METHODIST GIRLS' SCHOOL

Founded in 1887

END-OF-YEAR EXAMINATION 2018
PRIMARY 3
SCIENCE

BOOKLET A

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.

Name: _____ ( )

Class: Primary 3. _____

Date : 30 October 2018

This booklet consists of 18 printed pages including this page.

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 the correct oval on the Optical Answer Sheet (OAS).

[56 marks]

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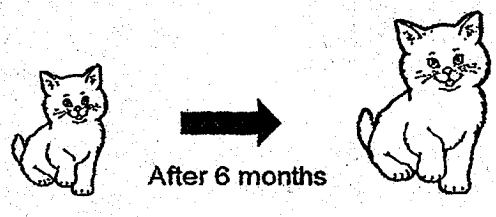
1 Study the pictures below.



Which characteristic of living things does it show?

(1) Living things die.
(2) Living things grow.
(3) Living things respond to changes around them.
(4) Living things need air, water and food to stay alive.

2 The table below shows the number of fishes in a fish tank over a period of four days.

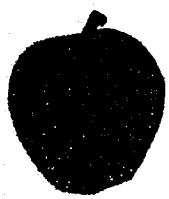
Day	Number of fish
1	5
2	5
3	4
4	2

What are the likely reasons for decrease in the number of fishes at the end of four days?

A The fishes are not fed daily.
B There is no air pump in the tank.
C The fishes are swimming too slowly.
D A disease has spread among the fishes.

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

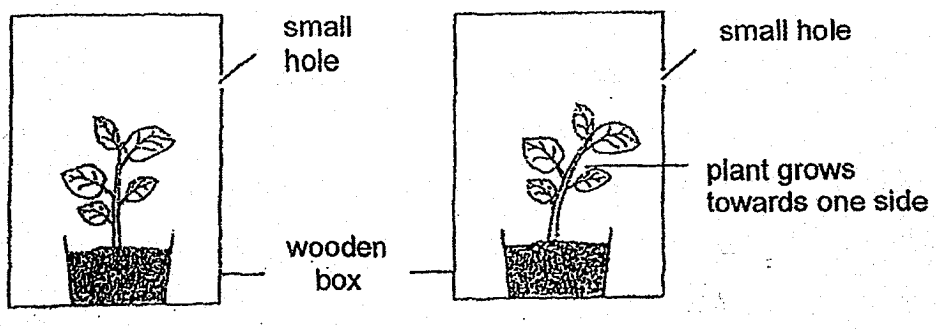
3 The picture below shows an apple.



Which one of the following statements correctly describes the apple?

	It is a fruit	It grows from a flowering plant	I needs sunlight to make food	It gets water from the roots
(1)	Yes	No	Yes	No
(2)	No	No	Yes	Yes
(3)	Yes	Yes	No	Yes
(4)	No	Yes	No	No

4 A potted plant was put inside a wooden box with a small hole. The wooden box was then placed in a garden.



In the beginning

At the end of three days

Which one of the following statements explains the observation at the end of three days?

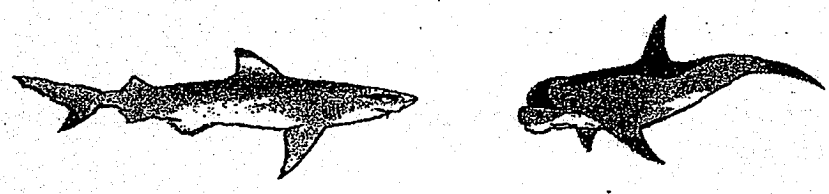
(1) It tried to get more water.
(2) It tried to take in more air.
(3) It was reaching out for fertilizer.
(4) It was reaching out for more sunlight.

5 Which of the following characteristic(s) is/are common to most fish, reptiles and birds?

A has fins
B has gills
C lays eggs
D body has scales

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

6 Four pupils made a few statements about the differences between a shark and a dolphin.



Quentin: A shark swims but a dolphin does not.

Chandra: A dolphin has gills but a shark has lungs.

Siew Lin: A shark has scales but a dolphin has hair on its body.

Siti Maya: A dolphin does not suckle its young but a shark does.

Whose statements

(1) Quentin and Siew Lin only
(2) Chandra and Siti Maya only
(3) Quentin, Chandra and Siti Maya only
(4) Chandra, Siew Lin and Siti Maya only

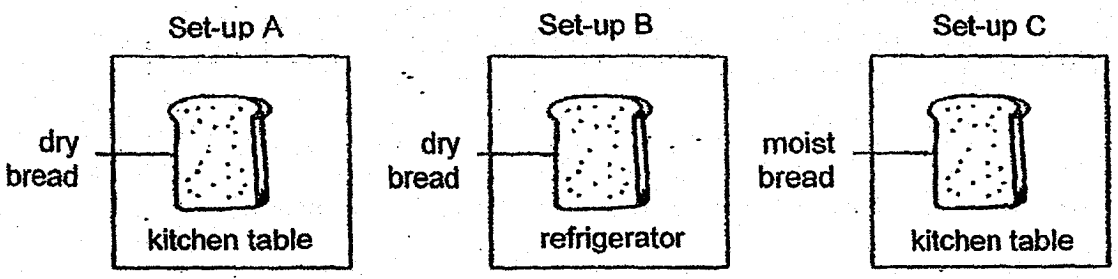
(Go on to the next page)

7 Which of the following are correct statements about bacteria?

A All bacteria are harmful to man.
B Bacteria are micro-organisms.
C Bacteria reproduce from spores.
D Bacteria exist in different shapes.

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

8 Gopal conducted an investigation by placing three similar pieces of bread in different set-ups, A, B and C as shown below.

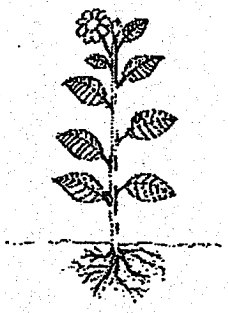


After a few weeks, mould was found on the bread in the three set-ups.

