SINGAPORE CHINESE GIRLS' SCHOOL
SECOND SEMESTRAL ASSESSMENT 2013
PRIMARY 3
SCIENCE

Name:_____ ( ) Date:_____

Class: Primary 3 Duration: 1 h 25 min

Part I (20 x 2 marks)

For each question from 1 to 20, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4).
Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet.

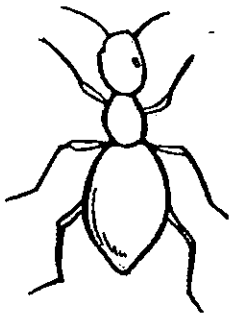
1. Lucy grouped P, Q, R and S according to 4 different characteristics. She wanted to find out which of them is/are non-living things.

Things	Lays eggs	Needs air, food and water	Able to move from place to place
P	No	No	No
Q	No	No	Yes
R	No	Yes	No
S	Yes	Yes	Yes

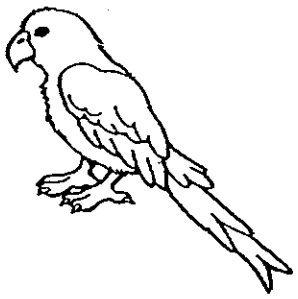
Which of the following are **definitely** non-living things?

1) P only
2) P and Q only
3) Q and R only
4) R and S only

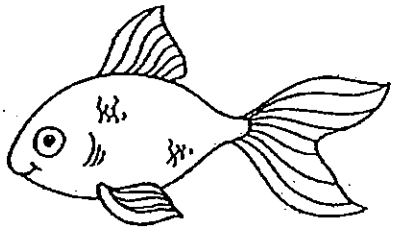
2. Look at the pictures below.



Ant



Parrot



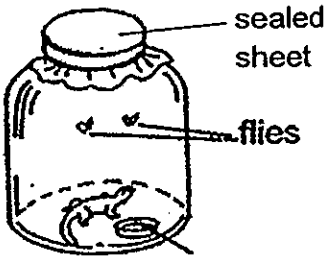
Goldfish

Which of the following is/are true for all the animals above?

A: Lay eggs
B: Have scales
C: Have two feelers
D: Unable to make their own food

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

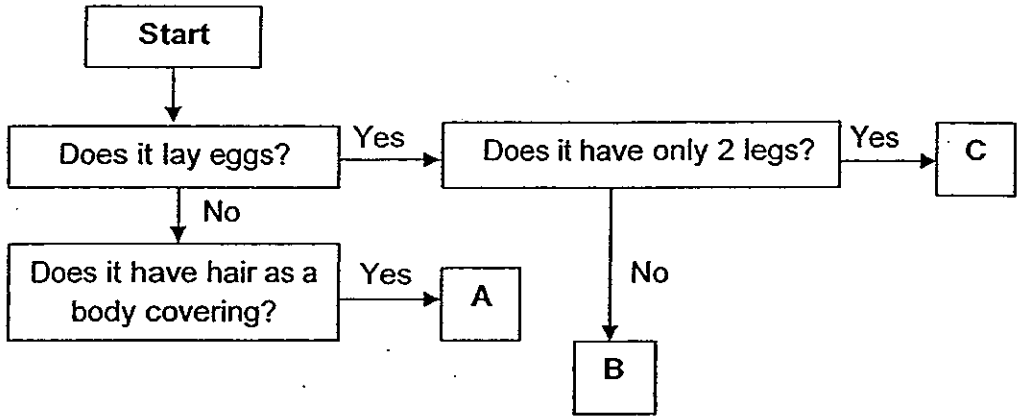
3. Andy caught a lizard and placed it in a jar. He sealed the jar completely so that it would not escape.



The lizard died a few days later because there was _____.

1) no food
2) no light
3) not enough air
4) too much water

4. Study the flowchart below carefully.



What can A, B and C be?

	A	B	C
1)	Mammal	Bird	Insect
2)	Mammal	Insect	Bird
3)	Insect	Mammal	Bird
4)	Bird	Insect	Mammal

