13

CATHOLIC HIGH SCHOOL

END-OF-YEAR EXAMINATION

PRIMARY THREE

SCIENCE

BOOKLET A

Name: _____ ( )

Class: Primary 3 - _____

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 13 printed pages, excluding the cover page.

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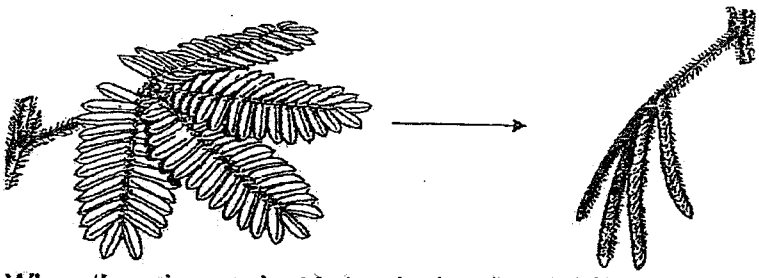
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Booklet A (24 × 2 marks)

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 The diagram shows a mimosa plant.

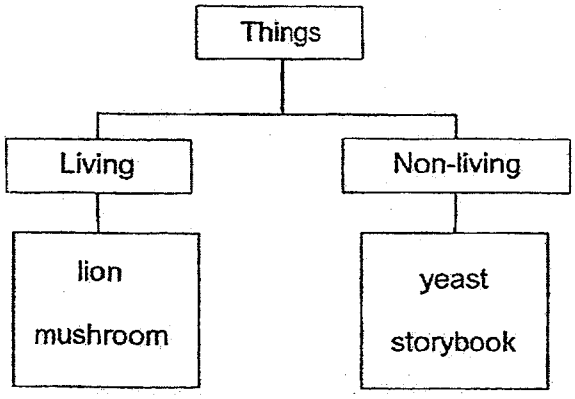


When the mimosa plant is touched, its leaves close up.

What does this observation tell you about the mimosa plant?

(1) It can grow.
(2) It can reproduce.
(3) It can respond to changes.
(4) It needs air, food and water.

2 Study the diagram below.



Which of the following has been classified wrongly?

(1) lion
(2) yeast
(3) storybook
(4) mushroom

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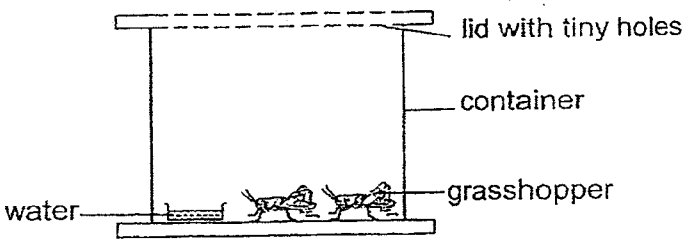
3 Swee Lian classified the following items into two groups as shown below.

Group A	Group B
eraser fish tank leather bag	key iron nail gold ring

How were the items grouped?

	A	B
(1)	flexible	stiff
(2)	non-metal	metal
(3)	non-magnetic	magnetic
(4)	non-waterproof	waterproof

4 Russell put two grasshoppers and a dish of water into a container. He then covered it with a lid that had tiny holes as shown below. After a week, the grasshoppers died.



What could Russell have done so that the grasshoppers would stay alive?

(1) Use a bigger container.

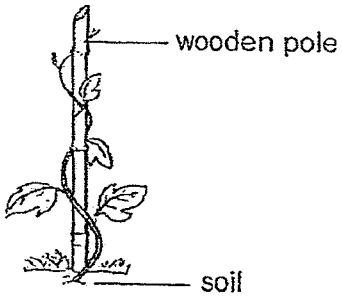
(2) Take out one grasshopper.

(3) Put some grass into the container.

(4) Place a bigger dish of water into the container.

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5 The diagram below shows a plant.



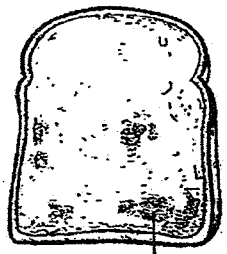
Which statement(s) is/are correct?

A The plant has fruits.
B The plant has a weak stem.
C The plant is a flowering plant.

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

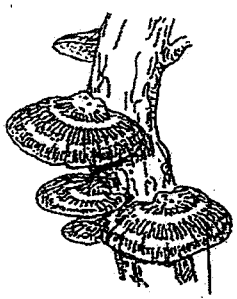
6 Which of the following is a flowering plant?