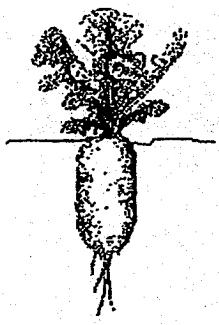
Which one of the following correctly shows the amount of mould found on the bread in each set-up?

	least <---------- amount of mould ----------> most		
(1)	A	B	C
(2)	B	A	C
(3)	B	C	A
(4)	C	B	A

9 Study Plant A and Plant B as shown below. [The pictures are not drawn to scale]



Plant A



Plant B

Which one of the following statements is correct?

(1) Plant B bears fruit but Plant A does not bear fruit.
(2) The roots of Plant B can store food but not Plant A.
(3) The leaves of Plant A can make food but not Plant B.
(4) Both plants have stems to hold the plant firmly to the soil.

10 Which one of the following is the correct path of water in the plant?

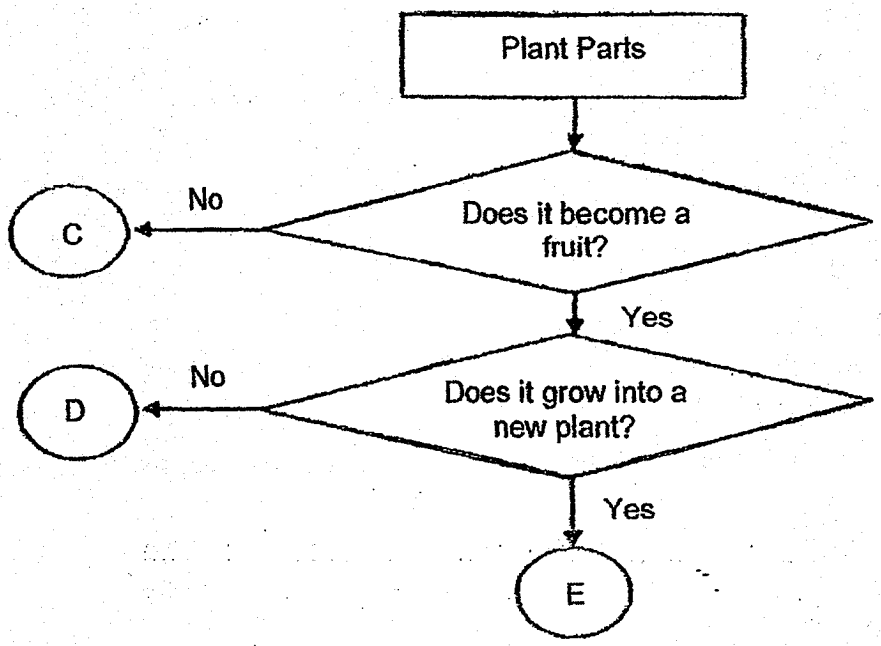
(1) roots → stem → leaves

(2) roots → leaves → stem

(3) leaves → stem → roots

(4) stem → leaves → roots

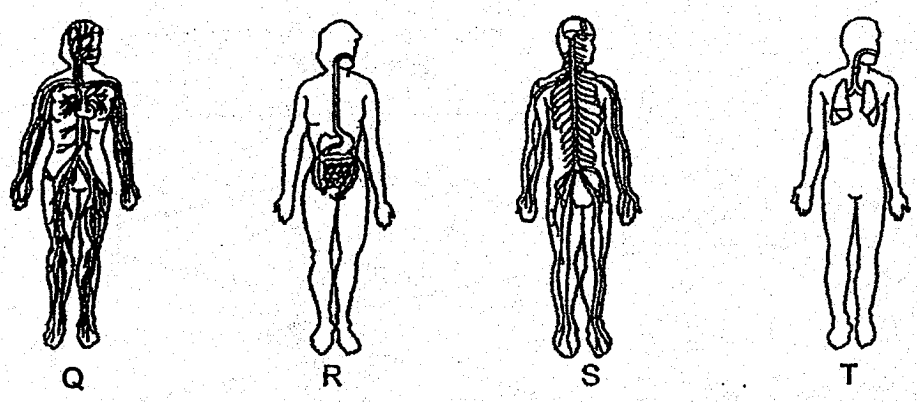
11 In the flow chart below, C, D and E represent three plant parts.



Which of the following best represent parts C, D and E?

	C	D	E
(1)	roots	leaf	fruit
(2)	stem	flower	seed
(3)	leaf	seed	flower
(4)	flower	stem	leaf

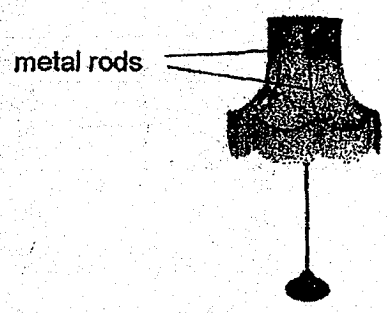
12 The diagrams below show the different organ systems, Q, R, S and T.



Which of the diagrams show the **circulatory system and respiratory system?**

(1) Q and R
(2) R and S
(3) S and T
(4) Q and T

13 The picture below shows a lampshade on a stand. The lamp shade has thin metal **rods to support it and give the lampshade its shape.**

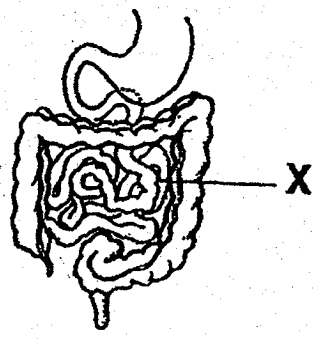


Which one of the following systems in our body provides similar function as the metal rods used in the lampshade?

(1) Skeletal system
(2) Muscular system
(3) Digestive system
(4) Respiratory system

(Go on to the next page)

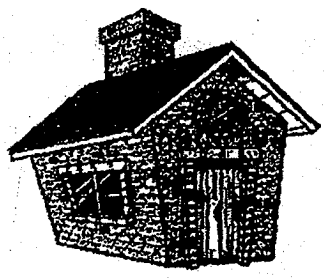
14 Study the picture below.