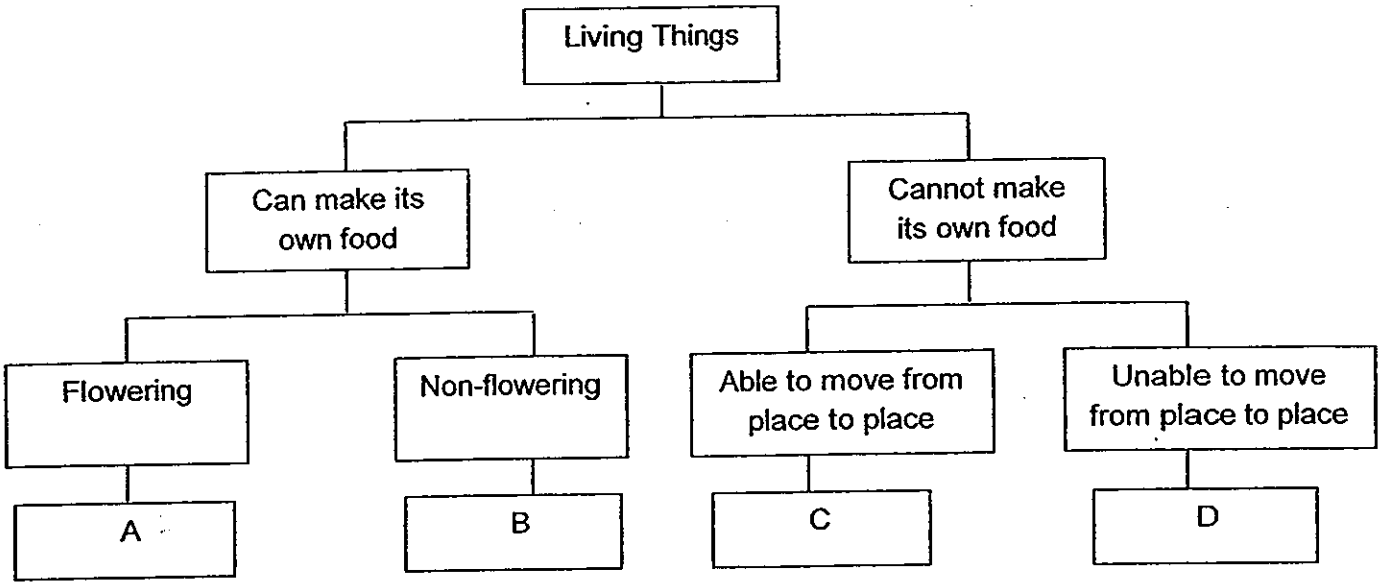
5. David planted a few seeds in a pot of soil. He recorded the height of the plants in the table below.

Number of days	Height (cm)
Day 1	0
Day 6	0
Day 15	0

Which of the following statements is the possible reason for the result above?

1) He did not water the seeds.
2) He did not clean the pot properly.
3) He did not add fertilizer to the soil.
4) He did not place the pot by the window.

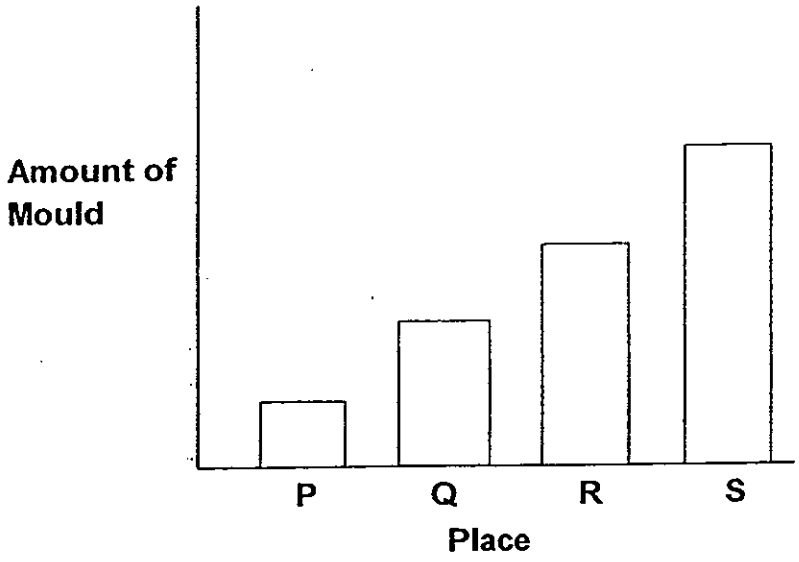
6. Study the classification chart below.



Based on the classification chart above, which group, A, B, C and D, would you place Fungi in?

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

7. Felicia conducted an experiment to find out if the temperature of a place will affect the growth of mould. She recorded the results in the bar graph below.



She recorded the temperatures of Places P, Q, R and S in the table below. The temperatures have been jumbled up.

Temperatures	5°C	33°C	13°C	18°C

Which of the following temperatures is S likely to have?

1) 5°C
2) 33°C
3) 13°C
4) 18°C

8. Jane weighed the mass of 4 materials, A, B, C and D before placing them into a container of water. The objects were taken out after 10 minutes. She recorded the results in the table below.

Materials	**Mass at the start**	**Mass after 10 minutes in water**
A	5 g	15 g
B	10 g	50 g
C	15 g	15 g
D	20 g	35 g

Which of the materials above can be used to make a raincoat?