(1)



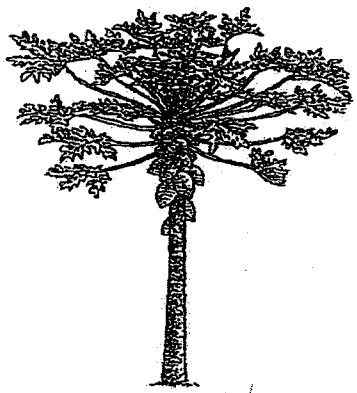
bread mould

(2)



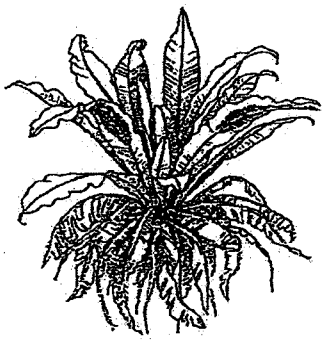
bracket fungi

(3)



papaya tree

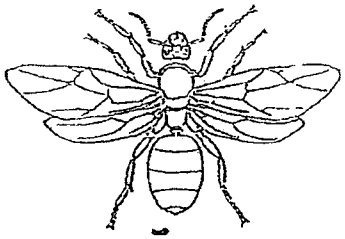
(4)



bird's nest fern

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7 Gopal found living thing X in his garden.



living thing X

Which observations confirm that living thing X is an insect?

A It has wings.
B It has feelers.
C It has six legs.
D It has three body parts.

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

8 Steffi made the following observations of the characteristics of an adult animal.

A It produces milk.
B It has no feathers.
C It gives birth to its young alive.

What is another characteristic that she will observe about the animal?

(1) It has gills.
(2) It has scales.
(3) It has hair as its outer covering.
(4) It breathes through its moist skin.

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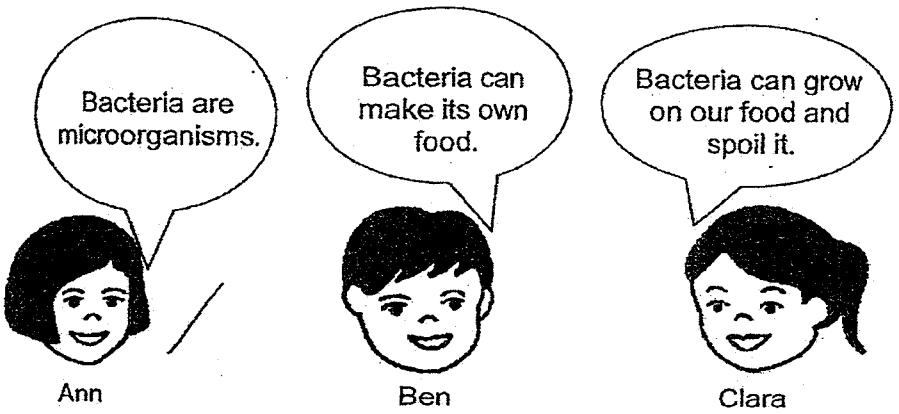
9 What is a common characteristic of amphibians and birds?

(1) They have wings.
(2) They have two legs.
(3) They reproduce by laying eggs.
(4) They have the same type of body covering.

10 Which of the following about fungi is not correct?

(1) Fungi reproduce from spores.
(2) Fungi are non-flowering plants.
(3) Fungi do not make their own food.
(4) Fungi need air, food and water to survive.

11 Three pupils made the following statements about bacteria.



Which pupils were correct?

(1) Ann and Ben only
(2) Ann and Clara only
(3) Ben and Clara only
(4) Ann, Ben and Clara

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12 Nur wanted to find out if water is needed for mould to grow. She prepared four set-ups as shown below. Ten drops of water were added to the cakes in set-ups B, C and D.

<table>
<tr>
<td>set-up A
no water

in the cupboard</td>
<td>set-up B
has water

in the refrigerator</td>
</tr>
<tr>
<td>set-up C
has water

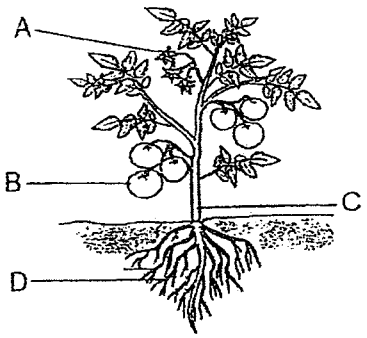
in the refrigerator</td>
<td>set-up D
has water

in the cupboard</td>
</tr>
</table>

Which two set-ups should she use to conduct the test?

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

13 The diagram below shows a plant.

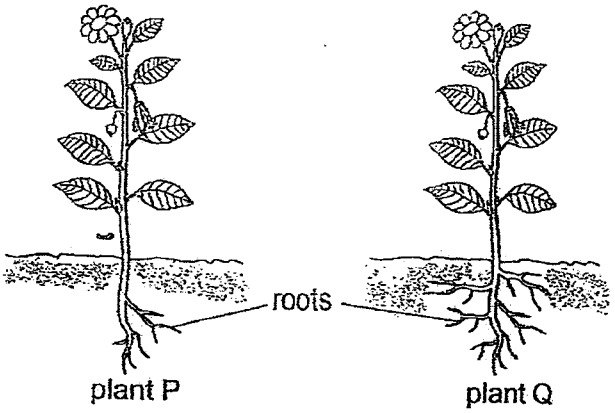


Which part of the plant holds it upright to receive sunlight?

