

## CATHOLIC HIGH SCHOOL SEMESTRAL ASSESSMENT 1 2014 PRIMARY FIVE

#### SCIENCE

#### **BOOKLET A**

Name:
Class: Primary 5
Date: 16 May 2014
30 questions
60 marks
Total Time for Booklets A and B: 1 hour 45 minutes

## **INSTRUCTIONS TO CANDIDATES**

Do not turn over this page until you are told to do so. Follow all instructions carefully. Answer all questions. Shade your answers in the Optical Answer Sheet (OAS) provided.

This booklet consists of 22 printed pages, excluding cover page.

## Booklet A (30 × 2 marks)

For each question from 1 to 30, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade your answer on the Optical Answer Sheet.

(60 marks)

- 1 Which of the following is / are needed for bread to turn mouldy?
  - A light
  - B water
  - C oxygen.
  - D carbon dioxide
  - (1) B only
  - (2) A and C only
  - (3) B and C only
  - (4) A, B and D only
- Charles observed two animals and recorded his observations in the table below.

Observations	Animal A	Animal B
There are 4 stages in the life cycle.	<b>√</b>	
Its eggs are laid on land.		1
It has three body parts.	1	i

Which of the following animals matches his observations in the table above?

	Animal A	Animal B
(1)	Frog	Mosquito
(2)	Butterfly	Frog
(3)	Mosquito	Chicken
(4)	Cockroach	Butterfly

Peter wanted to find out if overcrowding affects the germination of seeds. The table below shows 5 different set-ups.

Variable	Set-up A	Set-up B	Set-up C	Set-up D	Set-up E
Duration of experiment	3 days	5 days	5 days	5 days	5 days
Location	In the room	In the room	In the field	In the field	In the room
Number of seeds	10	30	10	30	30
Amount of water given daily (ml)	10	20	10	10	20
Size of pot	small .	medium	large	medium	small

Which set-ups should Peter choose to ensure that his experiment is a fair test?

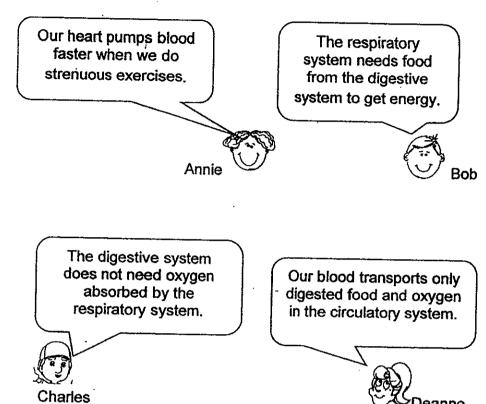
- (1) A and C only
- (2) B and D only
- (3) B and E only
- (4) C and D only
- 4 The picture below shows a boy blowing a balloon.



Which of the following correctly describes what happens to his ribs, diaphragm and chest when he blows into the balloon once?

	Ribs	Diaphragm	Chest
1)	Move out and upwards	Moves downwards	Bigger
2)	Move out and upwards	Moves upwards	Smaller
)	Move in and downwards	Moves downwards	Bigger
)	Move in and downwards	Moves upwards.	Smaller

Study the concept cartoon shown below about the systems in living 5 things.

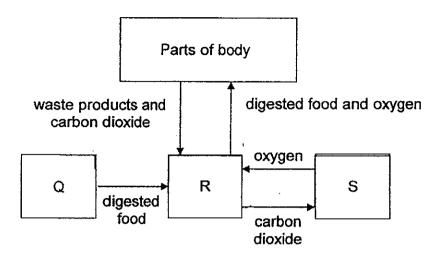


Deanne

Who has/have made the correct statement(s)?

- (1) Bob only
- (2) Annie and Bob only
- Charles and Deanne only (3)
- Annie, Charles and Deanne only (4)

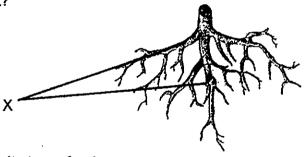
The diagram below shows the different systems in the human body working together.



Based on the diagram above, which systems do Q, R and S represent?

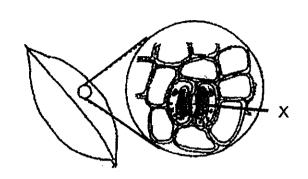
ſ	Q	R	S
(1)	Digestive	Respiratory	Circulatory
(2)	Digestive	Circulatory	Respiratory
(3)	Circulatory-	Digestive	Respiratory
(4)	Respiratory	Circulatory	Digestive

7 The diagram below shows a plant part. How is part 'X' useful to the plant?

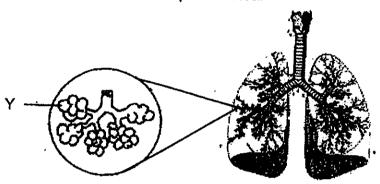


- A It stores food.
- B It keeps the plant upright.
- C It anchors the plant to the ground:
- D It absorbs water and mineral salts.
- (1) A and B only
- (2) C and D only
- (3) A, B and D only
- (4) B, C and D only.

The diagrams below show a part of a leaf and a human respiratory system.



part of a leaf

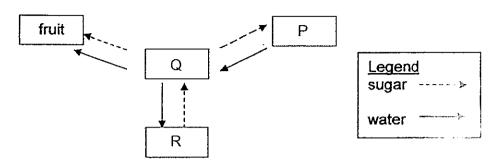


Human respiratory system

Which one of the following statements is true?

