CATHOLIC HIGH SCHOOL

SEMESTRAL ASSESSMENT TWO (2017)

PRIMARY FIVE

SCIENCE

BOOKLET A

Name: _____ ( )

Class: Primary 5 - _____

Date: 1 Nov 2017

28 questions

56 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 19 printed pages, excluding the cover page.

Booklet A (28 × 2 marks)

For each question from 1 to 28, 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.

(56 marks)

1 The table below shows the characteristics of two animals, A and B.

Animal A	Animal B
• lays eggs • has wings • has three body parts	• lays eggs • has wings • body is covered with feathers

Which groups of animals do A and B belong to?

	A	B
(1)	fish	mammal
(2)	bird	fish
(3)	insect	bird
(4)	amphibian	reptile

2 The functions of 3 body systems, X, Y and Z, are stated below.

X Breaks down food into simple substances.

Y Enables the body to take in oxygen needed by the body and remove unwanted carbon dioxide from the body into the air.

Z Carries nutrients, water and oxygen to all parts of the body; also carries waste materials and carbon dioxide away from different parts of the body.

Which of the following correctly matches body systems X, Y and Z?

	System X	System Y	System Z
(1)	circulatory system	digestive system	respiratory system
(2)	respiratory system	circulatory system	digestive system
(3)	digestive system	respiratory system	circulatory system
(4)	digestive system	circulatory system	respiratory system

3 Aishah conducted an experiment using two identical pots P and Q. She planted five seedlings of the same type into each pot.

	Pot P	Pot Q
Amount of fertiliser given (g)	0	2
Amount of water given (ml)	40	40

She took care of them and measured the height of the seedlings for seven days. The average height of the seedlings in each pot is shown in the table below.

	Pot P	Pot Q
Average height of the seedlings (cm)	25	30

Based on the information above, what was Aishah trying to find out in the experiment?

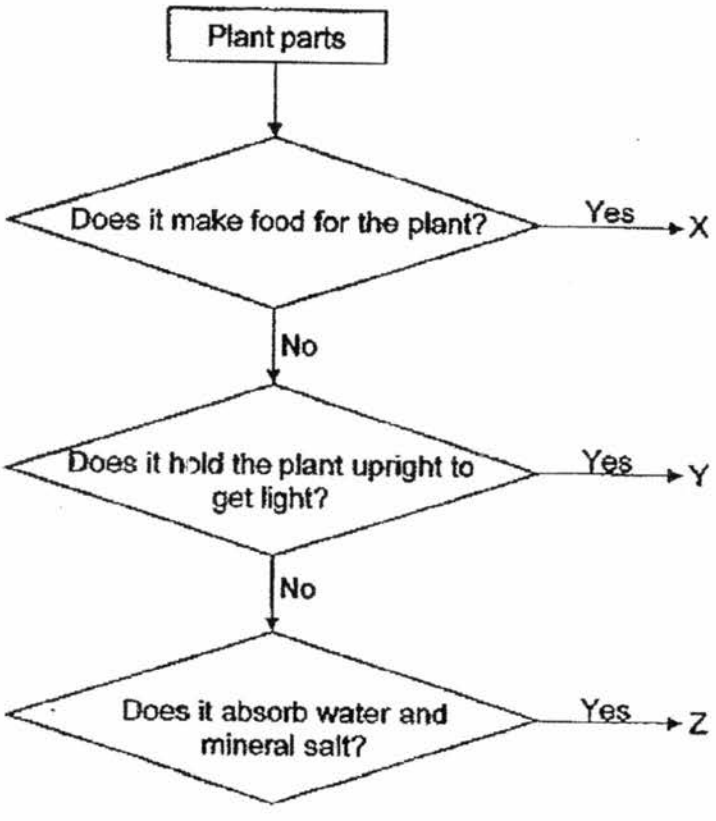
(1) To find out if the time affects the growth of the seedlings.

(2) To find out if the size of pot affects the growth of the seedlings.

(3) To find out if the amount of water affects the growth of the seedlings.

(4) To find out if the presence of fertiliser affects the growth of the seedlings.

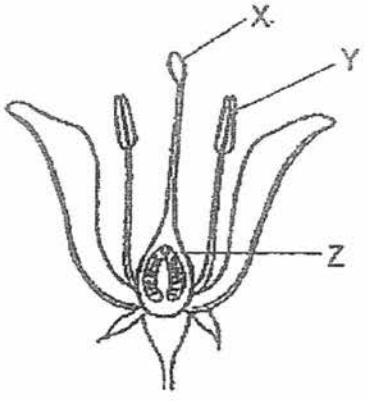
4 The diagram below describes the functions of different parts, X, Y and Z, of a plant.



What could the parts, X, Y and Z, be?

	X	Y	Z
(1)	roots	stem	leaves
(2)	stem	roots	leaves
(3)	leaves	stem	roots
(4)	leaves	roots	stem

5 The diagram below shows the parts, X, Y and Z, of a flower.



Which of the following is correct?

	X	Y	Z
(1)	style	filament	ovule
(2)	anther	stigma	ovule
(3)	stigma	anther	ovary
(4)	filament	style	ovary

6 Three different types of plants, P, Q and R, were found on a piece of empty land with a river flowing downstream as shown in Diagram 1. All of them bore fruits. A few years later, more of the plants were found as shown in Diagram 2.

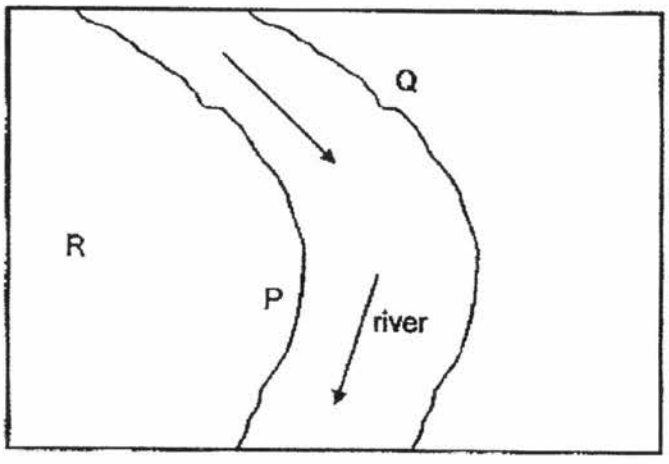


Diagram 1

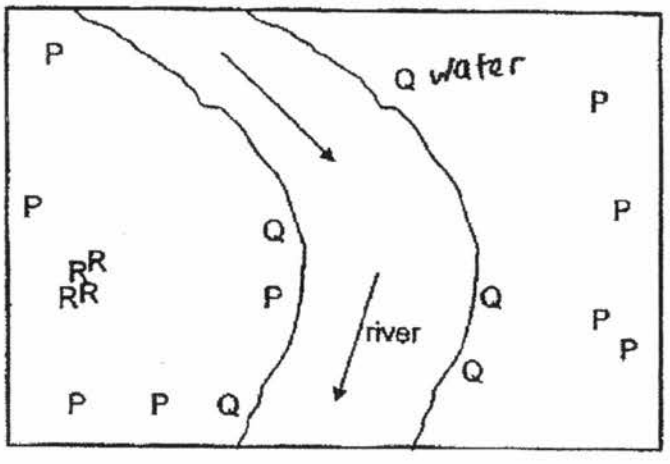


Diagram 2

Based on what is observed in Diagram 2, what are the likely characteristics of the fruits of plants, P, Q and R, which helped them to disperse their seeds?

