NANYANG PRIMARY SCHOOL

PRIMARY 3 SCIENCE

SEMESTRAL ASSESSMENT 2
2019

BOOKLET A

Date : 22 October 2019
Duration : 1 h 20 min

Name : _____ ( )

Class: Primary 3 ( )

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.
FOLLOW ALL INSTRUCTIONS CAREFULLY.

Booklet A consists of 16 printed pages including this cover page.

www.TestPapersFree.com

Downloaded from SingaKids.com

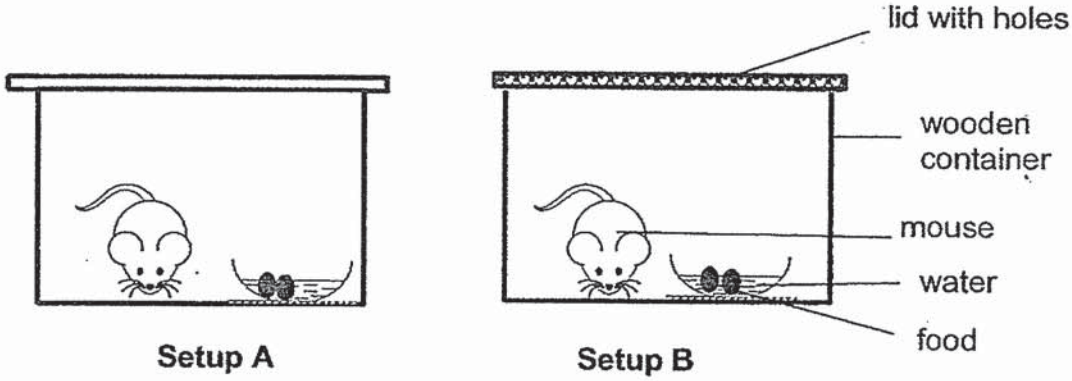
www.TestPapersFree.com

Downloaded from SingaKids.com

Section A (48 marks)

For each question from 1 to 24, four options are given. One of them is the correct answer. **Indicate your choice in this booklet and shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet provided.**

1. Susanna did an experiment with 2 mice and placed each of them in 2 wooden containers with different lids. She gave food and water to the mice daily.



Setup A **Setup B**

After three days, Susanna found that the mouse in setup A died while the mouse in setup B survived.

Which of the following statements about the experiment is/are correct?

A The mouse in setup A might survive with more food.
B The mouse in setup A died because there was not enough air.
C The mouse in setup B survived because it had air, food and water.

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

2. The diagram below shows animal T hiding in its shell when touched.



before animal T was touched after animal T was touched

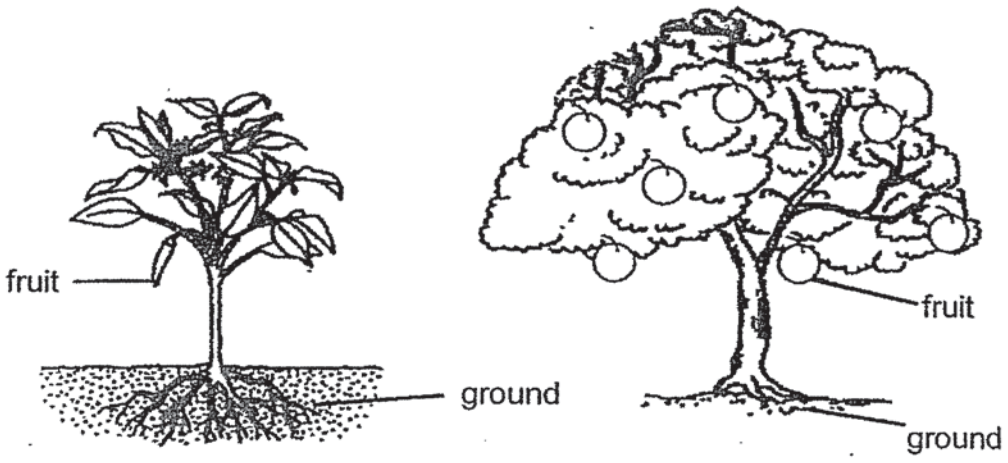
Which one of the following characteristics of living things does animal T show?

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

www.TestPapersFree.com

Downloaded from SingaKids.com

3. The diagram below shows two plants, R and S.



Plant R **Plant S**

Based on the diagrams above, what are the similarities between plants R and S?

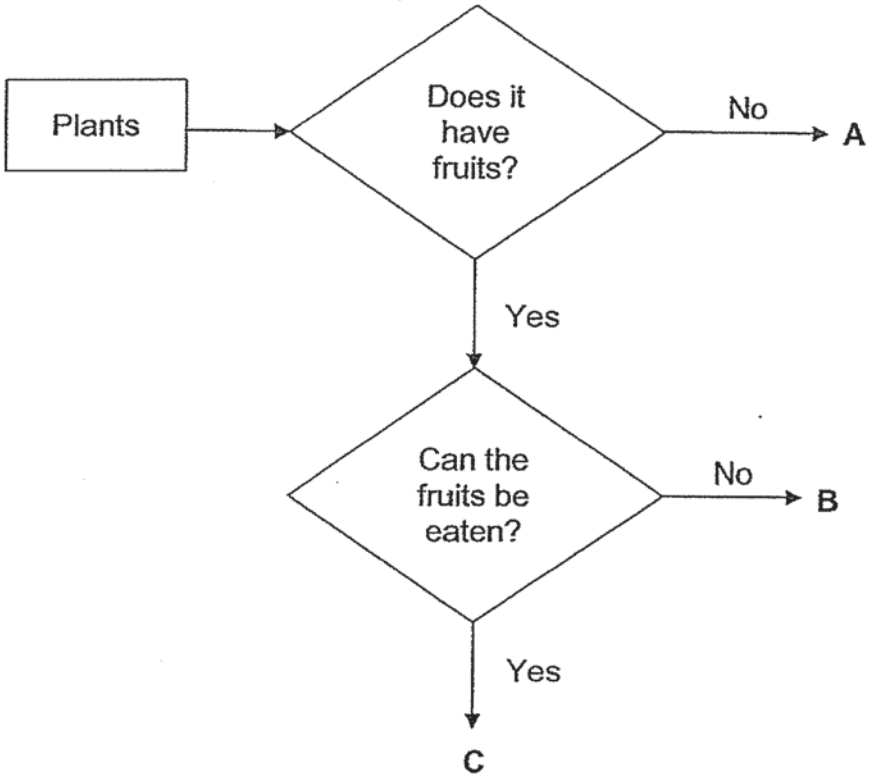
A Both are land plants.
B Both are non-flowering plants.
C Both plants reproduce by seeds.

