



RAFFLES GIRLS' PRIMARY SCHOOL

P3 SCIENCE

SEMESTRAL ASSESSMENT (2)

Name: _____ Index No: _____ Class: P3 _____

Section A	48
Section B	32
Your score out of 80 marks	
Parent's signature	

30 October 2017 SCIENCE ATT: 1 h 15 min

SECTION A (24 x 2 marks)

For each question from 1 to 24, four options are given.

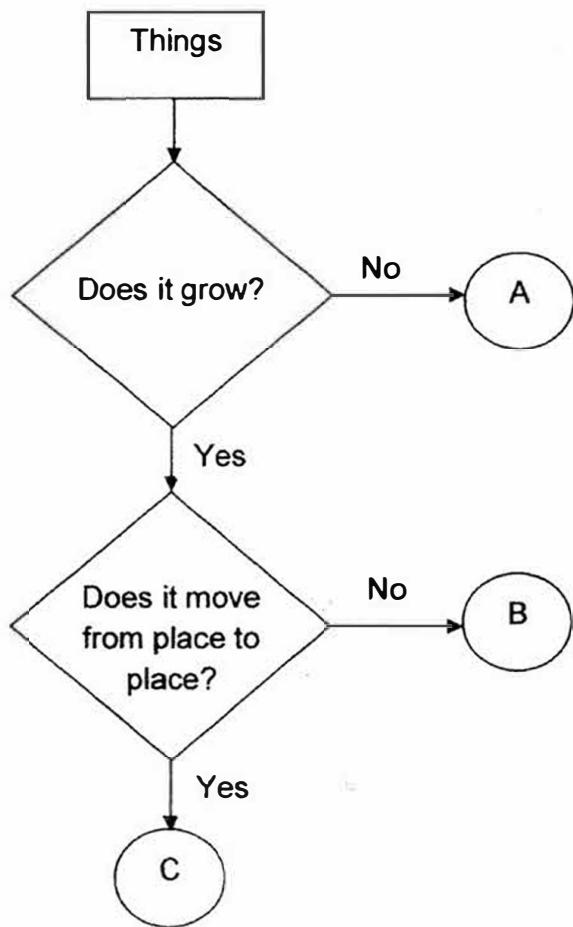
One of them is the correct answer. Make your choice (1, 2, 3 or 4).

Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet (OAS) provided.

1. Which of the following statements about all living things are correct?

- A They can reproduce.
 - B They can make their own food.
 - C They can respond to changes.
 - D They give birth to their young alive.
-
- (1) A and C only
 - (2) B and D only
 - (3) A, C and D only
 - (4) A, B and C only

2. The flowchart below shows how things are classified.



Based on the information above, which of the following best represents plant, marble and ant?

	Plant	Marble	Ant
(1)	A	B	C
(2)	A	C	B
(3)	B	A	C
(4)	C	B	A

3. Some pupils found Animal T in the school field.



After making some observations about Animal T as shown above, the pupils concluded that Animal T is an insect.

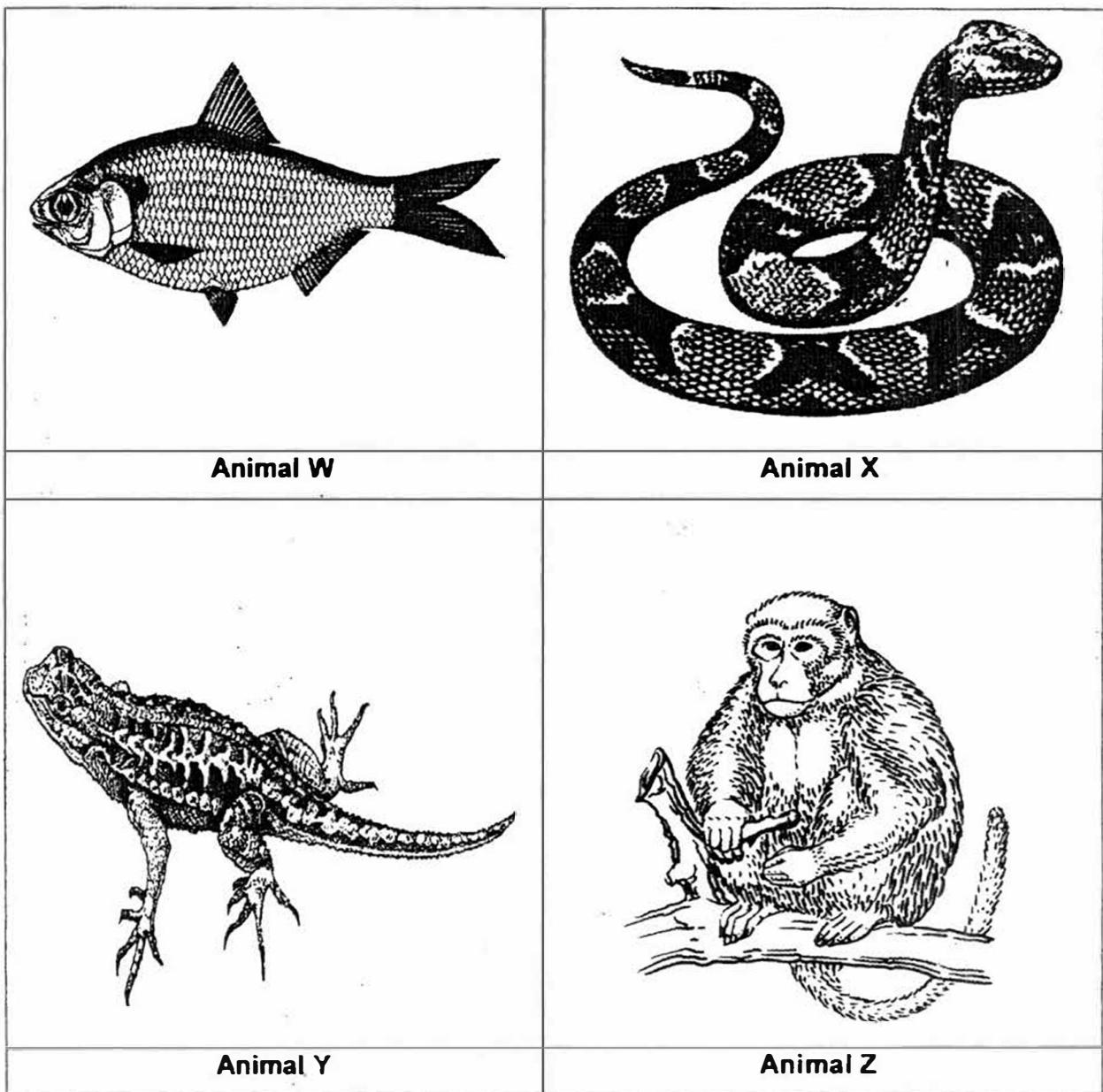
The following observations were made by the pupils:

- Pupil A : It is hairy.
- Pupil B : It has six legs.
- Pupil C : It has three body parts.

Which pupils gave the correct observations that Animal T is an insect?

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

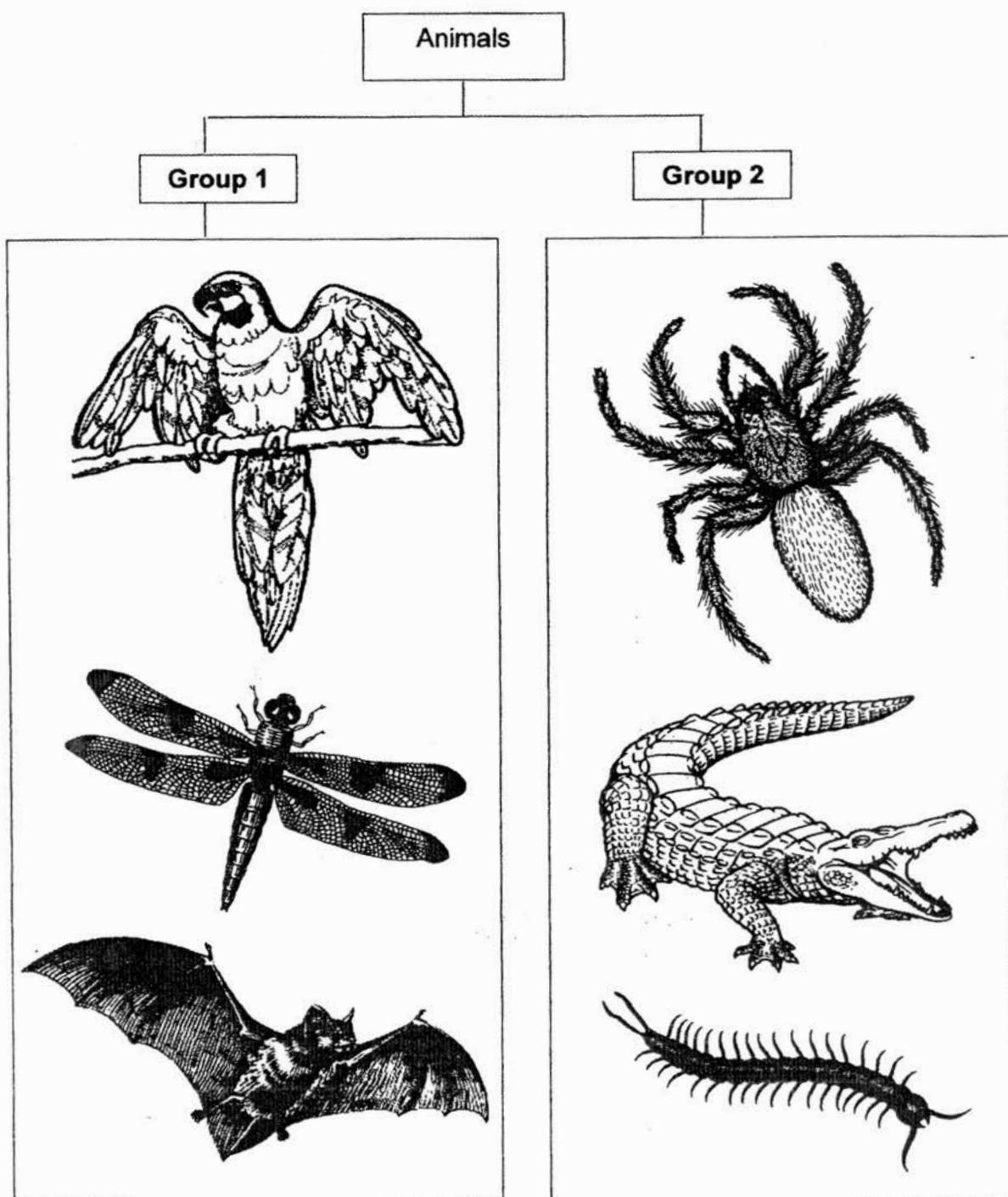
4. The animals below are grouped according to one common physical characteristic.



Based on your observations, which one of the following animals does NOT belong to the group?

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

5. The classification chart shows some animals which are not drawn to scale.



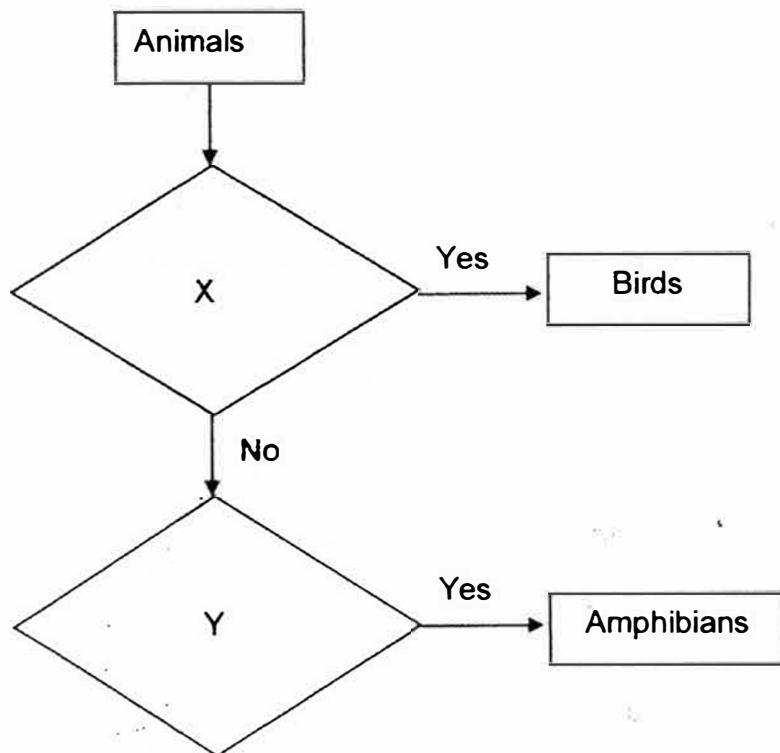
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Which of the following shows the correct headings of how the animals are grouped?