	Plant		
	P	Q	R
(1)	hairy and light	fibrous husk	splits open when dry
(2)	dry and hard	small and light	fibrous husk
(3)	waterproof covering	dry pod	wing-like structure
(4)	fleshy and edible	hook-like structure	air spaces

7 The table below shows some physical characteristics of Mr and Mrs Tan and their four children.

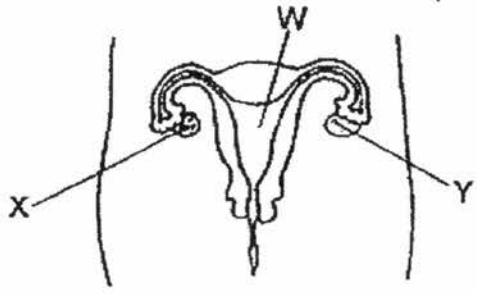
	Dimples	Earlobes	Length of hair
Mr Tan	no	attached	short
Mrs Tan	yes	detached	long
Carl	yes	detached	short
Dawn	no	attached	long
Ethan	no	detached	short
Fanny	yes	attached	long

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

A Carl and Ethan are twins.
B Dawn did not inherit any of her physical characteristics from Mrs Tan.
C Ethan is the only child who inherited Mr Tan's physical characteristics.
D Carl and Fanny each inherited more than two physical characteristics from Mrs Tan.

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

8 The diagram below shows the human female reproductive system.

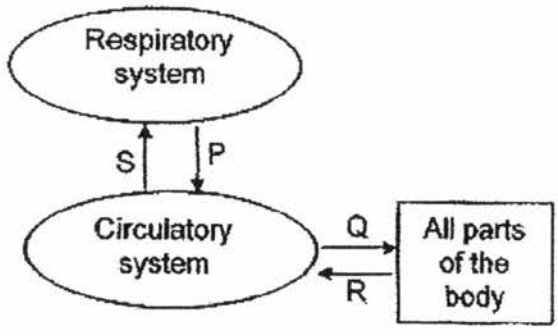


Which of the following statements are correct?

A X and Y are ovaries.
B W will develop into a fertilised egg.
C Y is where the baby develops and grows.
D W is where the fertilised egg attaches itself to grow.

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

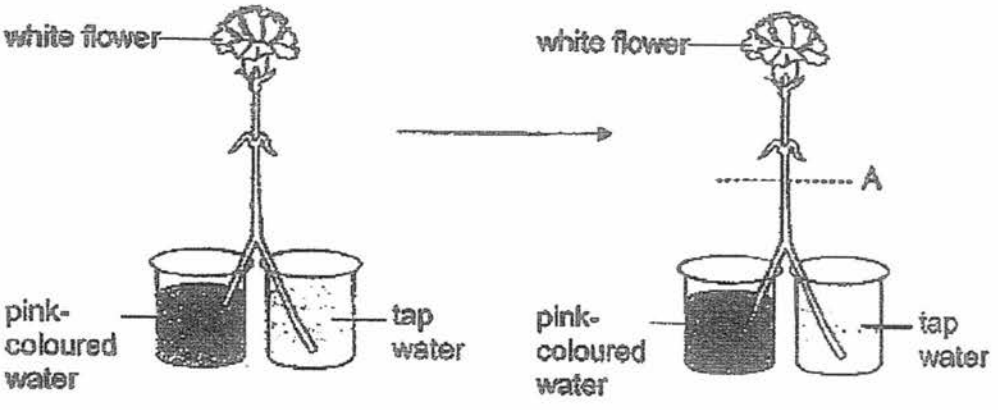
9 The diagram below shows how blood flows in the human body system.



Which of the following about the blood at P, Q, R and S is correct?

	P	Q	R	S
(1)	rich in oxygen	rich in oxygen	rich in carbon dioxide	rich in carbon dioxide
(2)	rich in oxygen	rich in carbon dioxide	rich in carbon dioxide	rich in oxygen
(3)	rich in carbon dioxide	rich in carbon dioxide	rich in oxygen	rich in oxygen
(4)	rich in carbon dioxide	rich in oxygen	rich in carbon dioxide	rich in carbon dioxide

10 Sandy took a white flower and split its stalk halfway up its length. She then dipped one side of the split stalk in pink-coloured water and the other side in tap water. 24 hours later, she cut the stem at the part labelled A in the diagram below.



Which one of the following diagrams shows what Sandy would observe when she looked at the cut section of the stem made at A?

(1) 

(2) 

(3) 

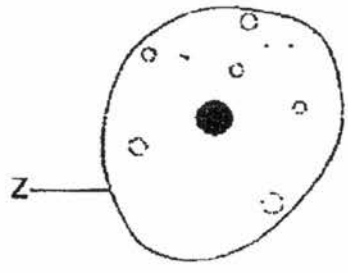
(4) 

11 A group of 10 people was trapped in a lift that did not allow fresh air from outside to enter.

Which one of the following shows the changes in the composition of gases and the temperature in the lift over time?

	Amount of oxygen	Amount of water vapour	Temperature in the lift
(1)	decreased	increased	increased
(2)	decreased	increased	decreased
(3)	increased	decreased	decreased
(4)	increased	increased	increased

12 The diagram below shows a cell.



What is the part labelled Z?

(1) nucleus

(2) cell wall

(3) cytoplasm

(4) cell membrane

13 The table shows the characteristics of some cells. A tick (√) indicates the presence of the cell part.

Cell part / Cell	Nucleus	Cell wall	Chloroplasts
E	√	√	√
F	√	√	
G	√		

Based on the information above, which of the following statements are correct?

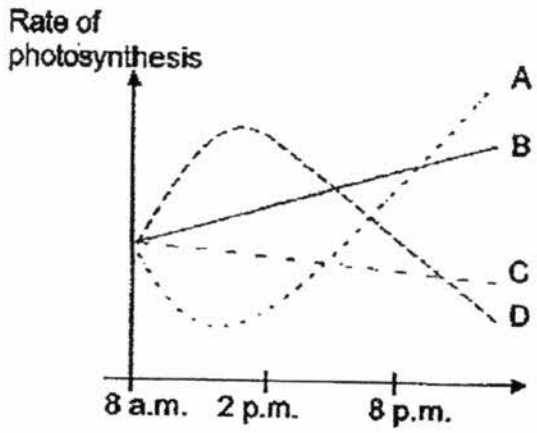
A Cells E and F are plant cells.
B Cells F and G are animal cells.
C Cells F and G have irregular shape.
D Cells F and G cannot carry out photosynthesis.

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

14 Which one of the following takes place when plants carry out photosynthesis?

(1) Oxygen and water vapour are taken in.
(2) Carbon dioxide and water vapour are given out.
(3) Carbon dioxide is taken in and oxygen is given out.
(4) Oxygen is taken in and carbon dioxide is given out.

15 Hamzah placed a green plant outdoors on a sunny day.



Which graph correctly represents the plant's rate of photosynthesis?

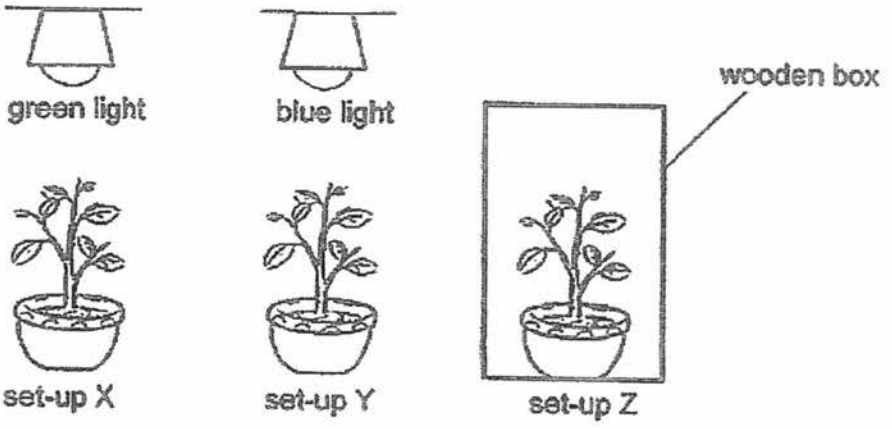
(1) A

(2) B

(3) C

(4) D

16 Hashim has 3 set-ups, X, Y and Z, using 3 similar plants as shown below. He gave each plant the same amount of water every day. For set-ups X and Y, the lamps used were of the same light intensity.