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

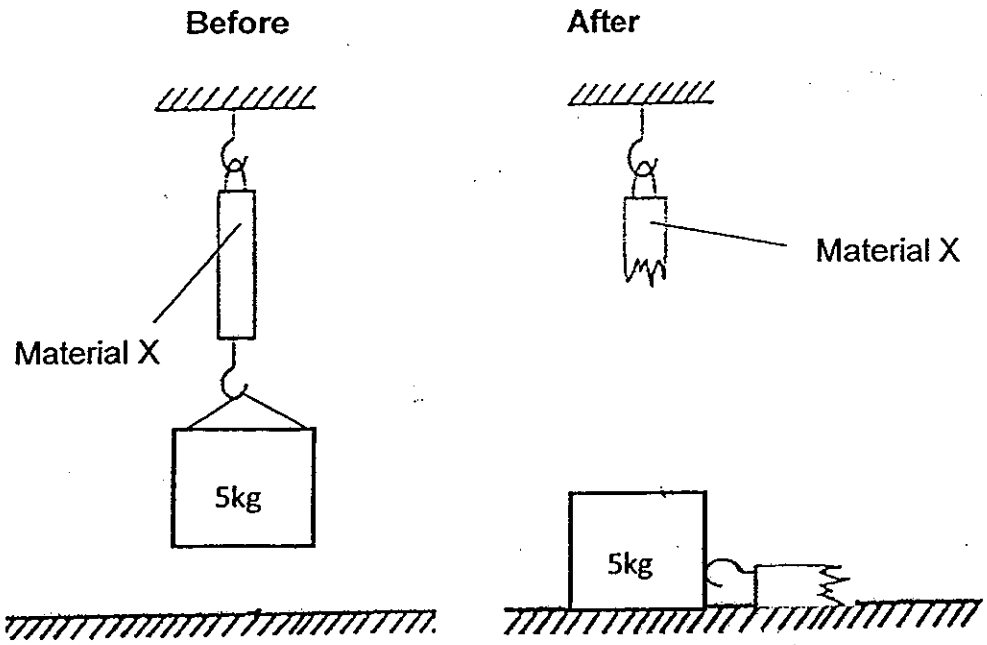
9. Study the table below carefully.

Material	Is it stretchable?	Does it allow light to pass through?
A	×	×
B	✓	×
C	×	✓

Which of the following materials are A, B and C likely to be?

	A	B	C
1)	Rubber	Glass	Plastic
2)	Metal	Rubber	Glass
3)	Glass	Plastic	Metal
4)	Plastic	Metal	Rubber

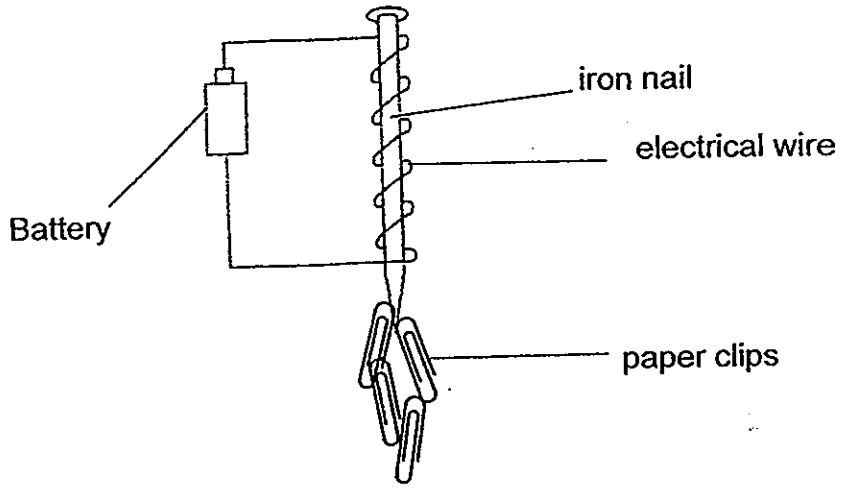
10. John conducted an experiment as shown in the diagram below. He hung a 5 kg-weight on Material X. After 5 minutes, Material X broke.



Based on the experiment above, which property of the material was John trying to test?

1) Texture
2) Strength
3) Hardness
4) Ability to float or sink

11. Mrs Lim conducted an experiment. She coiled an electrical wire around an iron nail as shown in the diagram below. The iron nail attracted a few paper clips.



What could she do if she wants more paper clips to be attracted to the iron nail?