	Group 1	Group 2
(1)	Does not have a tail	Has a tail
(2)	Has wings	Does not have wings
(3)	Has hair	Does not have hair
(4)	Does not have four legs	Has four legs

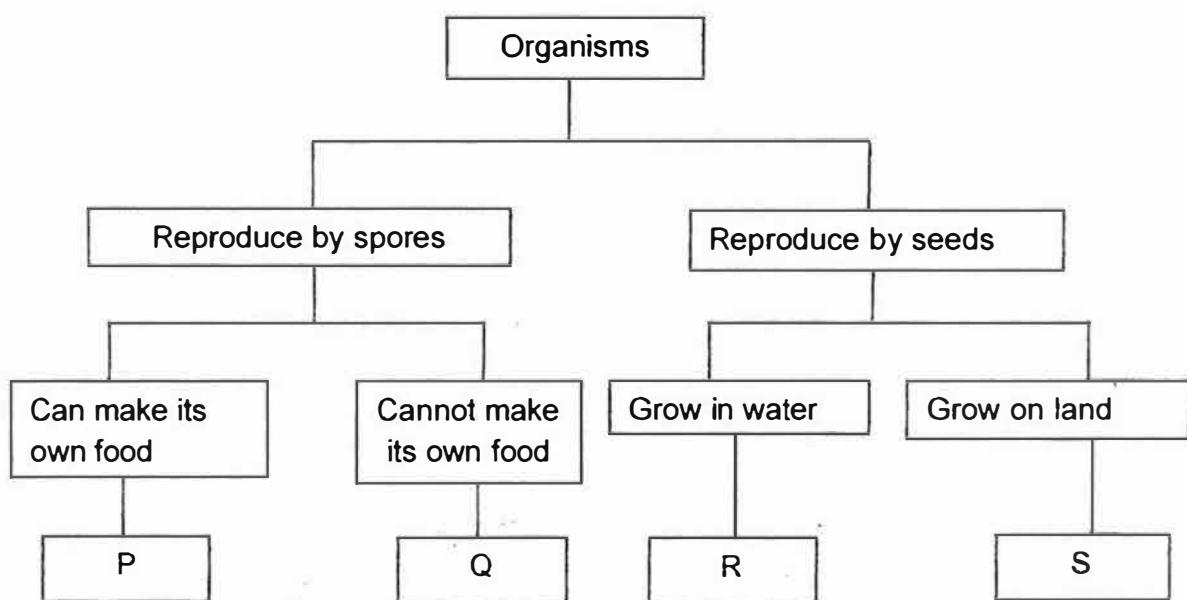
6. Study the flowchart below carefully.



Which of the following best represent X and Y?

	X	Y
(1)	Does it have beak?	Does it have scales on its body?
(2)	Does it have wings?	Does it have hair on its body?
(3)	Does it have hair on its body?	Does it have moist skin?
(4)	Does it have feathers on its body?	Does it live both on land and in water?

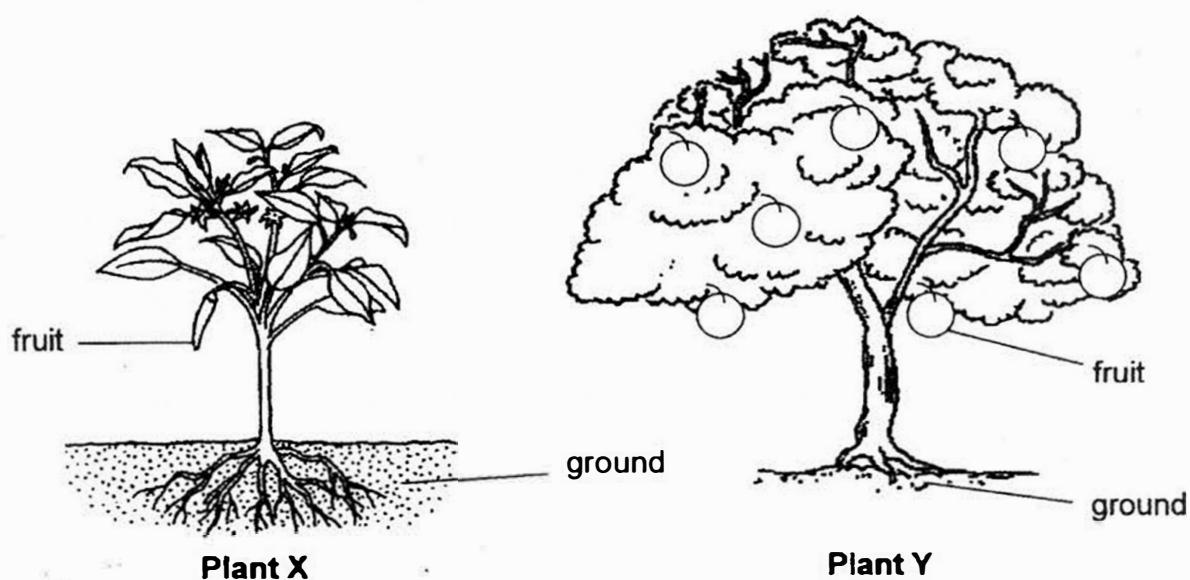
7. The classification chart shows how some organisms are classified.



Which one of the following correctly represents bread moulds?

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

8. The diagram below shows two plants, X and Y.



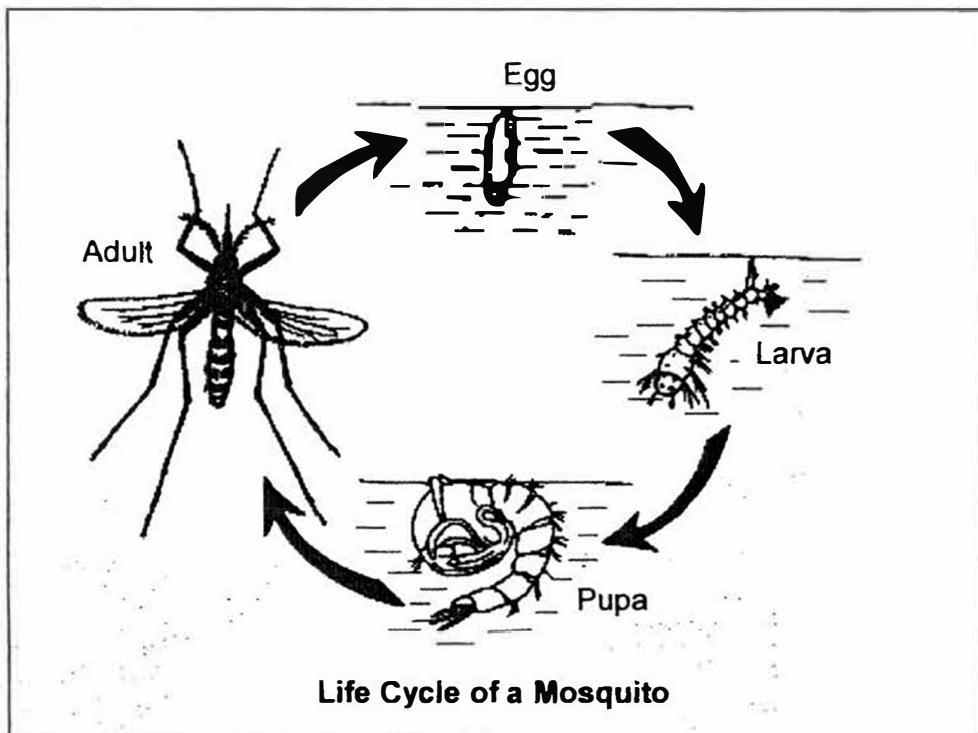
Based on your observations, what are the similarities between plants X and Y?

- 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 only

9. Which one of the following describes mushroom and bacteria correctly?

- (1) Both reproduce by seeds.
- (2) Both can make their own food.
- (3) Both do not need food and water.
- (4) Both can respond to changes in their surroundings.

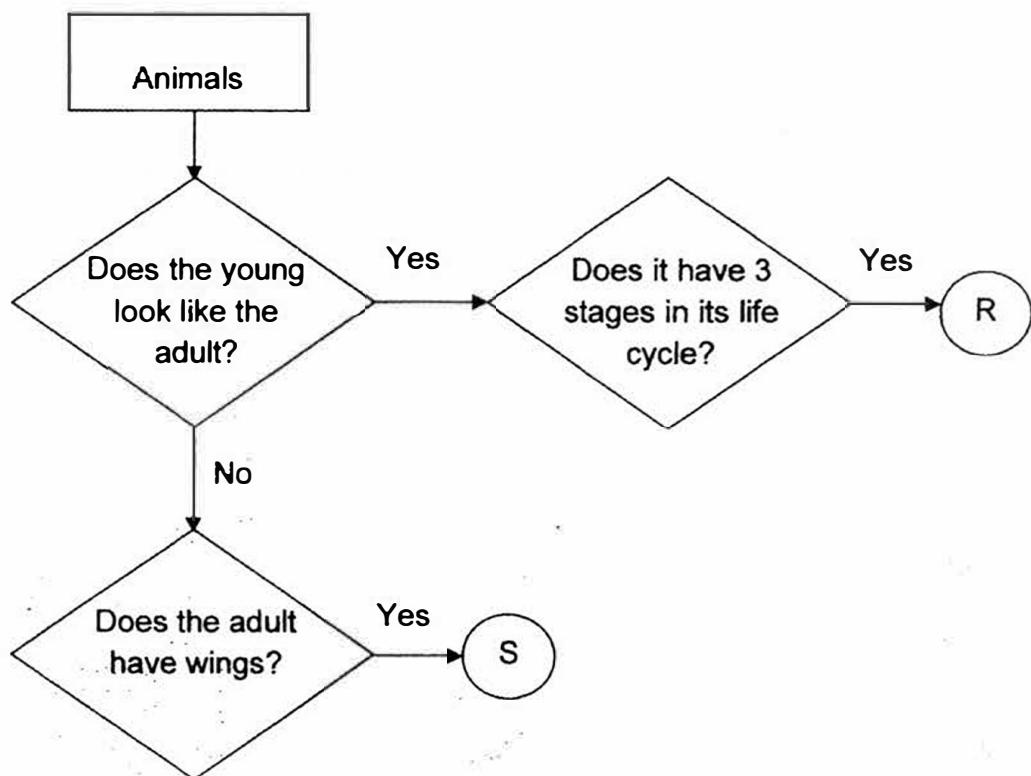
10. The diagram below shows the life cycle of a mosquito.



Based on the information above, which one of the following statements on the life cycle of the mosquito is **true**?

- (1) The mosquito has four stages in its life cycle.
- (2) The adult mosquito lives on land and in water.
- (3) The young of the mosquito resembles the adult.
- (4) Only one stage of the life cycle of the mosquito is spent in water.

11. Study the flowchart below carefully.



Based on the information above, which one of the following identifies animals R and S correctly?