- (1) Air is stored in parts X and Y.
- (2) · Gaseous exchange occurs at parts X and Y.
- (3) Part X helps the plant to make food while part Y helps in gaseous exchange.
- (4) Part X helps the plant to respire while part Y helps the human to inhale and exhale.

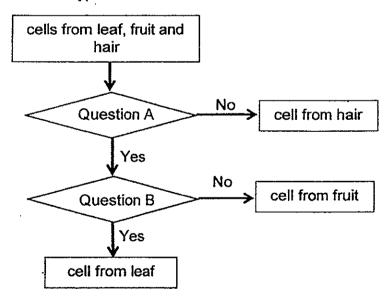
The diagram below represents how sugar and water are transported within a plant. P, Q and R are parts of the plant.



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

	Р	Q	R
1)	root	leaf	stem
2)	root	stem	leaf
3)	leaf	root	stem
4)	stem	leaf	root

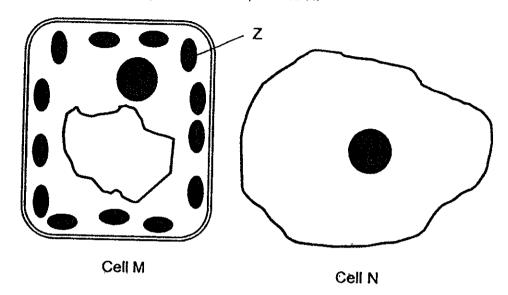
10 Karen classified three types of cells as shown below.



What are questions A and B?

	Question A	Question B
(1)	Does it have a cell wall?	Does it have chloroplasts?
(2)	Does it have a nucleus?	Does it have a cell wall?
(3)	Does it have chloroplasts?	Does it have a cell wall?
(4)	Does it have a cell membrane?	Does it have a nucleus?

11 The diagram below shows two cells, M and N.

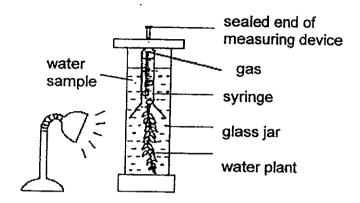


A scientist managed to successfully transfer-Part Z in cell M to cell N. He found that this new cell N produced sugar when placed in a brightly-lit environment. Which of the following would also take place in cell N?

- A Cell N would produce oxygen.
- B Cell N would have a more regular shape.
- C Cell N would start to form a cell membrane.
- D Cell N would be able to form a stronger cell wall
- (1) A only
- (2) A and D only
- (3) B and C only
- (4) B and D only
- Which one of the following does not help plants to obtain more sunlight for photosynthesis?
  - (1) Presence of twining stems to climb up support.
  - (2) Arrangement of leaves that reduces overlapping.
  - (3) Presence of stomata on the underside of the leaves:
  - (4) Presence of air spaces in between cells in the stem of a totally submerged aquatic plant to remain upright in water.

- 13 Which of the following statements about food made during photosynthesis are correct?
  - A Food made by plants is stored as starch in the plant.
  - B Plants make use of the food only in the presence of sunlight.
  - C Food made in the leaves is transported to all parts of the plant.
  - D Excess food that plants made is stored in different parts of the plant.
  - (1) A and D only
  - (2) B and C only
  - (3) A, C and D only
  - (4) A, B, C and D

Joey carried out an experiment using four water samples, A, B, C and D collected from four different locations of the Kallang River. Using the same amount of water samples and water plants, she set up four similar experimental set-ups as shown below.



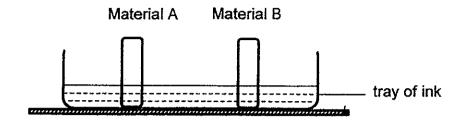
After 1 hour, Joey recorded the amount of gas collected in the measuring device for each water sample in the table below.

. Water Sample	Volume of gas collected (cm <sup>3</sup> )
A	25
В	13
С	11
D	18

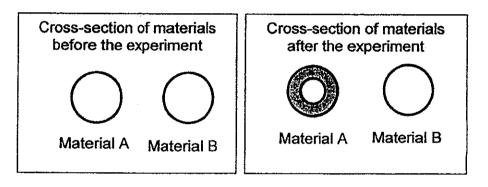
Which of Joey's following conclusions based on the data gathered are correct?

- A The water plants in all the set-ups photosynthesise at different rates.
- B The river is the least polluted at the place where water sample C was collected.
- C The location where the water sample was collected affects the rate of photosynthesis of the water plants.
- D The amount of light is the only factor which determines the rate of photosynthesis for all the water plants.
- (1) A and D only
- (2) B and C only
- (3) A, B and D only
- (4) A, B, C and D

15 . Two materials, A and B, of similar sizes, were left to stand in a tray of ink.



After half an hour, both pieces were removed from the tray of ink and cut into half. Their cross-sections are shown below.

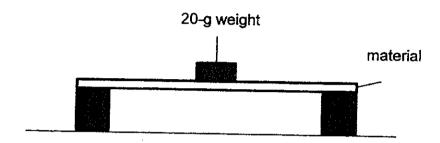


What does the experiment show about the properties of materials A and B?

- (1) Material A is stronger than material B.
- (2) Material A is less elastic than material B.
- (3) Material A breaks more easily than material B.
- (4) Material A absorbs water but material B does not absorb water.