Which of the following correctly identifies organ X and its funcion?

	X	Function
(1)	small intestine	It gets rid of excess water.
(2)	small intestine	It absorbs digested food into the bloodstream.
(3)	large intestine	It stores undigested food.
(4)	large intestine	It digests the food completely.

15 Mr and Mrs Samy wanted to build a house in their village. Their friends told them that they should use bricks for their house.



Why is brick a good material for building the house?

A Brick is strong.
B Brick is not flexible.
C Brick is not waterproof.
D Brick is made from clay.

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

(Go on to the next page)

16 **The table below shows a few items, the materials used for making them and the reasons for choosing these materials. Which reason is incorrect in explaining why the material was used to make the item?**

	Item	Material	Reason for choice of material
(1)	shoes	fabric	It is flexible.
(2)	plate	ceramic	It breaks easily.
(3)	spoon	metal	It does not bend easily.
(4)	raincoat	plastic	It is waterproof.

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

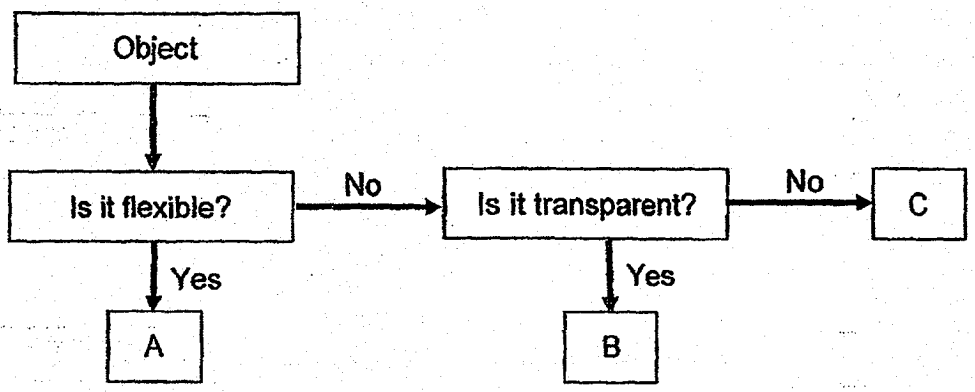
Properties	Materials		
	A	B	C
It bends easily.		√	√
It is waterproof.	√	√	
It allows most light to pass through.	√		

Which of the following best represent materials A, B and C?

	A	B	C
(1)	glass	rubber	fabric
(2)	glass	fabric	rubber
(3)	rubber	glass	fabric
(4)	rubber	fabric	glass

(Go on to the next page)

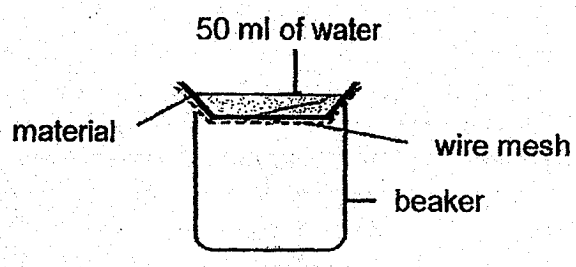
18 Study the flow chart below.



Which of the following correctly shows what objects, A, B and C could be?

	A	B	C
(1)	coin	nail	socks
(2)	socks	spectacle lens	nail
(3)	nail	towel	fish tank
(4)	towel	fish tank	spectacle lens

19 Alice had four different peices of materials, A, B, C and D of similar size and thickness. She set up her experiment using the apparatus as shown in the diagram below and poured 50 ml of water onto each of the material.



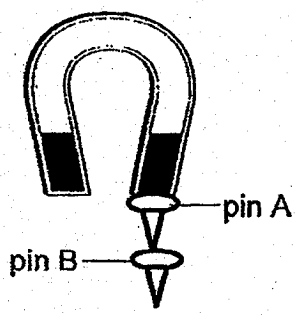
After five minutes, Alice recorded her findings in the table below.

Material	Amount of water in the beaker (ml)
A	0
B	5
C	15
D	40

Which material is most suitable to make a helmet?

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

20 A horseshoe-shaped magnet was held over some pins and the diagram below shows the interaction of pin A and pin B.

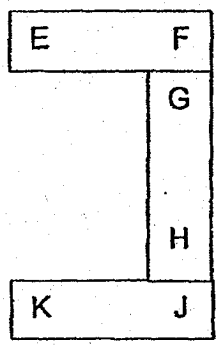


Why is pin B attracted to pin A as shown above?

(1) Pin A is made of aluminium.
(2) Pin A cannot be magnetized.
(3) Pin A is a temporary magnet.
(4) Pin A is a non-magnetic material.

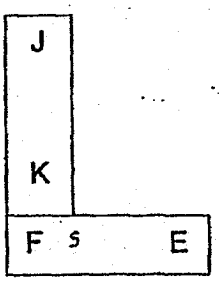
(Go on to the next page)

21 Three bar magnets with their poles marked A to F can be arranged as shown below.

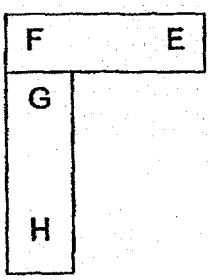


Two of the bar magnets were taken to form a new arrangement. Which one of the following diagrams shows the correct arrangement for two of the magnets?

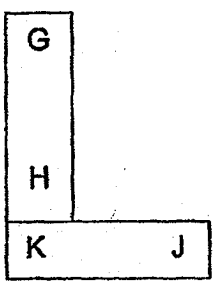
(1)



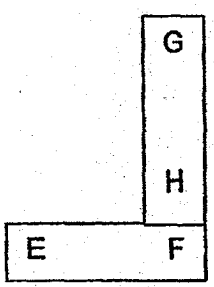
(2)



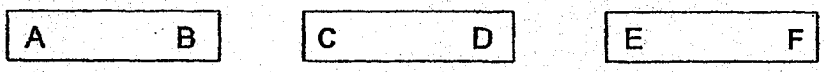
(3)



(4)



22 There are three iron bars, Bar 1, Bar 2 and Bar 3. The ends of the iron bars are labelled as shown below.



Bar 1 Bar 2 Bar 3

When the ends of the iron bars are brought close to each other, they interacted as recorded in the table below.

