CATHOLIC HIGH SCHOOL
SEMESTRAL ASSESSMENT 2
2014
PRIMARY THREE

SCIENCE

BOOKLET A

Name: _____ ( )

Class: Primary 3 - _____

Date: 29 October 2014

24 questions

48 marks

Total Time for Booklets A and B: 1 hour 30 minutes

INSTRUCTIONS TO CANDIDATES

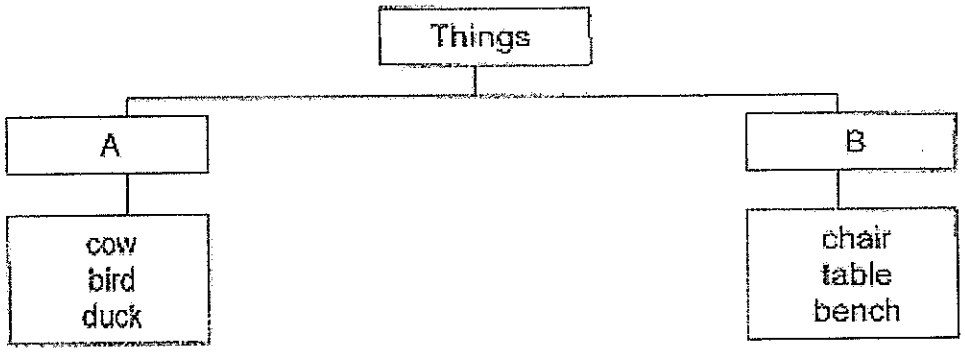
Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
Shade your answers in the Optical Answer Sheet (OAS) provided.

This booklet consists of 12 printed pages, excluding cover page.

Booklet A (24 × 2 marks)

For each question from 1 to 24, 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. (48 marks)

1 Study the classification chart below.



Which of the following do A and B represent?

	A	B
(1)	Living things	Non-living things
(2)	Cannot move	Can move
(3)	Have four legs	Have two legs
(4)	Cannot reproduce	Can reproduce

2 Which one of the following statements about plants is true?

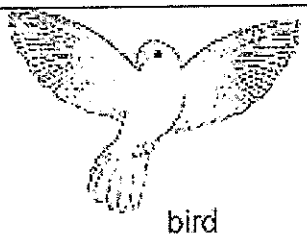
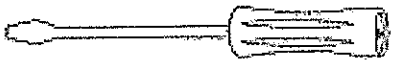
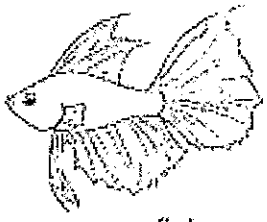
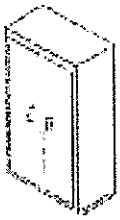
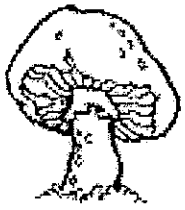
(1) Plants do not make food.

(2) Plants respond to sunlight.

(3) Plants get food from animals.

(4) Plants can only reproduce from seeds.

3 Study the table below carefully.

P	Q
 bird	 screwdriver
 fish	 cupboard
 mushroom	 bracket fungus

Which one of the following is grouped wrongly?

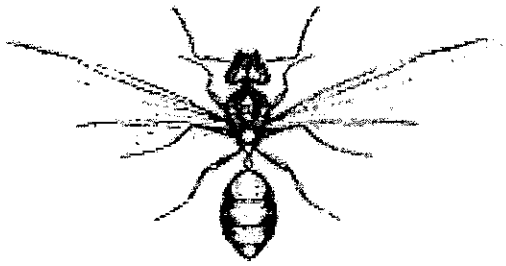
(1) bird
(2) mushroom
(3) screwdriver
(4) bracket fungus

4 Which of the following statements are true about ferns?

A It is a water plant.
B It can make its own food.
C It does not produce flowers.

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

5 Look at the picture of an animal below.



Which one of the following statements explains why the animal above is definitely an insect?

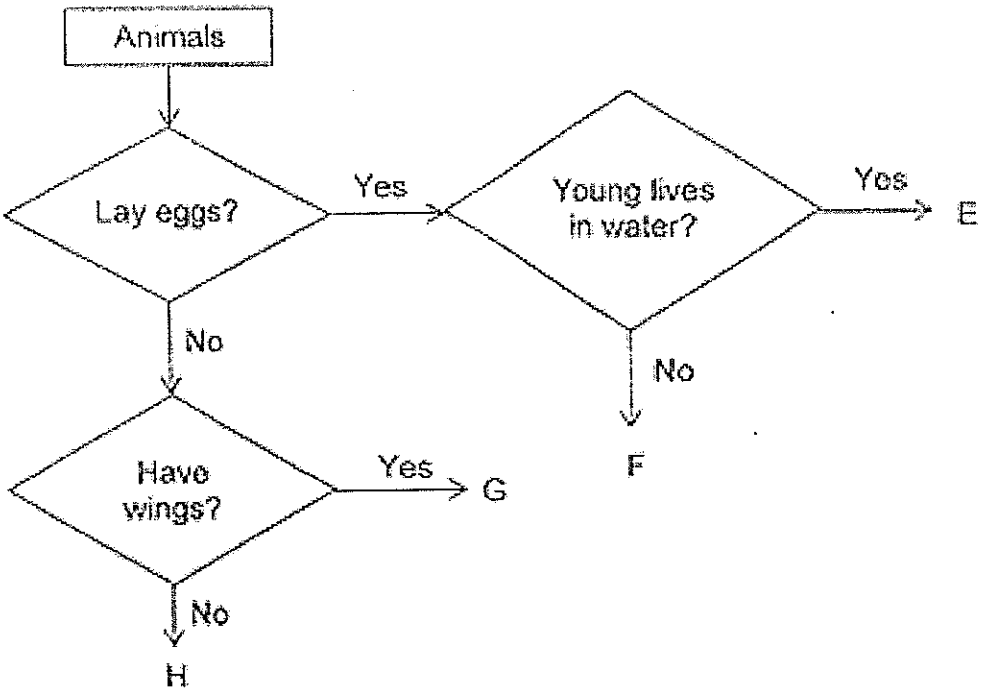
(1) It has three body parts.