Use the following information to answer Questions 16 and 17.

Mei Ling conducted an experiment to study the strength of four different materials P, Q, R and S. She placed 20-g weights on each material and recorded the number of weights needed before the material broke.

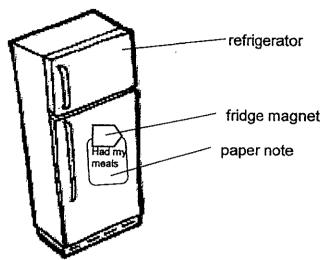


The table below shows her results.

Material	Number of 20-g weights placed on material before it broke
Р	2
Q	. 10
R	8
S	13

- 16 Which material is the weakest?
  - (1) P
  - (2) Q
  - (3) R
  - (4) S
- 17 Which one of the materials is most suitable for making a kettle?
  - (1) P
  - (2) Q
  - (3) R
  - (4) S

Sally used a fridge magnet to attach a paper note on the door of the refrigerator as shown in the diagram below.

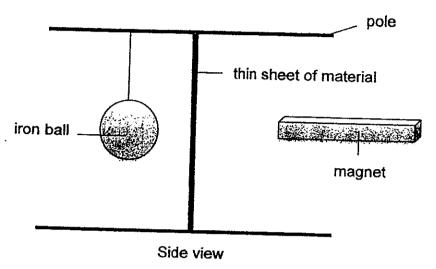


When she tried to attach a thicker piece of paper note, both the magnet and the paper fell onto the floor.

Based on the above information, which of the following statements is/are most likely correct?

- A The thinner paper note is made of magnetic material.
- B Magnetism is not able to pass through the thicker paper.
- C The surface of the refrigerator's door is made of a magnetic material.
- (1) C only
- (2) A and B only
- (3) B and C only
- (4) A, B and C

Ali hung an iron ball from a pole and placed a thin sheet of material as shown in the diagram below. He then brought a strong magnet close to the material without touching it.



He observed what happened and recorded his observations in the table below.

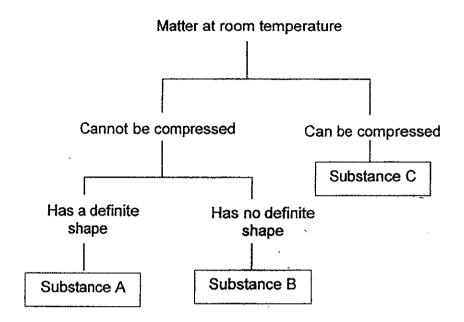
He repeated the experiment with another material and recorded his observations.

Material	fron ball moved
Α	No
В	Yes

Based on his observations, what is Material B most likely to be?

- (1) iron
- (2) steel
- (3) cobalt
- (4) copper

20 The chart below shows the properties of some matter.

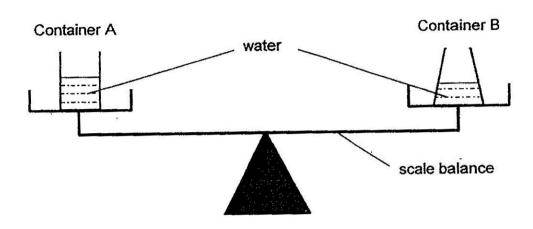


A 1-litre glass bottle contains 800cm<sup>3</sup> of Substance C and 200cm<sup>3</sup> of Substance B.

If another 100cm<sup>3</sup> of Substance C is added to the bottle, what is the volume of Substance C in the bottle now?

- (1) 700cm<sup>3</sup>
- (2) 800cm<sup>3</sup>
- (3) 900cm<sup>3</sup>
- (4) 1000cm<sup>3</sup>

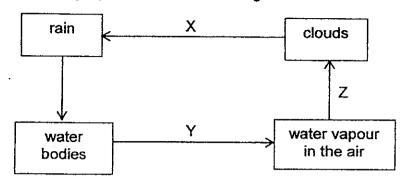
The diagram below shows two plastic containers, A and B, which are left in an open field under the sun. They contain the same amount of water. They are left on the scale balance for a few hours. At the start of the experiment, the scale is balanced.



What will you most likely observe about the above set-up after a few hours?

- (1) The side with container A will tilt downwards as the water level in container A is higher than that in container B.
- (2) The side with container A will tilt downwards as there will be lesser water in container B due to more evaporation of water from container B.
- (3) The side with container B will tilt downwards as there will be lesser water in container A due to more evaporation of water from container A.
- (4) The two containers of water will still balance each other as the containers are of the same size and mass and they each contain the same amount of water.

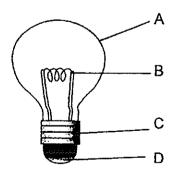
The diagram below shows the water cycle. X, Y and Z represent the processes taking place at each stage of the water cycle.



Which one of the following correctly indicates what takes place at X, Y and Z?

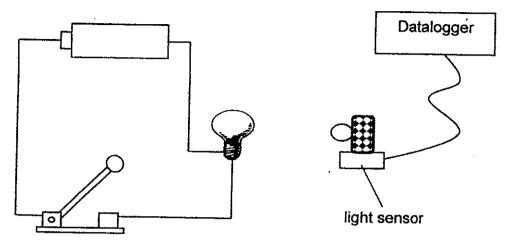
-	Х	Y	Z
(1)	Change of state	Heat is gained by the water.	Heat is gained by the water vapour.
(2)	Change of state	Heat is lost by the water.	Heat is lost by the water vapour.
(3)	No change of state	Heat is lost by the water.	Heat is gained by the water vapour.
(4)	No change of state	Heat is gained by the water.	Heat is lost by the water vapour.