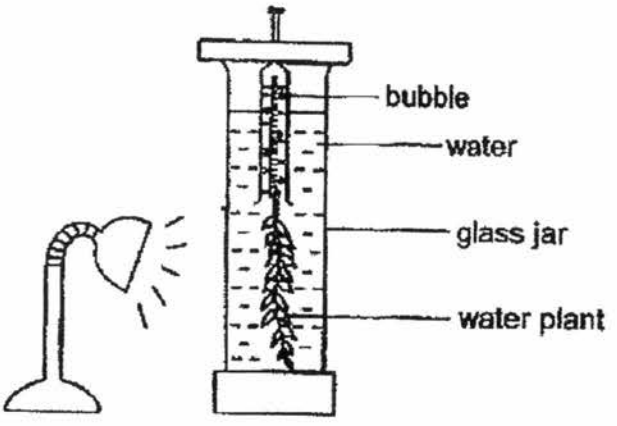


Which of the following statements are possible for the above experiment?

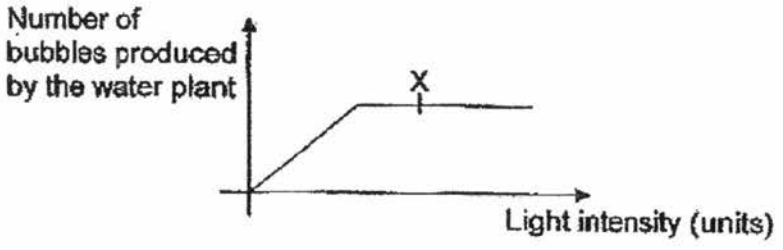
A The colour of light affects the growth of the plant.
B The intensity of light affects the growth of the plant.
C The presence of light affects the growth of the plant.
D The presence of water affects the growth of the plant.

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

17 An experiment was carried out to find out the rate of photosynthesis of a water plant at different light intensities.



The graph below shows the results of the experiment.



Which one of the following is likely to increase the number of bubbles produced by the plant after point X on the graph?

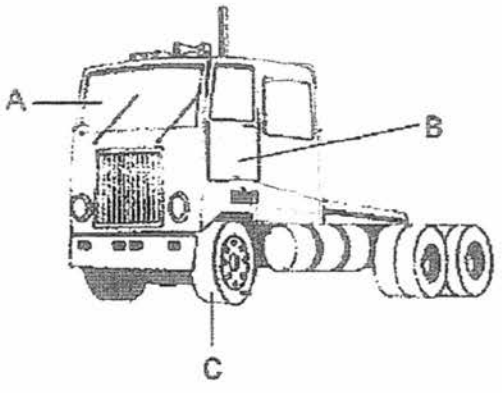
(1) Increasing the light intensity

(2) Increasing the amount of water

(3) Increasing the amount of oxygen in the water

(4) Increasing the amount of carbon dioxide in the water

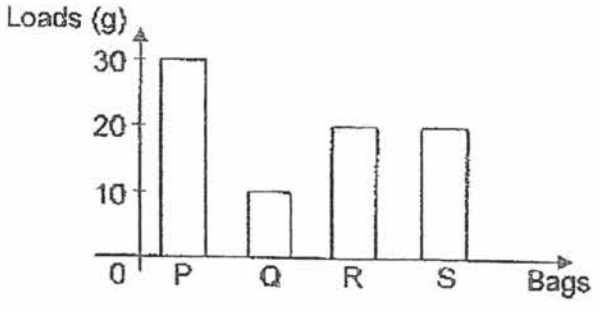
18 The diagram below shows a truck.



Which material is most suitable for making the parts A, B and C?

	A	B	C
(1)	plastic	metal	wood
(2)	plastic	wood	rubber
(3)	glass	metal	rubber
(4)	glass	wood	metal

19 John wanted to test the strength of 4 different paper bags. He hung each bag on a hook and added loads to the bags until they tore. He recorded the maximum loads each bag could hold in the graph below.



Based on the results above, which one of the following is correct?

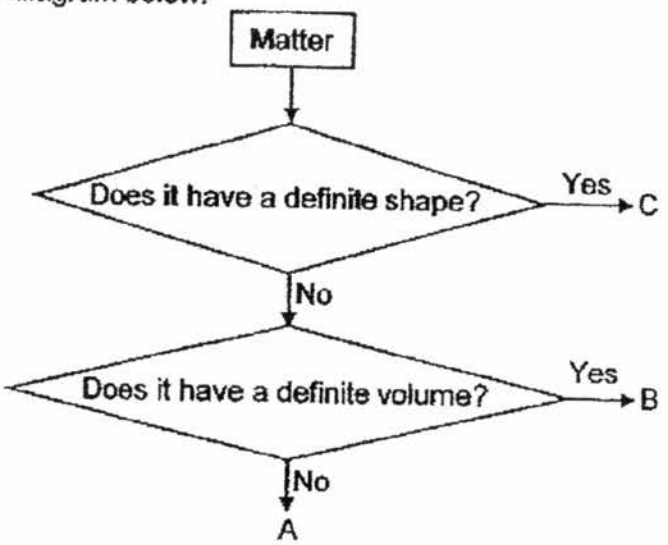
(1) Bag P is the most flexible.

(2) Bags R and S each can hold 15g.

(3) Bag Q is made of a waterproof material.

(4) Bag R can carry a heavier load than bag S.

20 Study the diagram below.



Ali has a basketball and wants to inflate it to play a game. He needs to pump 450 cm^3 of matter X into the basketball which has a capacity of 400 cm^3.

Which one of the following represents matter X?

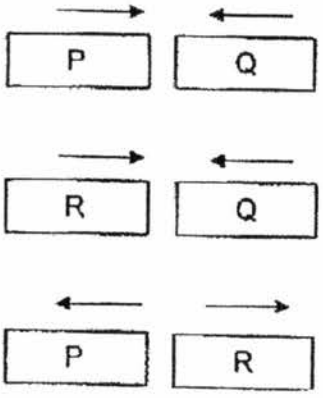
(1) A only

(2) B only

(3) C only

(4) B and C only

21 In the diagram below, the arrows represent the direction that the objects moved when they were placed next to each other



Which of the objects is/are definitely a magnet(s)?

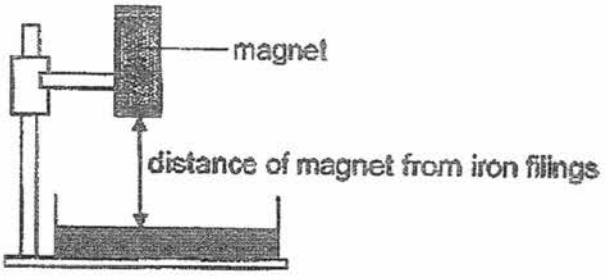
(1) P only

(2) R only

(3) P and Q only

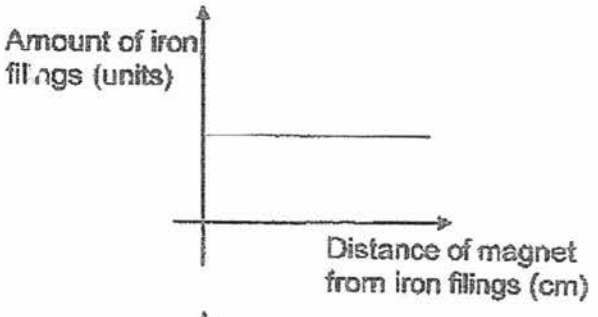
(4) P and R only

22 Aziz conducted an experiment to find out how the distance of a magnet from the iron filings affects the amount of iron filings attracted. The set-up is as shown below.