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

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14 The diagram below shows two plants, P and Q.



Plant Q has more roots than plant P.

Thus, roots of plant Q can _____.

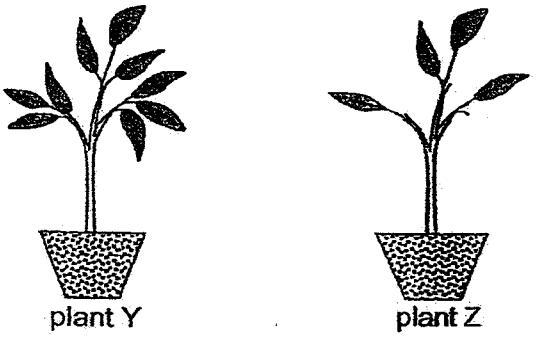
(1) trap more sunlight

(2) hold the plant more upright

(3) carry more water to all parts of the plant

(4) anchor the plant more firmly to the ground

15 May Ling set up an experiment using the two potted plants, Y and Z, as shown below. She placed the plants in the garden and watered them with 50 ml of water daily. She observed the plants for two weeks.



May Ling was trying to find out if the _____ affects the growth of a plant.

(1) size of pot

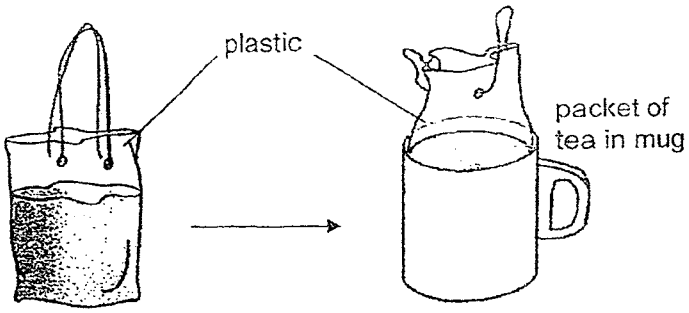
(2) amount of water

(3) number of leaves

(4) amount of sunlight

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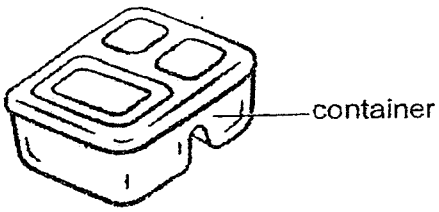
16 Ken placed a packet of tea into a mug as shown.



What property of the plastic makes it suitable to be able to fit into the mug?

(1) It is strong.
(2) It is flexible.
(3) It is waterproof.
(4) It is transparent.

17 The diagram below shows a food container that can be used to store food.



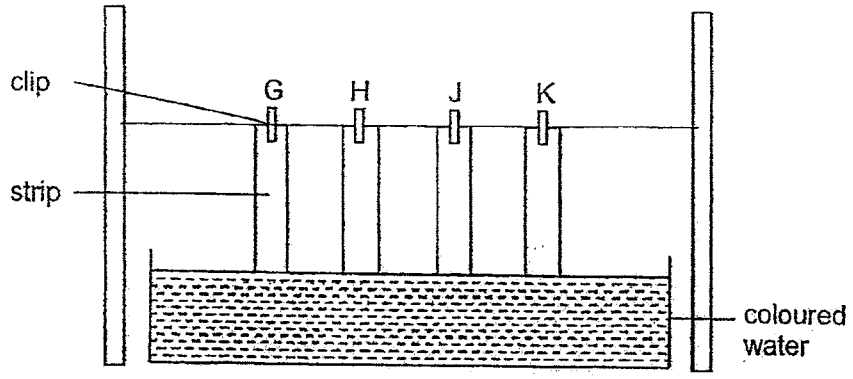
The table below shows the properties of materials, A, B, C and D. A tick (✓) shows that the material has the properties.

Which material is most suitable for making the food container?

	Material	Property		
		strong	waterproof	transparent
(1)	A	✓	✓	
(2)	B	✓		✓
(3)	C			✓
(4)	D		✓	✓

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18 Muthu dipped four strips of different materials, G, H, J and K, into a container of coloured water as shown below.



After ten minutes, he took the four strips out of the container. The table below shows his observations.

Material	Height at which the coloured water travelled (cm)
G	0
H	12
J	3
K	7

Which material is most suitable for making a raincoat?