23 Which parts of the bulb can conduct electricity?



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

## 24 Danny connected a circuit as shown below.



When the switch was closed, Danny measured the brightness of the bulb with a light sensor that was attached to a datalogger. He then repeated his experiment with a different number of batteries.

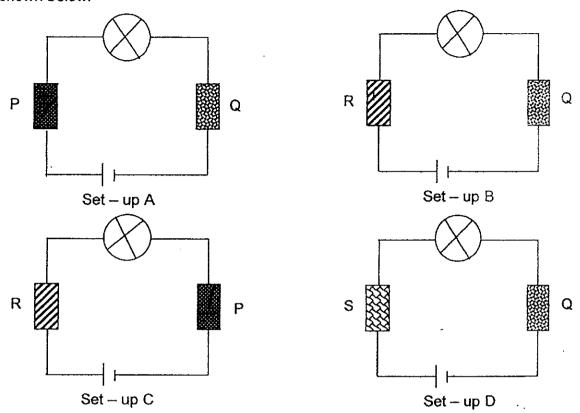
He recorded his results in the table as shown.

Number of batteries	Brightness of bulb (lux)
1	70
2	125
3	160
4	230
5	0

What happened to the bulb when 5 batteries were used?

- (1) The bulb fused.
- (2) The bulb grew dimmer.
- (3) The bulb grew brighter.
- (4) The bulb remained the same.

4 different materials, P, Q, R and S, were used to set up the 4 circuits shown below.



The results were recorded in the table below.

C-4	Does the bu	alb light up?
Set - up	Yes	No
Α		✓
В	✓	
С		<b>√</b>
D	✓	

What could be concluded about the materials?

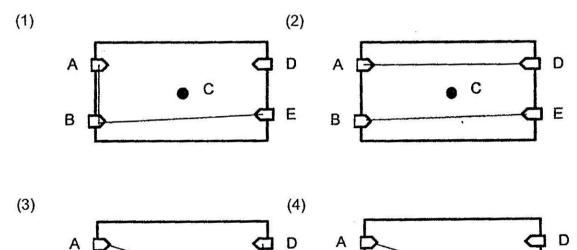
- (1) Material S is not a conductor of electricity.
- (2) Materials P and Q are conductors of electricity.
- (3) Materials R, Q and S are conductors of electricity.
- (4) Materials R and Q are not conductors of electricity.

Shawn uses a circuit tester to test a circuit card. The table below shows what happens to the bulb when each pair of clips, A, B, C, D and E, is tested.

Clips tested	Bulb of circuit tester
A and B	Does not light up
A and C	Lights up
C and D	Lights up
B and C	Does not light up
B and E	Does not light up
A and D	Lights up

Which one of the following represents the correct circuit card?

В

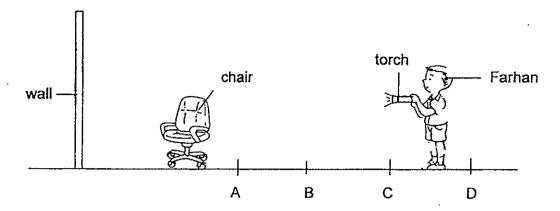


E

В

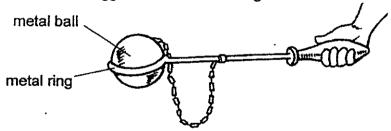
E

Farhan carried a torch and stood a distance away from a chair. He shone the light on the chair and a shadow was formed on the wall.



At which of the above positions A, B, C or D should Farhan stand to form the biggest shadow on the wall?

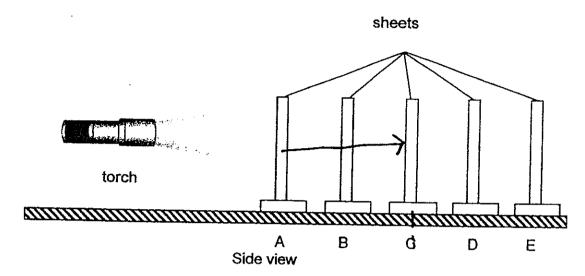
- (1) A
- (2) B
- (3) C
- (4) D
- Tom wanted to pass the metal ball through the metal ring. However, the metal ball was bigger than the metal ring.



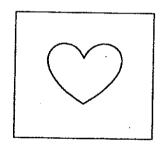
What should Tom do to allow the metal ball to pass through the metal ring?

- A Heat the ball over a flame.
- B Heat the ring over a flame.
- C Dip the ball into cold water.
- D Dip the ring into cold water
- (1) A only
- (2) D only
- (3) A and B only
- (4) B and C only

A group of pupils set up the experiment below. Sheets A, B, C, D and E are of the same size but made of different materials.



A heart-shaped cut-out was made on Sheet A as shown below.



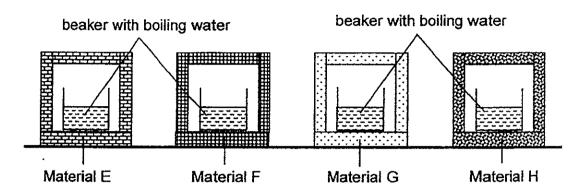
The properties of sheets A, B, C, D and E are shown in the table below.