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

www.TestPapersFree.com

Downloaded from SingaKids.com

4. Study the flowchart below.



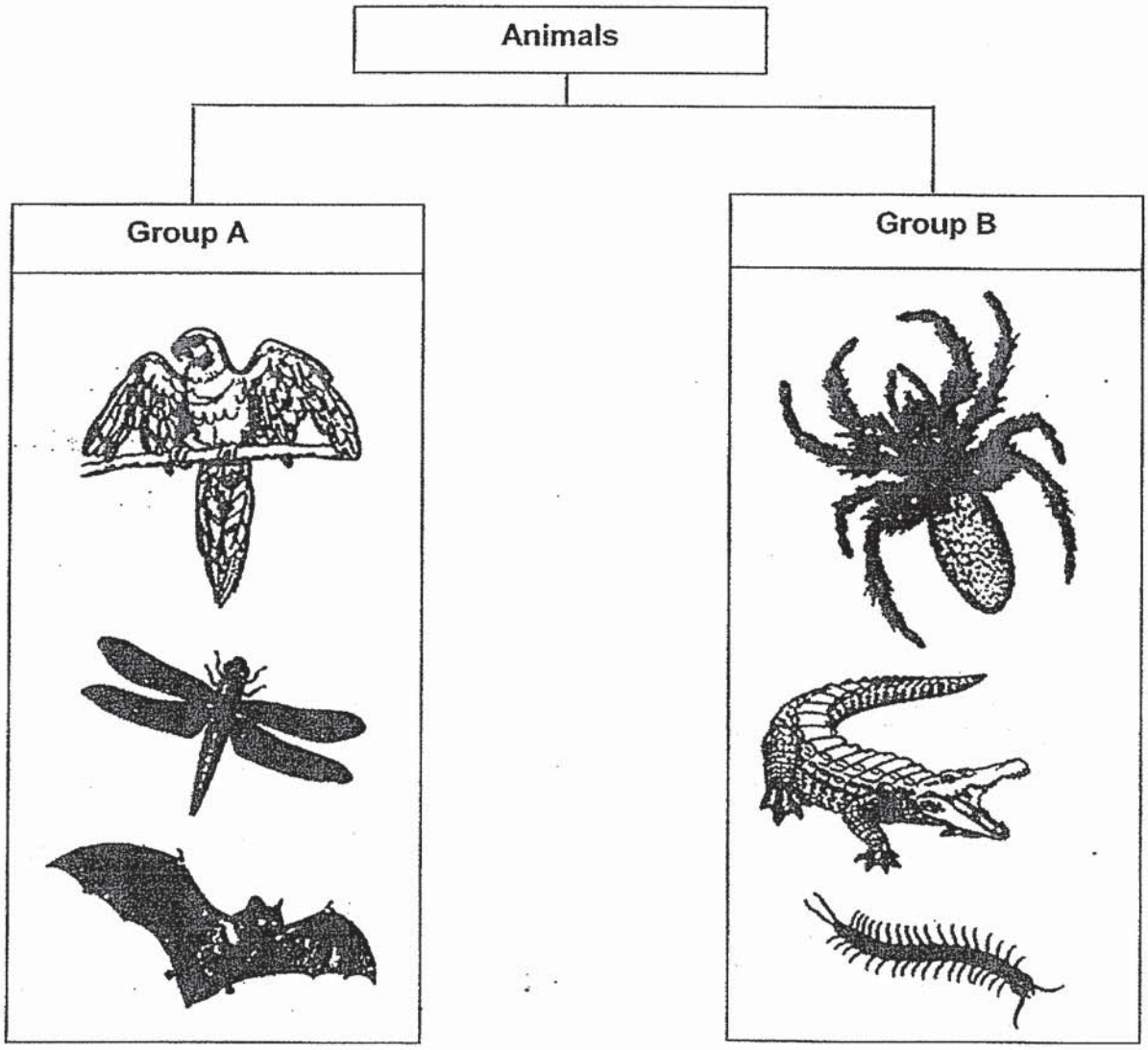
Based on the flowchart above, which plant(s) is/ are flowering plants?

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

www.TestPapersFree.com

Downloaded from SingaKids.com

5. The classification chart below shows some animals.



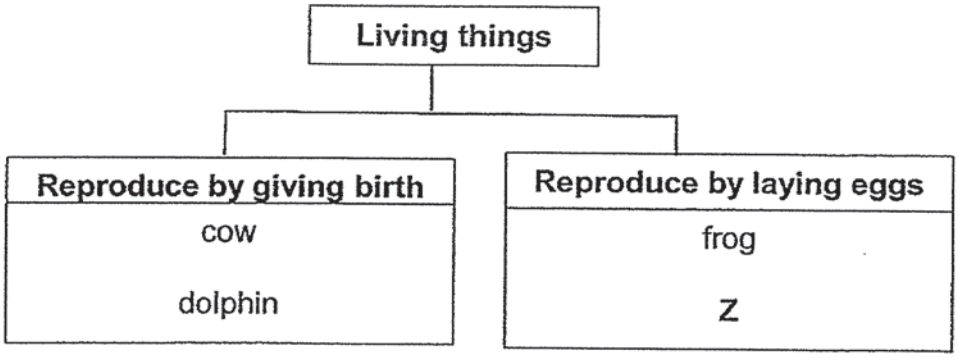
Which one of the following shows the headings that could correctly represent groups A and B?

	Group A	Group B
(1)	Have hair as body covering	Do not have hair as body covering
(2)	Have wings	Do not have wings
(3)	Do not have a tail	Have a tail
(4)	Do not have four legs	Have four legs

www.TestPapersFree.com

Downloaded from SingaKids.com

6. Study the classification chart below.



Which one of the following animals could Z be?

(1) ant
(2) mouse
(3) monkey
(4) elephant

7. The table below shows the characteristics of animals R, S, T and U.

Animals	Has wings	Has feathers	Suckles their young
R	✓	✓	
S	✓		✓
T			✓
U			✓

Based only on the information above, which one of the following statements is true?

(1) Animal R is an insect.
(2) Only animal U is a mammal.
(3) Both animals R and S are birds.
(4) Animals S, T and U are mammals.