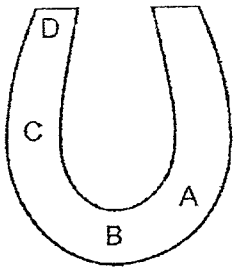
(1) G
(2) H
(3) J
(4) K

19 In which direction will a freely suspended bar magnet point to when it comes to a rest?

(1) east-west
(2) north-west
(3) south-east
(4) north-south

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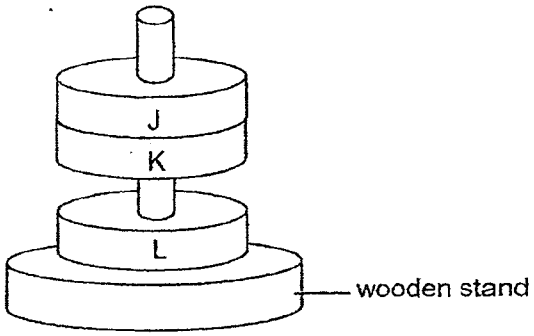
20 The diagram below shows a horseshoe magnet.



At which point, A, B, C or D, would the magnet attract the most number of steel pins when brought near a tray of pins?

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

21 Three similar rings made of unknown materials are slotted through a wooden stand as shown below.

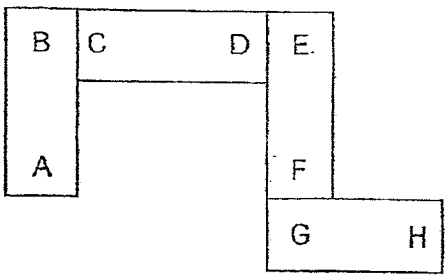


Which of the following best describes the above observations?

(1) J is non-magnetic
(2) K and L are magnets.
(3) J, K and L are magnets.
(4) K and J are non-magnetic.

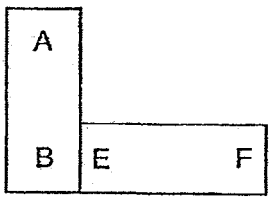
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22 Four bar magnets can be arranged as shown below.

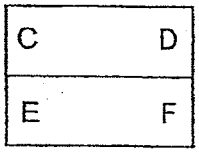


Which arrangement of the magnets is possible?

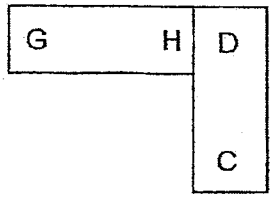
(1)



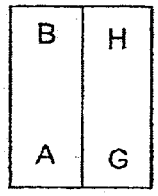
(2)



(3)

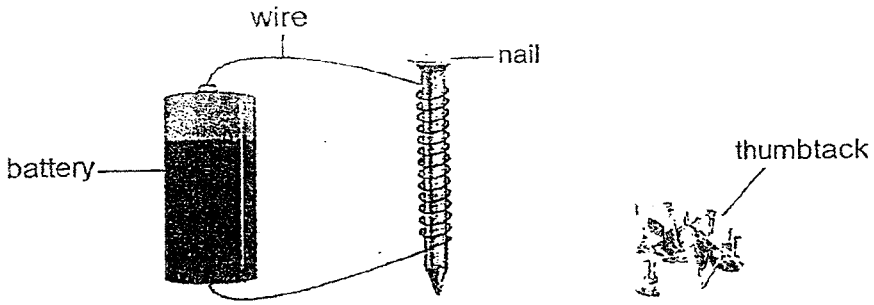


(4)



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23 Ephraim made an electromagnet using a battery and some wires as shown below.



He then placed some thumbtacks near the electromagnet but noticed that no thumbtacks were attracted to it.

Which could be the reason why no thumbtacks were attracted to the electromagnet?