Allows light to pass through	Allows some light to pass through	Does not allow light to pass through A
Е		Æ C

On which sheet would the shadow of the cut-out be seen when the torch was switched on?

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

Vince set up the apparatus below using materials of different heat conductivity. He used beakers of the same size containing an equal amount of boiling water in each beaker. He put the beakers into four boxes made of different materials.



He recorded the temperature of water in each beaker at regular intervals using a temperature sensor. The table below shows the results of the experiment.

Time		Temperature	of water (°C)	
(min)	Ε	F	G	Н
0	100	100	100	100
5	77	65	90	88
10	69	42	88	76
15	56	39	83	. 71
20	40	37	80	69

Based on the results in the table above, which material is the best conductor of heat?

- (1) E
- (2) F
- (3) G
- (4) H



## CATHOLIC HIGH SCHOOL SEMESTRAL ASSESSMENT 1 2014 PRIMARY FIVE

#### SCIENCE

#### **BOOKLET B**

Name:	( )	
Class: Primary 5		
Date: 16 May 2014	Booklet A	60
	Booklet B	40
Parent's Signature:	Total	100
14 questions		<u> </u>

14 questions

40 marks

Total Time for Booklets A and B: 1 hour 45 minutes

# INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so. Follow all instructions carefully.

Answer all questions.

Write your answers in this booklet.

This booklet consists of 15 printed pages, excluding cover page.

#### Booklet B (40 marks)

For questions 31 to 44, write your answers in this booklet.

The number of marks available is shown in brackets [ ] at the end of each question or part question. (40 marks)

Nadia mixed grass seeds with soil. She made three model heads out of the mixture. She soaked two of the heads in water.

The drawings below show the model heads after one week.



Model A



Model B



Model C

(a) (i) Which two model heads did Nadia soak in water?

and \_\_\_\_\_

(ii) Give a reason for your answer in part a(i)

Nadia put one of the model heads near a window.



(b) Based on the diagram above, why did the grass grow towards the [1] window?

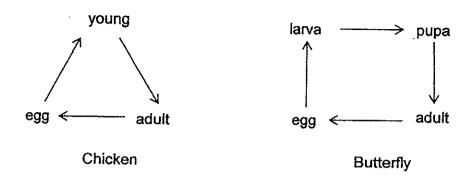
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SCORE

[1]

32

The diagrams below show the life cycles of two different animals.

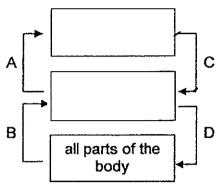


From the diagrams above, state one similarity and one difference [2] between the life cycles of a chicken and a butterfly.

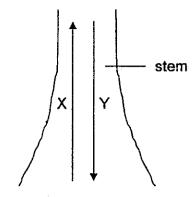
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	SCORE	2.

The diagrams below show the paths of the movement of substances in the Human Circulatory System and the Plant Transport System.



**Human Circulatory System** 



Plant Transport System

- (a) Fill in the boxes in the Human Circulatory System above with the [1] correct organs to complete the diagram.
- (b) Identify what X and Y represent in the Plant Transport System above. [1]

  X: \_\_\_\_\_\_
- (c) State one way in which the Plant Transport System is different from [1] the Human Circulatory System.
- (d) When Path C is entirely blocked, the rhovement of the substances in [1] Paths A, B and D will also be affected. Explain why when Path Y in the Plant Transport System is entirely blocked, the movement of substances in Path X will not be affected.

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SCORE
4

When we breathe, air is inhaled and exhaled.

The table below shows the differences between inhaled air and exhaled air.

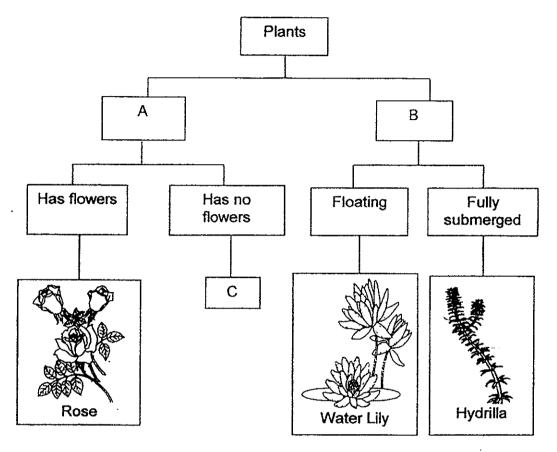
(a) Complete the table by giving one other difference.

	Differ	rences between	[1]
	Inhaled air	Exhaled air	
1	at room temperature	is warmer	
2	contains more dust	contains less dust	
3	-		

(b)	Explain why the air that has been exhaled is of a higher temperature than the air that is inhaled.	[1]

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SCORE	,
	2.

#### 35 Study the flow chart below.



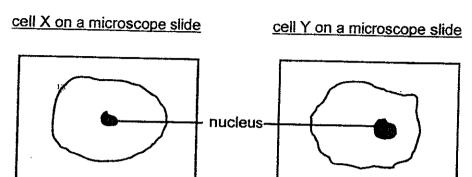
- (a) Write down a suitable heading for A and B. [1]

  A: \_\_\_\_\_\_

  B: \_\_\_\_\_
- (b) Based on the flowchart, describe the characteristics of C. [1]

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SCORE 2

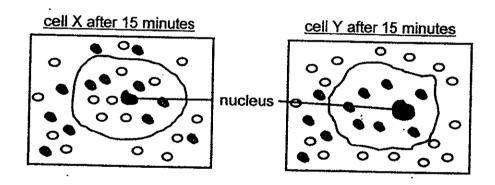
36 Charles carried out an experiment to explore the function of a certain part of two different cells, shown below.



