

SCIENCE
2017 SEMESTRAL EXAMINATION 1
PRIMARY 3

Name : _____ ()

Class : Primary 3/ _____

Date : 5 May 2017

BOOKLET A

Total time for Booklets A & B: 1h 30 min

Booklet A: 18 questions (36 marks)

Note:

1. Do not open the booklet until you are told to do so.
2. Read carefully the instructions given at the beginning of each part of the booklet.
3. Do not waste time. If the question is too difficult for you, go on to the next question.
4. Check your answers thoroughly and make sure you attempt every question.
5. In this booklet, you should have the following:
 - a. Page 1 to Page 9
 - b. Questions 1 to 18

Section A: Multiple Choice Questions

For Questions 1 to 18, choose the most suitable answer and shade its number in the OAS provided.

- 1 A snail hides inside its shell when it is being touched. Which characteristic of living things does this show?



Living things _____.

- (1) grow
 - (2) reproduce
 - (3) respond to changes
 - (4) need air, food and water to survive
- 2 Which one of the following statements is true about plants?
- (1) All plants have flowers.
 - (2) All plants can make their own food.
 - (3) All plants have leaves that are green in colour.
 - (4) All plants that grow in water are non-flowering plants.
- 3 Which one of the following is a characteristic of a reptile?
- (1) They live in water only.
 - (2) All of them have shells.
 - (3) Most reproduce by laying eggs.
 - (4) They all have moist skin as their outer covering.
- 4 Which of the following characteristics about bacteria is not correct?
- (1) They are living things.
 - (2) They can make their own food.
 - (3) They can be useful or harmful to us.
 - (4) They are very tiny and cannot be seen with our naked eyes.

- 5 Edward placed 10 fishes in a fish tank and recorded the number of fishes that were alive for about two weeks in the table below.

Day	Number of fishes
1	10
4	10
7	10
10	10
13	13

Using the information from the table, which of the following is correct about the fishes?

- (1) They can grow.
- (2) They can move.
- (3) They can reproduce.
- (4) They need air, food and water to survive.

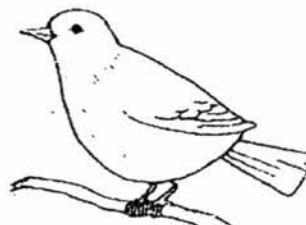
- 6 Study the pictures of the animals.