(2) It has two pairs of wings.

(3) It feeds its young with milk.

(4) It has an outer covering of hair.

6 Study the flow chart below.



Which one of the following correctly represents a chicken?

(1) E

(2) F

(3) G

(4) H

7 Which of the following statements about fungi is/are true?

A They bear fruits.

B They have flowers.

C They reproduce from seeds.

D They cannot make their own food.

(1) C only

(2) D only

(3) A and B only

(4) B and C only

8 Which of the following is/are necessary for bread to turn mouldy?

A Light

B Water

C Oxygen

D Carbon dioxide

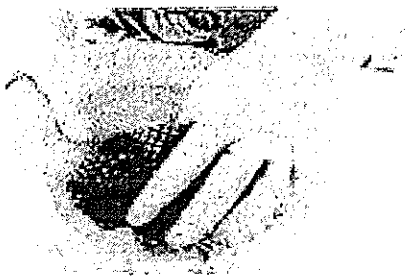
(1) B only

(2) A and C only

(3) B and C only

(4) A, B and D only

9 Mrs Tan wears a pair of rubber gloves to wash dishes so that her hands will not get wet.



Which one of the following is another suitable material for making gloves that can prevent her hands from getting wet?

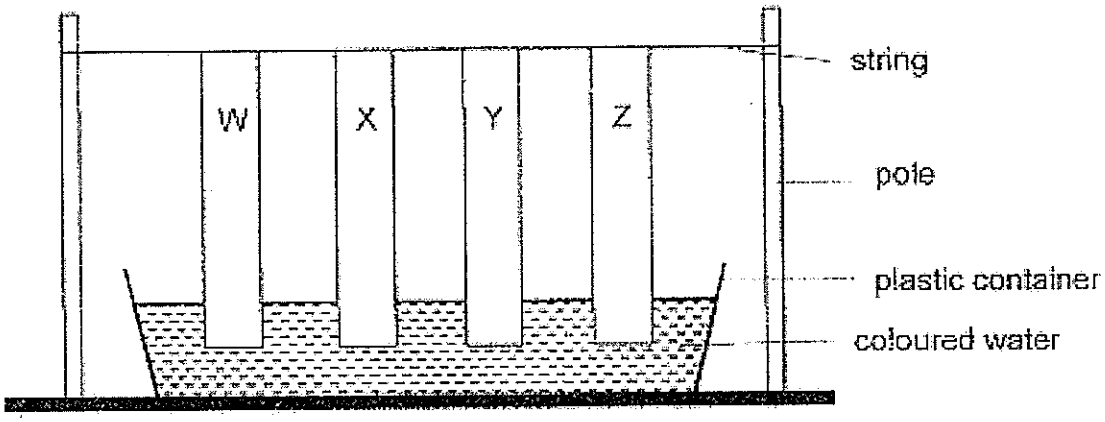
(1) Cloth

(2) Metal

(3) Glass

(4) Plastic

10 Four different materials, W, X, Y and Z, of similar shape and size, were used in the set-up as shown below.



The height in which the coloured water rose to on each strip of material after 5 minutes is recorded in the table below.

Material	Height (cm)
W	3
X	6
Y	1
Z	0

Based on the results above, which material is most suitable to be used to absorb milk spilled on a table?

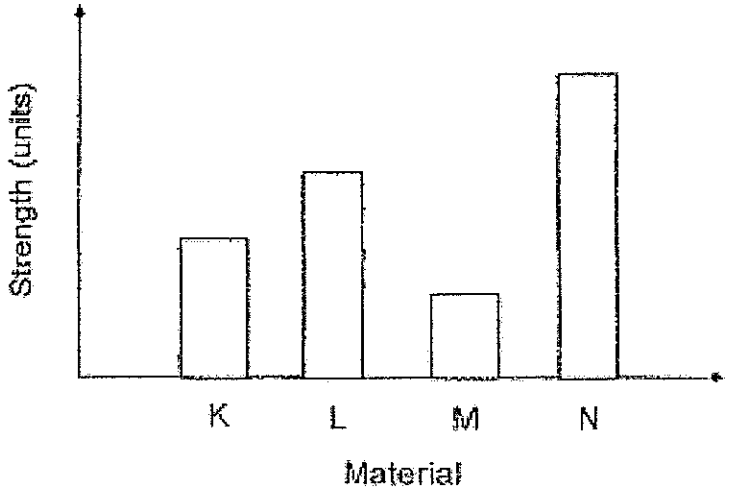
(1) W

(2) X

(3) Y

(4) Z

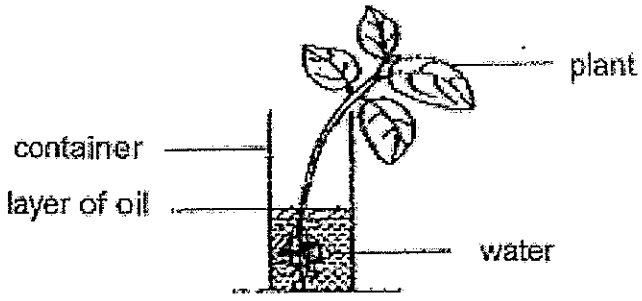
11 Mei carried out an experiment to test the strength of 4 different materials, K, L, M and N.
She then drew a graph to show the results of her experiment as shown below.