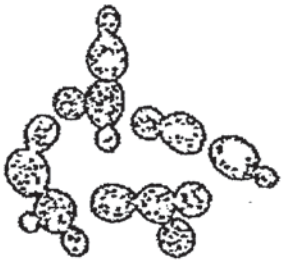
www.TestPapersFree.com

Downloaded from SingaKids.com

8. The diagram below shows two types of living things.



mushrooms



enlarged view of yeasts

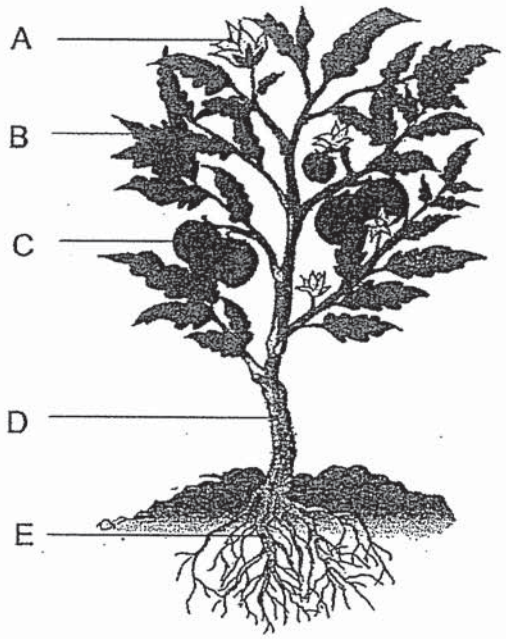
Which one of the following statements is true for both mushrooms and yeasts?

(1) Both are bacteria.
(2) Both can reproduce.
(3) Both can make their own food.
(4) Both do not need air, water and food to stay alive.

www.TestPapersFree.com

Downloaded from SingaKids.com

9. The diagram below shows different parts of a flowering plant, A, B, C, D and E.



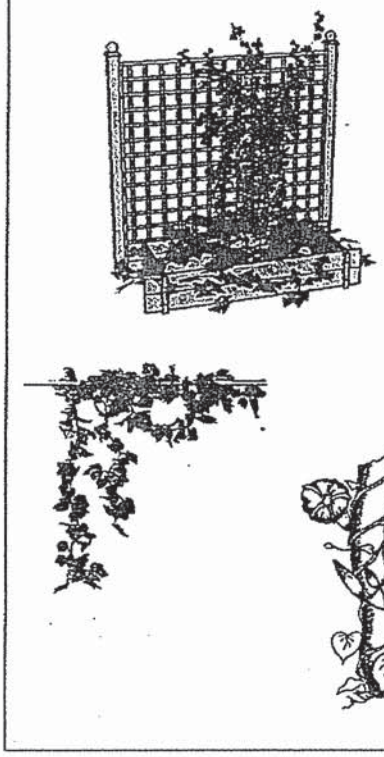
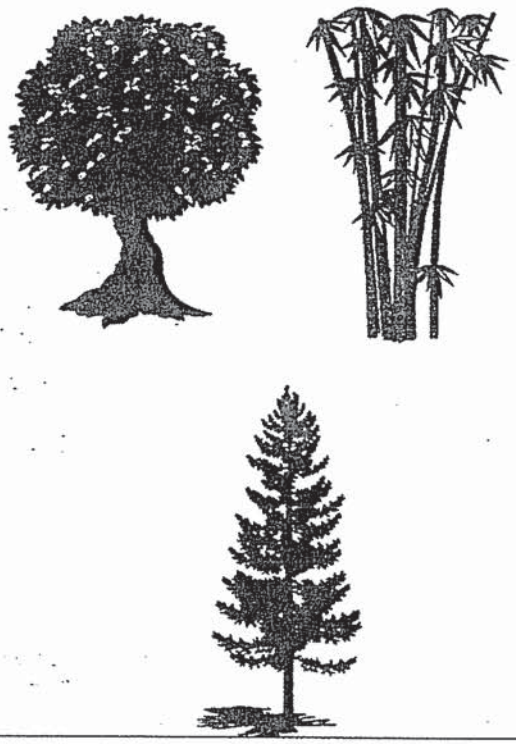
Which one of the following correctly identifies parts A, B, C, D and E?

	A	B	C	D	E
(1)	leaf	stem	flower	fruit	root
(2)	leaf	flower	stem	root	fruit
(3)	flower	leaf	stem	fruit	root
(4)	flower	leaf	fruit	stem	root

www.TestPapersFree.com

Downloaded from SingaKids.com

10. The table below shows 2 groups of plants, P and Q, classified based on their characteristics.

P	Q
	

Which one of the following best represents the headings, P and Q, in the table above?

	P	Q
(1)	do not bear fruits	bear fruits
(2)	do not have stems	have stems
(3)	weak stems	strong stems
(4)	cannot make food	can make food

www.TestPapersFree.com

Downloaded from SingaKids.com

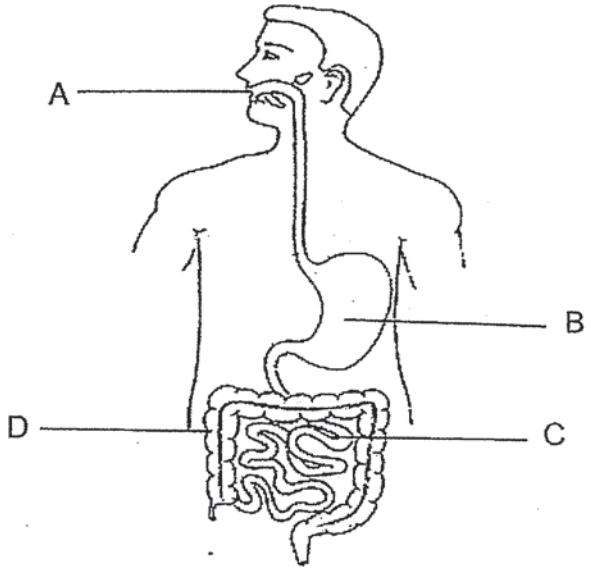
11. A few pupils were discussing about the functions of different organ systems.

Caleb :	Skeletal system protects our organs.
Jeremy :	Muscular system allows body parts to move.
Ai Shan :	Respiratory system takes in air into the body.
Han Ming:	Digestive system allows digested food to be absorbed at the large intestine

Which one of the following pupils has made an **incorrect** statement?

(1) Caleb
(2) Jeremy
(3) Ai Shan
(4) Han Ming

12. Study the diagram of the human digestive system below.



In which parts of the digestive system do digestion take place?

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

www.TestPapersFree.com

Downloaded from SingaKids.com

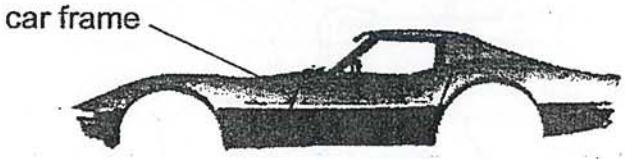
13. Study the items in the box below.