A: Use a bigger iron nail
B: Add more batteries to the set-up
C: Use a thicker electrical wire
D: Add more coils around the iron nail

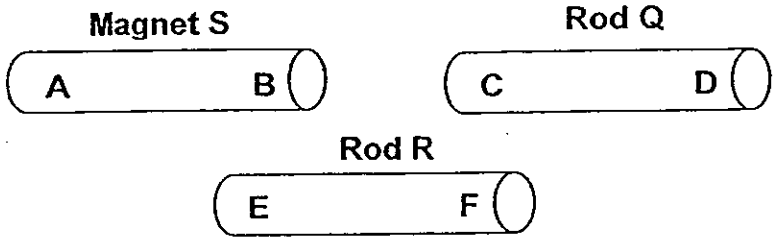
1) A and B only
2) A and C only
3) B and D only
4) C and D only

12. Rachel accidentally broke her bar magnet into 4 smaller pieces as shown in the diagram below.

How many north-seeking poles are there in the diagram above?

1) 1
2) 2
3) 3
4) 4

13. The diagram below shows Magnet S and 2 rods. Kelly conducted an experiment to find out what Rod Q and Rod R are.



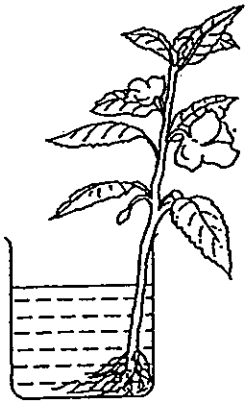
She put Magnet S over the two rods and recorded her findings in the table below.

B and C repelled	A and C attracted
A and E attracted	B and F attracted

Based on the information given above, which of the following statements is definitely correct?

1) Rod R is a magnet.
2) Both Rod Q and Rod R are magnets
3) Rod Q is a magnet.
4) Rod R is not a magnetic material.

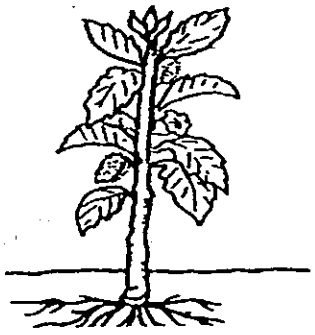
14. Michelle conducted an experiment as shown in the diagram below. She left the setup next to a window for a few days. She noticed that the leaves and flowers had turned red.



What can she conclude from the experiment?

1) The roots absorbed water for the plant.
2) The leaves and flowers absorbed water for the plant.
3) The colour on the flowers caused the leaves to turn red.
4) The temperature of the water caused a change in the colour of the leaves and flowers.

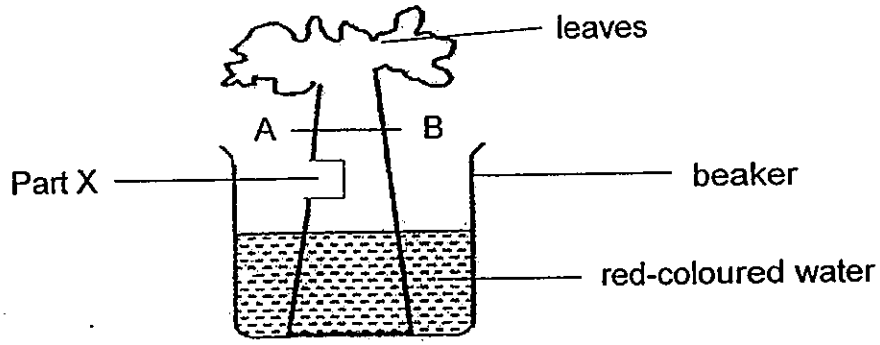
15. Look at the picture below.



What will happen if all the leaves are removed from the plant? The plant will not be able to _____.

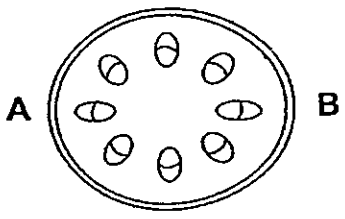
1) get mineral salts
2) transport food and water
3) make food
4) store water

16. Shi Min placed a stalk of celery into a beaker of red-coloured water. She cut out Part X from the side and left the set-up by the window.

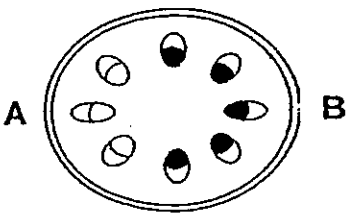


How would the cross-section of AB look like a few days later?
(The shaded portions indicate the parts that have been stained red.)