Which one of the following is the most suitable to make a fishing line?

(1) K
(2) L
(3) M
(4) N

12 Weiming set up the experiment as shown below. He placed a plant in a container filled with water. Then he put a layer of oil on the water and left the set-up next to the window for one day.



At the end of the experiment, he observed that the water level in the container had decreased. What was Weiming trying to find out from this experiment?

(1) To find out if the roots take in water.
(2) To find out if the plant can take in air.
(3) To find out if the plant can reproduce.
(4) To find out if the plant can make food.

13 Which one of the following represents the path taken by the food we eat?

(1) Mouth → windpipe → gullet → stomach → large intestine → anus

(2) Mouth → windpipe → gullet → stomach → small intestine → anus

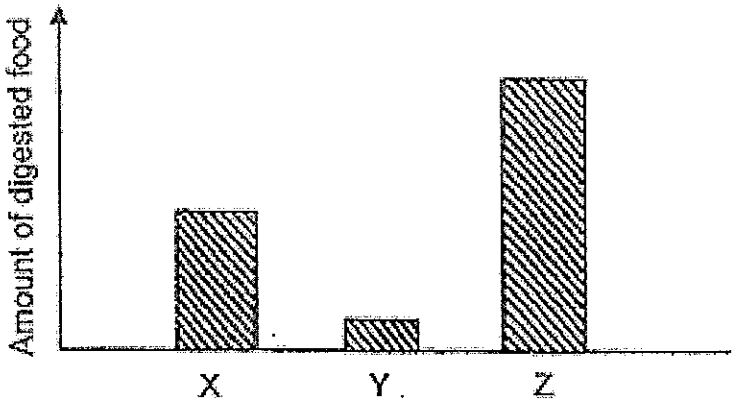
(3) Mouth → gullet → stomach → large intestine → small intestine → anus

(4) Mouth → gullet → stomach → small intestine → large intestine → anus

14 Which one of the following is correct?

	Organ involved in digestion of food	Organ involved in absorption of food
(1)	mouth	large intestine
(2)	stomach	large intestine
(3)	small intestine	small intestine
(4)	large intestine	small intestine

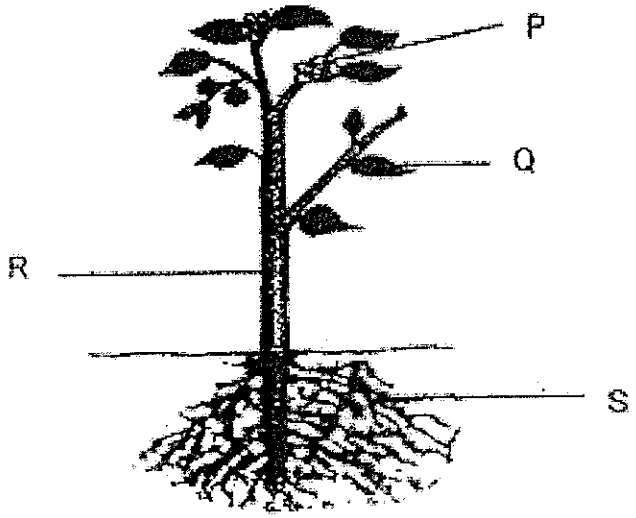
15 Ali had his breakfast. X, Y and Z are parts of the digestive system. The graph below shows the amount of digested food in the different parts of the digestive system.



Which one of the following correctly identifies organs X, Y and Z?

	X	Y	Z
(1)	Stomach	Mouth	Small intestine
(2)	Stomach	Large intestine	Mouth
(3)	Large intestine	Gullet	Mouth
(4)	Small intestine	Mouth	Stomach

16 Study the picture of a plant carefully.



Which of the following correctly matches the parts labelled above?

	P	Q	R	S
(1)	leaf	flower	root	stem
(2)	root	stem	leaf	flower
(3)	flower	leaf	stem	root
(4)	flower	stem	leaf	root

17 3 children, Hal, Kai and Leo, each made a statement about the leaves of plants.

Hal They make food for the plants.

Kai They take in water for the plants.

Leo They exchange gases with the surroundings.

Who made the correct statement(s)?

(1) Hal only

(2) Kai only

(3) Hal and Leo only

(4) Kai and Leo only

18 Jack wanted to find out if the location of the pots of plants S and T affects their growth. The table below shows what he had done.

Variables	Plant S	Plant T
Number of plants in pot	5	5
Size of pot	small	big
Location of pot	cupboard	garden
Duration of experiment	1 week	1 week

Jack's teacher told him he did not conduct a fair test. Which variable should he change to make his experiment a fair one?