The diagram below shows what happens to the two cells, X and Y, after being immersed separately in solution P for 15 minutes.

Solution P contains two substances, A and B.

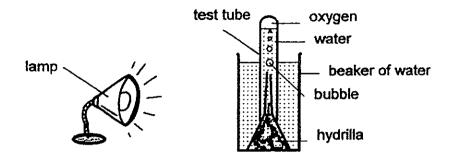
substance A substance B O



- (a) Compare the difference between cells X and Y 15 minutes after [1] immersing them in solution P. (Do not compare shape and size.)
- (b) Which part of the cell is responsible for the change in the number of [1] substance A in cell Y as compared to cell X? Give a reason for your answer.

(Go to the next page)
SCORE 2

David carried out an experiment by placing an inverted test tube with water in a beaker of water with some hydrilla plants as shown below. He placed a lamp near the beaker and counted the number of bubbles produced within one hour.



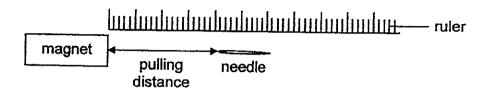
David repeated the experiment with a different number of hydrilla plants and recorded the results in the following table.

Number of hydrilla plants	2	5	8
Number of bubbles produced	10	35	48

(a)	What was the aim of David's experiment?	[1]
(b)	Without changing the number of hydrilla plants or adding any apparatus to the experiment, what should David do to increase the number of bubbles produced by the plants?	[1
(c)	Draw and label a control set-up for the above experiment.	[1
	lamp	
(ḍ)	What is the purpose of the control set-up?	[1]

38

Four magnets of similar sizes W, X, Y and Z were tested for their strength. A needle was slowly pushed towards each magnet until it was attracted by the magnet as shown in the diagram below. The maximum distance from which the magnet attracted the needle is called the pulling distance.

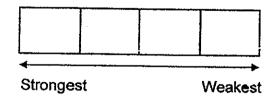


The table below shows the pulling distance of the four magnets.

Magnet	Pulling distance (cm)
W	6
Х	3
Y	. 8
Z	2

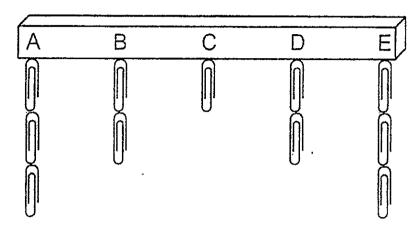
(a)	Which magnet is the strongest? Give a reason to support your answer.	[1]

(b) In the boxes given below, arrange the magnets W, X, Y and Z [1] according to their strength from the strongest to the weakest.



#### Continue from Question 38

Linda then used Magnet Y for an experiment as shown below. She placed a paper clip one at a time on different points A, B, C, D and E on the magnet until no more paper clips were attracted by the magnet.



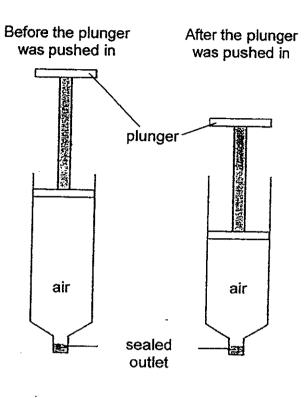
She recorded the results in the table below.

	Α	В	С	D	E
Number of paper clips	3	2	1	2	3

(c)	What do the results in the table above show about the strength of a magnet?	a [1]
(d)	State one way you can weaken the strength of the magnet.	[1]
	· ·	

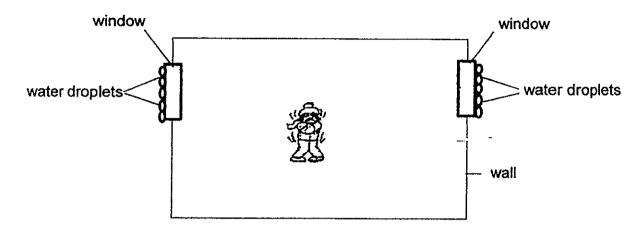
(Go on to the next page)		
SCORE	2	

39 John filled a syringe with air. The outlet of the syringe was sealed.



Explain why John was able to push the plunger in.	[1]
Would he be able to push the plunger in if he replaced the air with the same amount of sand? Explain.	[1]
State two similar properties of air and sand.	[1]
	Would he be able to push the plunger in if he replaced the air with the same amount of sand? Explain.

Sarah was standing in an air-conditioned room with 2 windows. The temperature in the room was set at 22°C.

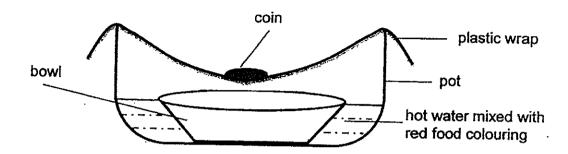


After some time, she noticed that water droplets had formed on the outer side of the windows as shown above.

Explain how the water droplets were formed.		