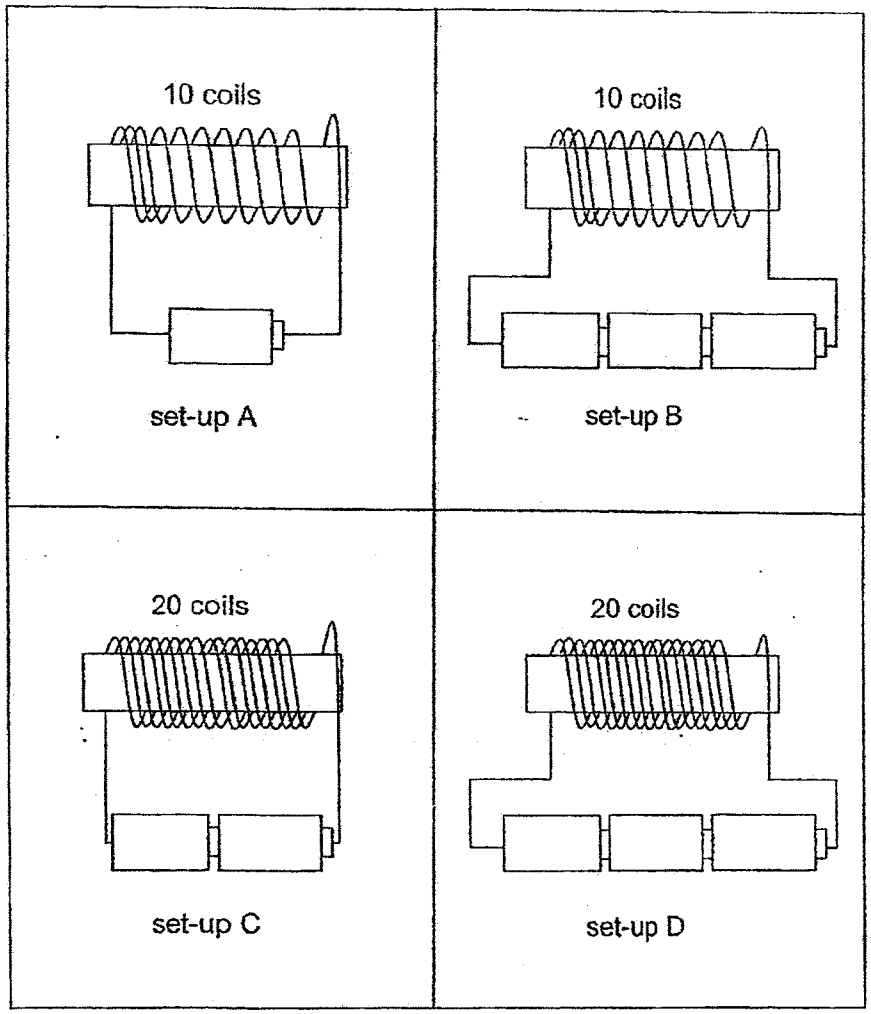
A The battery was too weak.
B The nail was made of steel.
C The thumbtacks were made of copper.

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

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24 Elisha wrote a statement: "When the number of coils of wire around the iron bar increases, the strength of the electromagnet will change."

He drew four diagrams, A, B, C and D, as shown below.



Which set-ups support his statement?

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

End of Booklet A

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CATHOLIC HIGH SCHOOL

END-OF-YEAR EXAMINATION

PRIMARY THREE

SCIENCE

BOOKLET B

Name: _____ ( )

Class: Primary 3 - _____

Date: 3 November 2020

Parent's Signature: _____

Booklet A	48
Booklet B	32
Total	80

10 questions

32 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.
Write your answers in this booklet.

This booklet consists of 11 printed pages, excluding the cover page.

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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 Anna recorded the characteristics of four things, W, X, Y and Z, in the table below. A tick (✓) shows the characteristics that each thing has.

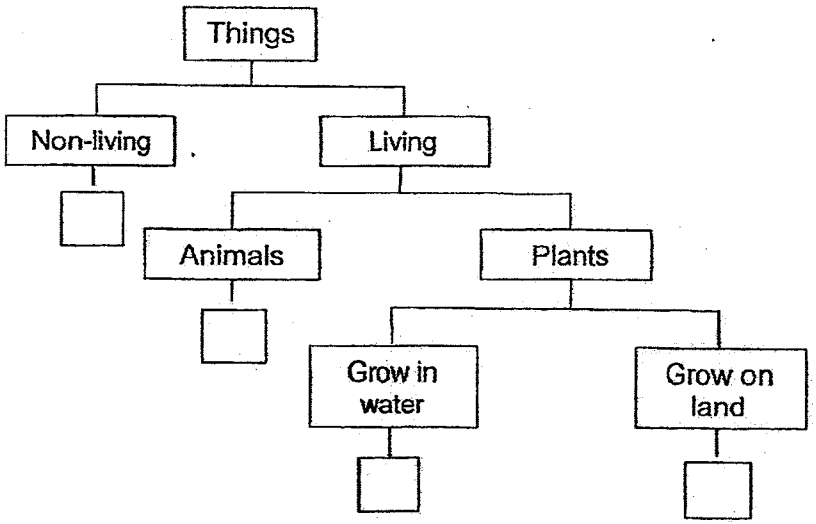
Characteristics	Things			
	W	X	Y	Z
can make its own food	✓		✓	
need air, food and water	✓		✓	✓
can be found in the pond	✓			
can move from place to place		✓		✓

(a) Based on the table above, state a difference between X and Z. [1]

_____

_____

(b) Based on the table above, the things, W, X, Y and Z, can be classified as shown below. Fill in the boxes with W, X, Y or Z. [2]