(1) Use pots of the same size

(2) Put the pots at the same location

(3) Conduct the experiment over 5 days

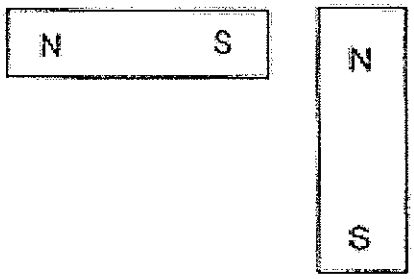
(4) Use a different number of plants for each pot

19 In which one of the following arrangements will the two magnets repel each other?

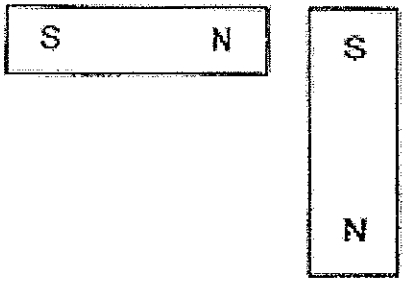
(1)

(2)

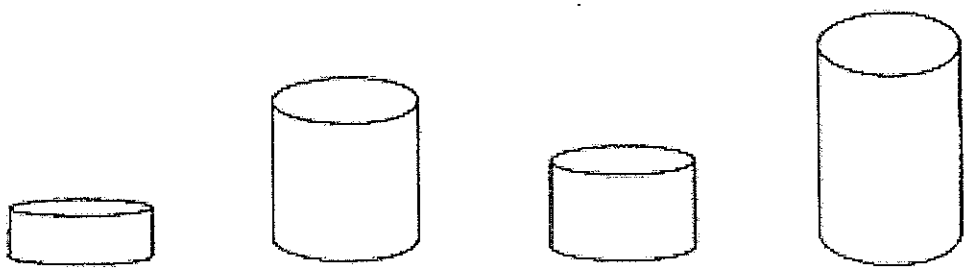
(3)



(4)



20 Wilson had four magnets as shown below. He brought them close to some paper clips.



He observed the number of paper clips attracted by each magnet and recorded the results in the table below.

	Magnet M	Magnet N	Magnet P	Magnet Q
Number of paper clips attracted	25	17	11	15

What can he conclude from the results above?

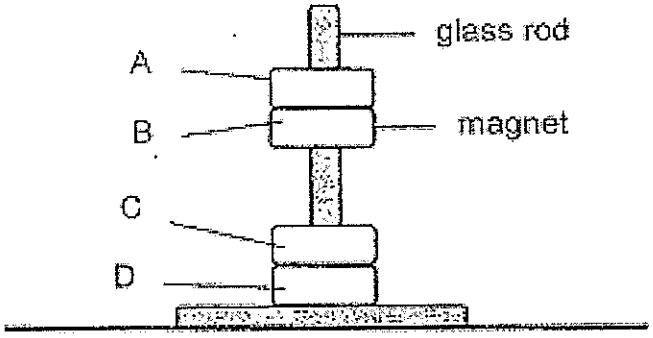
(1) Magnet P is stronger than Magnet M.

(2) The strength of a magnet depends on its shape.

(3) Bigger magnets are stronger than smaller magnets.

(4) The strength of a magnet does not depend on its size.

21 In the set-up below, A, B, C and D are 4 rings which pass through a smooth glass rod. Ring B is a magnet.



Which one of the following is not possible?

	A	C	D
(1)	steel	magnet	steel
(2)	rubber	steel	steel
(3)	rubber	magnet	rubber
(4)	rubber	magnet	magnet

22 Which one of the following things does not make use of magnets?

(1) Computer

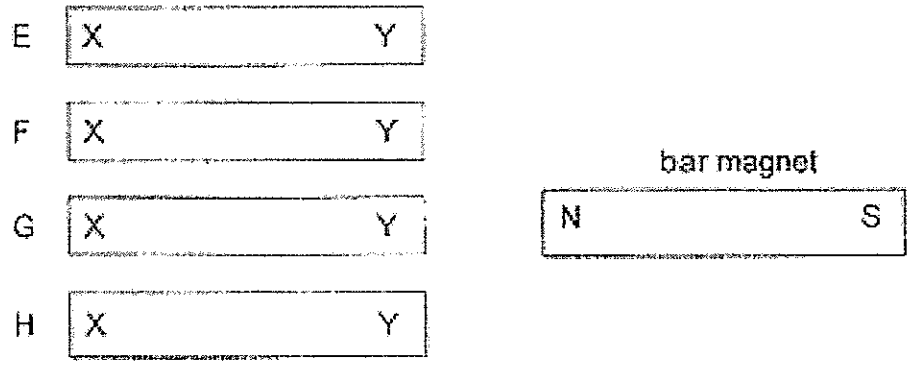
(2) Telephone

(3) Newspaper

(4) Refrigerator

23 Suling had four metal bars, E, F, G and H, and a bar magnet. She wanted to find out which metal bars are magnets.

She brought the north pole of the bar magnet near to the ends of each metal bar.



She recorded her observations in the table below.

Metal bar	Observations	
	N-pole and end X	N-pole and end Y
E	attracted	repelled
F	repelled	attracted
G	attracted	attracted
H	no reaction	no reaction

Which one of the following statements about the metal bars is correct?

(1) Bar G is a magnet.

(2) Bar H is a weak magnet.

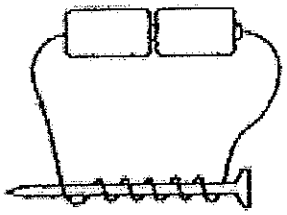
(3) Bars E and F are magnets.

(4) None of the metal bars is a magnet.

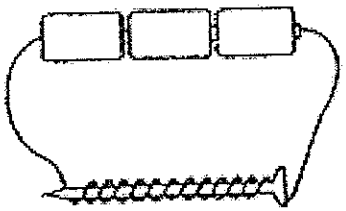
24 Jasmine wants to find out if the number of times an electrical wire is coiled around an iron nail affects the strength of the magnet.

Which two arrangements below should she set up in order to carry out a fair test?