X	Y
tracing paper tissue paper	glass jar plain water

Which one of the following could represent X and Y?

	X	Y
(1)	metal	non-metal
(2)	non-flexible	flexible
(3)	magnetic	non-magnetic
(4)	Allow some light to pass through	Allows most light to pass through

14. The frame of a car is made of thick metal sheets.



Which one of the following is the correct reason why metal sheets instead of plastic is used to make the car frame?

(1) Metal is stronger than plastic.
(2) Metal is magnetic but not plastic.
(3) Metal is waterproof but plastic is not.
(4) Metal sinks in water but plastic floats.

15. The table shows the properties of 3 objects, A, B and C.

Properties	A	B	C
strong	✓	✓	×
flexible	✓	✓	×
waterproof	✓	×	✓

Which one of the following correctly identifies objects, A, B and C?

	A	B	C
(1)	iron nail	writing paper	pebble
(2)	rubber boots	woollen scarf	glass jar
(3)	pencil lead	string	steel pot
(4)	plastic bag	crayon	envelope

www.TestPapersFree.com

Downloaded from SingaKids.com

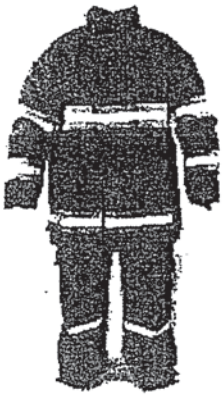
16. Hazif was given 3 objects below to classify into 2 groups.

ice cream stick
gold ring
steel paper clip

Which one of the following shows the correct classification of the objects?

	float	sink
(1)	ice cream stick	gold ring, steel paper clip
(2)	gold ring, steel paper clip	ice cream stick
(3)	ice cream stick, gold ring	steel paper clip
(4)	steel paper clip	ice cream stick, gold ring

17. The suits of fire-fighters as shown below must be made of a special material that can withstand high temperature.



Which of the following properties are important in selecting the material for making the fire-fighter's suit.

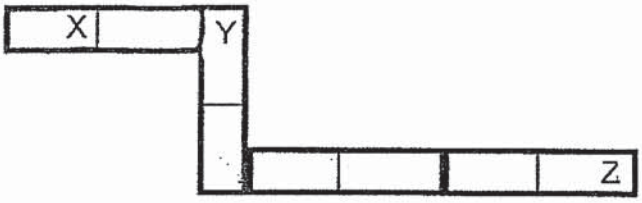
A The fabric must be light.
B The fabric must be strong.
C The fabric must be flexible.
D The fabric must be waterproof.

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

www.TestPapersFree.com

Downloaded from SingaKids.com

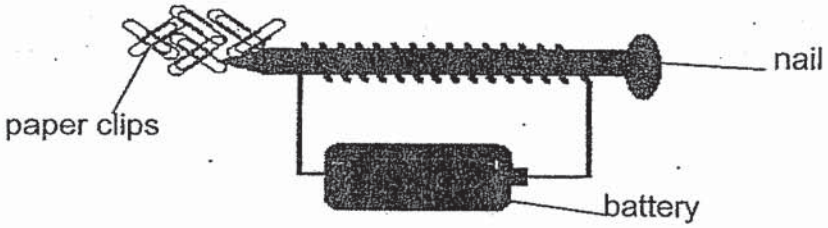
18. Four magnets were placed as shown in the diagram below. They did not repel each other.



Based on the diagram above, which one of the following correctly represents the poles X, Y and Z of the magnets?

	X	Y	Z
(1)	North	North	North
(2)	North	South	North
(3)	North	North	South
(4)	South	North	South

19. Jason set up an experiment as shown below.



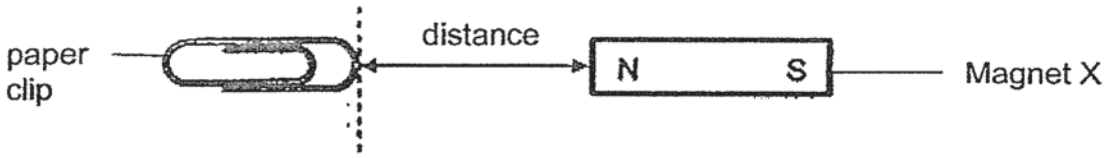
Which of the following action(s) should Jason take to allow him to pick up more paper clips using the set-up above?

A Coil the wire around the battery.
B Add more batteries to the set-up.
C Use a hairdryer to heat up the nail.
D Change the direction of the battery.

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

www.TestPapersFree.com
Downloaded from SingaKids.com

20. Marcus setup the experiment as shown below.



He brought magnet X closer to the paper clip until it was attracted to the magnet. He measured the distance at which the magnet was able to attract the paper clip. He repeated the experiment using magnets Y and Z.

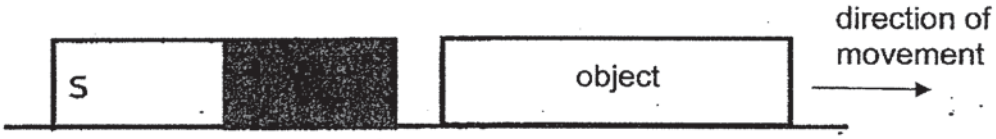
The table below shows the results of his experiment.

Magnet	Distance(cm)
X	4
Y	3
Z	5

Based on the results above, arrange the magnets according to their magnetic strength, beginning with the weakest to the strongest.

	weakest ⟶ strongest		
(1)	X	Y	Z
(2)	X	Z	Y
(3)	Y	X	Z
(4)	Z	Y	X

21. Anna brought a magnet near an object as shown below.



It was observed that the object started to move in the direction as shown above when the magnet was brought closer to it.

Based on Anna's observation, which of the following can she definitely conclude?

(1) The object is made of plastic.
(2) The object is made of copper.
(3) The object is a magnet that has its North poles facing the magnet.
(4) The object is a magnet that has its South poles facing the magnet.

www.TestPapersFree.com

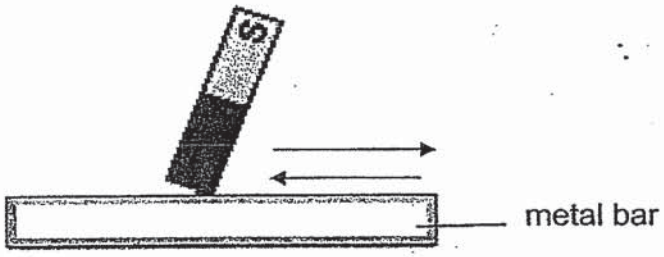
Downloaded from SingaKids.com

22. Which of the following statements are true of magnets?

A A magnet can attract all types of metals.
B A bigger magnet is always stronger than a smaller magnet.
C An object made of magnetic material can be made into a magnet.
D The north pole of a magnet will attract the south pole of another magnet.