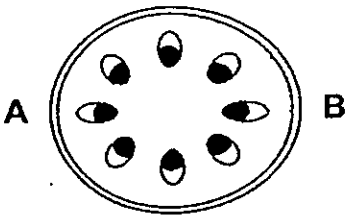
1)



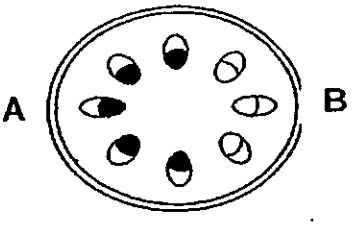
3)



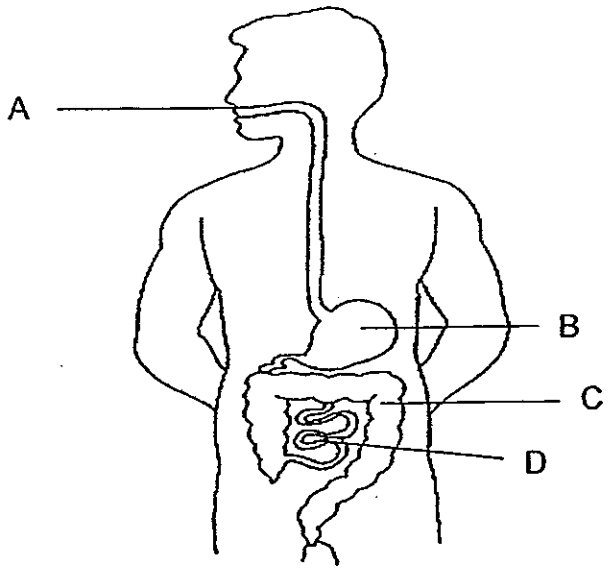
2)



4)



Look at the diagram below carefully. Answer Questions 17 and 18.



17. Which of the parts in the diagram above has <u>no</u> digestive juices?

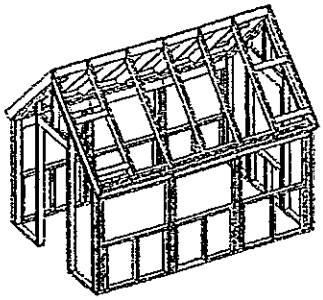
1) A
2) B
3) C
4) D

18. Based on the diagram above, which of the following function/s is/are correct?

Parts	Functions
A	The digestive juice in our mouth digests the food.
B	Food is broken down even further.
C	Digestion of food continues here.
D	Excess water is removed from the food.

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

19. Look at the diagram below. The wooden frame helps to give shape to the house.

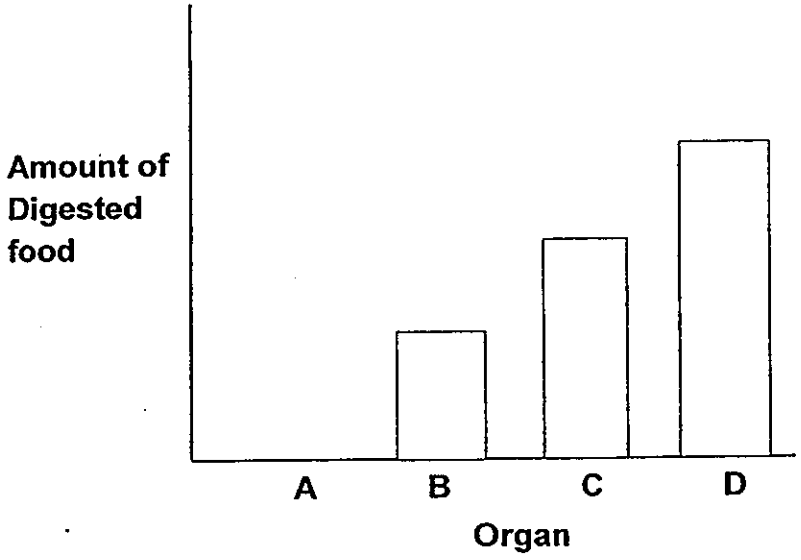


Wooden frame of a house

Which body system does the wooden frame of a house resemble?

1) Skeletal system
2) Digestive system
3) Muscular system
4) Circulatory system

20. Aishah plotted a bar graph to indicate the amount of digested food in each organ of the digestive system as shown in the diagram below.



What could A, B, C and D be?

	A	B	C	D
1)	Small intestine	Mouth	Stomach	Large intestine
2)	Mouth	Stomach	Small intestine	Large intestine
3)	Large intestine	Mouth	Stomach	Small intestine
4)	Stomach	Small intestine	Large intestine	Mouth

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Name:_____( ) Date:_____

Class: Primary 3 1 h 25 min

Components	Marks Obtained	Total Marks
Part I		40
Part II		30
Total		70

Parent's Signature:

Part II (30 marks)

Answer all the following questions.