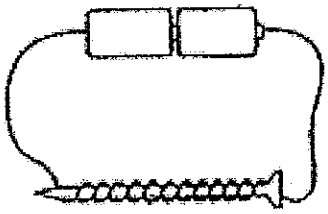
A



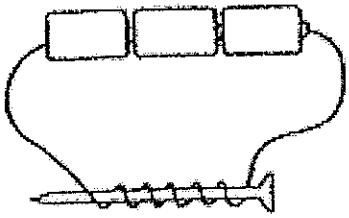
B



C



D



(1) A and B

(2) A and D

(3) B and C

(4) B and D

End of Booklet A

Booklet B (32 marks)

For questions 25 to 34, write your answers in this booklet.
The number of marks available is shown in brackets [ ] at the end of each question or part question. (32 marks)

25 Alice wrote the following in her Science journal.

> Animal X
>
> - It has a beak.
> - It has a pair of wings.
> - It has feathers on its body.
> - It reproduces by giving birth to its young alive.

(a) Based on Alice's journal, she concluded Animal X is a bird.
Write down one characteristic to support her conclusion. [1]

_____

_____

(b) Her teacher told her that she had made a mistake with one of its characteristics.

Write the correct characteristic below. [1]

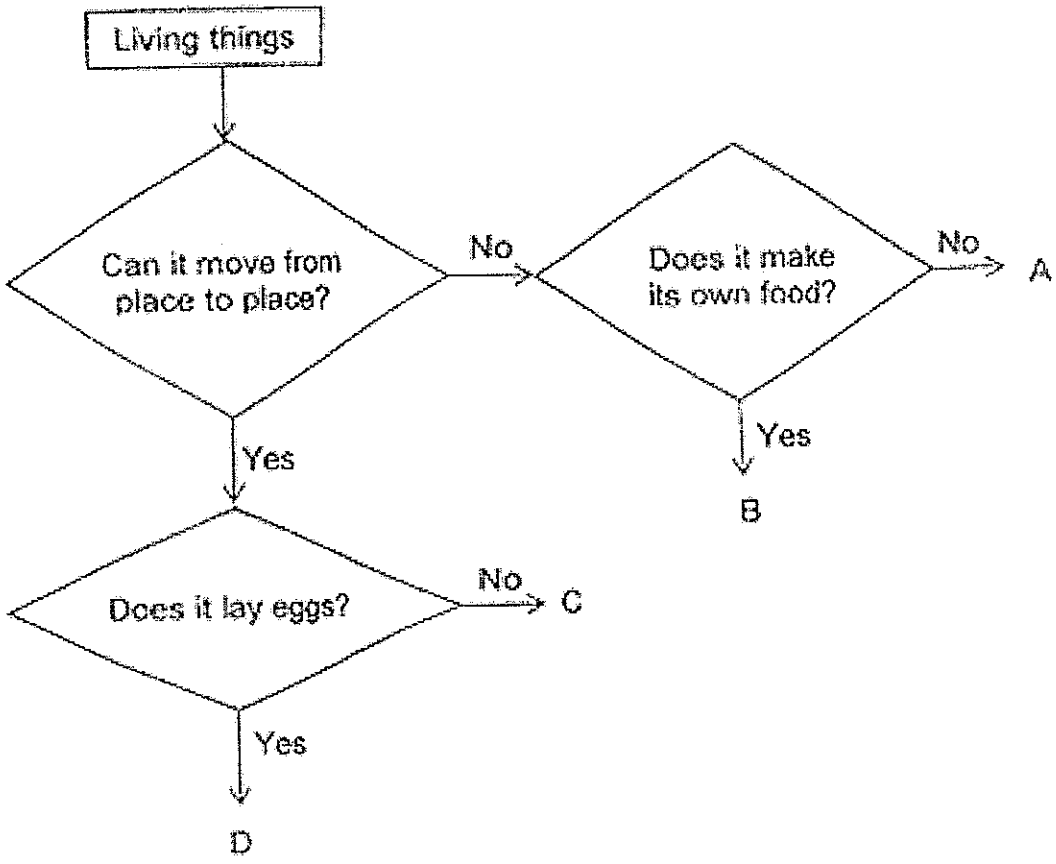
_____

_____

(Go on to the next page)

SCORE	/ 2

26 Study the flow chart below.



(a) Write the letter that best represents each of the following: [2]

(i) Plants - _____

(ii) Fungi - _____

(iii) Mammals - _____

(iv) Birds - _____

(b) What is the difference between A and B? [1]

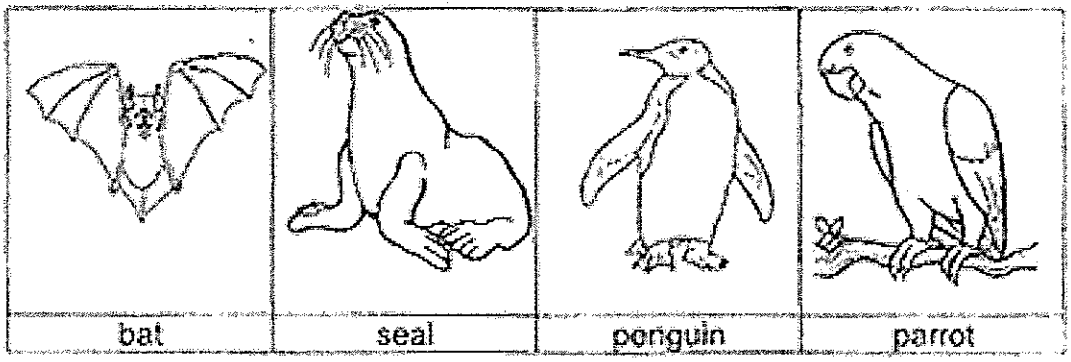
_____

_____

(Go on to the next page)