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

23. Devin was trying to magnetise a metal bar by using a magnet to stroke the metal bar in the direction as shown below.



He found that the metal bar was not magnetised.

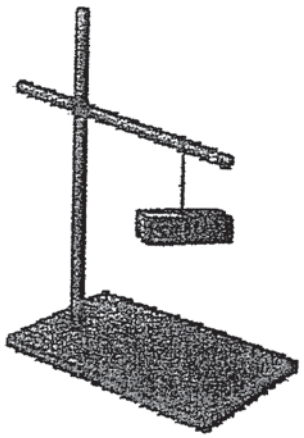
Which of the following could be the possible reasons?

A The direction of stroking is not correct.
B The shape of the magnet is not correct.
C The metal bar is a non-magnetic material.
D The poles facing the metal bar is not correct.

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

www.TestPapersFree.com
Downloaded from SingaKids.com

24. A bar magnet was suspended freely as shown in the diagram below.



In which direction would the magnet be facing when it is no longer moving?

(1) East-West
(2) North-South
(3) North-East
(4) South-West

~ END OF BOOKLET A ~

www.TestPapersFree.com

Downloaded from SingaKids.com

NANYANG PRIMARY SCHOOL

PRIMARY 3 SCIENCE

SEMESTRAL ASSESSMENT 2
2019

BOOKLET B

Date : 22 October 2019

Duration : 1 h 20 min

Name : _____ ( )

Class: Primary 3 ( )

Marks Scored:

Booklet A :		48
Booklet B :		32
Total :		80

Any query on marks awarded should be raised by 1 November 2019. We seek your understanding in this matter as any delay in the confirmation of marks will lead to delays in the generation of results.

Parent's signature: .....

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.
FOLLOW ALL INSTRUCTIONS CAREFULLY.

Booklet B consists of 13 printed pages including this cover page.

www.TestPapersFree.com

Downloaded from SingaKids.com

Section B (32 marks)
Write your answers to questions 25 to 34 in the spaces provided.

25. Study the diagrams below.



apple tree | bird's nest fern | papaya tree | moss on a tree

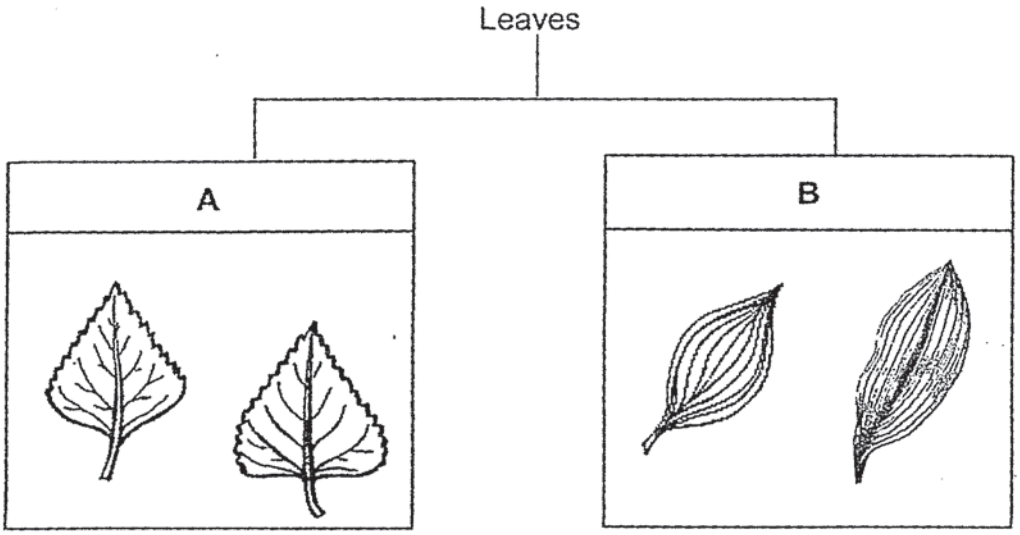
(a) Classify the plants above into 2 groups. Using the table below, give a suitable heading for each group and complete the classification of the plants.

(i) _____	(ii) _____	[1]
(iii) apple tree _____ _____	(iv) bird's nest fern _____ _____	[1]

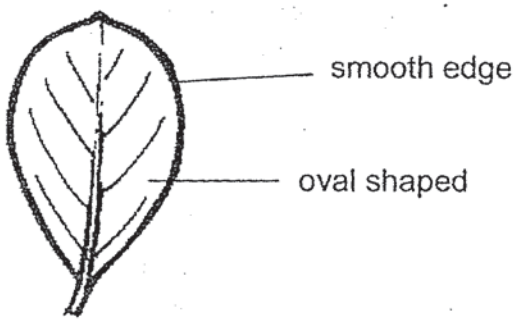
www.TestPapersFree.com

Downloaded from SingaKids.com

Aini studied the classification chart below.



Her teacher gave her the leaf as shown below.



Leaf X

(b) In which group, A or B, should she classify leaf X?
Give a reason for your answer. [2]