(Go on to the next page)
SCORE 2

Eugene set up an experiment as shown in the diagram below. He collected some liquid in the bowl after an hour.



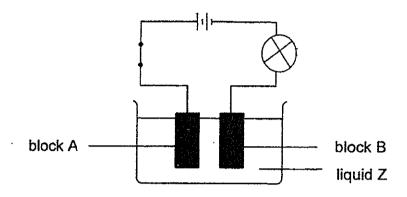
(a)	Eugene said that the water he collected in the bowl was red. Do you agree with him and why?	[1]

(b)	Eugene replaced the bowl with a smaller bowl and he found that more appears water was collected in the smaller bowl. Why did this happen?		

(c)	Suggest 2 changes that he could do to the set-up to increase the amount of water that he can collect in the bowl in an hour.	[2]
:		

(Go on to the next page)

The diagram below shows an experimental set-up. The bulb lights up when the switch is closed.



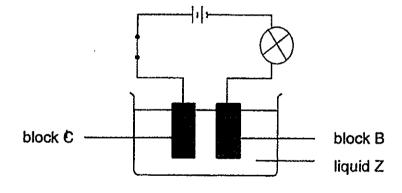
(a) What are blocks A and B made of?

[1]

(b) What can you conclude about the property of liquid Z?

[1]

When block A is replaced by block C, the bulb does not light up.



(c) Give a reason why the bulb does not light up.

[1]

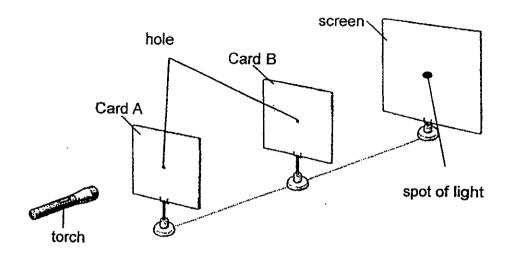
(d) What can you do to block C so that the bulb will light up?

[1]

(Go on to the next page)

SCORE

Gabriel arranged a torch, two cardboards with a hole in the centre and a screen as shown below.



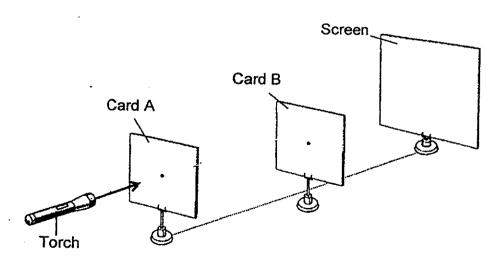
When Gabriel switched on the torch, the light from the torch could be seen on the screen.

(a) What property of light is shown in this experiment? [1]

(b) Gabriel moved Card B to one side as shown below. The path of light passed through the hole in Card A and onto Card B.

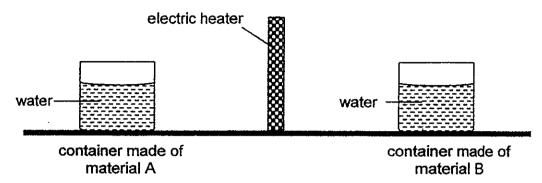
[1]

Draw the path of light from the torch to show where it would hit Card B.



(Go on to the next page)

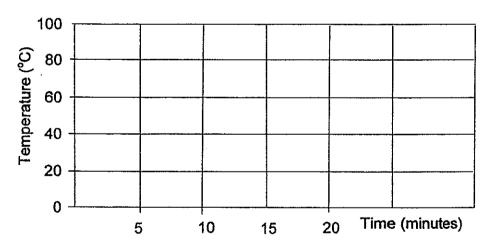
As and B. The containers have the same size, thickness and the same amount of water in them. He placed them at an equal distance from an electric heater as shown in the diagram below.



The heater was then switched on and he recorded the temperature over a duration of 20 minutes. The table below shows the results.

Time (min)	Temperature of water in container made of material A (°C)	Temperature of water in container made of material B (°C)
0	20	20
10	60	40
15	80	50
20	100	60

(a) Using a ruler and pencil, draw and label two line graphs in the space [2] below to represent the two sets of results in the table for materials A and B.



(b) Which material, A or B, would be more suitable for making a box used [1] to transport blocks of ice? Explain your answer.