SCORE	3

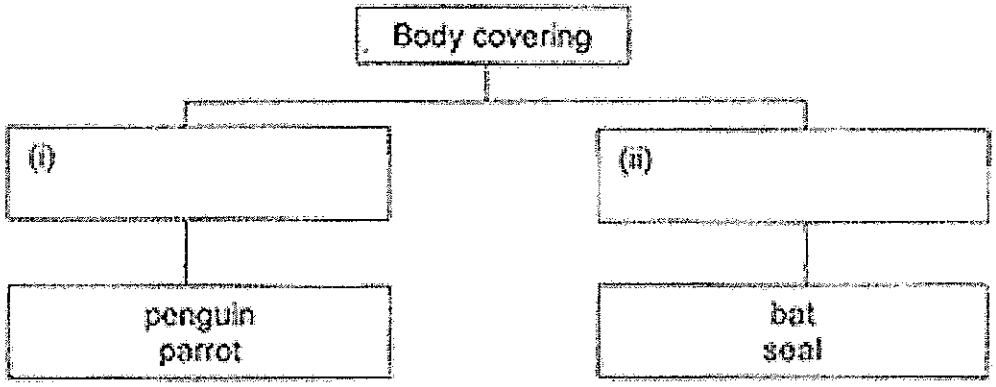
27 Felicia was asked to classify the following animals into two groups based on their characteristics.



She said that she could classify them in 2 different ways.

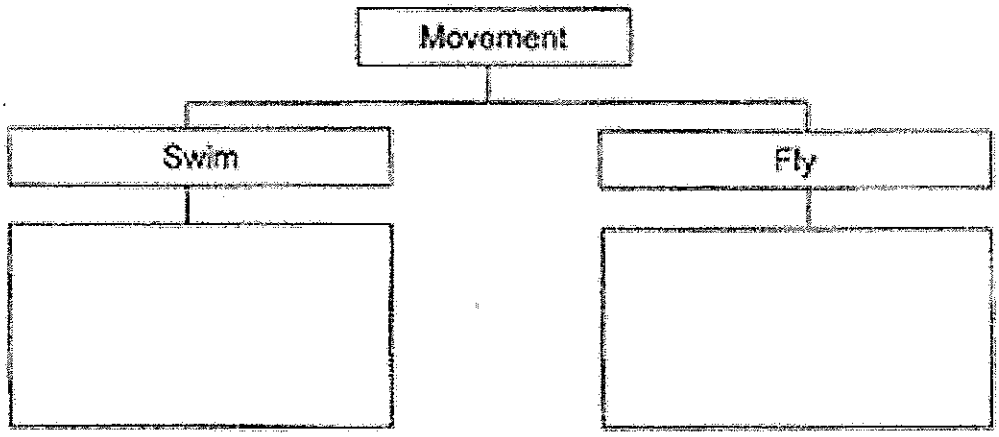
1st way

(a) Write the headings for the classification chart below in the boxes provided. [1]



2nd way

(b) She then classified the animals according to the way they moved. [2]
Place the four animals in the correct boxes below.



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SCORE	3

28 (a) The diagram below shows a mushroom and bread mould.

mushroom

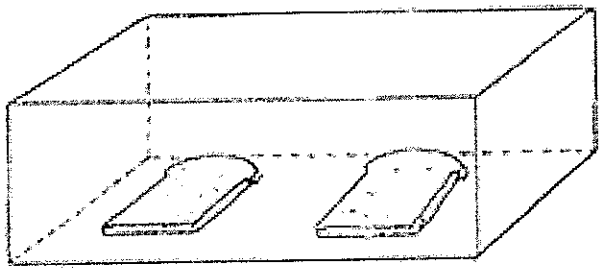
mould

State one common characteristic between them. [1]

_____

_____

James conducted an experiment. He had two similar pieces of bread, A and B. He toasted Bread A and added water to Bread B. He then put both pieces of bread inside a box.



Bread A
- toasted

Bread B
- with water

(b) What was James trying to find out in this experiment? [1]

_____

_____

(c) What would he notice about the two pieces of bread after a few days? [1]

_____

_____

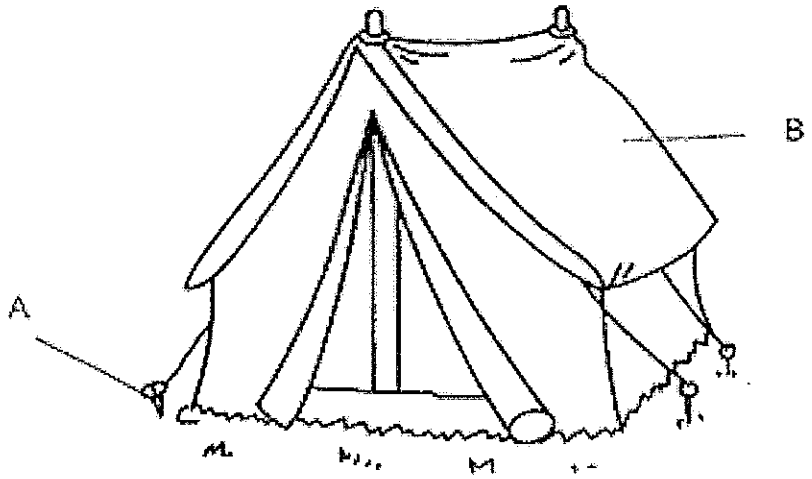
(d) Besides water, state one other condition bread mould needs in order to grow. [1]

_____

(Go on to the next page)

SCORE	/ 4

29 (a) Mr Tan made a tent for his camping trip.



The properties of the three materials X, Y and Z are shown in the table below.

Material	Properties
X	• Stiff • Strong
Y	• Waterproof • Allows light to pass through
Z	• Strong • Waterproof

Which materials X, Y or Z is the most suitable to make the two labelled parts, A and B?