Ends of Iron Bar	Observations
A and C	Attract
B and E	Attract
B and F	Attract
C and F	Attract

Which is/are definitely magnet (s)?

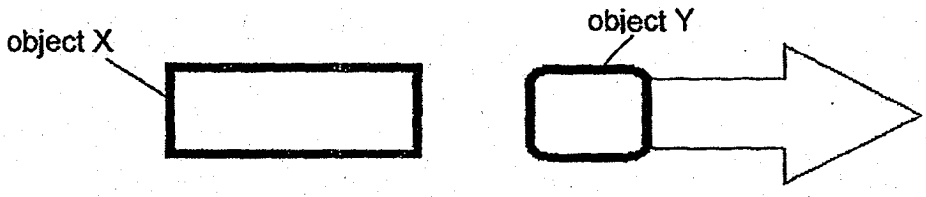
(1) Bar 1 only
(2) Bars 1 and 2 only
(3) Bars 2 and 3 only
(4) Bars 1, 2 and 3

23 Magnets are very useful in our daily life. Which of the following objects make use of magnets to work?

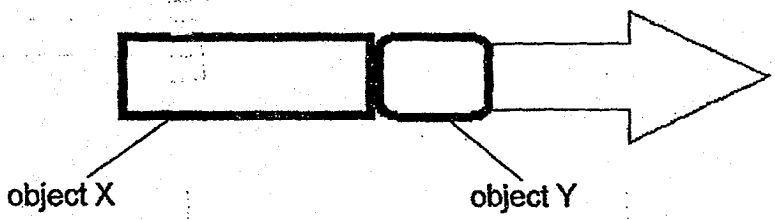
A Torch
B Compass
C Fishing rod
D Refrigerator

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

24 Ben and Jill played a game as shown in the diagram below. The aim of the game is to make use of object X to pick up object Y, which is attached to a paper arrow.



Start of game



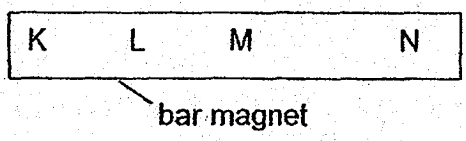
End of game

Which of the following could represent objects X and Y?

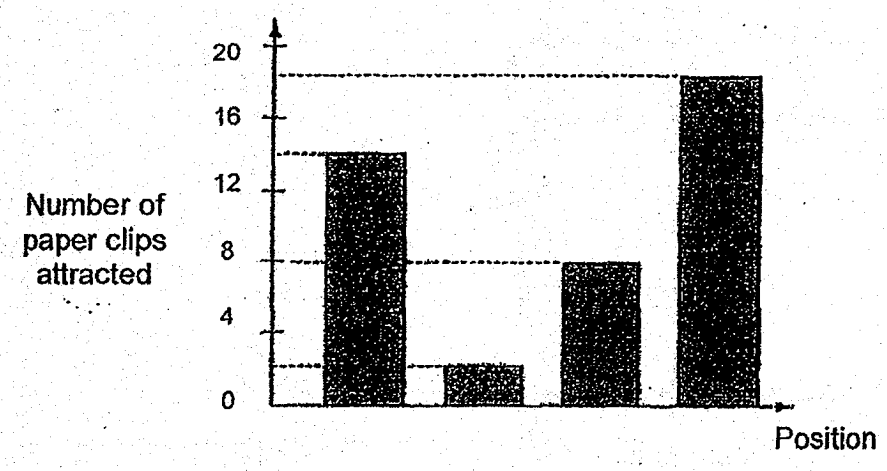
	Object X	Object Y
A	magnet	aluminium block
B	steel block	magnet
C	magnet	iron block

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

25 Johari set up an experiment to test the strength of different parts of a bar magnet by putting some steel paper clips at positions K, L, M and N of the magnet respectively.



He then recorded the number of steel paper clips attracted to each position of the magnet in the graph below.

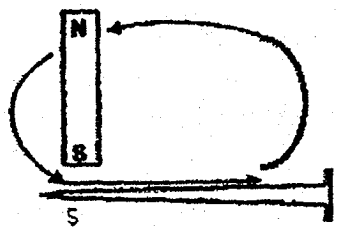


Which one of the following shows the correct number of paper clips attracted to positions K, L, M and N of the magnet?

	K	L	M	N
(1)	14	18	8	2
(2)	2	8	14	18
(3)	8	14	18	2
(4)	18	8	2	14

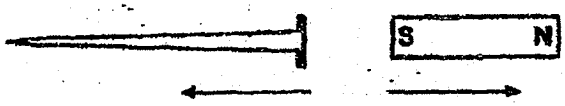
(Go on to the next page)

26 A steel nail is made into a magnet using the stroking method. The south pole of the magnet is used to stroke the tip of the nail in a regular motion each time as shown below.

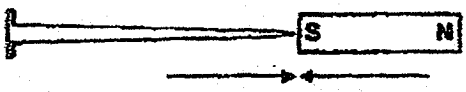


Which one of the following diagrams shows the interaction between the magnetized nail and a magnet that is brought near it?