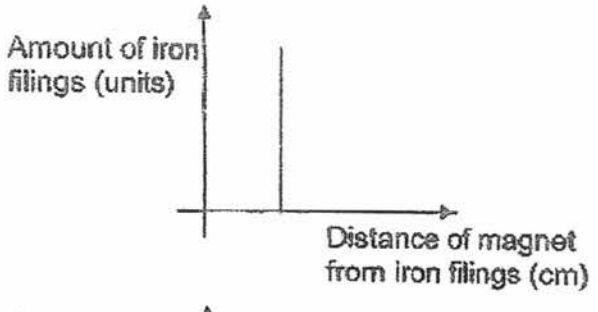


He recorded the amount of the iron filings attracted to the magnet and plotted the result on a graph. Which one of the following graphs is most likely correct?

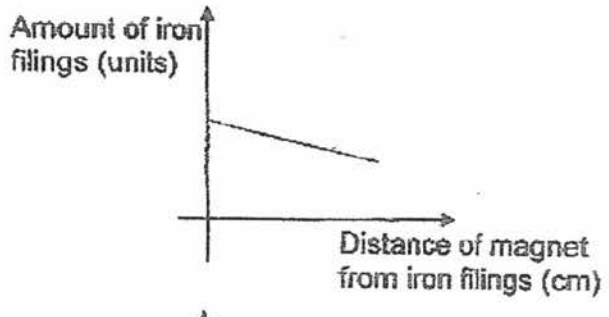
(1)



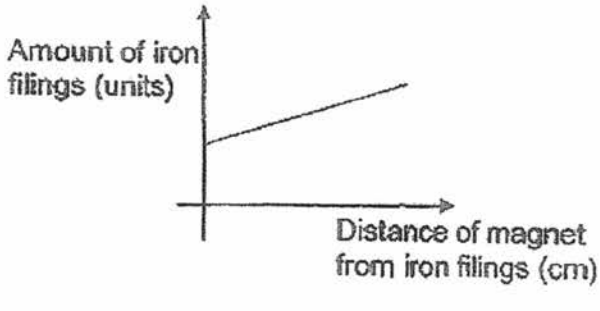
(2)



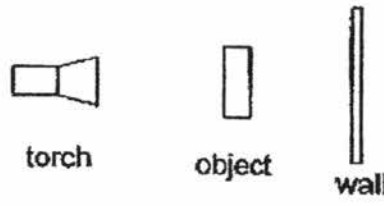
(3)



(4)



23 Objects, A, B, C, D, E and F, are of the same size and shape but made of different materials. Each object is placed, one at a time, between a torch and a wall.



The table below shows the amount of light that can pass through each object.

Does not allow light to pass through	Allows some light to pass through	Allows most light to pass through
A	C	E
B	D	F

Which one of the following statements is correct?

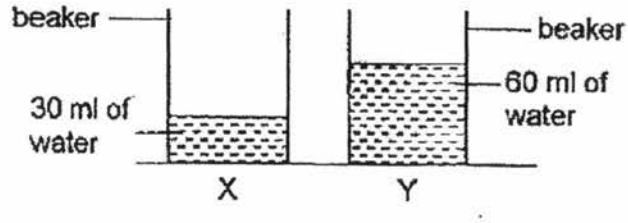
(1) Object E forms a lighter shadow than D.

(2) Object D forms a lighter shadow than F.

(3) Object C forms a darker shadow than B.

(4) Object F forms a darker shadow than A.

24 Rahman heated two beakers of water until the water boiled.



He made some statements based on the experiment.
Which of the following statements is/are correct?

A Water in X has more heat than water in Y.

B Water in X and Y have the same amount of heat.

C The lesser the volume of water, the faster it will take to reach boiling point.

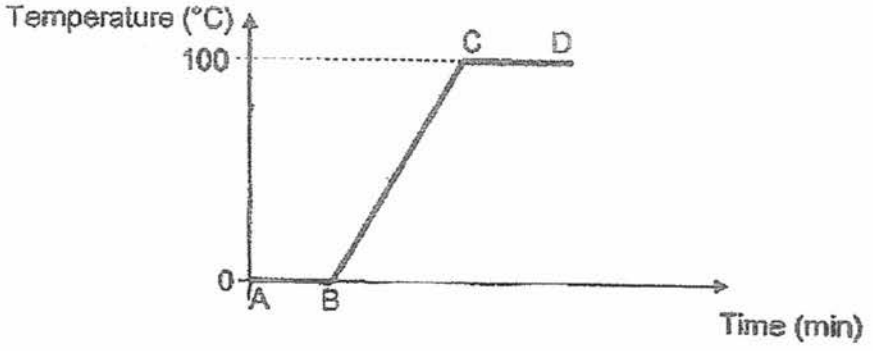
(1) A only

(2) B only

(3) C only

(4) B and C only

25 The graph below shows how the temperature of substance X changed when it was heated.



What is most likely to be happening from B to C?

(1) Substance X is melting to become liquid.

(2) Substance X is freezing to become solid.

(3) The temperature of substance X is decreasing.

(4) Substance X is gaining heat from a heat source.

26 The table below shows the melting and boiling points of substances, E and F.

Substance	Melting point (°C)	Boiling point (°C)
E	40	60
F	60	90

Which one of the following statements describes substances E and F correctly?

(1) Both substances boil at 75°C.

(2) Both substances are solid at 30°C.

(3) At 60°C, both substances are gases.

(4) At 50°C, both substances are in the same state.

27 George connected a simple electric circuit using materials, W, X, Y and Z, with different combinations. He recorded the results as shown below.

Materials	Does the bulb light up?
X and Y	no
W and X	yes
Y and Z	no
W and Z	yes

Which of the following materials are electrical conductors?

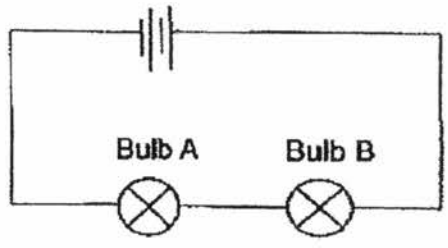
(1) W and X only

(2) W and Z only

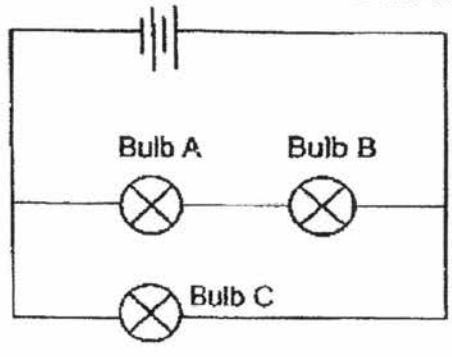
(3) X, Y and Z only

(4) W, X and Z only

28 Bulb A and Bulb B are connected as shown in the diagram. Both bulbs light up with equal brightness. The bulbs and batteries used are identical.



Bulb C is then connected to the circuit as shown below.



What will happen to Bulb A?

(1) It will not light up.

(2) It will be dimmer than Bulb C.

(3) It will be brighter than Bulb C.