Penguin



Chicken



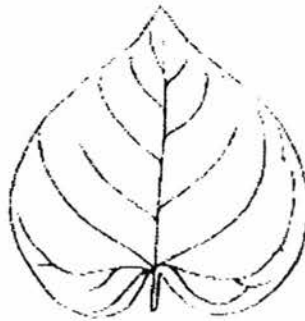
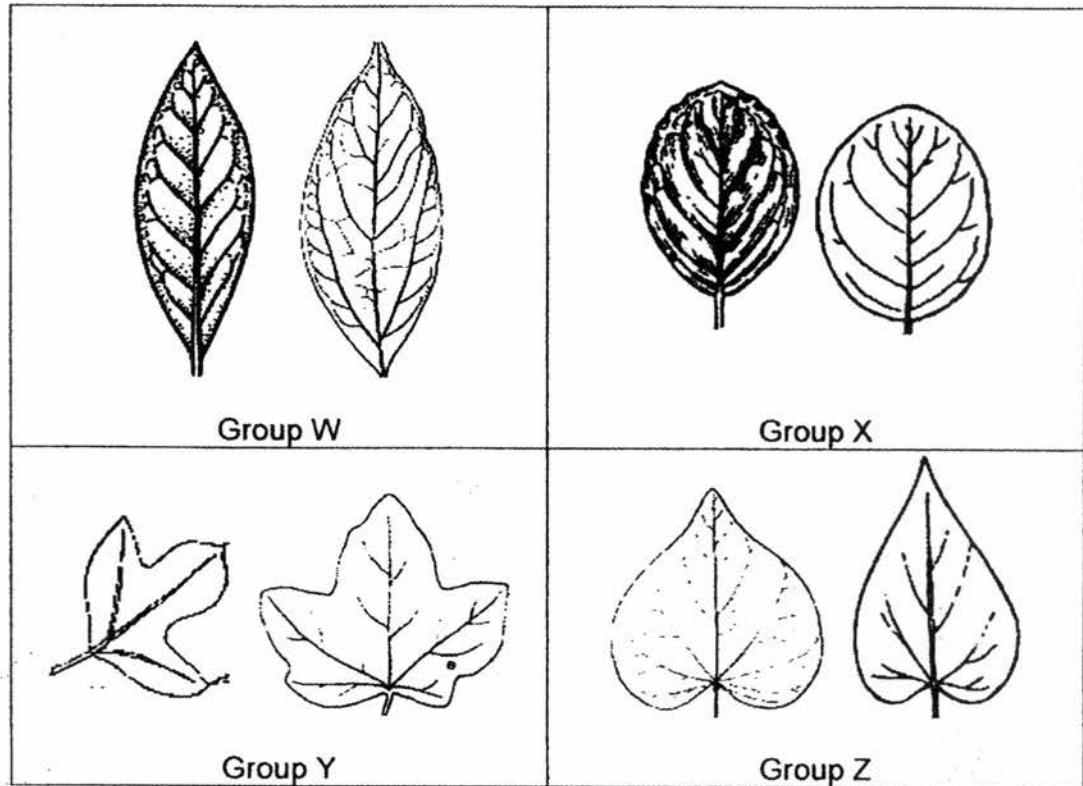
Sparrow

Based on the pictures, in what way(s) is/are the animals above similar?

- A: They can fly.
- B: They have a beak.
- C: They have two legs.

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

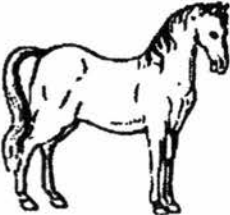



- 7 The diagrams below show leaves which are placed into four groups.



Which group does the leaf above belong to?

- (1) W
- (2) X
- (3) Y
- (4) Z

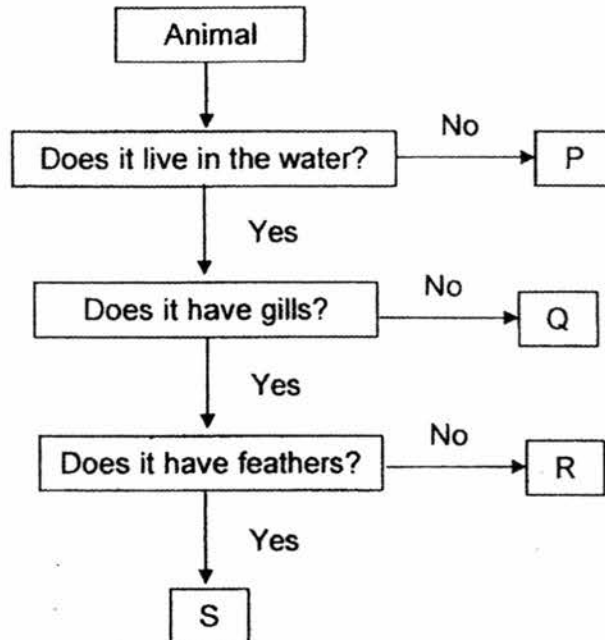
- 8 Some animals were classified into two groups.

Group Y	Group Z
 Horse	 Ostrich
 Cat	 Duck

Which of the following are suitable headings for Group Y and Group Z?

	Group Y	Group Z
(1)	Able to move freely from place to place	Not able to move freely from place to place
(2)	Have hair as outer covering	Have feathers as outer covering
(3)	Have four legs	Have six legs
(4)	Reproduce by laying eggs	Reproduce by giving birth

- 9 Study the flow chart below.