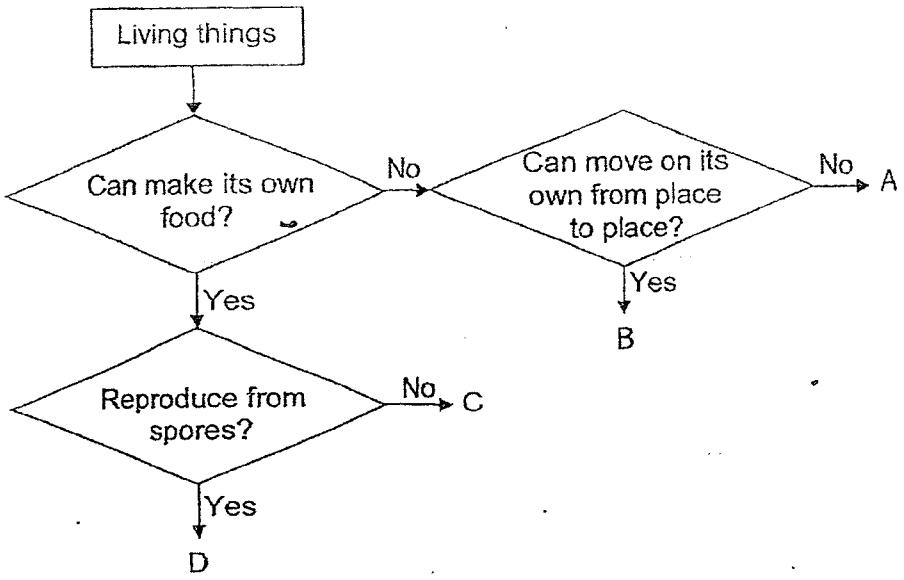


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SCORE 3

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26 Study the diagram below.



(a) Based on the diagram above, state two characteristics of C. [2]

Characteristic 1:

_____

Characteristic 2:

_____

(b) What could D be? Put a tick (✓) in the box(es) below. [1]

	D	Tick (✓)
(i)	fern	
(ii)	mushroom	
(iii)	tomato plant	

(c) Give a reason for your answer in (b). [1]

_____

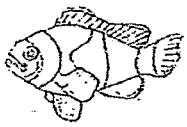
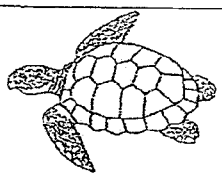
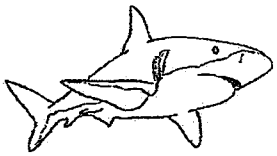
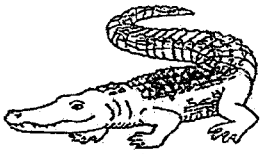
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SCORE	/ 4

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27 Study the three groups of animals below.

Group X	Group Y	Group Z
 toad	 clownfish	 turtle
 salamander	 shark	 crocodile

Ezekiel caught an animal that has gills.

(a) Which animal group, X, Y or Z, would this animal belong to? [1]

_____

(b) State a similarity and a difference between animals in Group X and Group Z. [2]

Similarity

_____

Difference

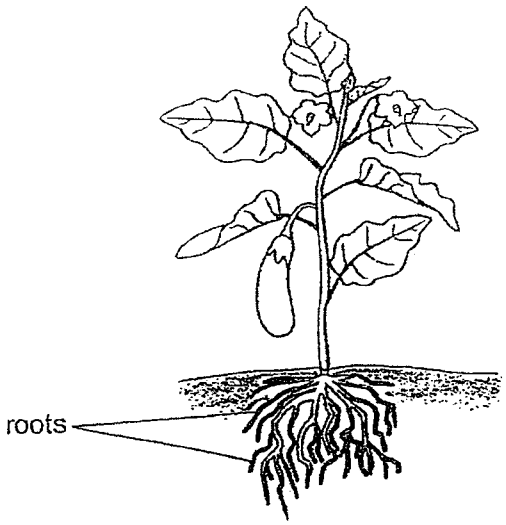
_____

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SCORE	3

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28 The diagram below shows a plant.



(a) Besides holding the plant firmly to the ground, state another function of the roots. [1]

_____

_____

(b) When all the leaves were removed from the plant, it died. Explain why removing the leaves of the plant caused it to die. [1]

_____

_____

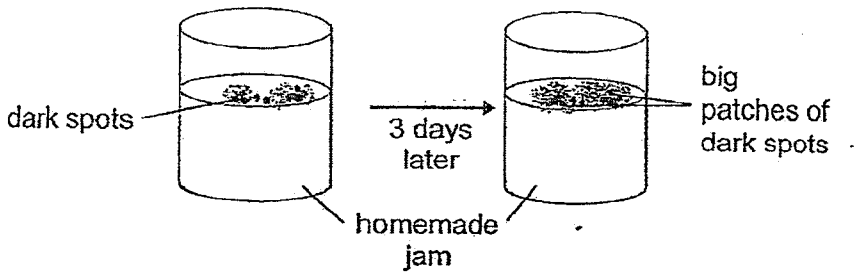
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SCORE	/2

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29 Faith placed some homemade jam in a glass container and left it on the table. A few days later, dark spots were seen on the surface of the jam.