21. Some groups of animals are given in the box below.

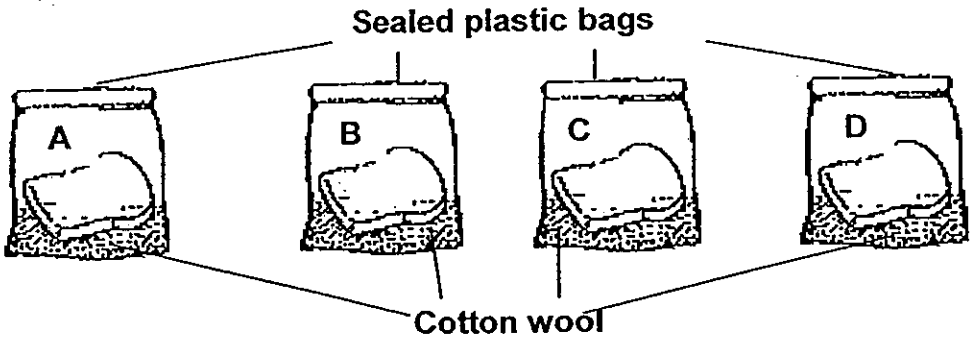
Birds	Mammals	Fish	Insects

Using the animal groups given above, write down the correct animal groups beside their characteristics in the table below.
Use each animal group **once only**. (4m)

Characteristic/s	Animal Group
• Have scales as the outer-body covering	
• Have a pair of wings and 2 legs	
• Suckle their young • Have hair on their skin	
• Have a pair of feelers	

4

22. Lucy conducted an experiment to test the rate of mould growth on 4 slices of bread as shown in the diagram below. She put each of them in a sealed plastic bag containing some cotton wool. All the slices of bread were left at the same place for a few weeks. Each slice of bread was exposed to different conditions as shown in the table below.



Bread	A	B	C	D
Conditions	Bread: Toasted Cotton wool: Wet	Bread: Not toasted Cotton wool: Wet	Bread: Toasted Cotton wool: Dry	Bread: Not toasted Cotton wool: Dry

a) Which slice of bread would have the least amount of mould growing on it? (1m)

_____

b) What is the purpose of toasting the bread? (1m)

_____

c) Which group of living things does bread mould belong to? (1m)

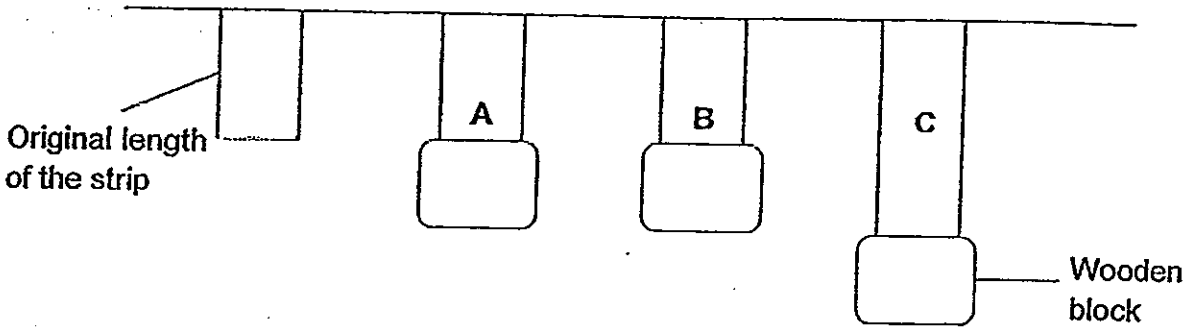
_____

d) How does bread mould reproduce? (1m)

_____

4

23. Grace conducted an experiment to determine the material of each strip. The materials used in the experiment are **glass, rubber and iron**. She fastened a wooden block to each strip. The wooden blocks used are of the same length and mass.



a) Strip C became longer but there was no change to the length of Strip A and B. **Circle** the property of Strip C that enables it to become longer. (1m)

Hard Stretchable Strong

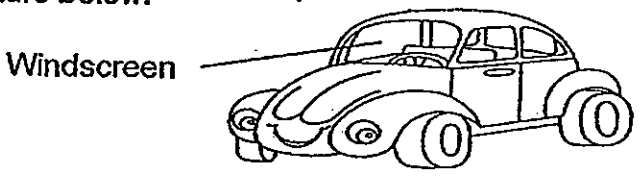
b) **Circle** the material that Strip C is made of. (1m)

Glass Rubber Iron

c) The properties of Strip A and Strip B are given in the box below. Identify the material of each strip. (1m)

Strip	Properties	Material
A	Transparent and breaks easily	
B	Hard, strong and shiny	

d) Look at the picture below.



Out of the 3 materials tested, which material can be used to make the windscreen of a car? Why? (2m)

_____

_____

5

24. Huilin wants to make a schoolbag for her 7-year-old brother and her mother gave her some materials. The table below contains some information about the materials given.