	R	S
(1)	mosquito	beetle
(2)	mosquito	frog
(3)	grasshopper	frog
(4)	chicken	beetle

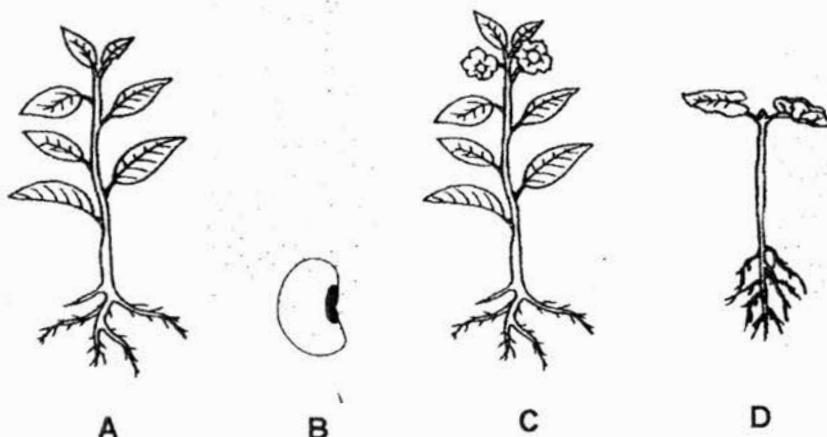
12 Jane made the following statements about the life cycle of a butterfly.

- A The young of a butterfly looks like its adult.
- B It eats a lot when it is at the larva stage.
- C It starts to develop its wings at larva stage..

Which of the following statements on the life cycle of the butterfly is/are **true**?

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

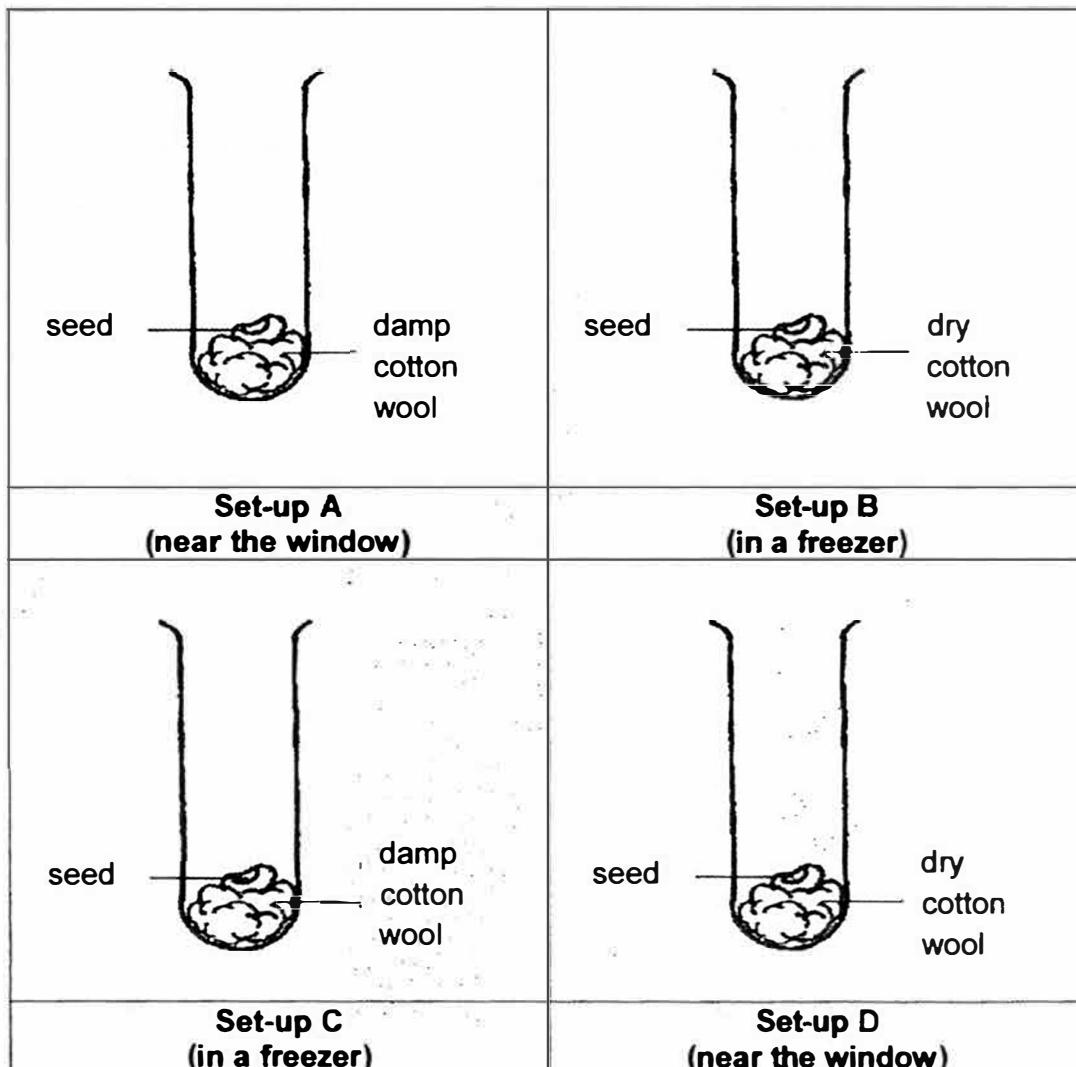
13. The diagram below show the different stages of development of a plant, not in the correct order.



Which of the following correctly shows the correct order of development of the plant?

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

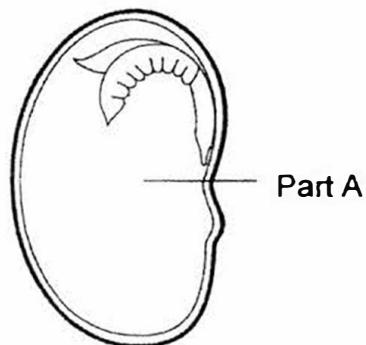
14. Mary placed an identical seed in each of the four set-ups, A, B, C and D. She exposed the four set-ups to different conditions as shown below.



In which of the set-ups, A, B, C or D, will the seed most likely to grow after some time?

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

15. Jane wanted to observe the development of a seed into a seedling. She placed the seed in a container of soil and watered it daily to keep the soil moist. The mass of part A of the seed was recorded on the first day was 2g. Then she recorded the mass of part A after five days.



The mass of part A of the seed at the end of five days was most likely to be

-
- (1) 0g
 - (2) 2g
 - (3) less than 2g
 - (4) more than 2g

16. The diagram below shows a pool ping pong table.



Which one of the following materials and its given property should be taken into consideration while selecting it to make the pool ping pong table?

	Material	Property
(1)	A	It is strong.
(2)	B	It is absorbent.
(3)	C	It is able to float.
(4)	D	It allows light to pass through.

17. Katy wanted to choose a suitable material for Part X of the bookshelf as shown below.



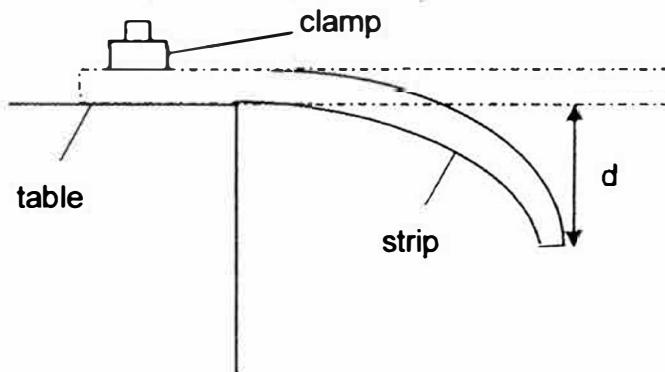
The properties of materials A, B, C and D are as shown in the table below. A tick (✓) shows the presence of the property.

Materials \ Properties	A	B	C	D
Strong	✓	✓		
Flexible	✓			✓
Waterproof	✓	✓	✓	✓

Which of the following is the most suitable material for making Part X of the bookshelf?

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

18. Peter wanted to compare the flexibility of four strips, A, B, C and D, made of different materials. He bent the strips and measured the maximum distance, d , which it could bend before it started to break.



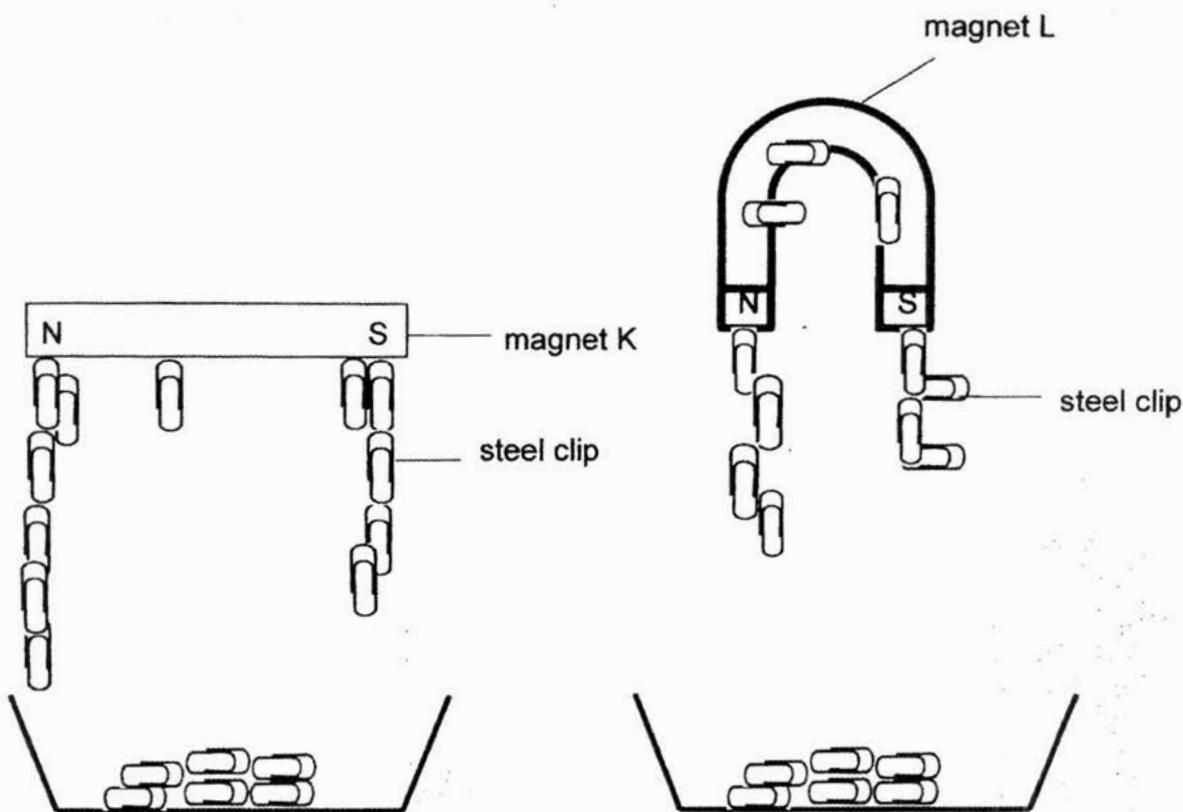
He recorded the results in the table below.

Material	Distance, d (cm)
A	9
B	4
C	12
D	3

Based on the results above, which one of the following statements is correct?

- (1) Material C is the least flexible.
- (2) Material D is the most flexible.
- (3) Material A is more flexible than Material B.
- (4) Material D is more flexible than Material C.

19. Ali conducted an experiment using magnets, K and L, of different shapes. He placed each magnet at the same distance above a tray containing identical number of metal clips. The diagrams below show his observations.



Based on his observations above, which of the following statements are correct?

- A The steel clip is magnetic.
 - B The magnet is strongest at its poles.
 - C Magnet L is stronger than magnet K.
 - D Magnet L and K are equally strong.
-
- (1) A and B only
 - (2) A and D only
 - (3) B and C only
 - (4) A, C and D only

20. Mr Tan carried out a test to observe the interaction between a magnet and objects A, B and C.

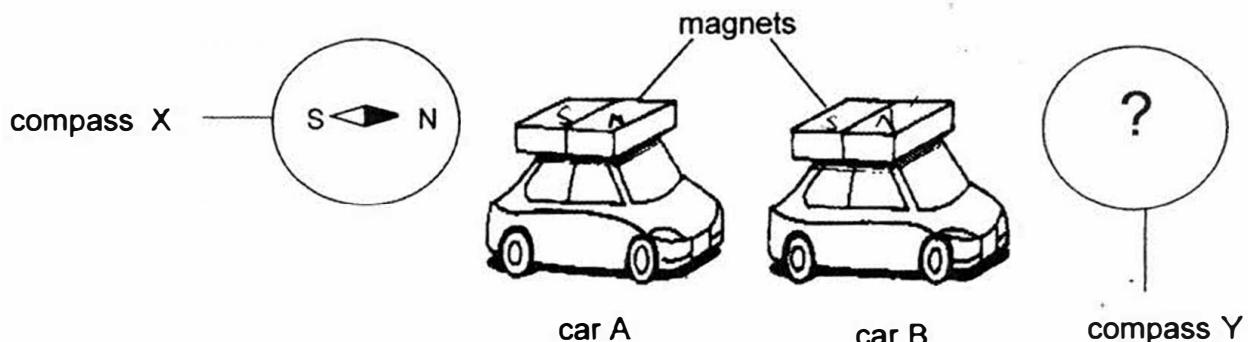
He placed one end of the magnet near each object and recorded his observations in the table as shown below.