(i) Part A - _____ [1]

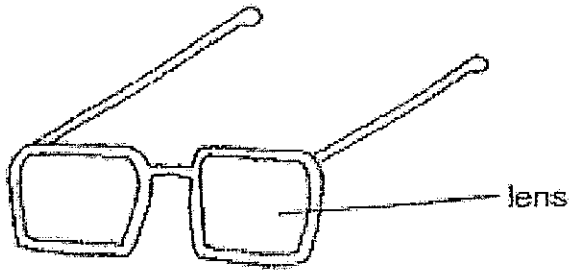
(ii) Part B - _____

(Go on to the next page)

SCORE	1

(b) Mr Tan has two materials, G and H. The properties of the two materials are shown in the table below.

Material G	Material H
Is not flexible	Is flexible
Allows light to pass through	Does not allow light to pass through



(i) Which material, G or H, is suitable to make the lens of a pair of spectacles? Explain your answer. [1]

_____

_____

(ii) Write one suitable material for Material G. [1]

_____

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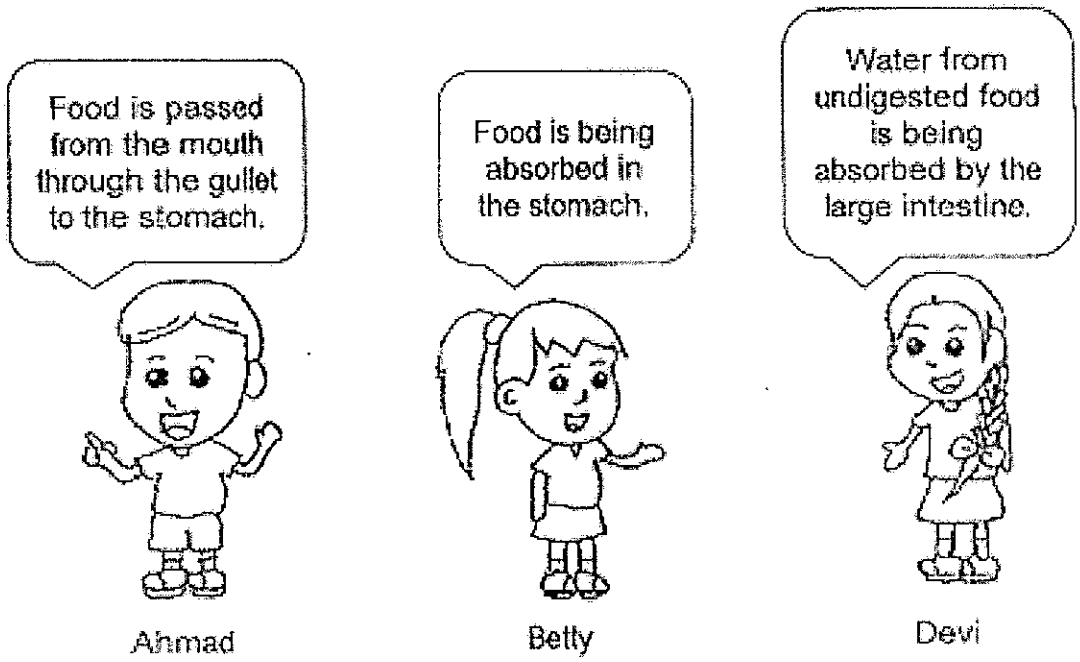
SCORE	/ 2

30 Three friends, Ahmad, Betty and Devi, were sharing their knowledge about the human digestive system in the diagram below.



(a) Whose statement(s) is/are correct? [1]

_____

(b) State one function of the small intestine. [1]

_____

_____

(c) Which part of the digestive system is not working well when we have diarrhoea (watery faeces)? [1]

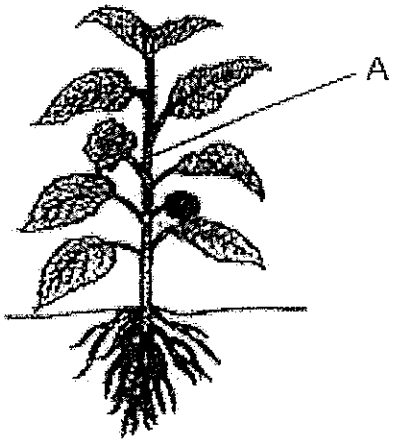
_____

_____

(Go on to the next page)

SCORE	/ 3

31 The diagram below shows a plant.



(a) State one function of the part labelled A. [1]

_____

_____

(b) The plant will die if the roots were to be removed. Explain why. [1]

_____

_____

(c) Give another function of roots. [1]

_____

_____

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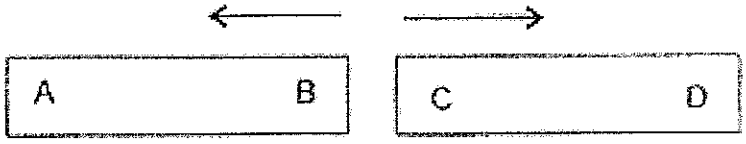
SCORE	3

32 (a) Adam brought two bar magnets near to each other. He observed that they moved in the directions indicated by the arrows.



Indicate the poles "N" or "S" represented by parts B and C.