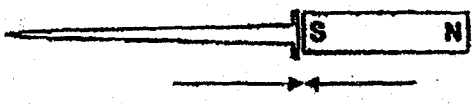
(1)



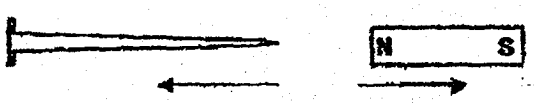
(2)



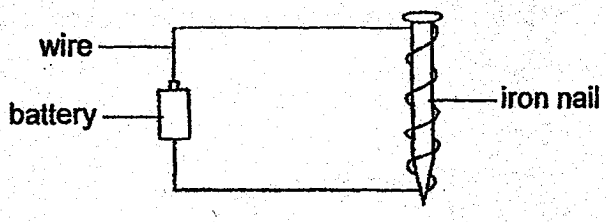
(3)



(4)



27 Sally set up an electromagnet as shown below.

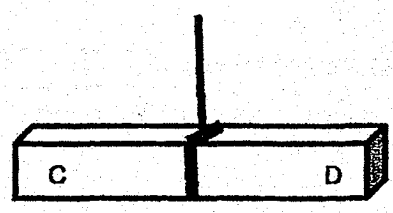


What could Sally do to increase the strength of the electromagnet?

A Use a longer nail.
B Use a longer wire.
C Use more batteries.
D Coil more wire around the nail.

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

28 Khalil suspended a bar magnet CD which came to a rest and pointed in a certain direction as shown in the diagram below.



bar magnet CD

Khalil held the N-pole of another magnet near to pole D and he noticed that both poles repel each other.

What would be pole C and pole D?

	C	D
(1)	S-pole	S-pole
(2)	N-pole	N-pole
(3)	S-pole	N-pole
(4)	N-pole	S-pole

End of Booklet A

METHODIST GIRLS' SCHOOL

Founded in 1887

END-OF-YEAR EXAMINATION 2018
PRIMARY 3
SCIENCE

BOOKLET B

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.

Name: _____( )

Class: Primary 3._____

Date : 30 October 2018

Booklet A	56
Booklet B	34
Total	90
Parent's Signature	

This booklet consists of 13 printed pages including this page.

For questions 29 to 38, write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part question. [34 marks]

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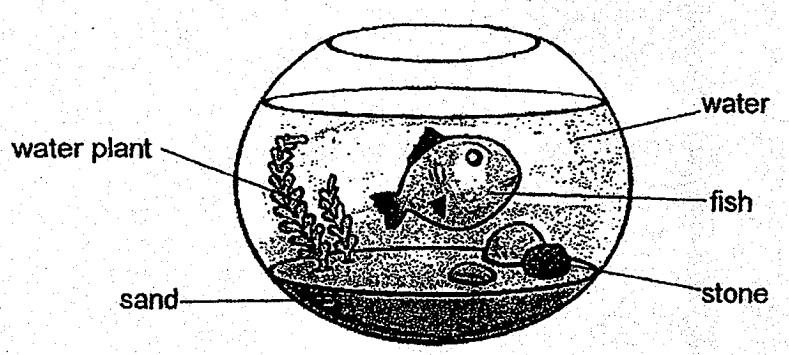
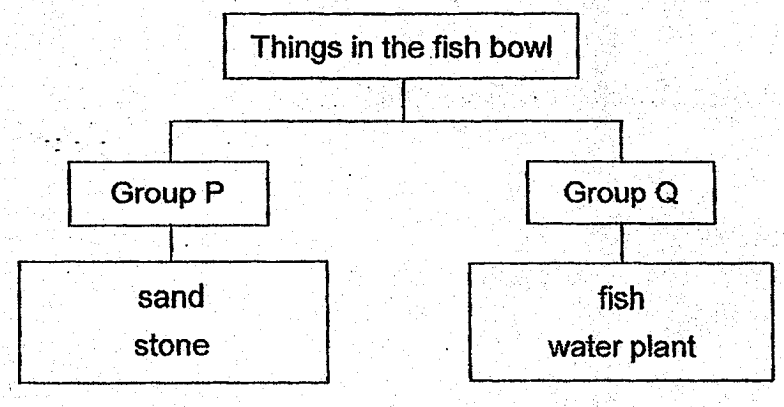
29 The picture below shows a fish bowl filled with different things.



The things in the fish bowl are grouped according to the classification chart below.



(a) What are suitable headings for Group P and Group Q? [1]

Group P: _____ Group Q: _____

(b) Which group, P or Q, should water be classified?
Give a reason for your answer. [1]

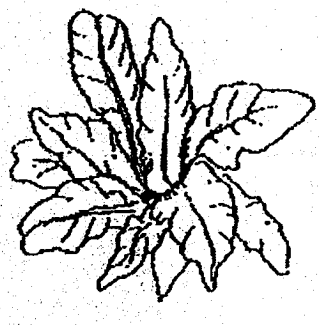
_____

_____

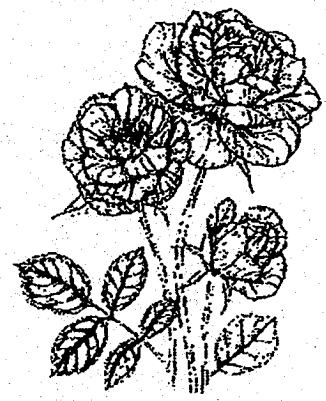
(c) After a few days, the fish was observed to be swimming very near to the water surface. Explain why. [1]

_____

30 The pictures below show Plant X and Plant Y.



Plant X



Plant Y

(a) State a **difference between Plant X and Plant Y in terms of their parts.** [1]
Do not compare size and shape.

_____

_____

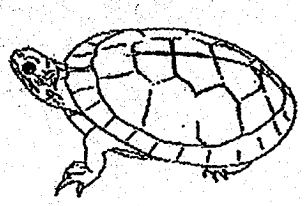
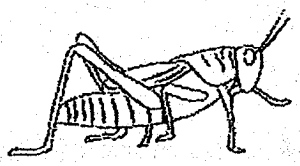
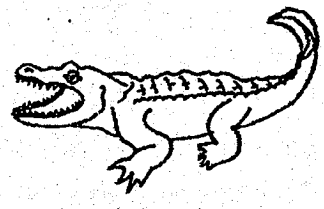
(b) How do both plants, **X and Y obtain nutrition?** [1]

_____

_____

2

31 Some animals are classified according to their animal groups in the table shown below. [The pictures are not drawn to scale.]