(4) It will be of the same brightness as Bulb C.

End of Booklet A

SEMESTRAL ASSESSMENT TWO (2017)

PRIMARY FIVE

SCIENCE

BOOKLET B

Name: _____ ( )

Class: Primary 5 - _____

Date: 1 Nov 2017

Parent's Signature: _____

Booklet A	56
Booklet B	44
Total	100

13 questions

44 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 16 printed pages, excluding the cover page.

Booklet B (44 marks)

For questions 29 to 41, write your answers in this booklet.
The number of marks available is shown in brackets [ ] at the end of each question or part question. (44 marks)

29 Rizal had the following information of some animals.

Animal	Number of legs	Diet	Where they live
P	6	plants	garden
Q	4	animals	river
R	6	plants	garden
S	4	animals	river
T	6	animals	field

He grouped the animals as shown below.

Group D	Group E
Q S	P R T

(a) Based on the information above, how are the animals in Groups D and E classified? [1]

Group D: _____

Group E: _____

(b) Based on the information above, state another way of grouping the animals. [1]

_____

(c) Rizal made two further observations of Animal Q as listed below.

- Has hairs on its body
- Feeds its young with milk

What group of animals does Animal Q belong to? [1]

_____

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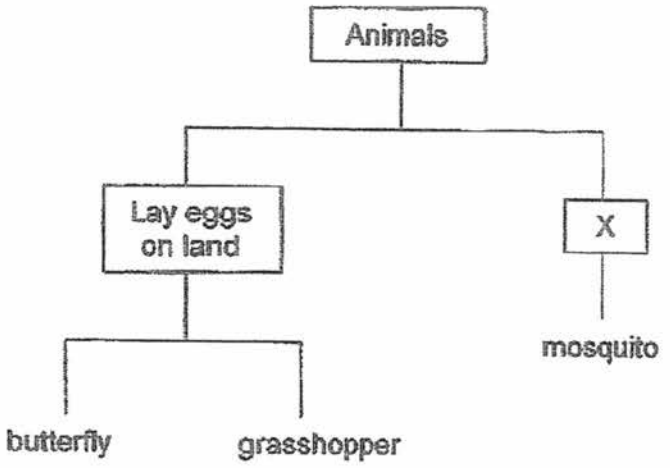
SCORE 3

30 Some animals are classified as shown below.



(a) In the diagram above, write a suitable sub-heading for 'X'. [1]

_____

(b) The butterfly and grasshopper are classified according to the number of stages in their life cycles. [1]

Write the number of stages in the life cycle of each animal below.

(i) butterfly: _____ stages

(ii) grasshopper: _____ stages

(Go on to the next page)

SCORE	/2

31 Ben wanted to find out if bees prefer yellow flowers or white flowers. He prepared 2 plastic-coloured flowers. The flowers were placed in the same part of the garden for 6 hours and sprayed with the same amount of sugar solution.

white plastic flower

yellow plastic flower

His friend said that his experiment was not a fair test.

(a) Suggest one change Ben should do to make his set-up a fair test. [1]

_____

_____

(b) After 6 hours, he concluded that bees prefer yellow flower. What should Ben measure to draw a conclusion to his experiment? [1]

_____

_____

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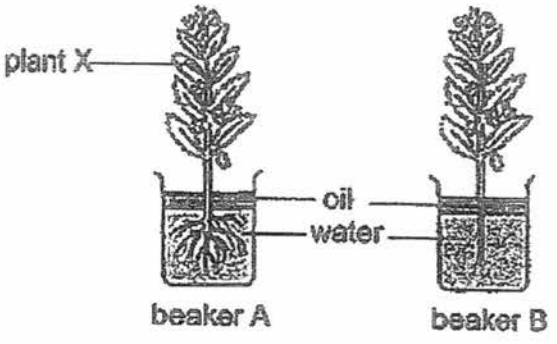
SCORE	/2

32 Jean set up an experiment as shown below. She placed plant X in beaker A. For beaker B, she removed all the roots of a similar plant X.



(a) What was Jean trying to find out in the experiment? [1]

(b) What would Jean observe about the water level in beaker A after one week? [1]

(c) Explain why Jean set up beaker B as a control. [1]

Jean read from an article about a new kind of plant Y that takes up four times as much water as plant X that she had used in her experiment.

(d) She sets up a new experiment using the new plant Y and if the claim in the article is true, state the difference in what Jean would observe between the two experiments. [1]

(Go on to the next page)

SCORE	/4

33 Minghui set up an experiment as shown in Diagram 1 to find out the effect of varying light intensities on the rate of photosynthesis in plants.
Diagram 2 shows some bubbles observed in the test tube at the end of the experiment.

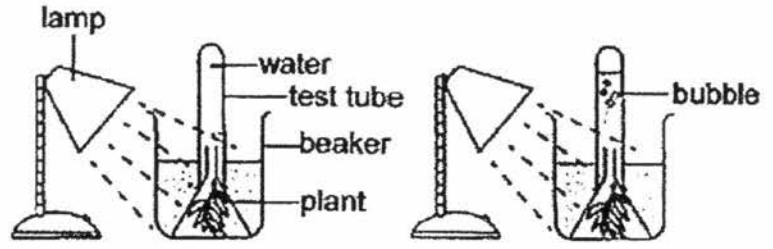


Diagram 1 Diagram 2

She recorded the number of bubbles produced per minute as shown below.

Light intensity (units)	Number of bubbles produced per minute
10	1
20	3
30	4
40	5
50	8

(a) State the relationship between the light intensity and the rate of photosynthesis. [1]

_____

_____

(b) Suggest one change Minghui can make to the set-up if she wants to collect more bubbles at the end of the experiment. [1]

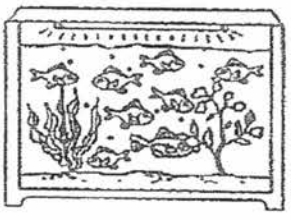
_____

(Go on to the next page)

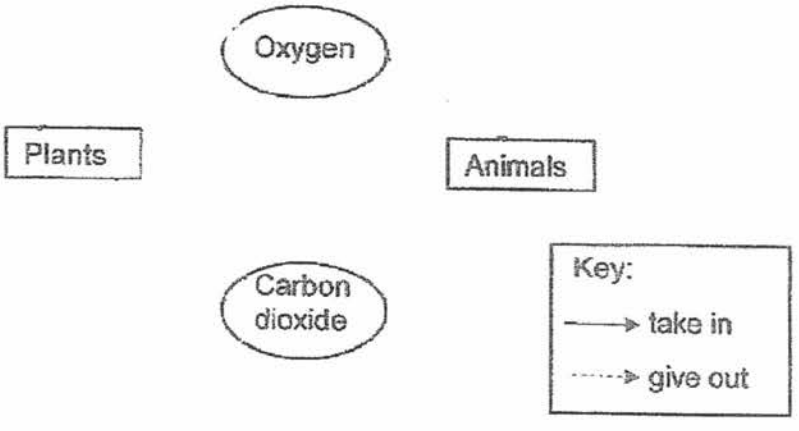
SCORE	/ 2

Continue from question 33

(c) Minghui has an aquarium as shown below. She placed her aquarium by the window.



In the diagram below, draw arrows to show how the living organisms in the aquarium exchange gases with their environment when they breathe or carry out photosynthesis. Use the given key to draw the arrows. [2]



After some time, Minghui noticed that there are some green patches on the inner sides of the fish tank. Her father told her that they are algae which is an organism that uses the energy of the sunlight to carry out photosynthesis.