Which letter best represents a fish?

- (1) P
- (2) Q
- (3) R
- (4) S

- 10 Study the table below.

Living things	Does it make its own food?	How does it reproduce?	Can it respond to changes around it?
A	Yes	By spores	Yes
B	No	By spores	Yes
C	No	By laying eggs	Yes

Which of the following best represents A, B and C?

	A	B	C
(1)	Fern	Mould	Mosquito
(2)	Fern	Mushroom	Dog
(3)	Mango tree	Mushroom	Mosquito
(4)	Mango tree	Mould	Dog

- 11 Muthu wanted to find out the best conditions for mould to grow. He placed four pieces of biscuits in sealed bags. The table below shows the conditions of the four biscuits in the different bags.

	Was water added?	Where the bag was placed
Bag A	Yes	Refrigerator
Bag B	No	Warm place
Bag C	No	Refrigerator
Bag D	Yes	Warm place

He observed that mould started growing on the biscuit at different times. In which bag would the mould most likely grow first?

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

- 12 Jamie described the properties of a material as shown below.

- It is transparent.
- It breaks easily.

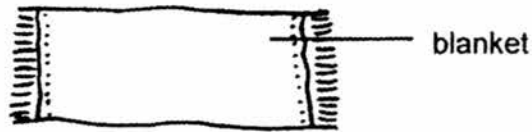
Which of the following is most likely the material she has described?

- (1) glass
- (2) metal
- (3) fabric
- (4) rubber

- 13 Zhi Feng checked the property of a material by bending the material without breaking it. Which property of the material is he checking?

- (1) strength
- (2) flexibility
- (3) transparency
- (4) ability to float or sink in water

- 14 Fabrics are used to make blankets.



Which of the following reason(s) is/are why fabric is chosen to make blankets?

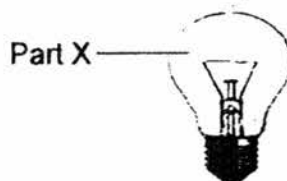
- A: It is flexible.
B: It sinks in water.
C: It is transparent.

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

- 15 Ling Ling observed and recorded the characteristics of four materials, A, B, C and D, in the table below.

Material	Is it transparent?	Is it waterproof?	Is it flexible?
A	Yes	No	Yes
B	No	Yes	Yes
C	Yes	Yes	No
D	No	No	No

Based on the information from the table, which material is most suitable for making part X of the light bulb?



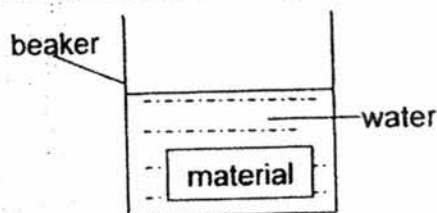
- (1) A
(2) B
(3) C
(4) D

- 16 Study the classification table below.

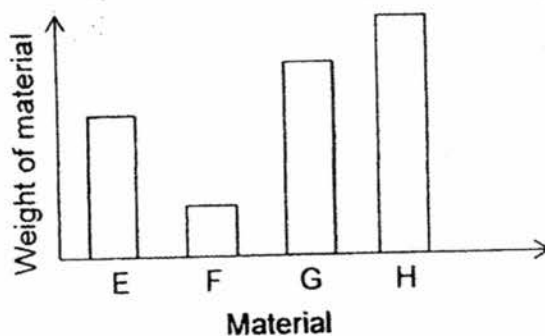
Group E	Group F
wooden board	plastic spoon
metal block	paper plate

The objects in group E and F are classified according to their _____.

- (1) strength
 - (2) transparency
 - (3) ability to absorb water
 - (4) ability to float or sink in water
- 17 Four sheets of material, E, F, G and H, had the same weight. The sheets were placed into four beakers, which contained the same amount of water, at the same time. An example is shown in the diagram.