Object	Moved towards the magnet	Moved away from the magnet	No interaction
A	✓		
B			✓
C	✓	✓	

Based on his observations, which one of the following statements is definitely true?

- (1) Only object C is a magnet.
- (2) Object B is made of iron.
- (3) Object A and C are magnets.
- (4) Objects A and B are made of magnetic materials.

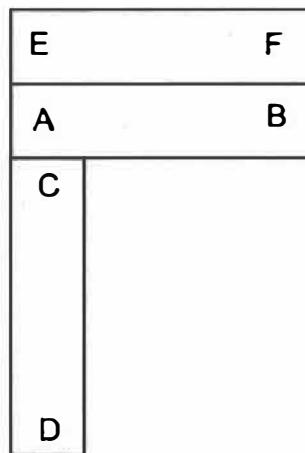
21. The diagram below shows two toy cars, A and B. Each toy car has a bar magnet fixed on it as shown below. The diagram shows the interaction between Compass X and the bar magnet on car A. When the two toy cars were brought close to each other, they moved towards each other.



Which one of the following diagrams shows the correct position of the needle on compass Y?



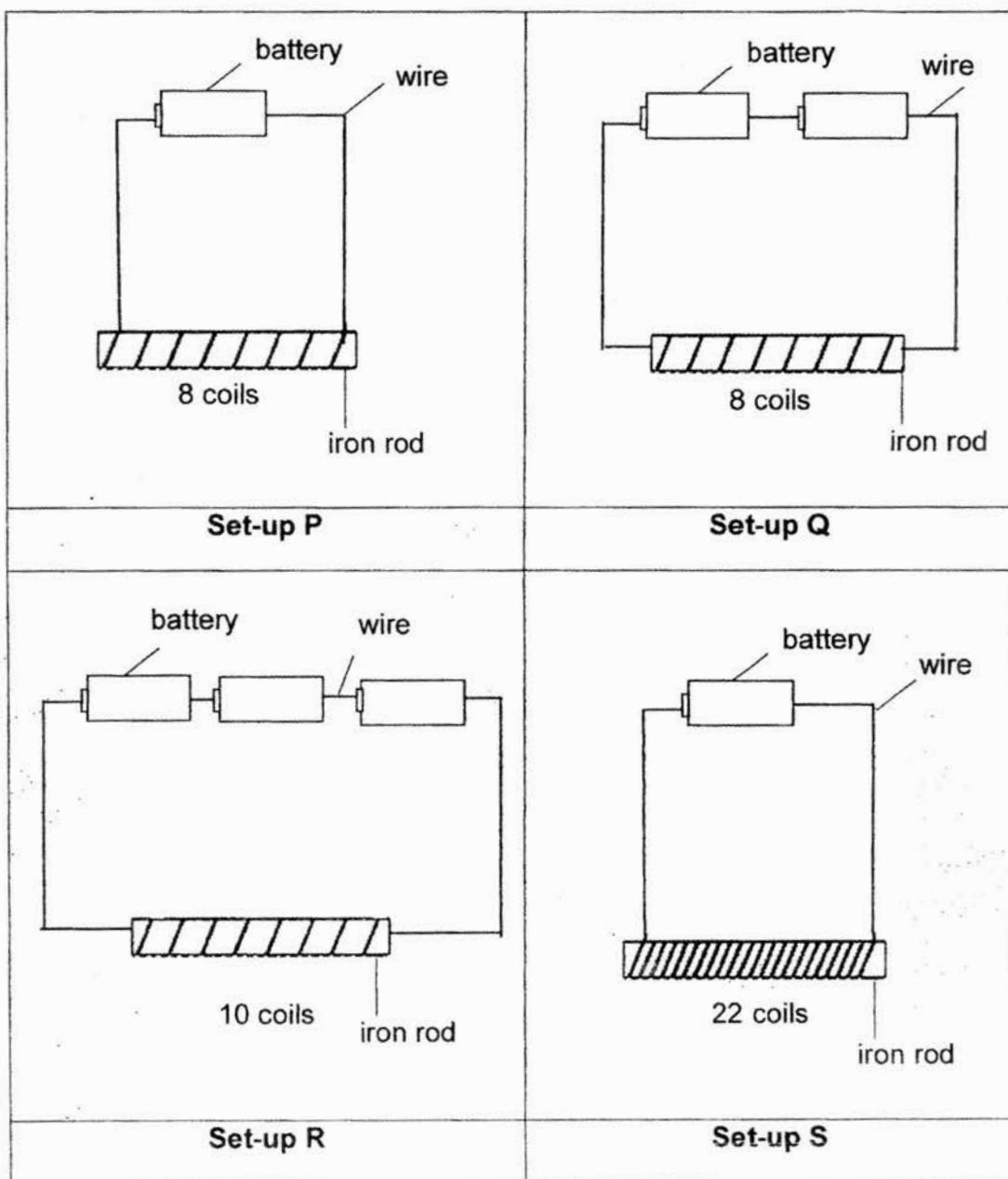
22. Three bar magnets with their poles marked A to F are arranged as shown below.



Based on the above arrangement, which one of the following identifies the poles correctly?

	N - poles	S - poles
(1)	A and F	C and E
(2)	B and C	D and E
(3)	B and D	A and E
(4)	C and E	B and D

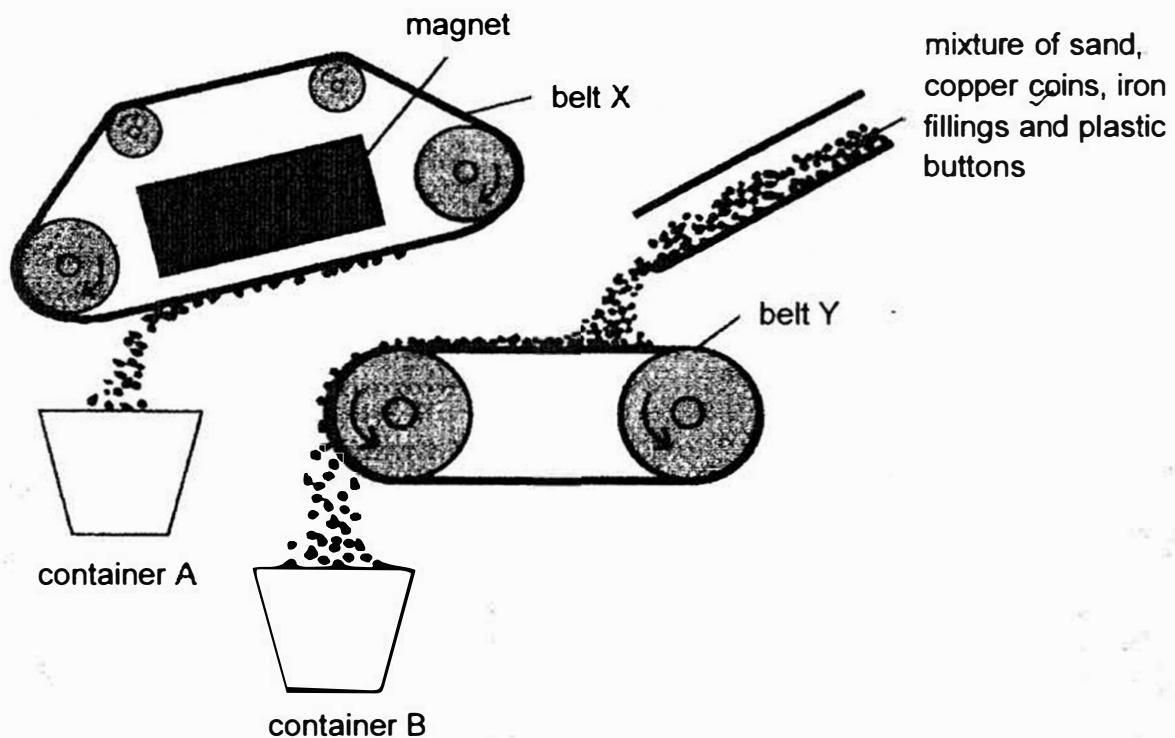
23. Joy wanted to find out if the number of coils around an iron rod affects its magnetic strength. She used identical batteries and rods in her set-ups.



Which two set-ups should Joy use to ensure a fair test?

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

24. The diagram below shows a machine which can be used to separate some items.



Which of the following objects can be found in container B?

- (1) Iron fillings only
- (2) Sand and plastic buttons only
- (3) Iron fillings and copper coins only
- (4) Sand, copper coins and plastic buttons only

Name: _____ ()

Class: P 3 ()

32

SECTION B (32 marks)

For questions 25 to 37, write your answers clearly in the spaces provided.
The number of marks available is shown in brackets [] at the end of each question or part question.

25. Tina observed three living things in her garden and recorded their characteristics as shown in the table below.

A tick (✓) shows the presence of that characteristic in the living things.

Living things	Characteristics		
	A	B	C
Needs water	✓	✓	✓
Make their own food		✓	
Reproduce from spores			✓
Can move from one place to another	✓		

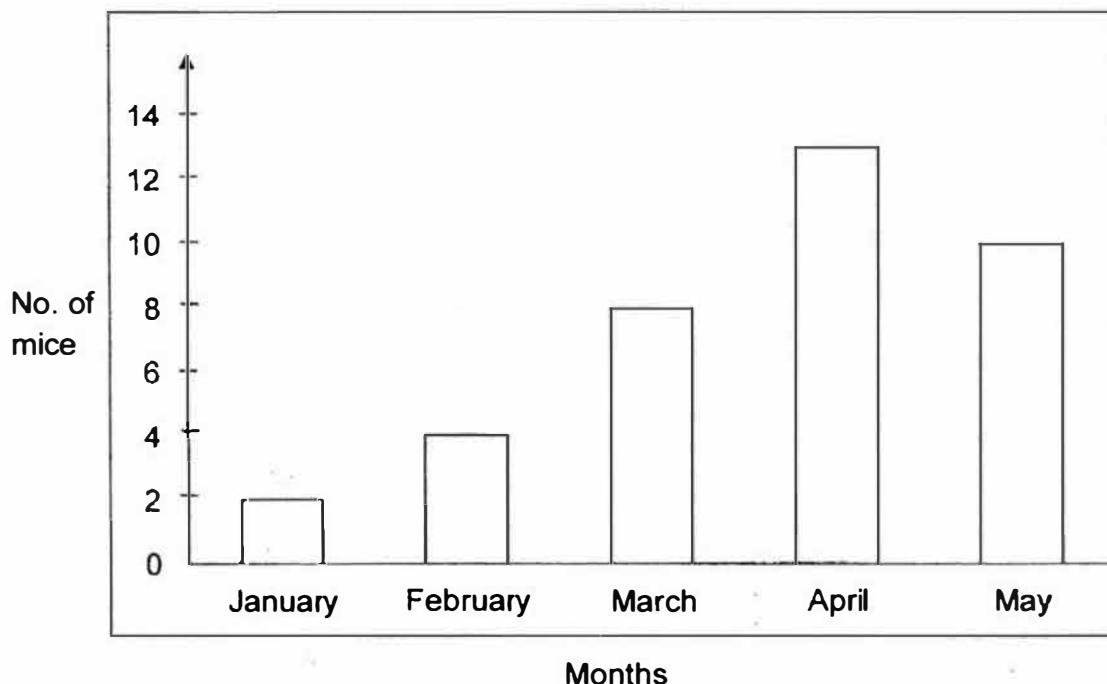
Which of the following A, B or C, represents the living things below?