(d) How can excessive amount of algae be prevented from growing on the sides of the tank quickly? [1]

_____

_____

(Go on to the next page)

SCORE	/ 3

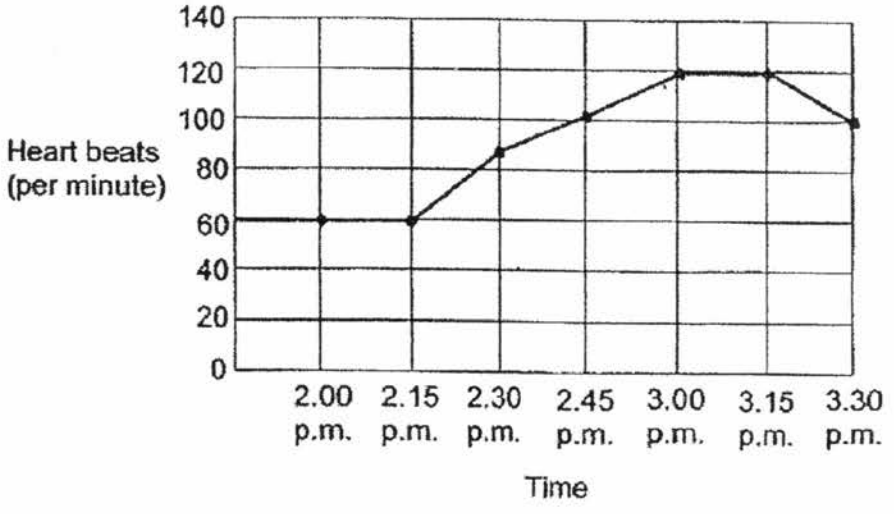
34 The diagram shows blood vessels in the human circulatory system.

(a) What is the difference in the amounts of gas carried by the blood flowing in P and Q? [1]

_____

_____

The graph shows the changes in the heart rate of a man as he exercises.



(b) What was the man's heart rate **when** he was not exercising? [1]

_____

(c) Explain why the heart rate increased when the man exercised. [2]

_____

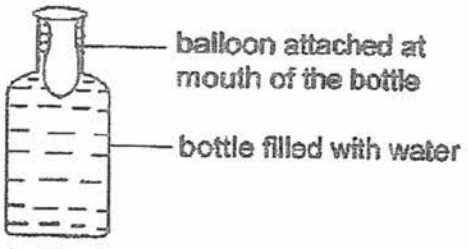
_____

_____

(Go on to the next page)

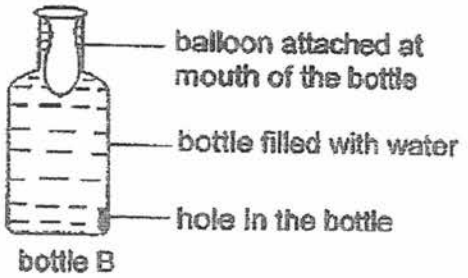
SCORE	4

35 Tom set up an experiment as shown below. For bottle A, he attached a balloon at the mouth of a plastic bottle that is completely filled with water. Then he tried to inflate the balloon by blowing into the mouth of the bottle.



bottle A

Then he set up bottle B in the same way, using a similar plastic bottle and balloon. However, he poked the side of the bottle with a nail. Water flowed out of the hole of bottle B. When the bottle was empty, he blew into the mouth of the bottle at the same time.



bottle B

He recorded his observations in the table below.

Bottles	Observation
A	Balloon did not inflate at all
B	Balloon was able to inflate

(a) Based on Tom's experiment, what property of the air is this activity about? [1]

_____

(b) Explain the difference in observations between bottles A and B. [2]

_____

_____

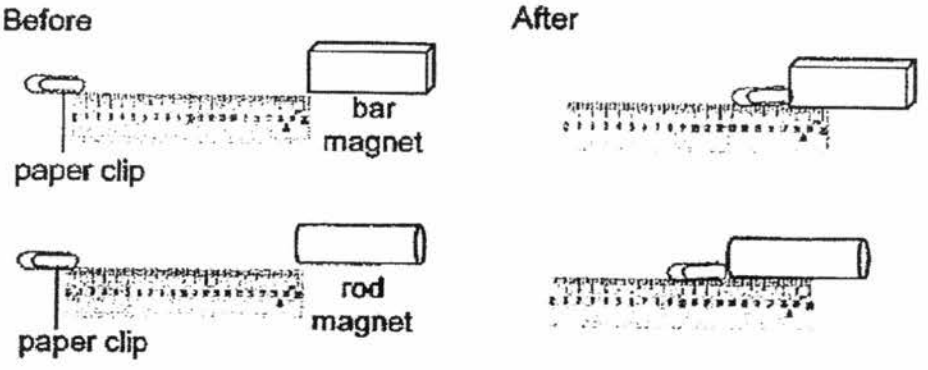
_____

_____

(Go on to the next page)

SCORE	3

36 Carl was given a bar magnet and a rod magnet. He placed the paper clip at one end of the ruler and slowly pushed the bar magnet until the paper clip was attracted to the magnet. He repeated the experiment with the rod magnet as shown below.



(a) What must Carl measure for this experiment? [1]

_____

_____

(b) What would Carl observe if he replaced the rod magnet with a copper rod? [1]

_____

(c) In his experiment, Carl kept the mass of the paper clip the same. How did this make his experiment a fair test? [1]

_____

_____

Carl proceeded to find out which part of the bar magnet has the greatest magnetic strength by dipping the bar magnet into a box of paper clips.

A	B	C	D

(d) Which part(s) of the bar magnet, A, B, C or D, will attract the most number of paper clips? Give a reason for your answer. [1]

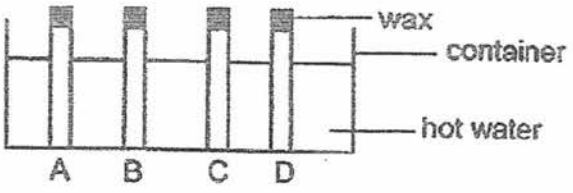
_____

_____

(Go on to the next page)

SCORE	/ 4

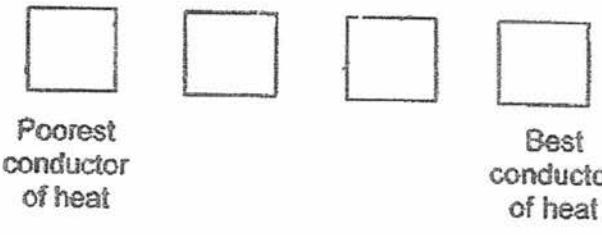
37 Ibrahim had 4 rods, A, B, C and D, made of different materials. The end of each rod was coated with the same amount of wax. He placed the other end of the rods in a container of hot water as shown below.



He recorded the time taken for the wax to drop off each of the rods in the table below.

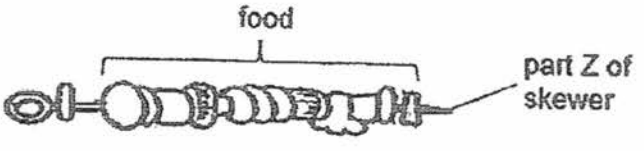
Rod	A	B	C	D
Time taken for wax to drop (min)	15	6	8	12

(a) Based on the results above, arrange rods, A, B, C and D, in the order from the poorest conductor of heat to the best conductor of heat below. [1]



(b) Ibrahim increased the thickness of rod C and repeated the experiment. Would the time taken for the wax to drop be longer than, shorter than or remain the same as 8 minutes? Explain your answer. [1]

(c) The picture below shows a barbecue skewer which Ibrahim used to hold his food together and cook his food over the fire.