_____

_____

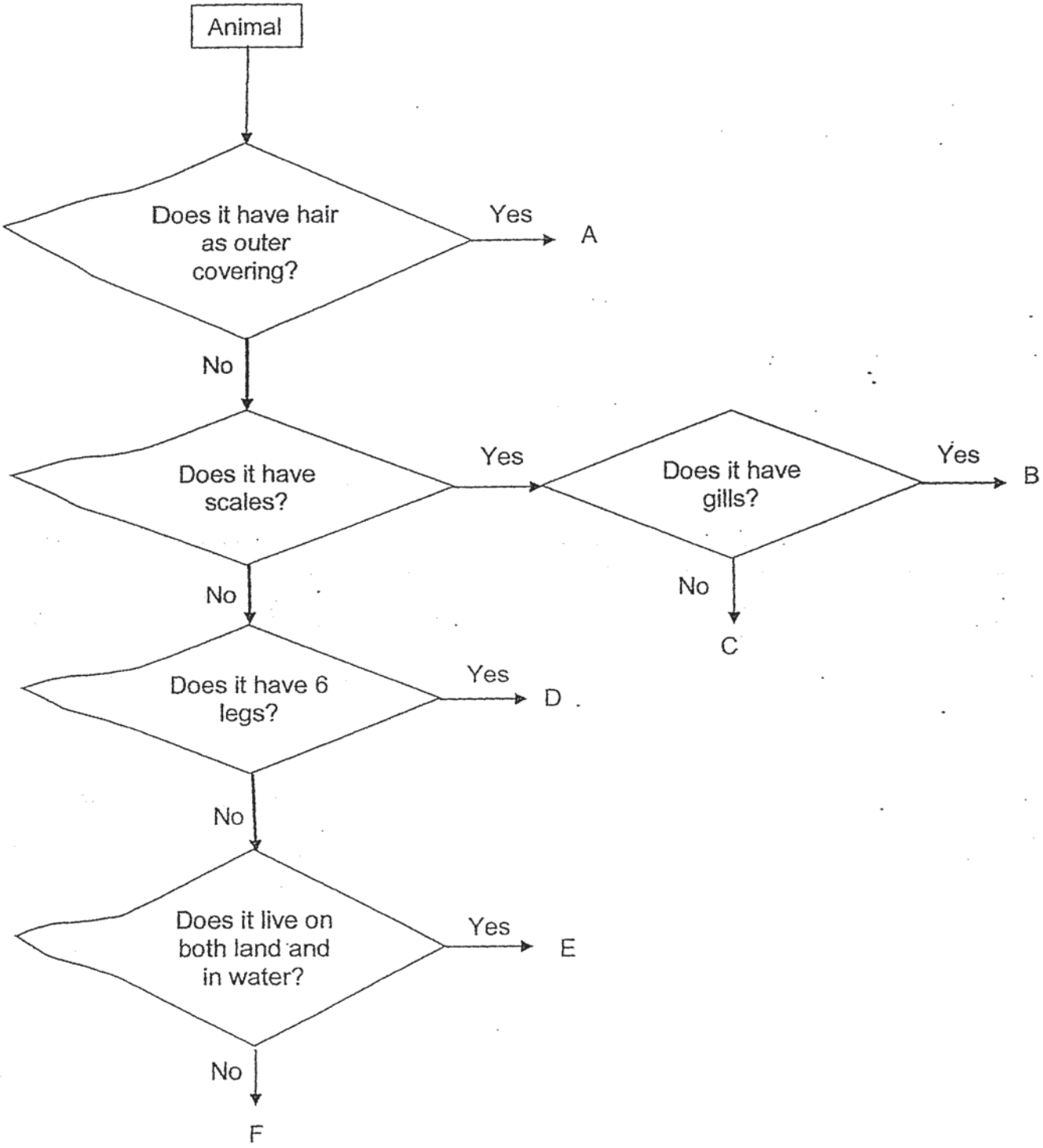
_____

4

www.TestPapersFree.com

Downloaded from SingaKids.com

26. Study the flowchart below to answer the questions based only on the information below.



www.TestPapersFree.com

Downloaded from SingaKids.com

(a) In the table below, fill in the letters C, D and F to identify the groups that the animals most likely belong to.Three groups of animals have been done for you. [3]

Types of animal	Letter
Bird	
Fish	B
Insect	
Reptile	
Mammal	A
Amphibian	E

(b) Based on the flowchart, state one **similarity** in characteristics between Animals B and E. [1]

_____

_____

www.TestPapersFree.com

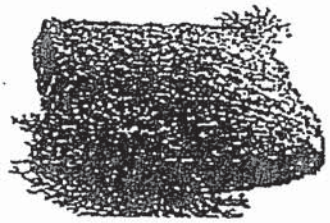
Downloaded from SingaKids.com

27. The diagrams below show two groups of living things.

Group A

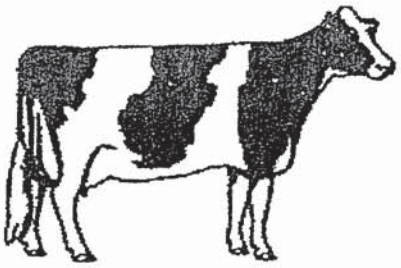


mushrooms



bread mould

Group B



cow



ant

(a) Based only on the **characteristics** of living things, write down the **difference** between the 2 groups of living things, A and B.
(Do not give the animal grouping) [1]

Group A: _____

Group B: _____

(b) How do the living things in Group A reproduce? [1]

_____

(c) How do the living things in Group A obtain their food to stay alive? [1]

_____

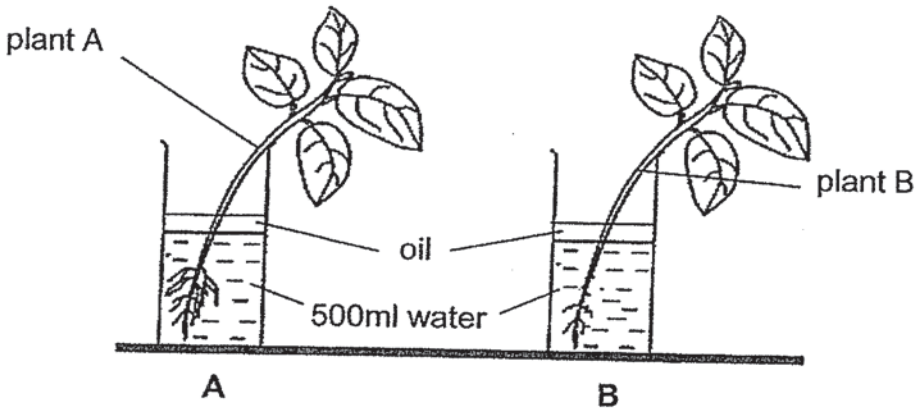
_____

3

www.TestPapersFree.com

Downloaded from SingaKids.com

28. Yusoff set up an experiment as shown below.



Both setups were left in a room next to a window for a week.
The table shows the volume of water in both setups at the start and the end of the experiment.