After three more days, she observed that the dark spots had turned into big patches as shown in the diagram below.



(a) What are the dark spots most likely to be? [1]

_____

(b) Based on her observation above, are the dark spots living or non-living things? Give a reason for your answer. [1]

_____

_____

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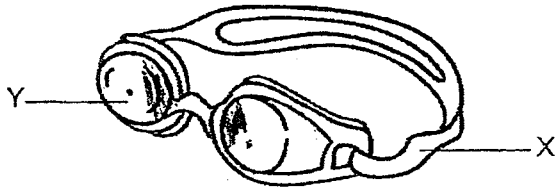
SCORE	2

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30 The table below shows the properties of materials, K, L, M and N. A tick (✓) shows that the material has the properties.

Properties	Materials			
	K	L	M	N
flexible	✓	✓		✓
breaks easily		✓		✓
allows light to pass through			✓	✓
floats on water	✓			

(a) Based on the table above, which materials, K, L, M or N, is the most suitable to make the parts of the goggles as shown below? [2]



X : material _____

Y : material _____

The goggles should allow users to wear it without part Y breaking easily.

(b) Based on this property, suggest a suitable material for making part Y of the goggles. [1]

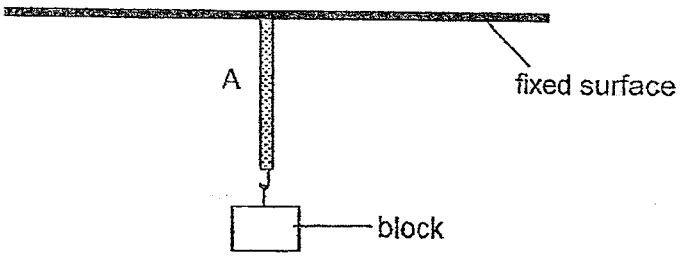
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SCORE	3

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31 Ravi set up an experiment to test the property of three materials, A, B and C. He hung blocks of the same mass on the rope, one at a time, until it broke.



His results are shown below.

Materials	A	B	C
Number of blocks before it broke	5	8	6

(a) Name the property of the material that Ravi was trying to find out. [1]

_____

(b) Which variable(s) must Ravi keep the same in this experiment? Put a tick (✓) in the box(es) below. [1]

	Variable	Tick (✓)
(i)	type of rope	
(ii)	length of rope	
(iii)	thickness of rope	
(iv)	number of blocks	

(c) Based on his results, which material, A, B or C, is most suitable to be used for the fishing net below? Explain your answer. [2]



_____

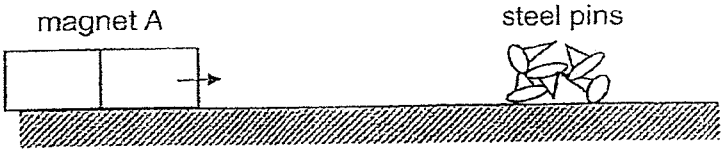
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SCORE	4

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32 Candice placed magnet A and some steel pins 10 cm apart on a table. She moved magnet A slowly towards the pins until it attracted the pins from a distance. She then measured the distance moved by the magnet.



She repeated the experiment with three other magnets, B, C and D, and recorded the results as shown below.

Magnets	A	B	C	D
Distance moved by the magnet (cm)	6	8	2	5

(a) Based on the results above, arrange the magnets according to their strength, from the weakest to the strongest. [1]

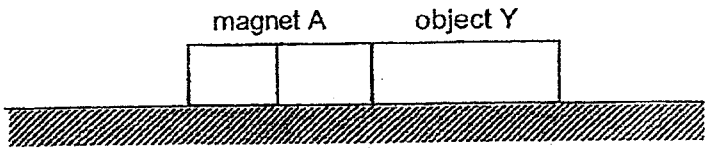
_____ , _____ , _____ , _____
weakest strongest

(b) State one way how magnets can lose its magnetism. [1]

_____

_____

Using magnet A, Candice observed that magnet A and object Y were attracted as shown below.



(c) Give a reason why Candice could not conclude whether object Y was a magnet or not based on the observation. [1]

_____

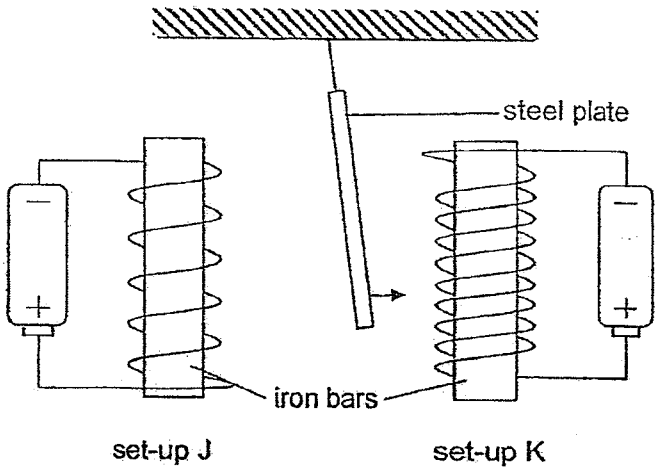
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SCORE 3

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33 Luke set up an experiment using identical batteries and iron bars as shown below.