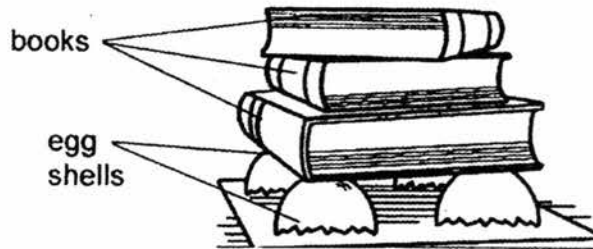
After 30 minutes, the sheets were taken out of the water and their weight was measured. The graph shows the result.



Which material absorbed the most water?

- (1) E
- (2) F
- (3) G
- (4) H

- 18 Siti conducted an experiment using different types of egg shells. She placed egg shells on the table and started stacking books on them as shown below.



She recorded her observations in the table.

Egg shells	Number of books the egg shells could hold before cracking
W	4
X	3
Y	2

What of the following is correct?

- (1) W is weaker than X.
- (2) X is weaker than Y.
- (3) Y is stronger than X.
- (4) W is stronger than Y.

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BOOKLET B

8 Questions
24 Marks

In this booklet, you should have the following:

- a. Page 10 to Page 19
- b. Questions 19 to 26

MARKS

	OBTAINED	POSSIBLE
BOOKLET A		36
BOOKLET B		24
TOTAL		60

Parent's Signature : _____

Section B: Open-ended Questions

Answer all questions in the space provided.

19 The pictures below show two animals.



Dolphin

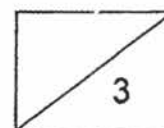


Giraffe

(a) Which group of animals do both dolphin and giraffe belong to? (1m)

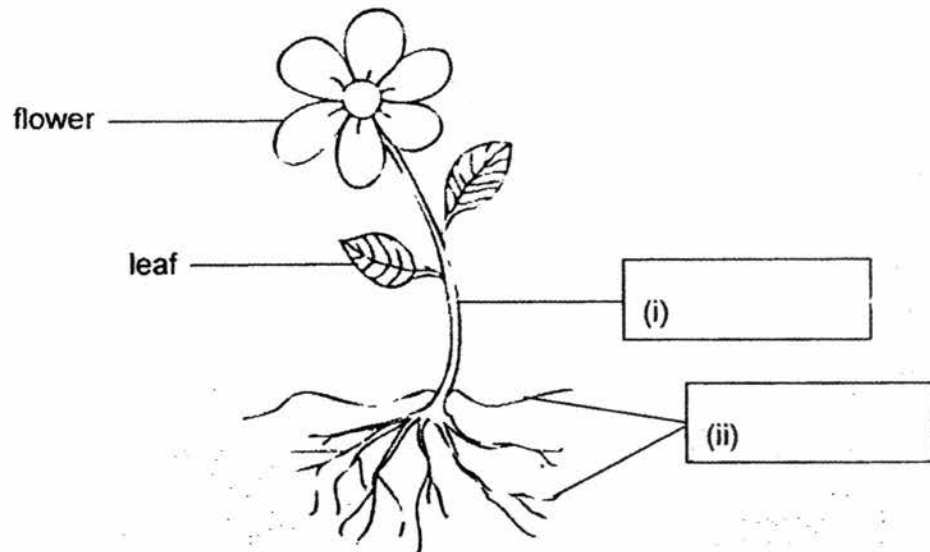
(b) What type of outer covering do these two animals have in common? (1m)

(c) State one difference in the place they stay in. (1m)