Properties	Materials			
	A	B	C	D
Light	No	No	Yes	Yes
Strong	Yes	Yes	No	Yes
Waterproof	Yes	No	Yes	Yes

a) Out of the 4 materials given, which is the best material for making a schoolbag? (1m)

_____

b) Based on the table above, describe Material C. (1m)

_____

c) How are Material A and Material D different? (1m)

_____

Mrs Lim was carrying a bag of canned food that she had bought from the supermarket. As she was walking home, the bag broke as shown in the picture below.

d) Using the information given in the table above, which material, A, B, C or D, is the bag most likely made of? (1m)

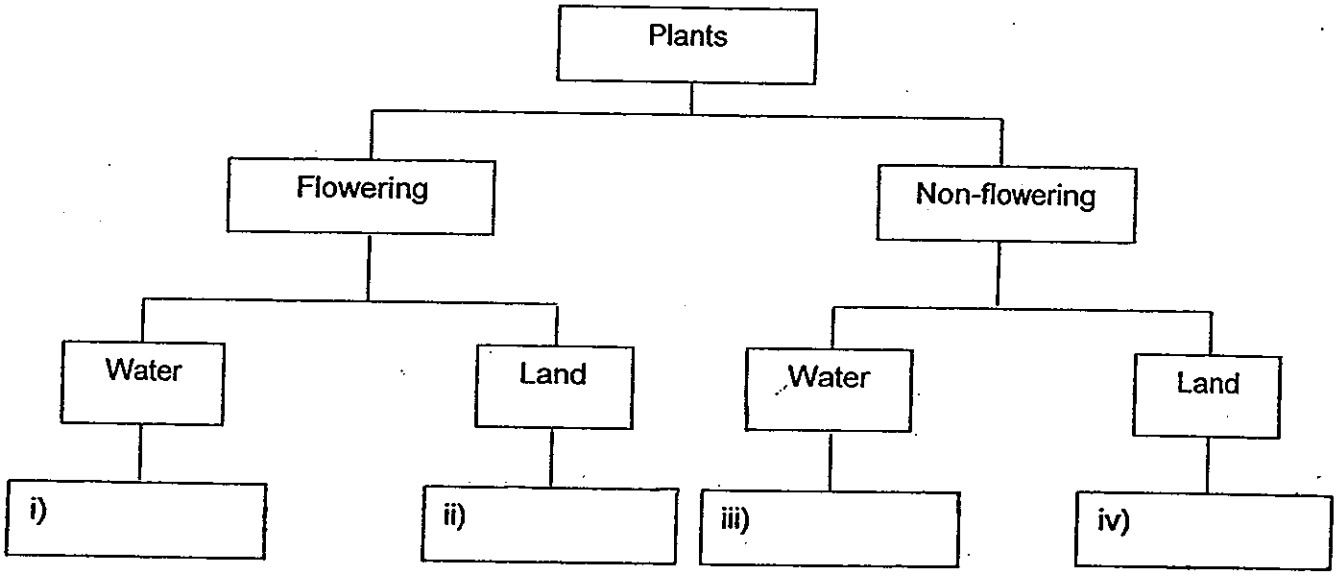
_____

4

25. The following table provides information on 4 plants, A, B, C and D.

Plant	Characteristics	
	Bears Fruits	Lives in Water
A	✓	✓
B	×	×
C	×	✓
D	✓	×

Using the information given above, study the classification chart below.



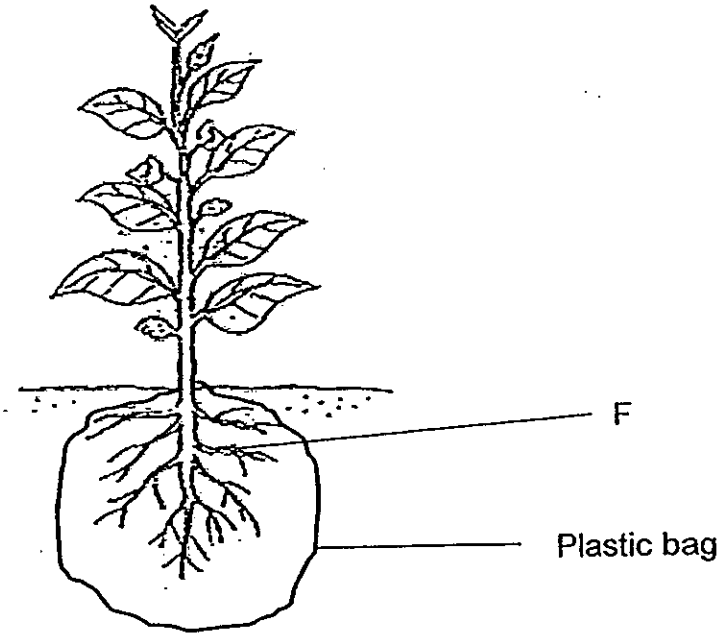
a) Study the information given in the table above and complete the chart with Plants A, B, C and D. (2m)

b) How does Plant C reproduce? (1m)

_____

3

26. Lilian tied a plastic bag that does not contain anything, around Part F tightly as shown in the diagram below.



a) Identify Part F of the plant. (1m)