[2]

	Living things	Letter
(a)		
(b)		

Score	2
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26. Peter kept two mice in a cage over a period of time. He fed them with the same amount of food and water every day. The graph below shows the number of mice in the cage over a period of five months. No mice were added or removed from the cage during these five months.

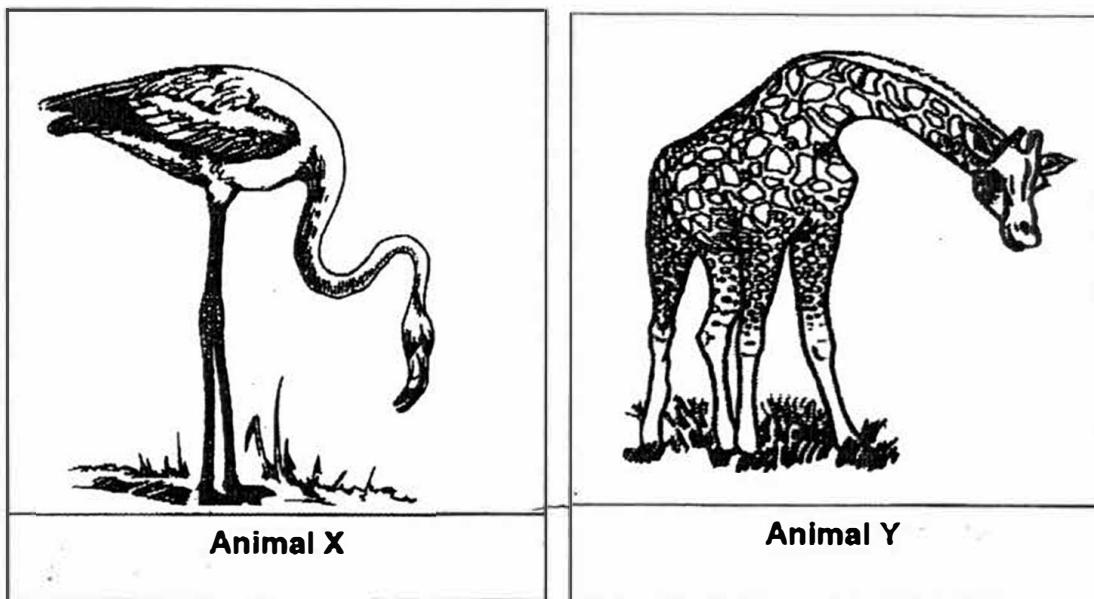


- (a) What is the characteristic of living things observed from January to April? [1]

- (b) Suggest a possible reason for the change in the number of mice from April to May. [1]

Score	
2	

27. Study animals X and Y in the diagrams below.



Based on your observations only, state one similarity and one difference between the physical characteristics of animals X and Y.

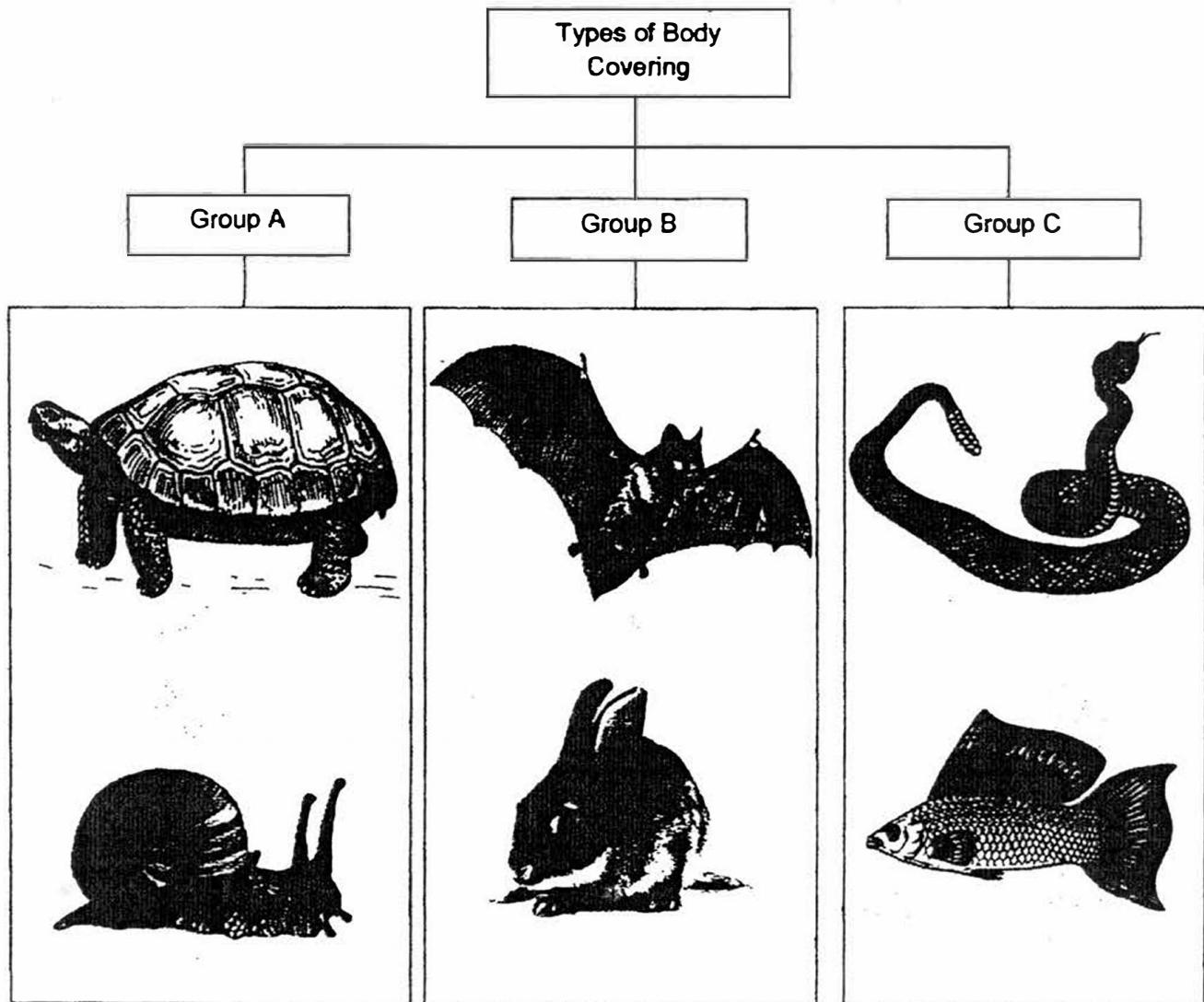
(Do NOT compare body shapes, sizes, patterns and colours.)

[2]

Similarity	_____ _____ _____
Difference	_____ _____ _____

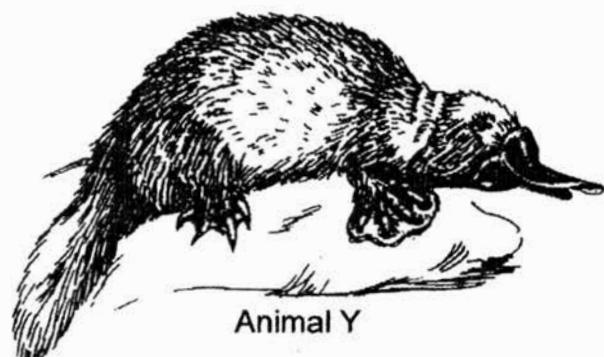
Score	2
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28. Study the three groups of animals in the classification table below.



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Animal Y

- (a) Which group, A, B or C, does Animal Y belong to? Give a reason for your answer.

[1]

- (b) Write the suitable heading for the following groups.

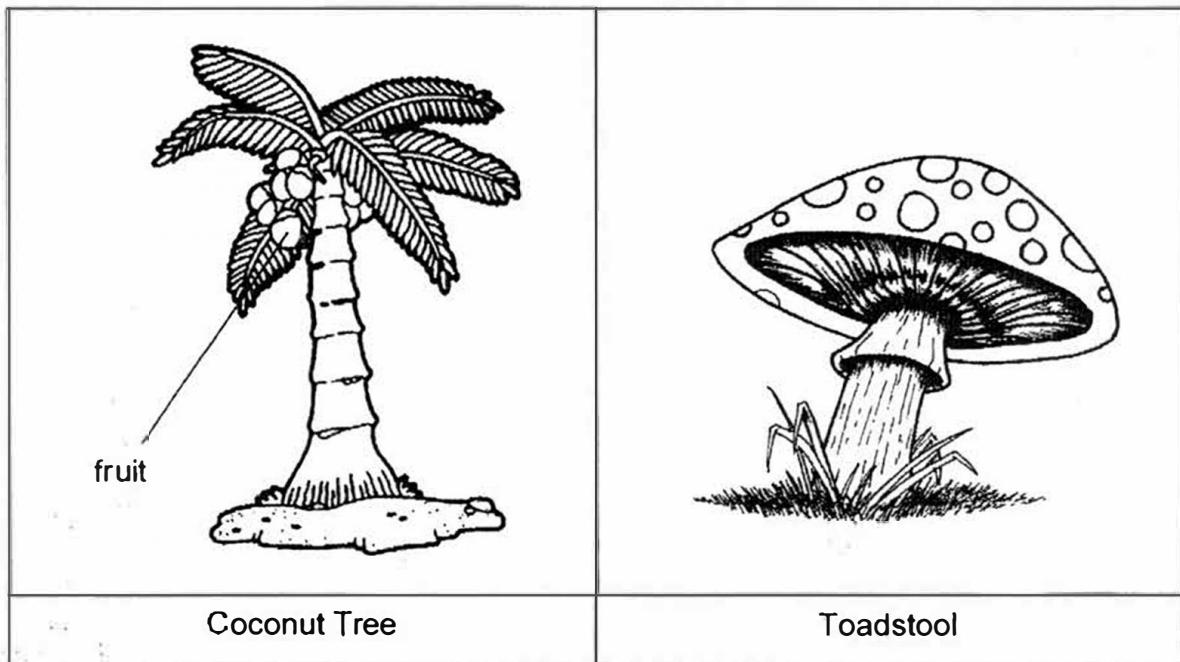
[2]

(i) Group A : _____

(ii) Group C : _____

Score	
	3

29. The diagram below shows a coconut tree and a toadstool.



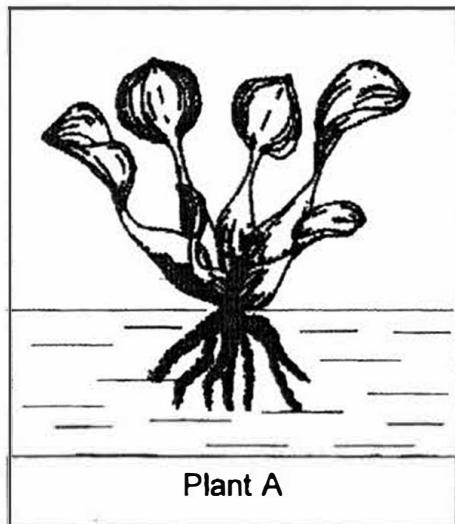
(a) State the way in which the coconut tree and toadstool reproduce. [1]

Coconut tree	It reproduces by _____.
Toadstool	It reproduces by _____.

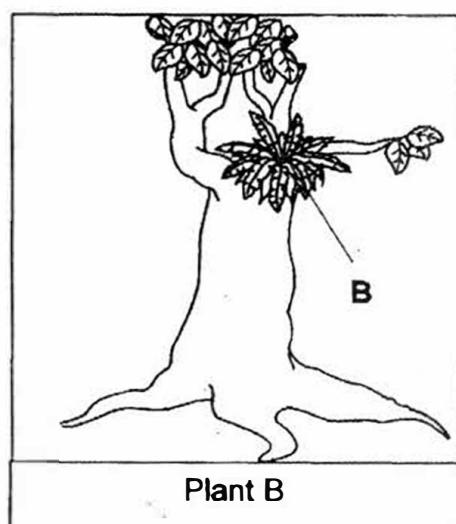
(b) Name one plant that reproduces the same way as the toadstool. [1]

Score	2
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30. Study the following plants carefully.