(i) B - _____ C - _____ [1]

(ii) What does this tell you about magnets? [1]

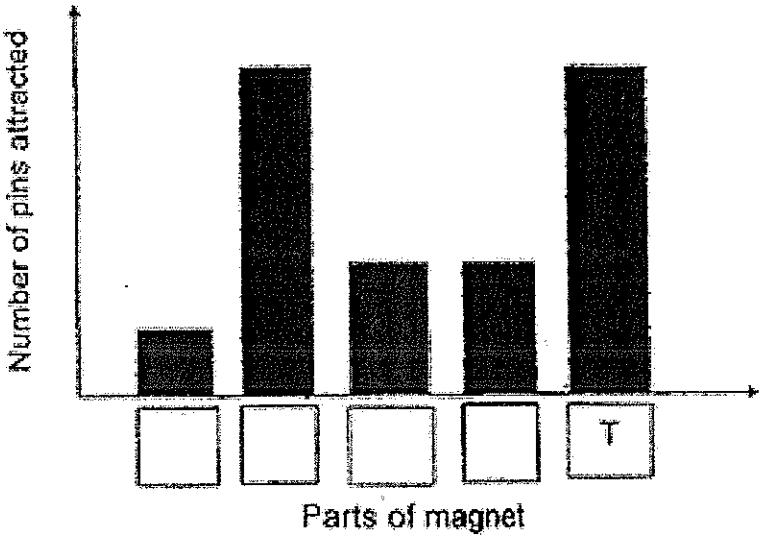
_____

_____

(b) Adam then marked a bar magnet into five parts P, Q, R, S and T as shown in the diagram below.

Next, he lowered the bar magnet into a tray of pins and then counted the number of pins attracted to the different parts of the bar magnet.

His observation is recorded in the bar graph below.

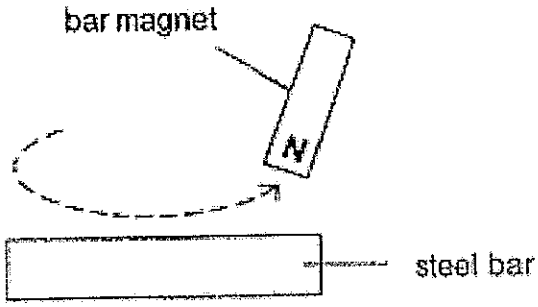


In the graph above, match the parts (P, Q, R and S) of the magnet to the bars by filling in the boxes provided. [2]

(Go on to the next page)

SCORE	4

33 John used a bar magnet to magnetise a steel bar in the direction as shown in the diagram below.



(a) What will John observe if he places the steel bar near a plate of pins? [1]

_____

_____

(b) Using the method shown above, how can he increase the magnetism of the steel bar? [1]

_____

_____

(c) After increasing the magnetism of the steel bar, what will happen when the steel bar is brought near to the plate of pins again? [1]

_____

_____

(d) State one way how John can make a magnet lose its magnetism. [1]

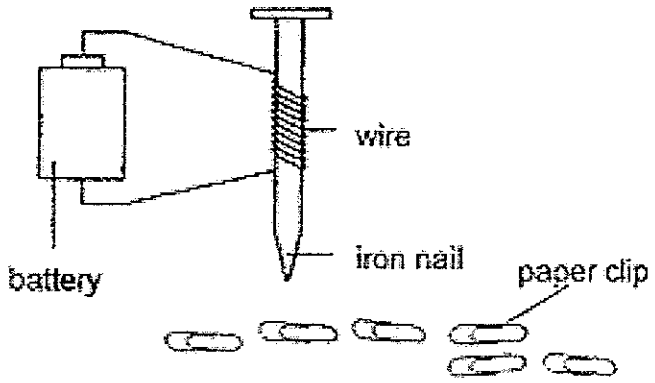
_____

_____

(Go on to the next page)

SCORE	4

34 Jimmy coiled a wire around an iron nail and connected the ends of the wire to a battery. He repeated this several times with a different number of turns around the iron nail. With each different number of turns of wire around the nail, the number of paper clips picked up was different.



(a) What would happen to the iron nail when the set-up was connected? [1]

(b) If the iron nail was replaced by a copper rod, would it still be able to attract any paper clips? Explain. [1]

(c) Look at the results of the experiment in the table below.

Number of turns of wire around the iron nail	Number of paper clips picked up by the iron nail
10	1
15	3
20	7
25	12

From the results above, what happened to the number of paper clips attracted when the number of turns of wire around the iron nail increased? [1]

End of Booklet B

SCORE	/3

YEAR: 2014
LEVEL: P3
SCHOOL: CATHOLIC HIGH
SUBJECT: SCIENCE
SEMESTER: SA2

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
1	3	4	3	1	2	2	3	4	2

Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20
4	1	4	3	1	3	3	1	2	4

Q21	Q22	Q23	Q24
2	3	3	4

25. a) It has a beak.
    b) It lays eggs.

26. a) i) B
    ii) A
    iii) C
    iv) D
    b) A cannot make their own food but B can make their own food.

27. a) i) Feathers
    ii) Hair
    b) Swim: Seal, Penguin
    Fly: Bat, Parrot

28. a) Both reproduce by spores
    b) If mould needs water to grow
    c) There would be bread mould growing on Bread B but not on Bread A.
    d) Warmth

29. a) i) X
    ii) Z
    b) i) G. It allows light to pass through sp that users can see what is in front of them.
    ii) Glass

30. a) Ahmad, Devi
    b) It absorbs the digested food into the bloodstream.
    c) Large intestine

31. a) A holds the plant upright
    b) There will be no roots to absorb water for the plant
    c) It holds the plant firmly to the ground

32. a) i) B: S
          C: S
       ii) When the like poles are facing each other they repel.
    b) R P Q S

33. a) It will attract a few pins
    b) He can stroke it more times using the same pole of the magnet.
    c) It will attract more pins
    d) He can heat it up.

34. a) The iron nail will become an electromagnet and it will attract the paper clips
    b) No. Copper is not a magnetic material. Thus, it cannot be magnetized.
    c) It could pick up more paper clips.