Setup	Volume of water (ml)	
	Start of experiment	End of experiment
A	500	250
B	500	400

(a) Which plant had taken in more water? [1]

_____

(b) Explain what caused the difference in results between setup A and setup B. [1]

_____

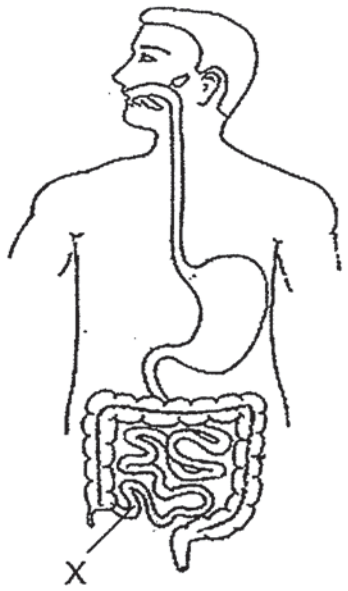
_____

2

www.TestPapersFree.com

Downloaded from SingaKids.com

29. The diagram below shows the human digestive system.



(a) In the diagram above, **label** and **name** the part of the digestive system that absorbs water from undigested food. [1]

(b) State a function of part X. [1]

_____

_____

(c) State the purpose of the chewing process in the digestion of the food. [1]

_____

_____

(d) Explain how the presence of saliva in the mouth helps in the digestion of food. [1]

_____

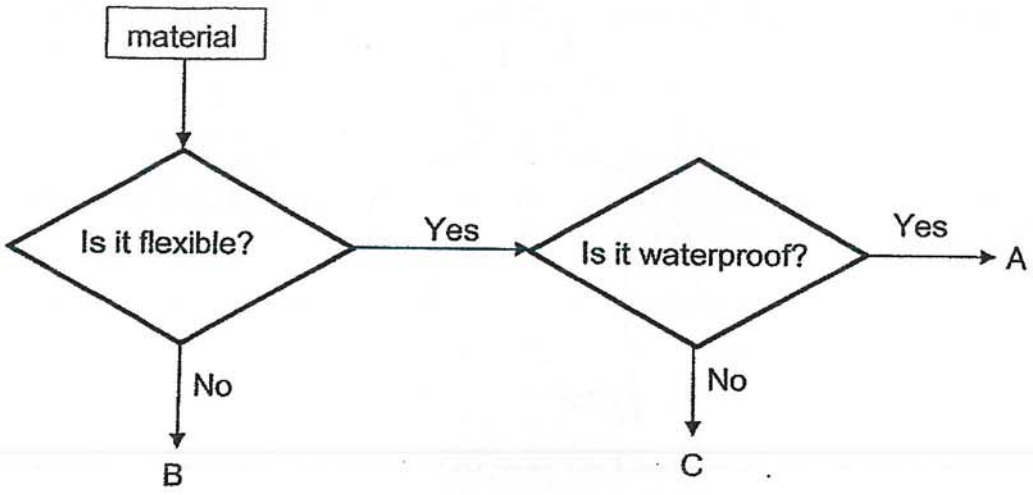
_____

4

www.TestPapersFree.com

Downloaded from SingaKids.com

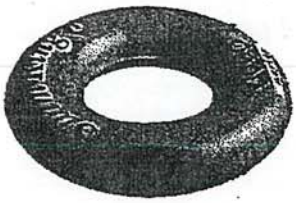
30. Study the flowchart below.



(a) Based on the flowchart above, state all the properties of material C. [1]

_____

_____



(b) Which material, A, B or C, is the most suitable for making a swimming float as shown above? Explain your choice based on a property of the material. [2]

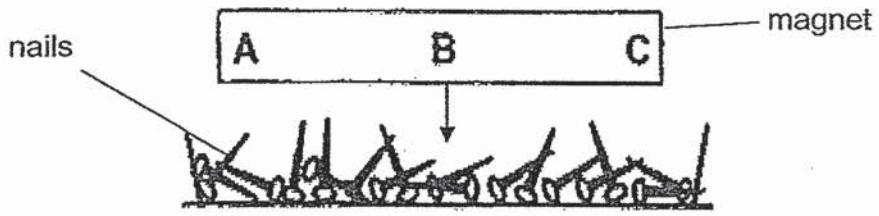
_____

_____

www.TestPapersFree.com

Downloaded from SingaKids.com

31. Mark placed a new bar magnet into a tray of nails. The nails were made of magnetic material.



(a) The table below shows the number of nails attracted at part B. Predict and write down the number of nails attracted at parts A and C. [1]

A	B	C
	3	

(b) Explain your answer in (a). [2]

_____

_____

(c) If Mark had put the magnet higher above the tray of nails, would the number of nails attracted at B increase, decrease or remain the same? [1]

_____

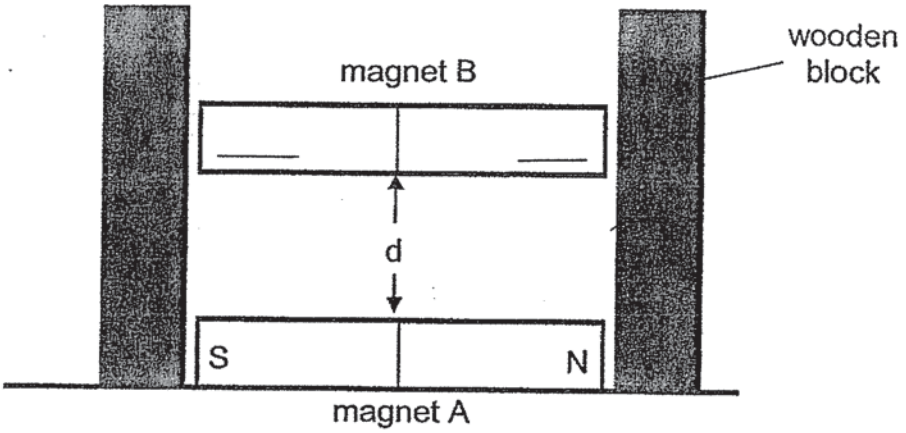
_____

4

www.TestPapersFree.com

Downloaded from SingaKids.com

32. Jason placed 2 bar magnets between two wooden blocks as shown below.



Jason observed that magnet B was "floating" above the magnet A. Distance, d, is the distance between the 2 magnets.

(a) In the diagram above, **write "N"** and **"S"** to indicate the North and South Pole of **magnet B**. [1]

(b) Suggest one change that Jason could make if he wants to decrease distance, d, between the 2 magnets. [1]