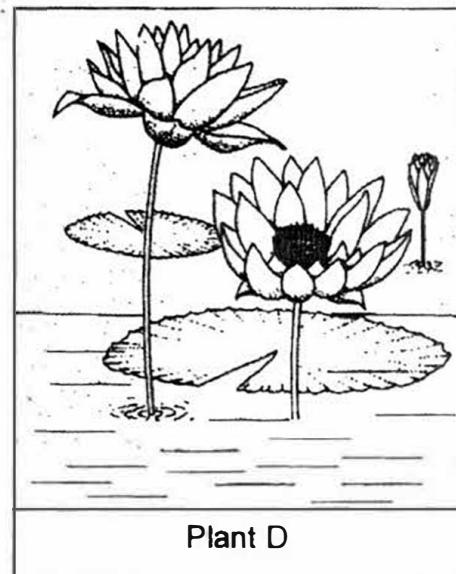
Plant A



Plant B



Plant C



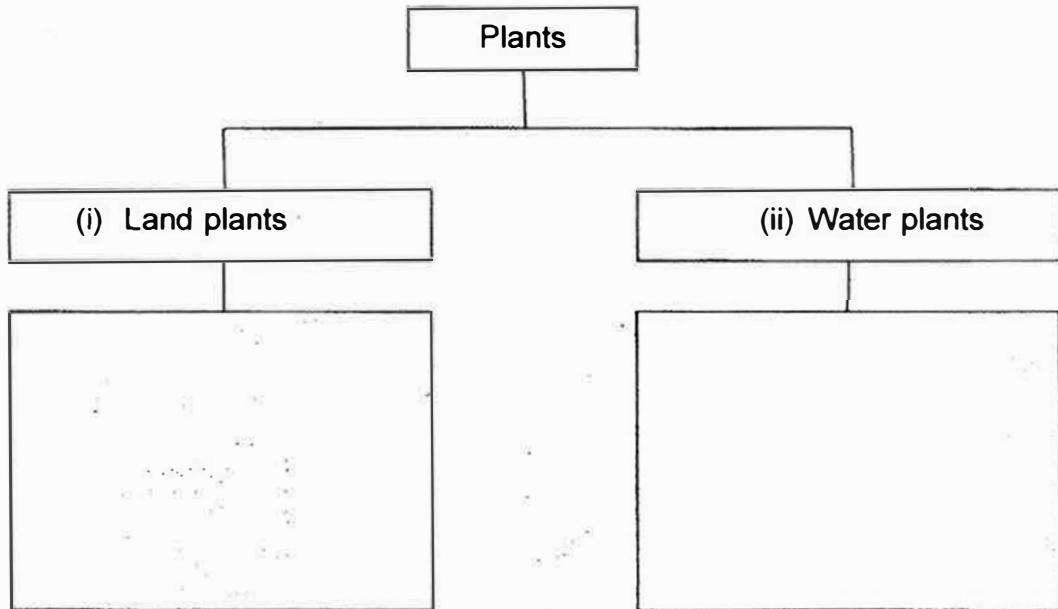
Plant D

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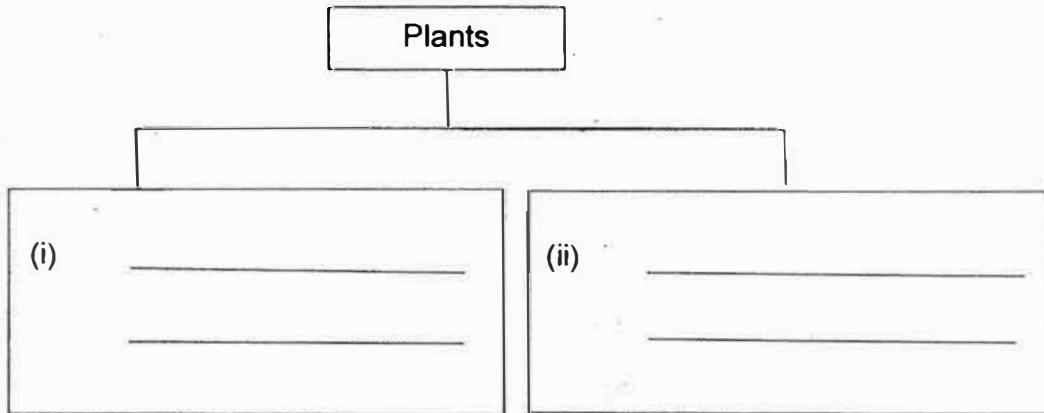
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Group the plants, A, B, C and D into the two groups shown in the classification table below.

- (a) Write the letters, A, B, C and D in the correct boxes below. [2]

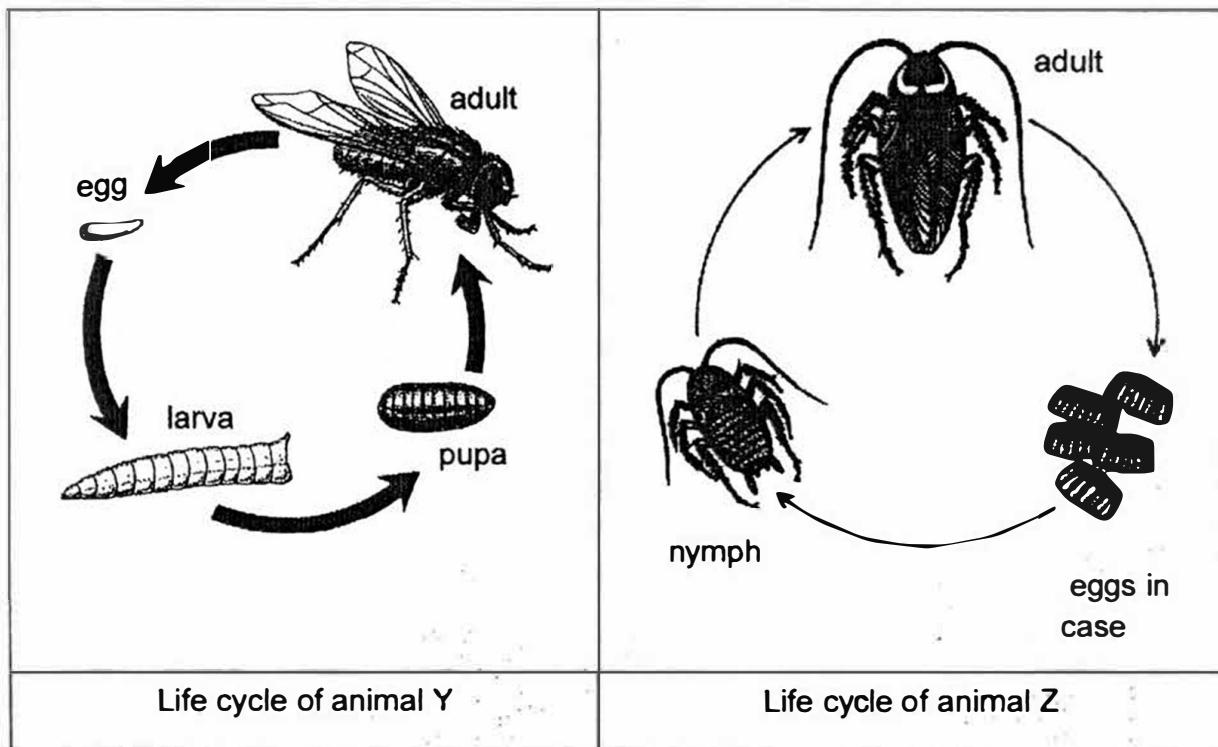


- (b) What is another way of grouping plants A, B, C and D? Write the suitable sub-headings in the classification table below. [1]



Score	
	3

31. The life cycles of animals Y and Z are shown in the diagrams below.



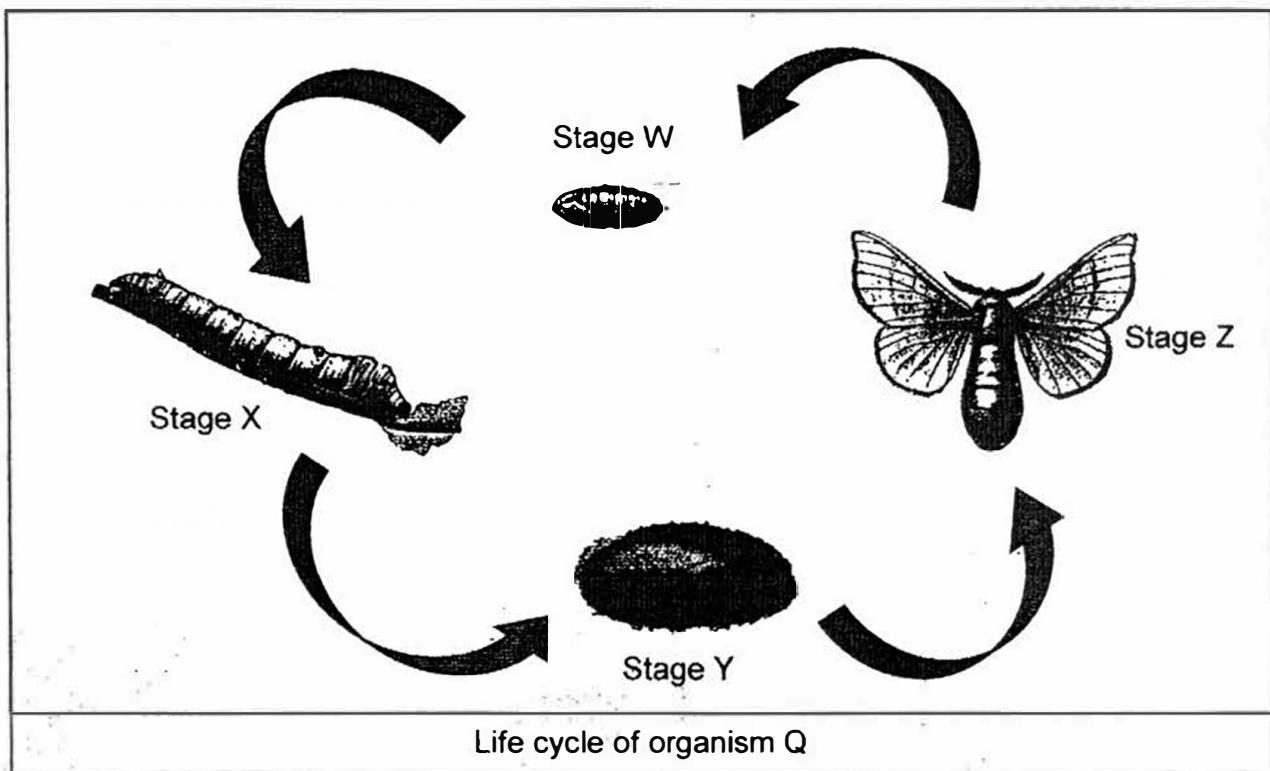
Based on the information above, state one similarity and one difference between the two life cycles shown above.

[2]

(i)	Similarity
(ii)	Difference

Score	
	2

32. The diagram below shows the life cycle of Organism Q.



(a) Based on the information above, name stage X and Y of the life-cycle of organism Q. [2]

(i) Stage X.: _____

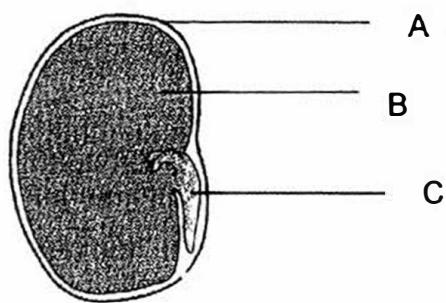
(ii) Stage Y : _____

(b) Organism Q may be a danger to humans with its poisonous sting.

Which stage of its life cycle, Stage X, Y or Z, would it be most difficult to get rid of organism Q? Give a reason for your answer. [2]

Score	
4	

33. The diagram below shows different parts of the germinating seed.



(a) Which part of the seed, A, B or C, protects the seed?