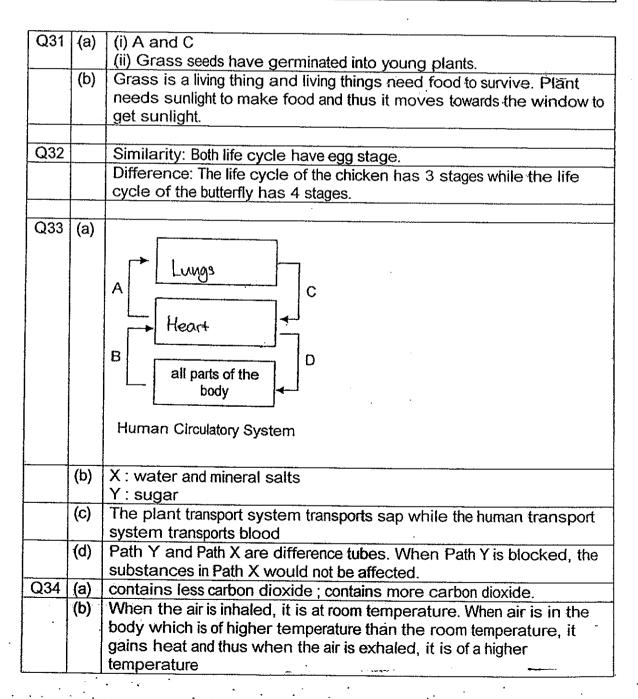
End of Booklet B

15



EXAM PAPER 2014				
LEVEL	:	PRIMARY 5		
SCHOOL	:	CATHOLIC		
SUBJECT	:	SCIENCE		
TERM	:	SA1		

Q1	3	Q7	2	Q13	3	Q19	4	Q25	3
Q2	3	Q8	2	Q14	1	Q20	2	Q26	3
Q3	3	Q9	2	Q15	4	Q21	3	Q27	1
Q4	4	Q10	1	Q16	1	Q22	4	Q28	4
Q5	2	Q11	1	Q17	4	Q23	4	Q29	2
Q6	2	Q12	3	Q18	3	Q24	1	Q30	2



	1	
Q35	(a)	A: Land Plant
		B: Water Plant
	(b)	It is a plant that grows on land and has no flowers.
Q36	(0)	Coll V has both substance A and D while Call V has agive substance A
Q30	(a)	Cell X has both substance A and B while Cell Y has only substance A Cell membrane. The function of the cell membrane is to control
	(b)	substances from entering and leaving the cell. Cell membrane of Y
		allows substance B to leave only and allowed substance A to enter
		while the cell membrane of X allowed both substance A and B to enter
	•	the cell.
Q37	(a)	To find out how the number of hydrilla plants affects the rate of
<u></u>		photosynthesis.
	(b)	Put the light closer to the hydrilla plant.
	(c)	Test Tube
		<del>                                  </del>
		Beaker of water
	(d)	To compare and confirm that it is the hydrilla plant that affects the rate
	(4)	of photosynthesis.
		or protosynthosis.
Q38	(a)	Magnet Y. Magnet Y could attract the needle at the furthest distance,
1	` ′	showing that the magnetic force is the strongest.
	(b)	Y, W, X, Z
	(c)	The magnet is strongest at its poles and weakest in the middle.
	(d)	Hit the magnet with a hammer.
]	l	
000	+	1 a s s s s s s s s s s s s s s s s s s
Q39	(a)	When the syringe was filled with air, the particles of air are far apart
Q39	(a)	and there is space between them. These particles are also able to
Q39	(a)	and there is space between them. These particles are also able to move about freely. As such, the particles can be compressed to
Q39		and there is space between them. These particles are also able to move about freely. As such, the particles can be compressed to occupy a smaller space. Thus, the plunger can be pushed in.
Q39	(a) (b)	and there is space between them. These particles are also able to move about freely. As such, the particles can be compressed to occupy a smaller space. Thus, the plunger can be pushed in.  No. Sand is a solid and has no definite volume and it cannot be
Q39	(b)	and there is space between them. These particles are also able to move about freely. As such, the particles can be compressed to occupy a smaller space. Thus, the plunger can be pushed in.  No. Sand is a solid and has no definite volume and it cannot be compressed.
Q39		and there is space between them. These particles are also able to move about freely. As such, the particles can be compressed to occupy a smaller space. Thus, the plunger can be pushed in.  No. Sand is a solid and has no definite volume and it cannot be
Q39 Q40	(b)	and there is space between them. These particles are also able to move about freely. As such, the particles can be compressed to occupy a smaller space. Thus, the plunger can be pushed in.  No. Sand is a solid and has no definite volume and it cannot be compressed.  Both have mass and occupy space.
	(b)	and there is space between them. These particles are also able to move about freely. As such, the particles can be compressed to occupy a smaller space. Thus, the plunger can be pushed in.  No. Sand is a solid and has no definite volume and it cannot be compressed.  Both have mass and occupy space.  The warmer water vapour in the surrounding air loses heat to the
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Q40	(b) (c) (a)	and there is space between them. These particles are also able to move about freely. As such, the particles can be compressed to occupy a smaller space. Thus, the plunger can be pushed in.  No. Sand is a solid and has no definite volume and it cannot be compressed.  Both have mass and occupy space.  The warmer water vapour in the surrounding air loses heat to the cooler window surface and condenses to form water droplet.  No. When the water evaporates, the red food colouring does not
Q40	(b) (c) (a)	and there is space between them. These particles are also able to move about freely. As such, the particles can be compressed to occupy a smaller space. Thus, the plunger can be pushed in.  No. Sand is a solid and has no definite volume and it cannot be compressed.  Both have mass and occupy space.  The warmer water vapour in the surrounding air loses heat to the cooler window surface and condenses to form water droplet.  No. When the water evaporates, the red food colouring does not evaporates thus the bowl will contain water without red food colouring. There was more exposed surface area of the hot water so more water.

Q42	(a)	Steel				
	(b)	Liquid Z				
	(c)	Block C is an insulator which does not allow electricity to flow through.				
	` ′	This results in an open circuit and the bulb will not light up.				
	(d)	Wrap in an aluminium.				
Q43	(a)	Light travel in a straight line.				
	(b)	Card B Card A Torch				
Q44	(3)					
Q44	(a)	100 2) 80 100 100 100 100 100 100 100 1				
	(b)	Material B. It is a poorer conductor of heat so longer time is needed for heat cannot pass through the material, while material A is a better conductor of heat so heat can pass through faster and easily.				

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