Group R	Group S	Group T
 frog	 ant	 turtle
 salamander	 grasshopper	 crocodile

(a) Identify Group R and Group T. [1]

Group R: _____ Group T: _____

(b) How do all the animals above reproduce? [1]

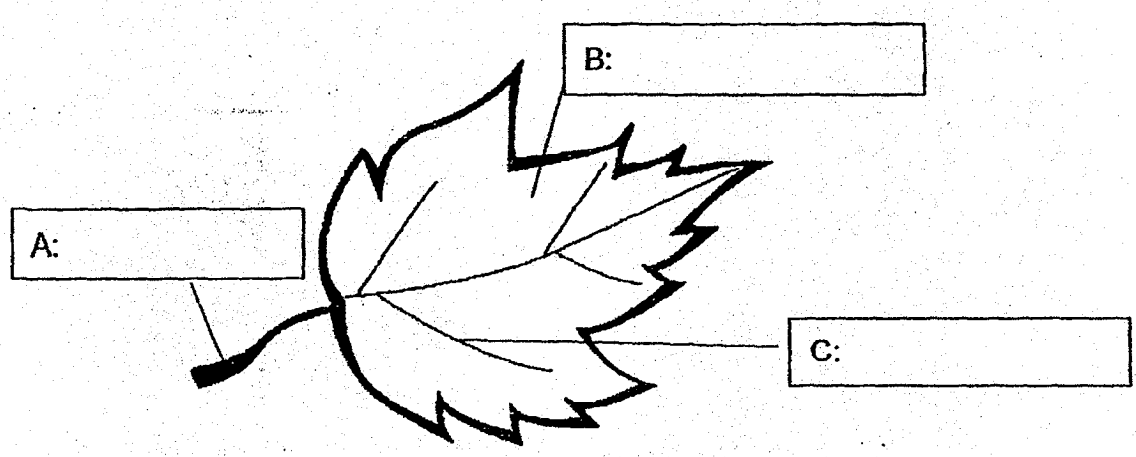
_____

(c) What is the difference between the body covering of the animals in Group S and Group T? [1]

_____

_____

32 The diagram below shows a leaf.



(a) Label the parts of the leaf, **A, B and C in the boxes provided above.** [1]

(b) Name two things that a plant needs to make food. [1]

_____

_____

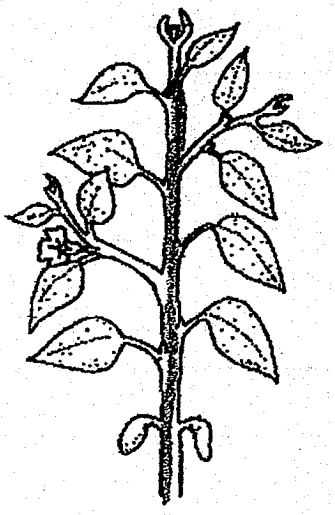
(c) There are many tiny openings on the leaf. What is the function of these openings? [1]

_____

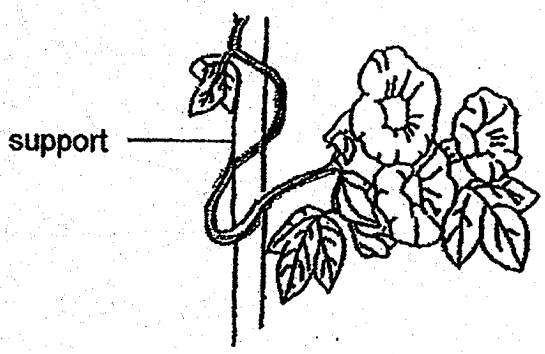
_____

3

33 The diagrams below show plants X and Y.



plant X



plant Y

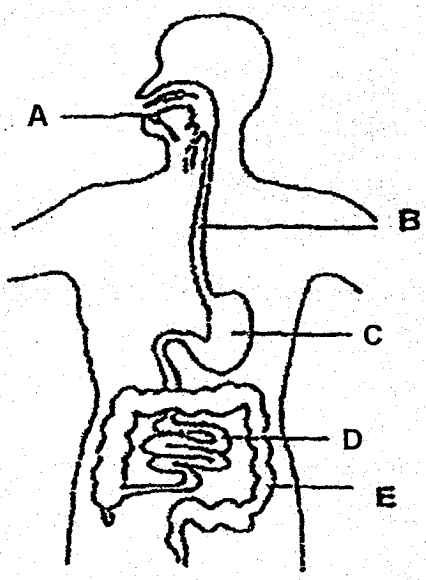
(a) What is the difference between the stems of Plant X and Plant Y? [1]

(b) Why does plant Y climb upwards on a support? [1]

(c) Besides supporting the plant, what is another important function of the stem? [1]

3

34 The diagram below shows the human digestive system.



(a) Which organs, A, B, C,D or E release digestive juices? [1]

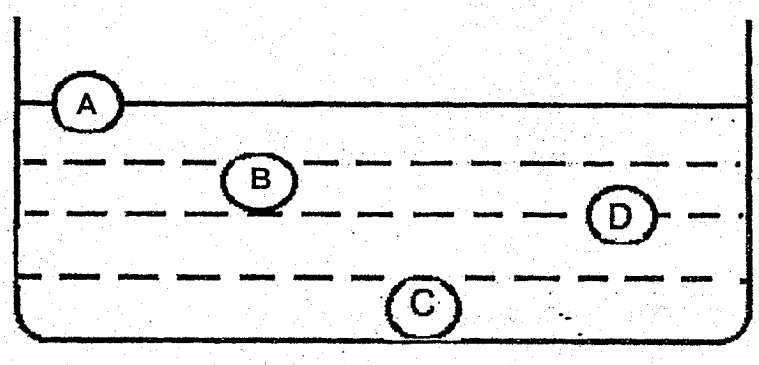
(b) How does organ A help in digestion? [1]

(c) What happens to the food when it enters organ C? [1]

3

35 Jamal conducted an experiment on four different types of materials to be used for making an anchor for a toy boat. An anchor is an object that is dropped into the water to stop the boat from moving away. The diagram below shows an anchor.