When he brought set-ups J and K near a freely suspended steel plate, the steel plate moved towards set-up K.

(a) Explain why the steel plate moved towards set-up K. [1]

_____

_____

(b) Without moving the iron bars closer to the steel plate or increasing the number of coils of wire around the iron bar, suggest what Luke could do to make the steel plate move closer to set-up K. [1]

_____

_____

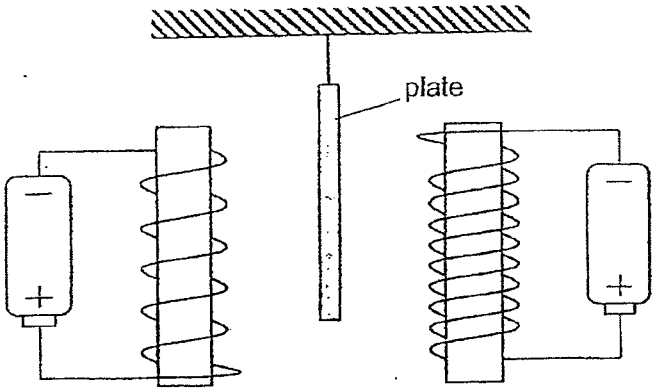
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SCORE	2

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Continue from Question 33

With the same set-up in working condition, Luke replaced the steel plate with another plate made of a different material. He noticed that the plate did not move as shown below.



(c) Give a possible reason why the plate did not move. [1]

_____

_____

(d) State another method that Luke could use to make a temporary magnet. [1]

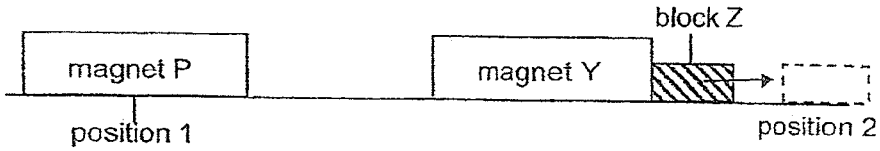
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SCORE	2

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34 Aziz conducted an experiment using the set-up as shown below.



When magnet P was brought to position 1, magnet Y moved, pushing block Z forward to position 2.

(a) Explain how magnet P caused block Z to be pushed forward to position 2. [1]

_____

_____

Aziz repeated the experiment with magnets, Q, R and S, and recorded the distance travelled by block Z in the table below.

Magnet	Distance travelled by block Z (cm)
P	4
Q	2
R	0
S	7

(b) Based on the results above, which magnet, P, Q, R or S, had the strongest magnetism? [1]

_____

(c) Give a reason for your answer in (b). [1]

_____

_____

(d) Suggest a possible reason why the distance travelled by block Z was 0 cm when magnet R was placed at position 1. [1]

_____

_____

SCORE 4

End of Booklet B

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ANSWER KEY

LEVEL: PRIMARY 3
SCHOOL: CATHOLIC HIGH SCHOOL
SUBJECT: SCIENCE
TERM: SA2

BOOKLET A

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

BOOKLET B

Q25.
a) Z needs air, food and water but X does not.
b) X- non-living things
Z- living animals
W- living things which are plant that grow in water
Y- Living things which are plants that grow on land

Q26.
a) It can make it's own food.
It does not reproduce by spores.
b) Fern
c) Because ferns make their own food and reproduce by spores.

Q27.
a) Y
b) Group X and Z both lay eggs.
Animals in group X have moist skin while group Z has dry skin with scales.

Q28.
a) It absorbs water and mineral salt for the plant.
b)It will cause the plant to die because it cannot make food without the leaves, the plant cannot take in sunlight to make food.

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Q29.
a) mould
b) They are living things. They can reproduce.
Q30.
a) X: Material K
Y: material M
b) plastic
Q31.
a) Strength
b) Length and thickness of the rope.
c) B. It is the strongest of the materials. B. It could hold the most numbers of block before it broke so it is the strongest material.
Q32.
a) B , A , D , C
b) By dropping it.
c) Object Y could either be a magnet or a magnetic material since it was observed that only an attraction took place.
Q33.
a) The iron bar in set-up K had more coils thus making it a stronger electromagnet.
b) He can put more batteries in set-up K.
c) It could be made with a non-magnetic material.
d) He can stroke a magnetic material with a magnet,
Q34.
a) The likes poles of magnet P and Y were facing each other so they repelled.
b) Magnet S
c) Because it could push the block the furthest distance.
d) Magnet R lost its magnetism.

END

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