_____

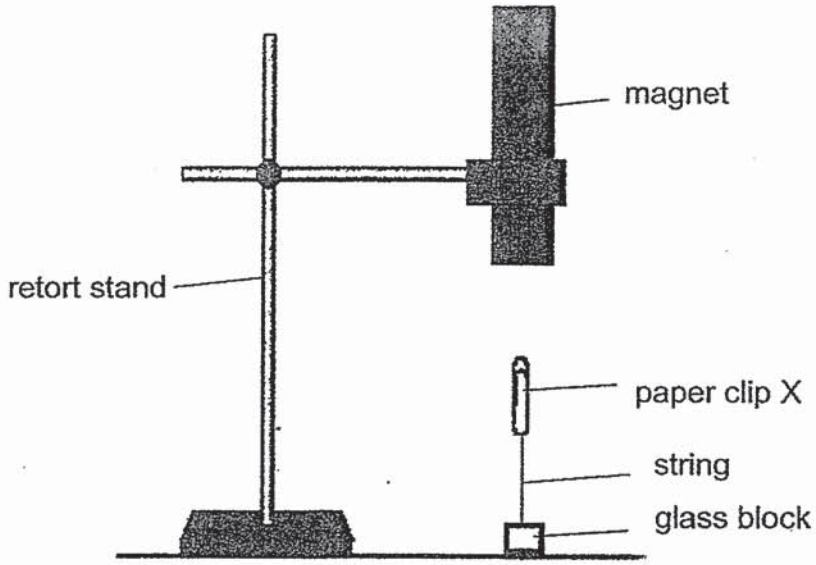
_____

2

www.TestPapersFree.com

Downloaded from SingaKids.com

33. Lisa set up the experiment as shown below.



Lisa tied a paper clip to a heavy glass block with a piece of string. She observed that the paper clip X was "floating" in the air when a magnet was brought above it.

(a) Identify a possible material that the paper clip X could be made of. [1]

_____

Lisa repeated the experiment with paper clip Y.

(b) Explain why paper clip Y **did not "float"** when a magnet was brought above it, as compared to paper clip X. [2]

_____

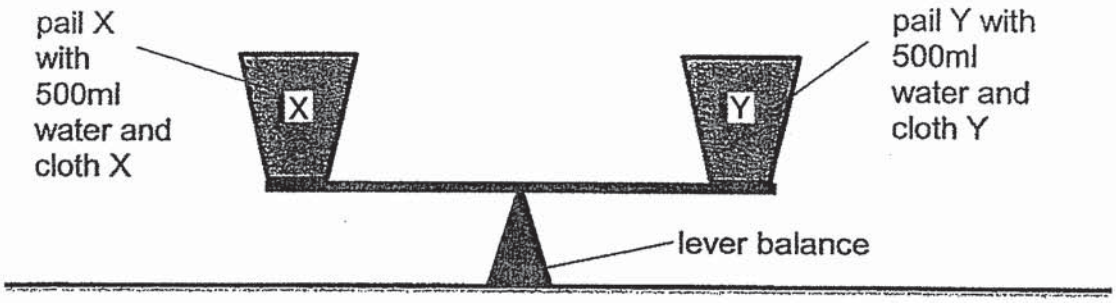
_____

_____

www.TestPapersFree.com

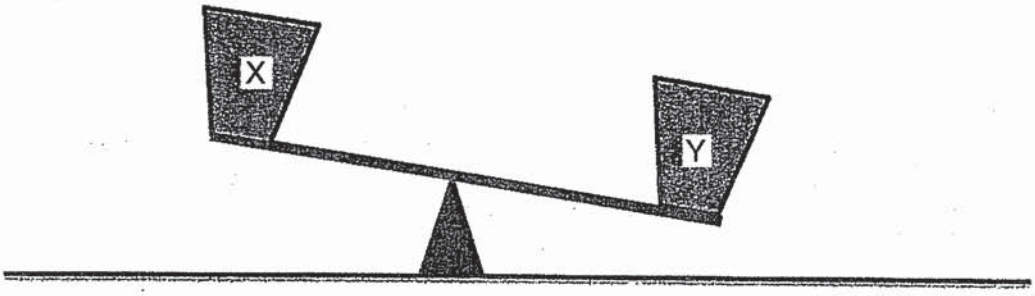
Downloaded from SingaKids.com

34. Mary balanced 2 pails, X and Y, containing 500ml of water each on a lever balance.



She then placed a piece of cloth made of material X into pail X and another piece of cloth made of material Y into pail Y. Both pieces of cloth are of the same size and weigh 50g. After both cloth were added, the lever balance remained balanced as shown above.

After 5 minutes, Mary removed both pieces of cloth from pails X and Y. The lever balance was no longer balanced as shown in diagram below.



(a) Give a reason why the pails no longer balance each other on the lever balance. [1]

_____

_____

(b) Which material, X or Y, is more suitable for making a bath towel? Explain your choice. [2]

_____

_____

_____

~ END OF BOOKLET B ~

3

www.TestPapersFree.com

Downloaded from SingaKids.com

www.TestPapersFree.com

Downloaded from SingaKids.com

Nanyang Primary School
P3 SCIENCE SA2 2019 – Simplified Answer Key

Answer Key
Section A

1	**3**	11	**4**	21	**3**
2	**3**	12	**3**	22	**4**
3	**2**	13	**4**	23	**2**
4	**4**	14	**1**	24	**2**
5	**2**	15	**2**	25	
6	**1**	16	**1**	26	
7	**4**	17	**4**	27	
8	**2**	18	**3**	28	
9	**4**	19	**1**		
10	**3**	20	**3**		

Section B

Qn No	Acceptable Answers
25. (a)	

Flowering plants	Non-flowering Plants
Apple Tree Papaya Tree	Fern Moss

(b) Group B. Leaf X has the same oval shape as those in Group B.
Group A. Leaf X has the same type of vein pattern as Group A.

26. (a)

Bird	**F**
Fish	B
Insect	**D**
Reptile	**C**
Mammal	A
Amphibian	E

Animals B and E do not have hair as their outer covering

27.(a) Group A: Living things that cannot move freely on their own.
Group B: Living things that can move freely on their own.

(b) They reproduce by spores.

(c) Mushrooms feed on/get food from the living things they grow on, either dead or alive.

www.TestPapersFree.com

Downloaded from SingaKids.com

28.(a)	Plant A.
(b)	Plant A has more roots to absorb more water.
29. (a)	Name and Label large intestines.
(b)	Absorbs digested food into bloodstream.
(c)	Helps the food to be broken down into smaller pieces.
(d)	Caused the food to be moist making it easier to swallow.
30.(a)	C is flexible but not waterproof.
(b)	Material A is flexible so that the float can be inflated with air to allow it to float.
31. (a)	Any number that is more than B.
(b)	Magnet are strongest at their poles and therefore more nails are being attracted at its poles.
(c)	Decrease
32.(a)	South Pole on left side and North Pole on the right.
(b)	Replace magnet B with a weaker magnet.
33. (a)	Iron/ steel
(b)	The magnet attracted the paper clip X as the paper clip X was made of a magnetic material but paper clip Y is not made of magnetic material and will not be attracted by the magnet.
3	There is less water left in pail X.
(b)	Material X is more suitable to make bath towel as it is more absorbent and the person can use the towel to dry himself better.

www.TestPapersFree.com

Downloaded from SingaKids.com