He placed the materials into a container filled with water as shown below.



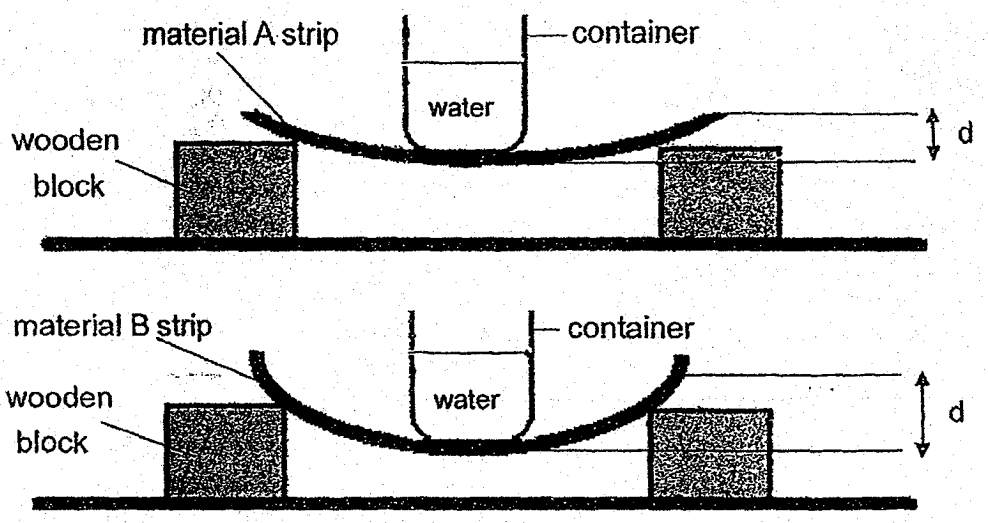
(a) State the property of the material that Jamal is testing in his experiment. [1]

(b) Which of the following materials, A, B, C or D is most suitable for making the anchor? Explain why. [1]

(c) Is glass a suitable material for making an anchor? Give a reason for your answer. [1]

3

36 Alison set up an experiment as shown below to compare two different strips of **materials, A and B.** The materials are of the same thickness. She placed a plastic container with 100 ml of water on the strip as shown in the diagram below.



She measured the distance, **d,** which is the distance between the highest point and the lowest point of the strip.

The table below shows the results.

distance / cm	material A	material B
d	2	5

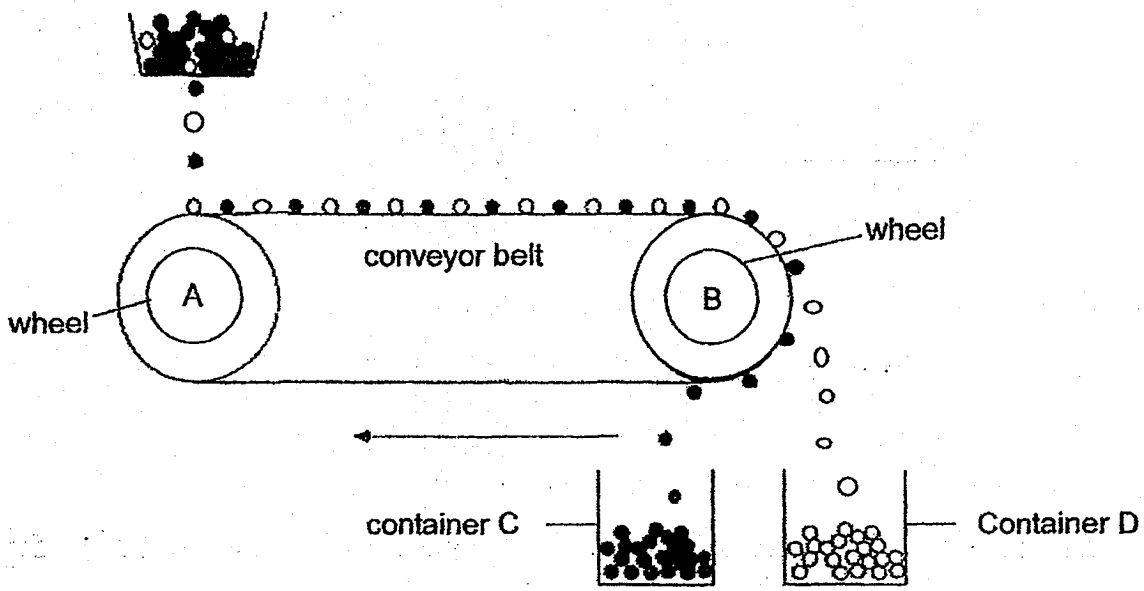
(a) Besides the same thickness, state another **variable that must be kept the same for the strip in order for the experiment to be fair.** [1]

(b) What could Alison conclude **about Strip A and B from this experiment?** [1]

(c) Explain your answer in (b) based on Alison's results. [1]

3

37 A factory uses a machine below to separate magnetic metals from non-magnetic metals. Both magnetic and non-magnetic metals are carried on the moving conveyor belt which is turned by wheel A and wheel B as shown in the diagram below.



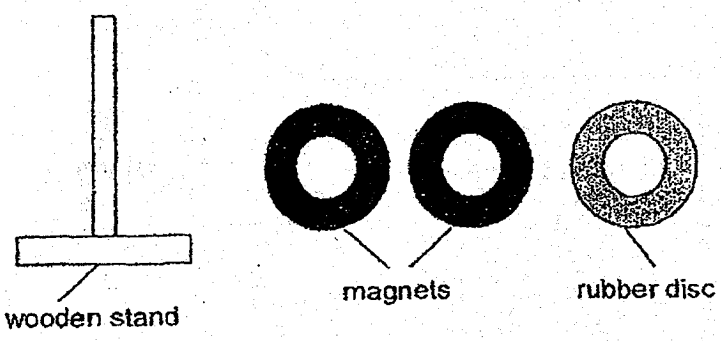
(a) In which wheel, A or B, is the magnet in the machine? [1]

(b) Containers C and D collect the metals. Describe how magnetic metals are separated and collected. [2]

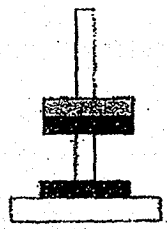
(c) In which container, C or D, would copper be collected? Explain your answer. [1]

4

38 The diagram below shows three discs, each with a hole at its centre. Two of the discs are magnets and one is made of rubber. All three discs can be slotted through the wooden stand.