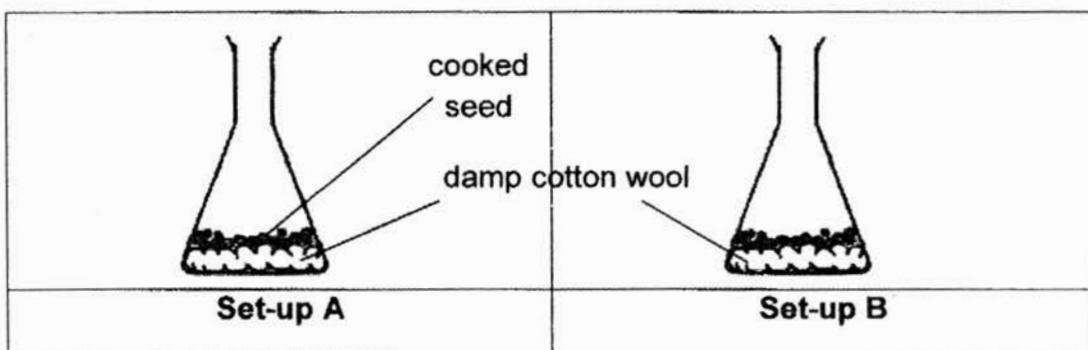
[1]

(b) Which part of the seed, A, B or C, stores food?

[1]

Score	
	2

34. Ahmad prepared two set-ups using identical type of seeds. He placed identical number of seeds on the damp cotton wool in each set-up.



(a) State **all** the conditions needed for seeds to grow.

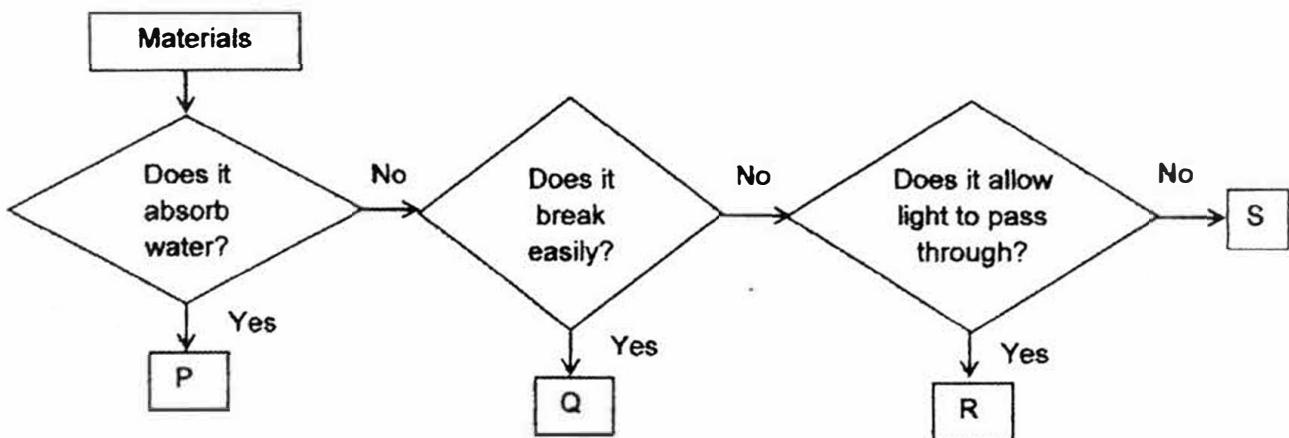
[1]

(b) He observed the cooked seeds in set-up A did not grow.
Give a reason for his observation.

[1]

Score	
	2

35. Materials P, Q, R and S are classified in the chart below.



The diagram shows an underwater restaurant where customers can see the sea creatures swimming around while enjoying their meals.

Part X



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- (a) Based on the chart, describe the properties of material Q. [1]

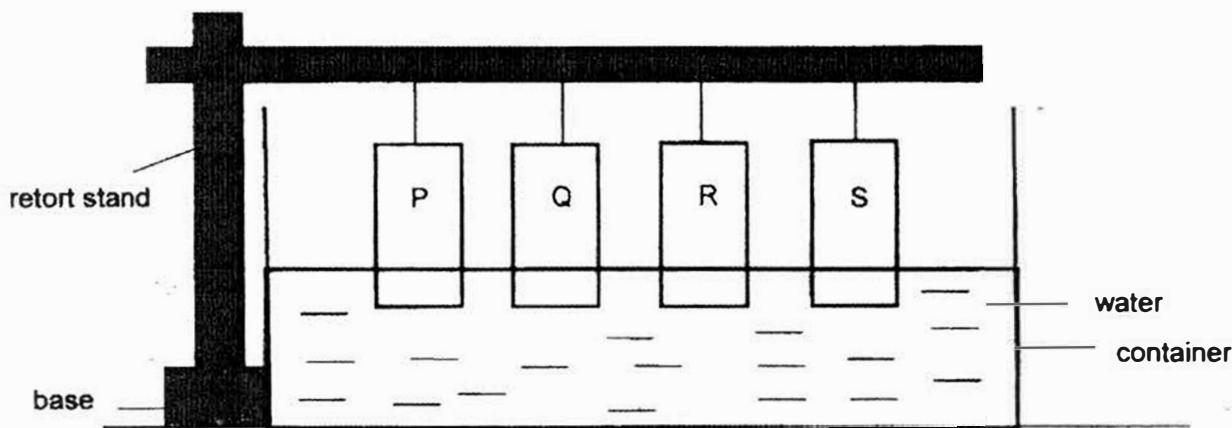
- (b) Sally said material S is most suitable to make part X of the underwater restaurant. Do you agree? Give a reason for your answer. [1]

Score	
2	

For questions 36(a) and 36(b), refer to the diagram and table below.

36. Sarah conducted an experiment as shown below.

She hung four different materials, P, Q, R and S, of identical size and thickness in a container of water as shown below.



After ten minutes, she removed the strips from the set-up and measured their masses and recorded the results in the table below.

Material of strip	Initial mass (g)	Mass after 10 minutes (g)
P	100	180
Q	100	150
R	100	165
S	100	100

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Rain boots

Based on the information provided in the table, answer the following questions.

- (a) Which material, P, Q, R or S, is most suitable to be used to make a pair of rain boots shown above? Give a reason for your answer. [1]

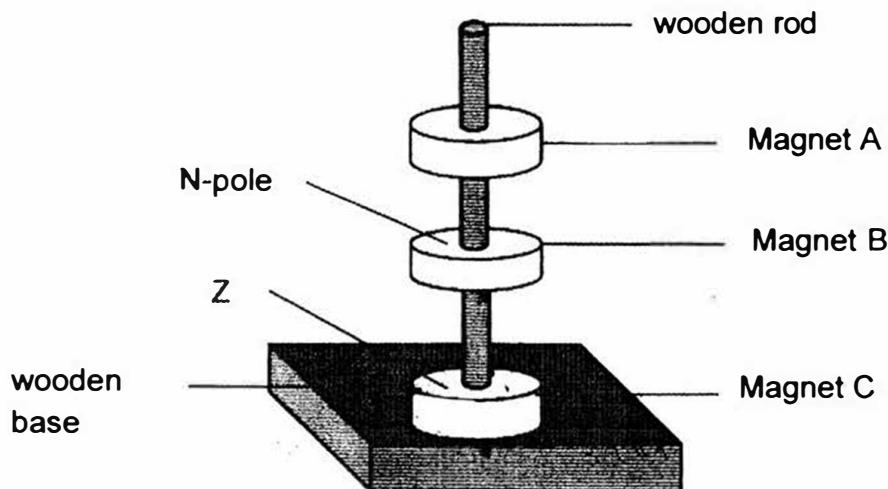
The diagram below shows a mop.



- (b) Which material, P, Q, R or S, is most suitable to be used to make part Z of the mop? Give a reason for your answer. [1]

Score	
2	

37. Cynthia used three ring magnets, A, B and C, to prepare an experimental set-up. She observed the interactions between the three ring magnets as shown below.



Based on her observations above, answer the following questions.

- (a) Identify the pole labelled Z in Magnet C. [1]

- (b) Cynthia made the following statement:

"When Magnet B is removed from the set-up, both magnet A and C will attract each other."

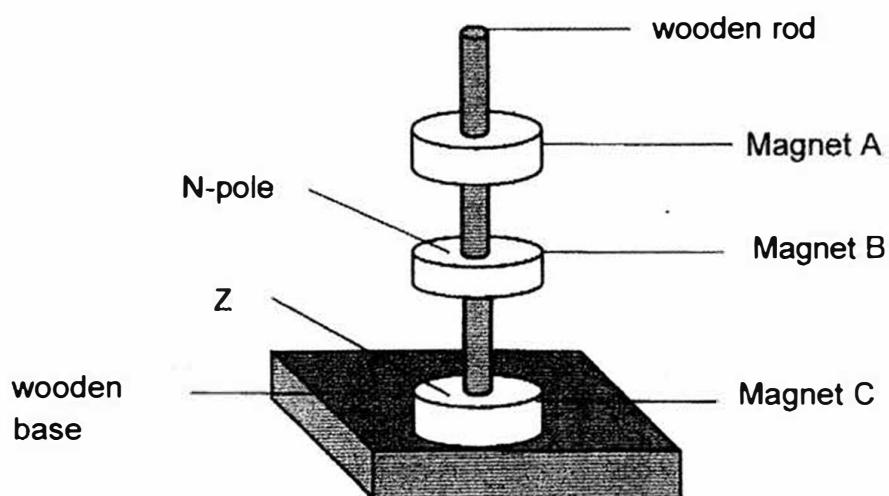
Do you agree with her? Give a reason for your answer. [1]

Continued on next page

Score	
2	

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- (c) Cynthia removed Magnet A from the set-up shown below and hammered it fifty times. She then placed it back into the set-up like before.



Describe the change that Cynthia would observe. Give a reason for your answer. [2]

Score	2
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- End of Paper -

ANSWER KEY

YEAR : 2017
LEVEL : PRIMARY 3
SCHOOL : RAFFLES GIRLS` PRIMARY SCHOOL
SUBJECT : SCIENCE
TERM : SA2

SECTION A (24 x2marks)

Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	Q 7	Q 8	Q 9	Q 10
1	3	2	4	2	4	2	2	4	1
Q 11	Q 12	Q 13	Q 14	Q 15	Q 16	Q 17	Q 18	Q 19	Q 20
4	2	2	1	3	8	2	3	1	1
Q21	Q 22	Q 23	Q 24						
3	1	4	4						

SECTION B (32marks)

Q25.a) A b) B

Q26.a) Living things reproduce b) Some mice died

Q27. Similarity: X and Y both have a long neck
Difference: X has only two legs while Y has four legs

Q28.a) Group B. It has hair as a body covering.
b)i) Shell ii) Scales

Q29.a) Coconut tree : It reproduces by seeds
Toadstool : It reproduces by spores

b) Ferns

Q30.a)i) B , C ii) A , D

b)i) Flowering plant
ii) Non-flowering plant

Q31.i) They both have an egg stage
ii) Z has a 3 stage life cycle while Y has a 4 stage life cycle.

Q32.a)i)Larva
ii)Pupa

b) Stage Z. At stage Z , which is the adult stage , Organism Q has wings and it will be able to fly.

Q33.a) A b) B

Q34.a) Air , water and warmth

b)The cooked seed did not grow because it was already dead.

Q35.a) It absorbs water and it break easily

b)No. If it does not allow light to pass through the customer would not be able to look at the sea creatures.