20 The diagram shows the different parts of a flowering plant.

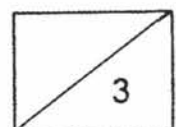
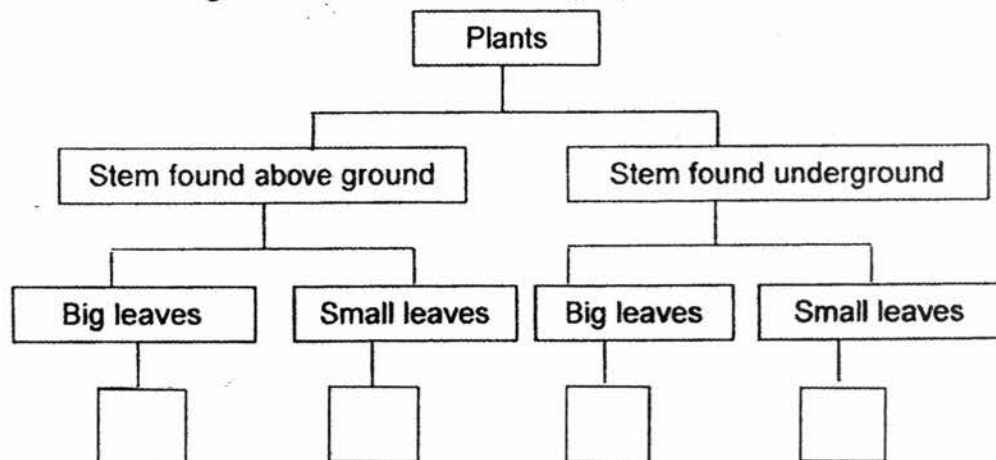
(a) Label the missing parts in the boxes provided. (1m)



Study the table shown. A tick (✓) shows that the plant has the characteristic.

Characteristics of plant	A	B	C	D
Big leaves	✓	✓		
Stem found above ground	✓			✓

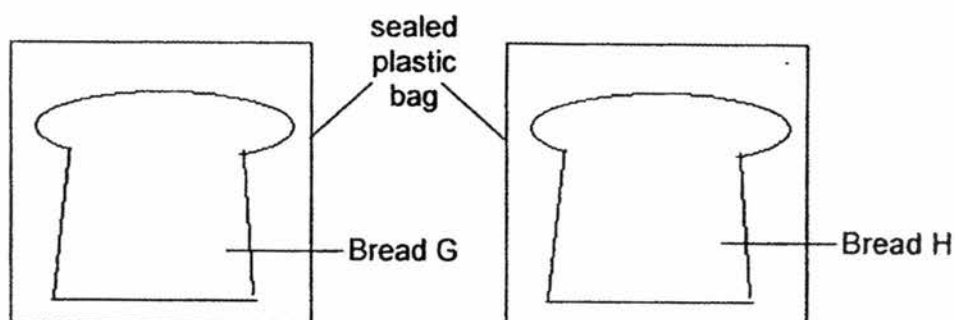
(b) The four plants are classified in the chart below. Complete the chart by filling in the blanks using the letters A, B, C and D. (2m)



- 21 Keva left two similar slices of bread, G and H, in different conditions as shown below.

	Bread G	Bread H
Is the bread toasted?	No	Yes
Is water added?	Yes	No

The bread was kept in sealed plastic bags in the Science room as shown.

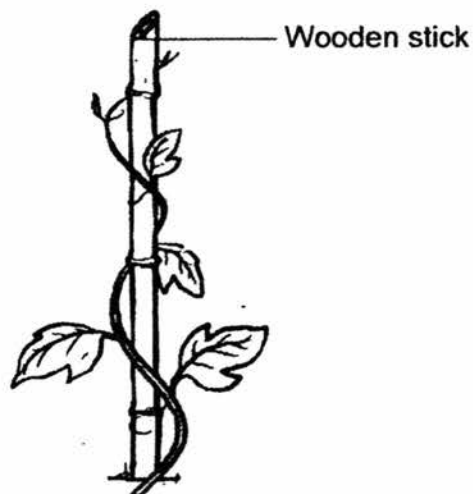


She recorded her observations in a table.

