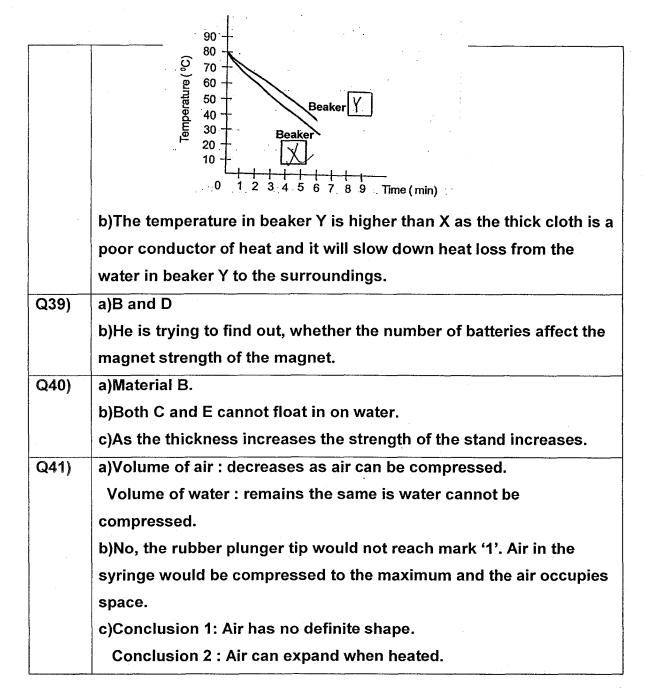
Q 1	Q2	Q3	Q4	Q5.	Q6	Q7	- Q8	Q9	Q10
3	2	4	3	3	3	1	4	1	2
Q 11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20
1	2	2	2	1	3	4	3	1	2
Q 21	Q22	Q23	Q24	Q25	Q26	Q27	Q28		
3	1	3	4	2	2	2	4		

### **SECTION B**

Q29)	a)It increases the surface area.
	b)Mammals: Z Birds : X Fish : Y
	c)They have gills and can only take in dissolved oxygen.
Q30)	a)C and D
	b)oxygen
	c)Respiratory system and Circulatory system.
Q31)	The food carrying tubes were removed. Since they are removed, the
	plant is not able to Part B. Hence, all the food is accumulated at Part
	A, causing it to swell.
Q32)	a)The mosquito in set-up A has oxygen to breathe but the mosquito
	in set-up B does not have sufficient oxygen to breathe.
	b)The plant uses carbon dioxide for photosynthesis and releases
	oxygen for the mosquito to use.

Q33)	a)Cell X : C Cell Y : A
	b)Cell wall.
	c)P has chloroplasts. Chloroplast contains chloropyll which trap
	sunlight to make food.
Q34)	a)The roots of the plants take in water from the beaker. The water-
	carrying tubes transport water from the roots, up the stem to the
1.	leaves of the plant.
	b)If there are more leaves, the plant will take in more water.
	c)The oil blocks the stomata on the leaves, preventing the plant from
	getting sunlight for photosynthesis. It also prevents exchange of
	gases. Thus, the plant will die after sometime since it cannot make
	food.
Q35)	a)Material B as heat is conducted from the flame to the wax in a
	shorter time, causing the wax to melt faster.
	b)The rod lost heat to its surroundings.
Q36)	a)A E B D
	b)Magnetism is the strongest at its poles.
	Number of paper clips attracted  A B D C Parts of the bar mage
	d)The magnet is made up of a magnetic material so that the door
14 July 18	can be held open.
Q37)	a)1) ring 2 rectangle 3 triangle
	b)The shapes block the light that is coming from the torch, forming
	a shadow.
	c)He will see that the size of the shadow on the screen becomes
	smaller.
<u></u> .	
Q38)	a)

D- 2



.

 $F^{(k)} = \frac{1}{2} \left( \frac{1}{2} \left($ na přikadí Přikadí na přikadí na