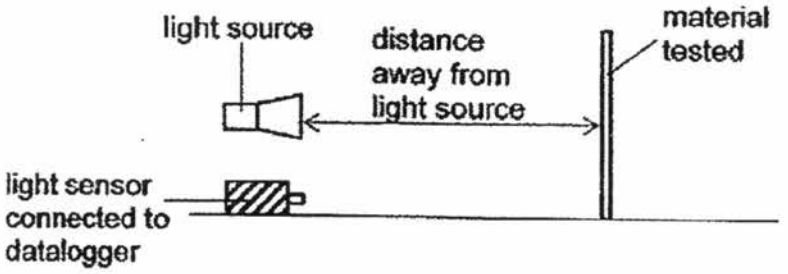


Based on the table above, which rod, A, B, C or D, would be the most suitable to make part Z of the skewer so that his food could be cooked in the shortest period of time? Explain. [1]

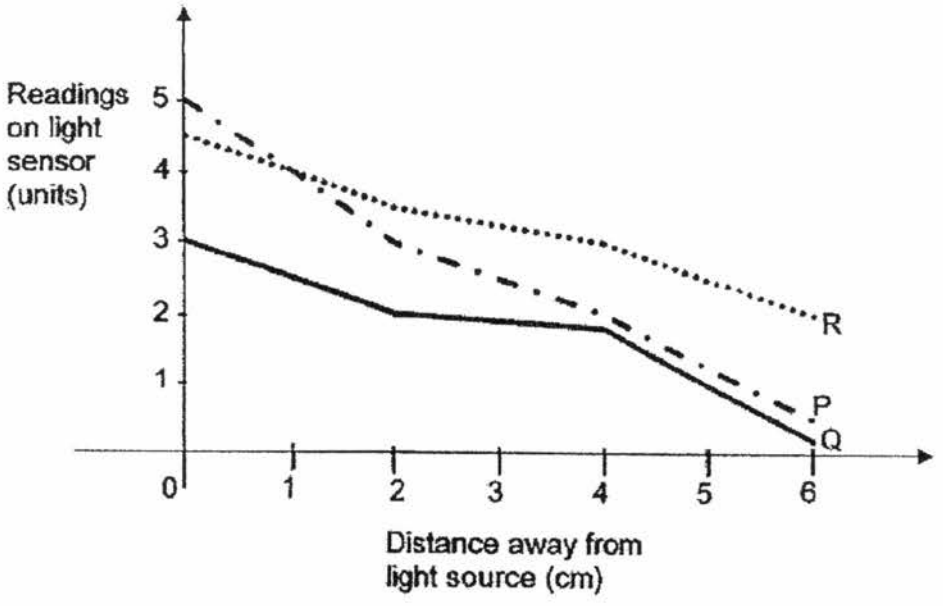
(Go on to the next page)

SCORE 3

38 Harry wanted to find out how the amount of light reflected by 3 different materials, P, Q and R, is affected by the distance the material is away from the light source. He set up his experiment as shown below.



He placed the materials at different distances away from the light source and used the light sensor to measure the amount of light that was reflected. He recorded the results and plotted a graph as shown below.



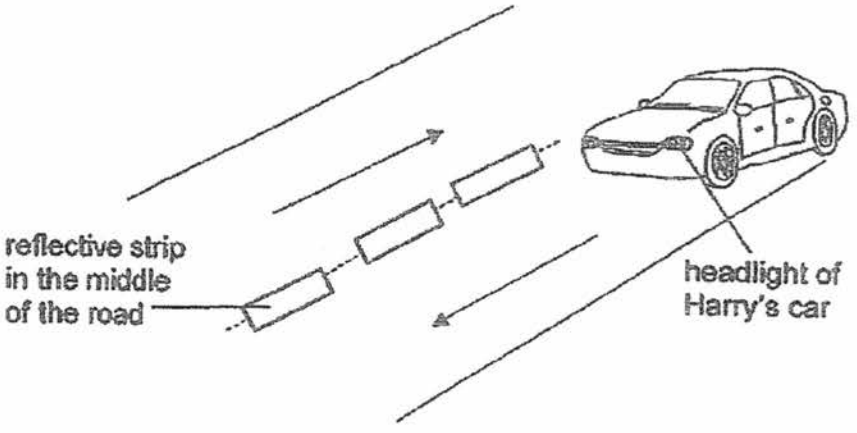
(a) Explain why Harry should conduct the above experiment in a completely dark room. [1]

(Go on to the next page)

SCORE	1

Continue from question 38

Harry was travelling on a road one night with no street lamps. However, he could still see his way because of the reflective strips on the road.



(b) Based on the result of Harry's experiment, which material, P, Q or R, is most suitable for making the reflective strips on the road? Explain. [1]

_____

_____

(c) Explain how Harry is able to see the reflective strips. [1]

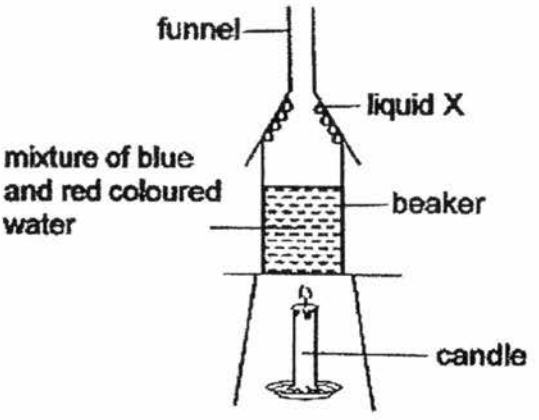
_____

_____

(Go on to the next page)

SCORE	2

39 200 ml of blue-coloured water was mixed with 200 ml of red-coloured water. The mixture was then heated as shown below.



Droplets of liquid X were formed on the inner sides of the funnel after the set-up was heated.

(a) What is the colour of liquid X? [1]

_____

(b) How was liquid X formed? [2]

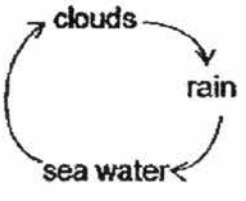
_____

_____

_____

_____

The diagram below represents a water cycle.



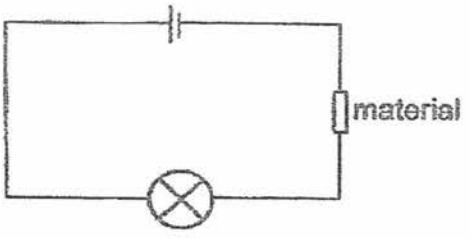
(c) Which part of the experiment above represents the clouds in the water cycle? [1]

_____

(Go on to the next page)

SCORE	/4

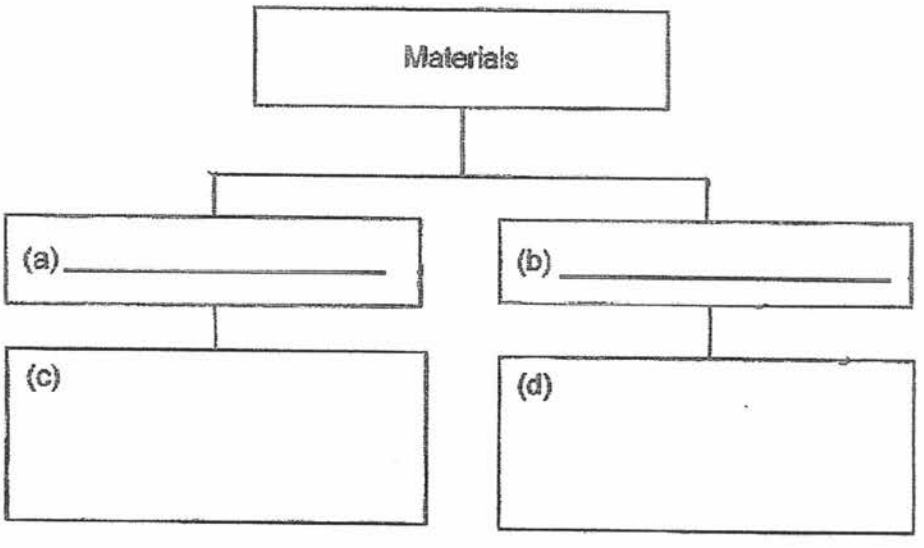
40 Nafiz sets up an electric circuit to test if the materials, J, K, L, M, N and P, will conduct electricity as shown below.