Day	Bread G	Bread H
1	No change	No change
3	No change	No change
5	A few dark spots	No change
7	Many dark spots	A few dark spots

- (a) Name the dark spots that Keva observed growing on the bread. (1m)
- _____
- (b) How do the dark spots reproduce? (1m)
- _____
- (c) The experiment was repeated by placing a slice of bread in the refrigerator that day. Some water had been added to the bread before placing it in the refrigerator. Keva noticed that there were no dark spots observed on the bread on Day 7. Explain why. (1m)
- _____
- _____

22 The diagrams show two plants, R and S.



Plant R



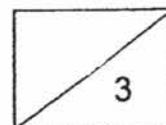
Plant S

- (a) Both plants were observed to have no flowers.
Can we conclude that both plants are non-flowering plants? Explain your answer. (1m)

- (b) Based on the diagrams, state one similarity in the plant parts and one difference in the stem between the two plants. (2m)

Similarity in the plant parts: _____

Difference in the stem: _____

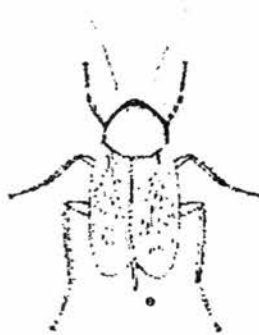


- 23 (a) An example of an amphibian is the frog. Amphibians can live on both land and in water. How do they breathe when they are on land and in water? (1m)

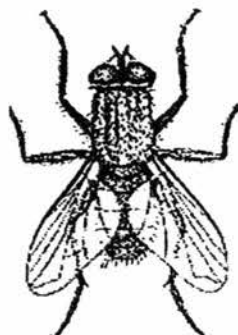
On land: _____

In water: _____

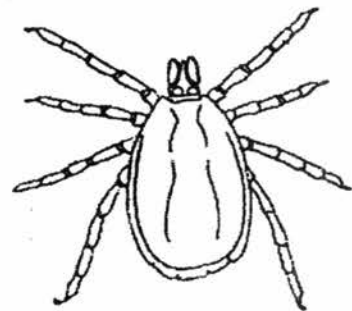
- (b) The diagrams below show three animals.



S

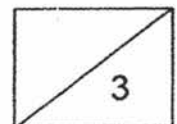


T



U

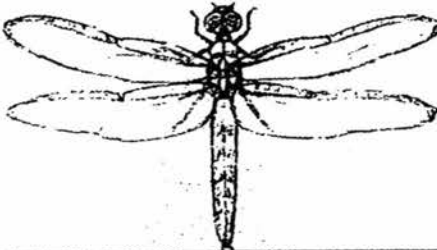
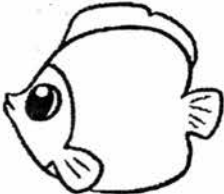
Which animal, S, T or U, is not an insect? Explain your answer. (2m)

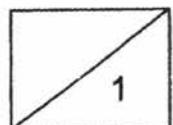


- 23 (c) Some animals were observed and the observations were recorded in the table below.

Animal	Number of legs	Wings	Tail	Feelers
V	0	0	1	0
W	6	2	1	2
X	0	0	0	0
Y	6	4	1	2

Based on the table above, identify the animals with the letters V, W, X or Y. (1m)

Picture of animal	V, W, X or Y
	
	

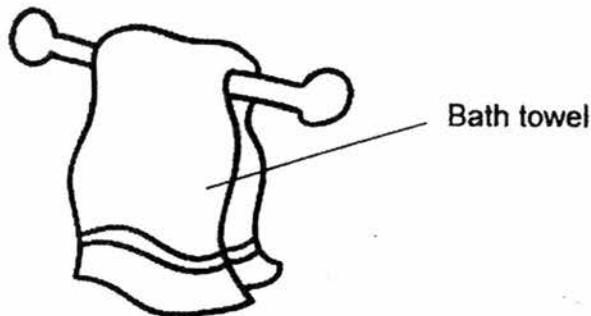


24 The properties of three materials, P, Q and R, are shown in the table below.

	Flexibility	Waterproof	Transparency
P	Yes	Yes	No
Q	Yes	No	No
R	No	Yes	No

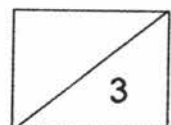
(a) All the three materials are not transparent. Explain what does this mean. (1m)