_____

b) What will happen to the plant after a few days? (1m)

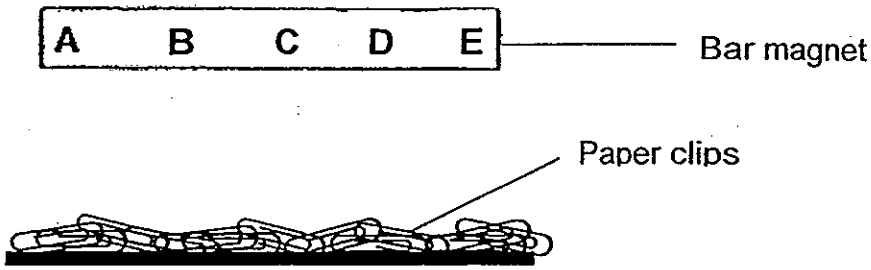
_____

c) Provide a reason for your answer in (b). (1m)

_____

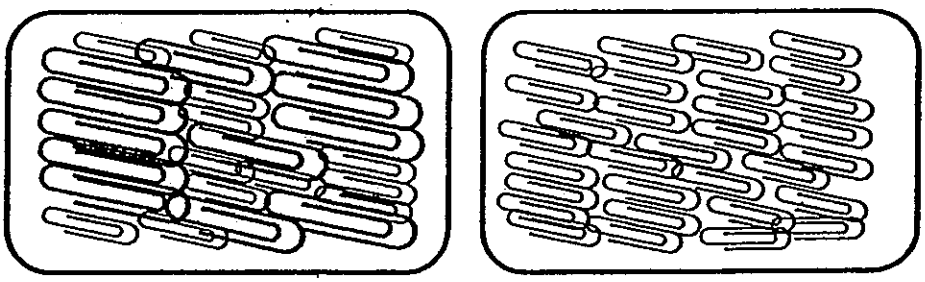
3

27. Benny placed a bar magnet above a tray of paper clips as shown in the diagram below.



a) Which part/s, A, B, C, D and E, of the bar magnet would attract the most number of paper clips? (1m)

b) Which part, A, B, C, D and E, of the bar magnet will attract the least number of paper clips? (1m)

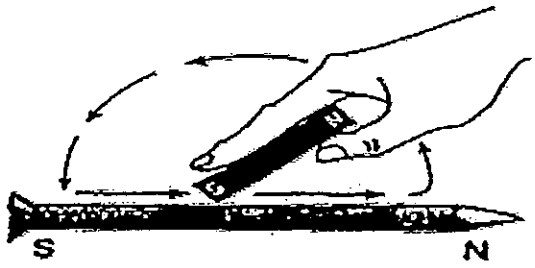


X Y

c) Look at the diagrams above. Which tray of paper clips should Benny use in his experiment? Explain. (2m)

4

28. Rita wants to create a magnet by stroking an iron nail 30 times in the same direction as shown below.



a) Name **one thing** in which Rita could do to make the iron nail a stronger temporary magnet by stroking. (1m)

_____

b) Suggest **2 methods** Rita could use if she wants the iron nail to completely lose its magnetism. (2m)

_____

_____

3

P3 SA2 2013 Answers

Answer Key

Section A

Q	Ans	Q	Ans	Q	Ans	Q	Ans
1)	2	6)	4	11)	3	16)	3
2)	2	7)	2	12)	4	17)	3
3)	3	8)	3	13)	3	18)	2
4)	2	9)	2	14)	1	19)	1
5)	1	10)	2	15)	3	20)	3

Section B

Qn	Suggested Answers	Remarks
21	Fish, Birds, Mammals, Insects	1m each
22a	Bread C.	1m
22b	To remove moisture/ water from the bread	1m
22c	Fungi	1m
22d	Bread mould reproduces by spores	1m
23a	Stretchable	1m
23b	Rubber	1m
23c	A: Glass B: Iron	½ m each
23d	Material A/ Glass. It is transparent/ Allows light to pass through	2m
24a	D	1m
24b	It is light, not strong and waterproof.	1m
24c	D is light but A is not. *No marks if A or D is missing from the answer.*	1m
24d	Material C	1m
25a	i) A ii) D iii) C iv) B	2m
25b	Plant C reproduces by spores.	1m
26a	Roots	1m
26b	It will wither/die.	1m
26c	The plastic bag prevents the roots from taking in water for the plant.	1m
27a	A and E	1/2m each
27b	C	1m
27c	Y The paper clips must be of the same size (to ensure a fair test)	2m
28a	Use a stronger magnet to stroke the iron nail. OR: Stroke more times/ 50times/ 100times/ more than 30 times	1m
28b	Drop the magnets several times on the floor OR: Hit them with a hammer several times OR: Heat them over a flame	1m each