He recorded the results in the table below.

Material	J	K	L	M	N	P
Did the bulb light up in the circuit?	Yes	No	No	No	Yes	Yes

Complete the chart below to classify the materials into two main groups based on whether they are electrical conductors.
Give the main headings for boxes (a) and (b) and classify the materials according to their properties in boxes (c) and (d). [2]



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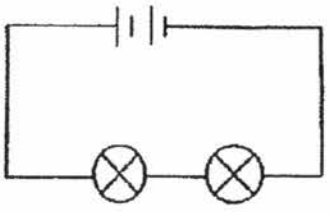
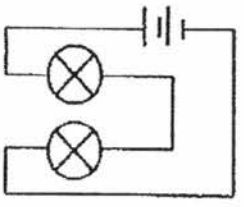
SCORE	2

41 Raul set up two circuits A and B using identical bulbs, batteries and wires as shown below.



circuit A



circuit B

(a) What would Raul observed if he compared the brightness of the bulbs in circuit A with the brightness of the bulbs in circuit B? [1]

_____

_____

Raul wanted to go cycling at night. He fixed 2 lamps to his bicycle as shown in circuit B.

(b) How should Raul arrange the circuit in such a way that when one lamp fuses, the other will still light up? [2]

Draw a circuit diagram in the space below to show what the circuit arrangement should be using wires, 2 batteries and 2 bulbs.

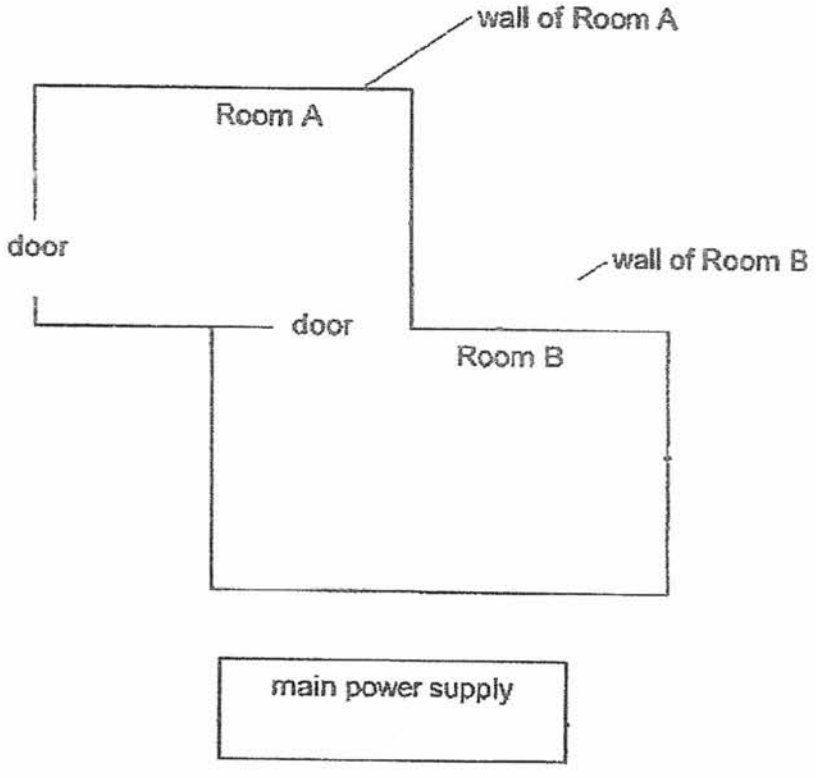
(Go on to the next page)

SCORE	3

Continue from question 41

(c) The diagram below shows the top view of two rooms in Cindy's house.
In Room A, Cindy uses a switch to turn on two lamps at the same time.
However, when one lamp fuses, the other will not light up.
In Room B, there is a switch to turn on one lamp.
The lamps in Room A can be switched on without switching on the lamp in Room B.

Complete the circuit below, using symbols from a circuit diagram to show how the lamps and switches are connected to the main power supply. [2]



End of Booklet B

SCORE	2

EXAM PAPER 2017 (P5)

SCHOOL : CATHOLIC HIGH

SUBJECT : SCIENCE

TERM : SA2

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

29)a)Group D: Have 4 legs

Group E: Have 6 legs

b)Rizal can group them based on their diet.

c)It belongs to the group of mammals.

30)a)Lays eggs on water.

b)i)4 ii)3

31)a)Size of the flowers the same.

b)The flower with the most amount of bees would be the preferred colour.

32)a)Jean was finding out whether the presence of roots affects the amount of water taken in by each plant.

b)The water level in Berker A would be less than beaker B.

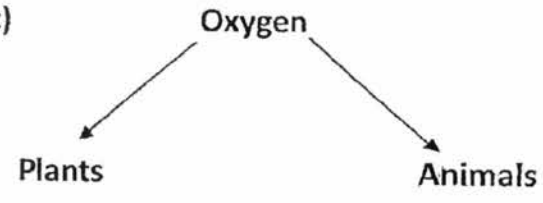
c)It is to compare and confirm that any change in water level is only due to the roots absorbing the water.

d)The water level in the beaker that plant Y is in would be four times lesser that in the beaker that plant X is in.

33)a)As the intensity of light increases, the number of bubbles produced per minute increases.

b)She would place another plant.

c)



Carbon dioxide

d)Keep the tank away from the window.

34)a)There is rich amounts of oxygen in P but there is low amount of oxygen in Q.

b)60 heart beats per minute.

c)His heart pumped faster to increase the amount of oxygen & digested food being sent to other parts of the body so that his body can respire to produce energy needed for the exercise.

35)a)Air occupies space.

b)In bottle B, water could escape allowing the balloon to inflate and take up the space occupied buy the water.

36)a)The distance the bar and rod magnet attracted the paper clip.

b)The paper clip would not more.

c)So that the distance attracted by the magnet is only due to the strength of the magnet.

d)A and D . Magnets are strongest at its poles.

37)a)A D C B

b)Longer. The rod had to gain more heat in order to melt the wax.

c)Rod B. The wax took the shortest time to melt and hence was the best conductor of heat and gained heat the fastest to cook the food the fast.

38)a)So that it prevents other light source to interphere with the results.

b)Material R. At the furthest distance, away from the light source material.

c)Light from the headlight falls on the reflective strips which reflect into Harry's eyes.

39)a)Colourless.

b)The water gained heat from the candle of evaporated into water vapour. The water vapour than came in contact with the cooler surface of the funnel, loss heat & condensed into water droplets.

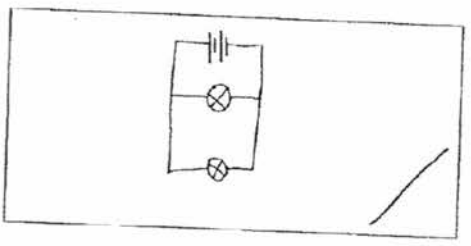
c)Liquid X.

40)a)Conductors of electricity. b)insulators of electricity

c)J , N , P d)K , L , M

41)a)They are of the some brightness.

b)



c)