(b) Which material, P, Q or R, is the most suitable to make a bath towel? Explain your answer. (2m)

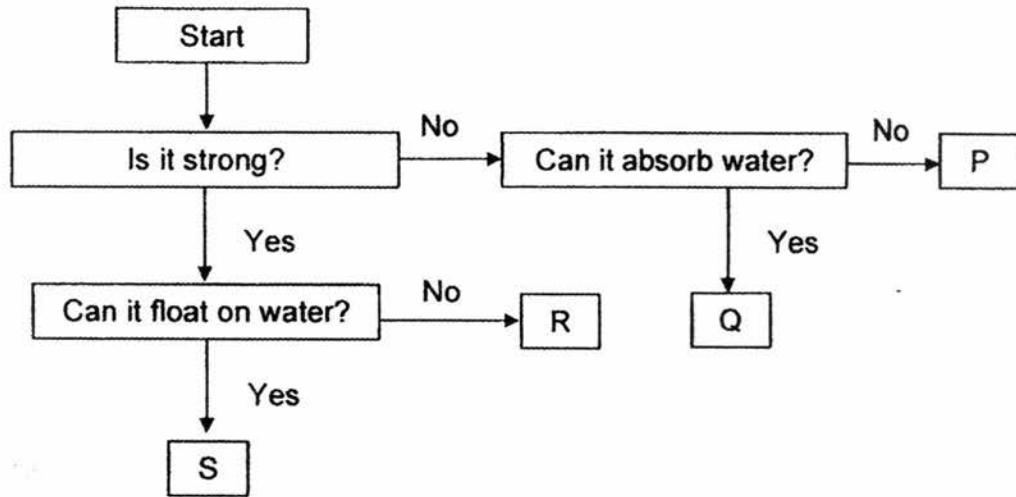


Choice of material: _____

Reason: _____

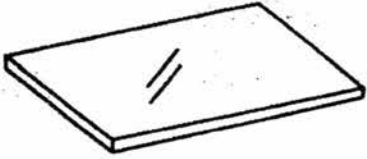



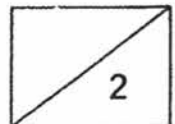
25 Study the flow chart below.



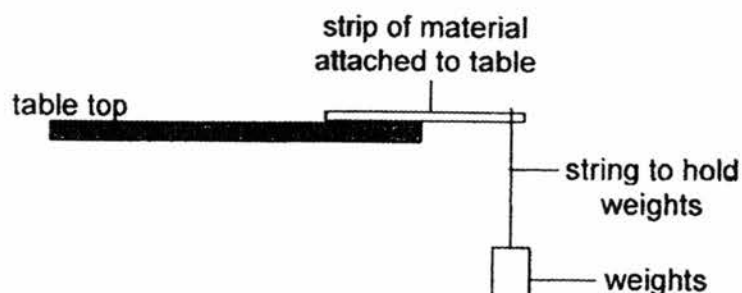
(a) Based on the flow chart, state one similarity between P and Q. (1m)

(b) Using information from the flow chart, write the letters P, Q, R or S that best describe the objects below. (1m)

Object	 sheet of glass	 metal spoon
P, Q, R or S		

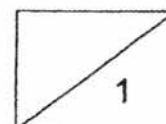


- 25 (c) An experiment is conducted to test the flexibility of different materials. A strip of each material is attached to the table and weights are added to the same position on the strip as shown.