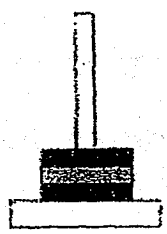


Sulin drew a picture of an arrangement of the above discs in her notebook as shown below.



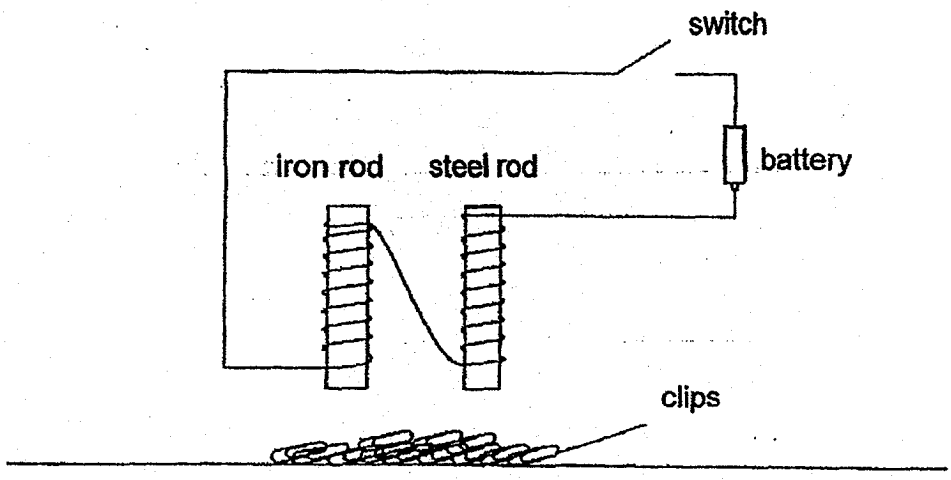
(a) Explain why one magnet is floating above the other. [1]

Sulin wants a new disc arrangement as shown below.



(b) Explain why the new arrangement is possible. [1]

39 The diagram below shows an iron rod and a steel rod with wires coiled around each of them. The ends of the wires were connected to an electrical circuit. Both rods were placed a short distance above some clips.



(a) What happened to the iron rod and steel rod when the switch is closed? [1]

_____

The number of clips attracted by the iron rod and the steel rod are shown in the table below.

	First Try	Second Try	Third Try
Iron rod	12	14	13
Steel rod	7	6	8

(b) Why was the experiment repeated three times? [1]

_____

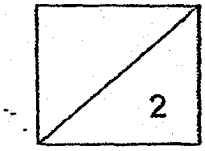
(c) Based on the results, which rod has stronger magnetic strength? Explain why. [1]

_____

_____

3

(d) What would happen to the results if the battery was removed from the set-up? Explain your answer. [2]



End of paper

EXAM PAPER 2018 (P3)

SCHOOL : MGS

SUBJECT : SCIENCE

TERM : SA2

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

Methodist Girls' School (Primary)
2018 End-Of-Year Examination
Primary 3
Answers

Booklet B

Q.	
29a	P is Non-living Things Q is Living Things
29b	Water is classified under Group P Water cannot reproduce/grow/breathe/die OR Water does not need air and food to live. Water is a non-living thing.
29c	To get more air / oxygen
30a	X has no flowers while Y has flowers. OR X has no stems but Y does. X reproduce by spores and Y reproduce by seeds.
30b	Both plants can make their own food.
31a	R – Amphibians T – Reptiles
31b	They reproduce by laying eggs.
31c	Animals in group S have a hard outer covering but animals in group T have dry skin covered with scales. Animals in group S has a hard outer covering but animals in group T does not.
32a	A: leaf stalk B: leaf blade C: leaf vein
32b	Sunlight / water / air (Any 2 correct answers)
32c	The tiny openings help plants to take in and give out gases. OR They allow the exchange of gases.
33a	Plant X has strong stem but Plant Y has weak stem.
33b	To reach for more sunlight[½] for photosynhesis/to make food [½].
33c	The stem helps to carry food and water to all parts of the plant.

34a	Organs A, C and D.
34b	In organ A, the mouth, food is chewed [½] into smaller pieces and saliva makes the food soft [½] to swallow.
34c	In organ C, more digestive juice is added [½] to the food to turn it into soupy mix [½]. To break down the food further into simple substances [½].
35a	Ability to float or sink. / buoyancy of material
35b	Material C as it sank to the bottom of the water/sankcompletely(lowest/deepest/best)into the water .
35c	No. Glass is fragile/breaks easily.
36a	The length of the strip.
36b	Strip B is more flexible than Strip A.
36c	Strip B is able to bend more than Strip A (when the same amount of water was placed on the strip).
37a	Wheel B.
37b	Magnetic metals are attracted by B and collected by C. Non-magnetic metals are not attracted by B and fall into D.
37c	Container D [½]. Copper is not a magnetic metal [½], so it is not attracted by the magnetic wheel and falls off the belt into D.
38a	Like poles [½] of the 2 disc magnets are facing each other and they repel [½]
38b	Unlike poles [½] are facing each other ,so they attract [½].
39a	Both became magnetized / temporary magnets / electromagnets.
39b	To ensure reliability of results. / Consistency of results.
39c	Iron rod has greater magnetic strength as it can attract more clips.
39d	Both rods will not be able to attract any clips as they cannot become electromagnets if there is no battery to allow electricity to flow through.