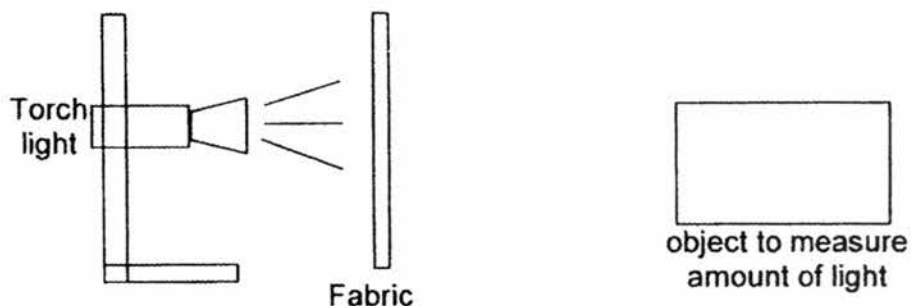


Tick (✓) the variables that must be kept the same in order for the experiment to be a fair test. (1m)

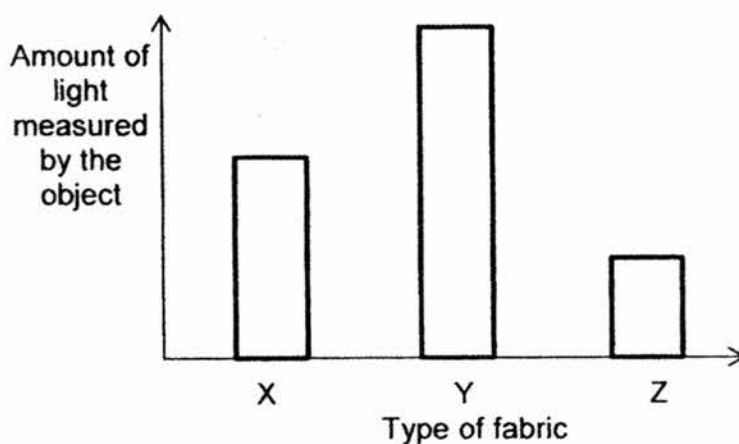
Variable	Variable that must be kept the same
Material of strip	
Length of strip	
Thickness of strip	
Type of string	



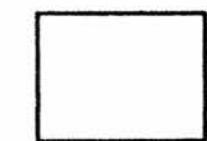
- 26 Three different types of fabric, X, Y and Z, of the same size and thickness were placed in front of a torch light.



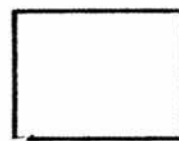
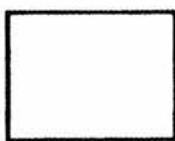
The amount of light that was received at the other end was measured by the object and recorded in the graph below.



- (a) Fill in the blanks by arranging fabrics X, Y and Z in the order shown. (1m)



Fabric that
allows most light
to pass through



Fabric that
allows least light
to pass through

- (b) Which fabric is most suitable for making curtains to block out sunlight in the day? (1m)

End of Section B
Please check your answers.

EXAM PAPER 2017

LEVEL : PRIMARY 3

SCHOOL : RED SWASTIKA SCHOOL

SUBJECT : SCIENCE

TERM : SA1

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
3	2	3	2	3	3	4	2	3	1
Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18		
4	1	2	1	3	1	4	4		

Q19a) They belong to mammals.

b) Both have hair.

c) Dolphin lives in water while giraffe lives on land.

Q20ai) stem ii) roots

b) A, D, B, C

Q21a) The dark spots is bread mould.

b) They reproduce by spores.

c) There were no dark spots growing because there was no warmth for the mould to grow.

Q22a) No. The plant may still be young and not old enough to bear any flowers yet.

b) Similarity - Both have leaves

Difference - R has a weak stem while S has a strong stem

Q23a) On land - Lungs In water - Moist skin

b) U. It does not have six legs and all insects have six legs.

c) Y, V

Q24a) It means that it does not allow light to pass through.

b) Choice: Q Reason: It is not waterproof and it absorbs water quick.

Q25a) Both are not strong.

b) Sheet of glass - P Metal spoon - R

c) Length of strip, thickness of strip, type of string

Q26a) Y, X, Z

b) Z. It allows the least amount of light to pass through.

END