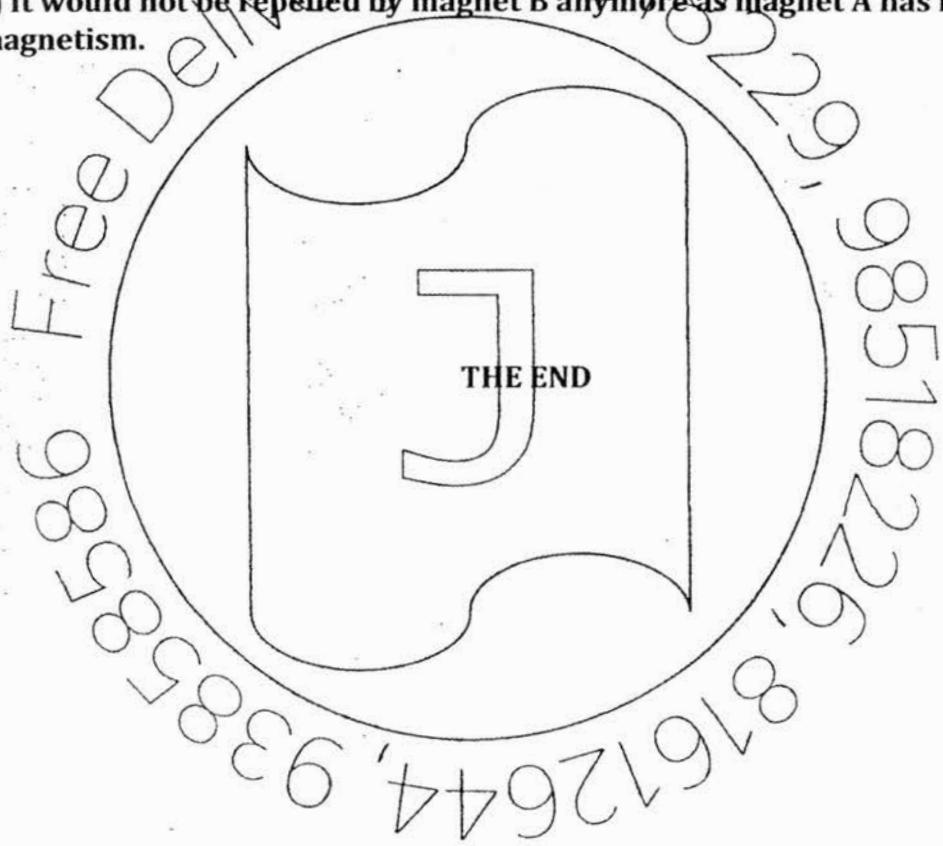
Q36.a) S. It is waterproof

b)P. It absorbed the most water

Q37.a) South-pole

b)Yes. The North and south pole of the magnets are facing each other so it will attract each other.

c) It would not be repelled by magnet B anymore as magnet A has lost its magnetism.



SEMESTRAL ASSESSMENT (1)

2017

Name : _____ Index No: _____ Class: P3 _____

Section A	<input type="text"/>
Section B	<input type="text"/>
Your score out of 60 marks	<input type="text"/>
Parent's signature	<input type="text"/>

9 May 2017

SCIENCE

Attn: 1h 15min

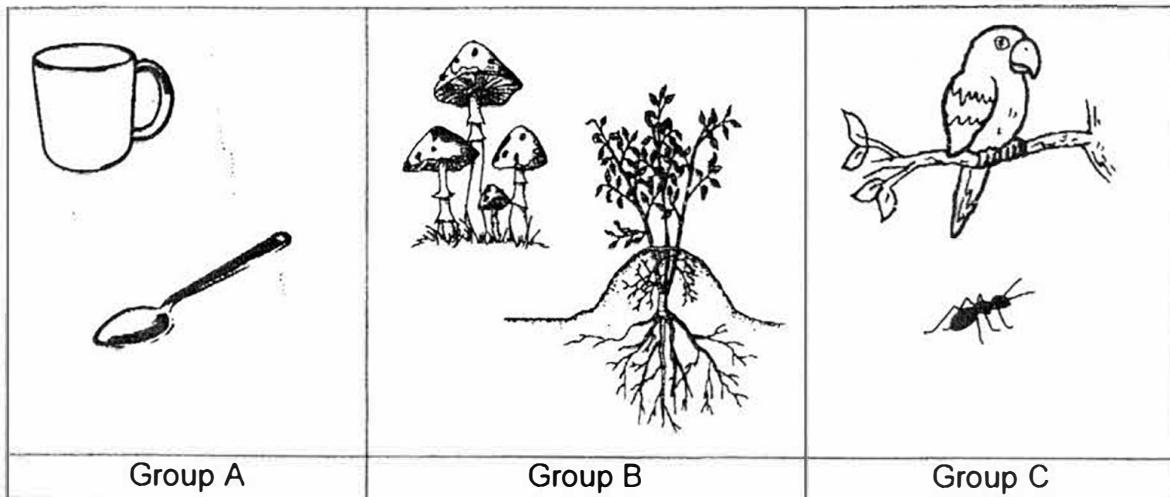
SECTION A (18 x 2 marks)

For each question from 1 to 18, 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 (OAS) provided.

1. The following diagrams show different things, not drawn to scale.
Which one of the following groups of things can reproduce?

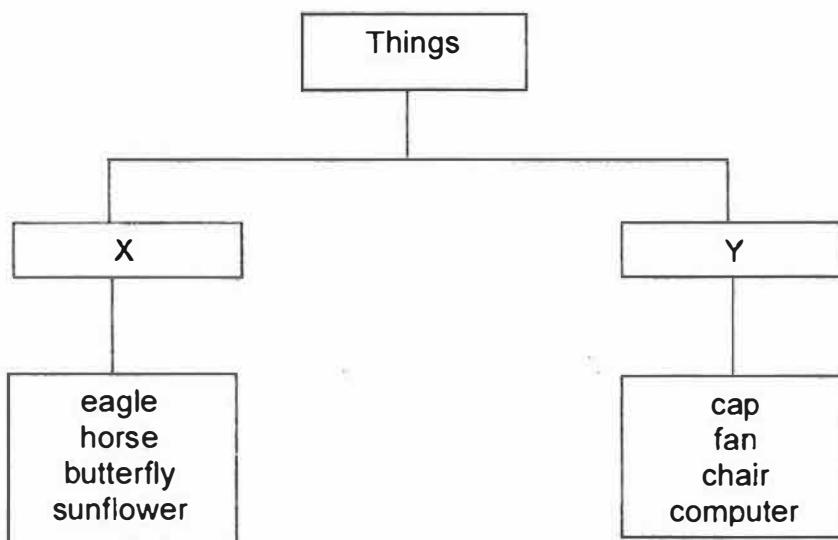


- (1) C only
- (2) A and B only
- (3) B and C only
- (4) A and C only

2. Which one of the following shows that living things grow?

- (1) Mrs Tan gave birth to a baby girl.
- (2) The boy drank a glass of milk this morning.
- (3) The girl screamed when she saw a cockroach.
- (4) Peter could not fit into his T-shirt which he wore last year.

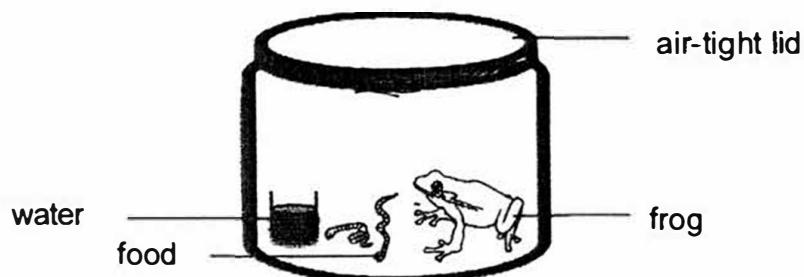
3. Some things are classified into 2 groups, X and Y, as shown below.



Which one of the following is the correct sub-headings for Group X and Y?

	Group X	Group Y
(1)	Can fly	Cannot fly
(2)	Cannot grow	Can grow
(3)	Cannot reproduce	Can reproduce
(4)	Can respond to changes	Cannot respond to changes

4. Olivia caught a frog and placed it in a jar. She covered the jar with a lid. A few hours later, she found the frog dead.



What could she conclude from her observation above about living things?

- (1) They grow.
- (2) They reproduce.
- (3) They need air to survive.
- (4) They respond to changes around them.

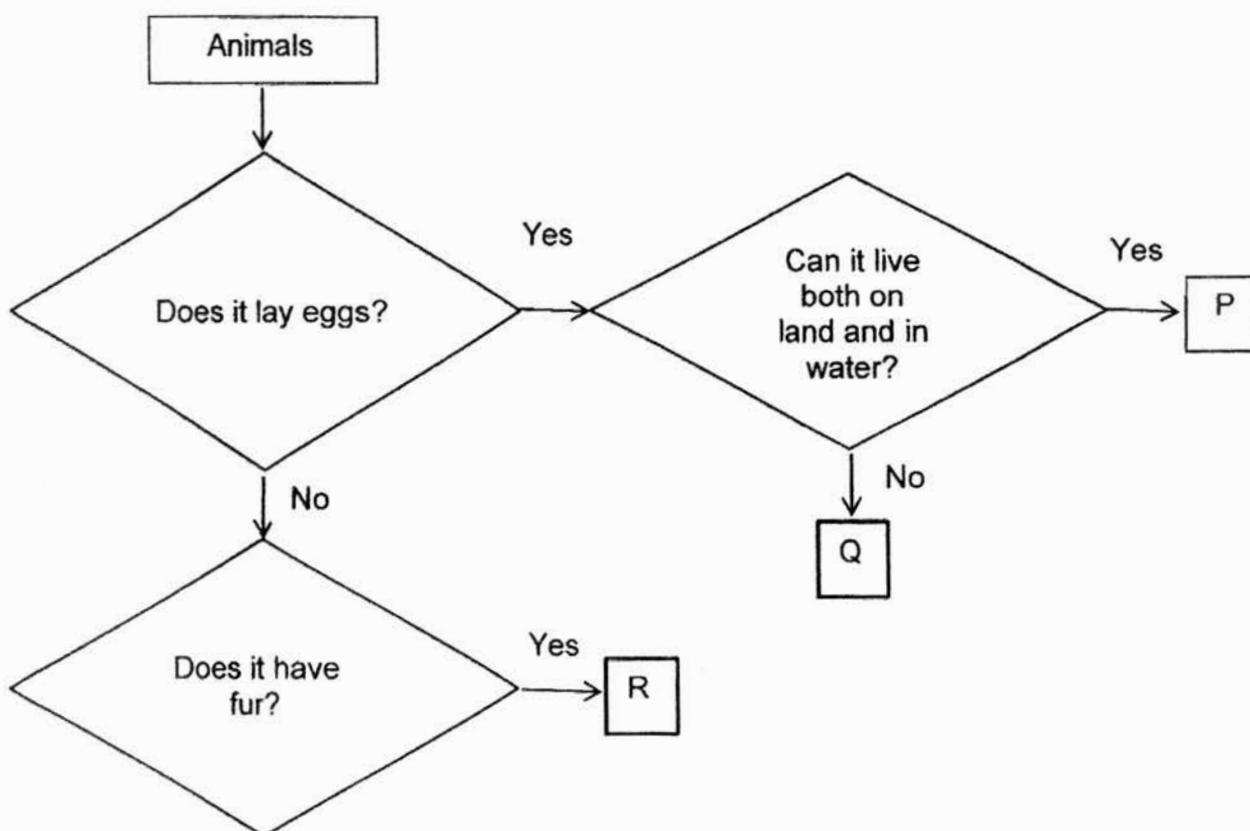
5. Florence compared two animals, X and Y, and recorded her observations in the table below.

Animal X	Animal Y
<ul style="list-style-type: none">• give birth to live young• has a pair of wings• has two legs• has hairs on body	<ul style="list-style-type: none">• lay eggs• has a pair of wings• has two legs• has feathers on body

Which animal groups do animals X and Y belong to?

	Animal X	Animal Y
(1)	reptile	bird
(2)	amphibian	insect
(3)	mammal	bird
(4)	mammal	insect

6. Animal P, Q and R have the following characteristics listed as shown below.



Which of the following correctly shows the animal groups that animals P, Q and R should be classified in?

	P	Q	R
(1)	Fish	Insect	Bird
(2)	Amphibian	Reptile	Bird
(3)	Amphibian	Insect	Mammal
(4)	Fish	Reptile	Mammal

7. Some animals are grouped according to their similarities as shown in the table below. They are not drawn to scale.

Group X	Group Y
 Iguana	 Butterfly
 Squirrel	 Frog

Based on your observation only, how are the animals in the above classified?

	Group X	Group Y
(1)	Has fur	Has no fur
(2)	Has tail	Has no tail
(3)	Has no wings	Has wings
(4)	Has no feelers	Has feelers

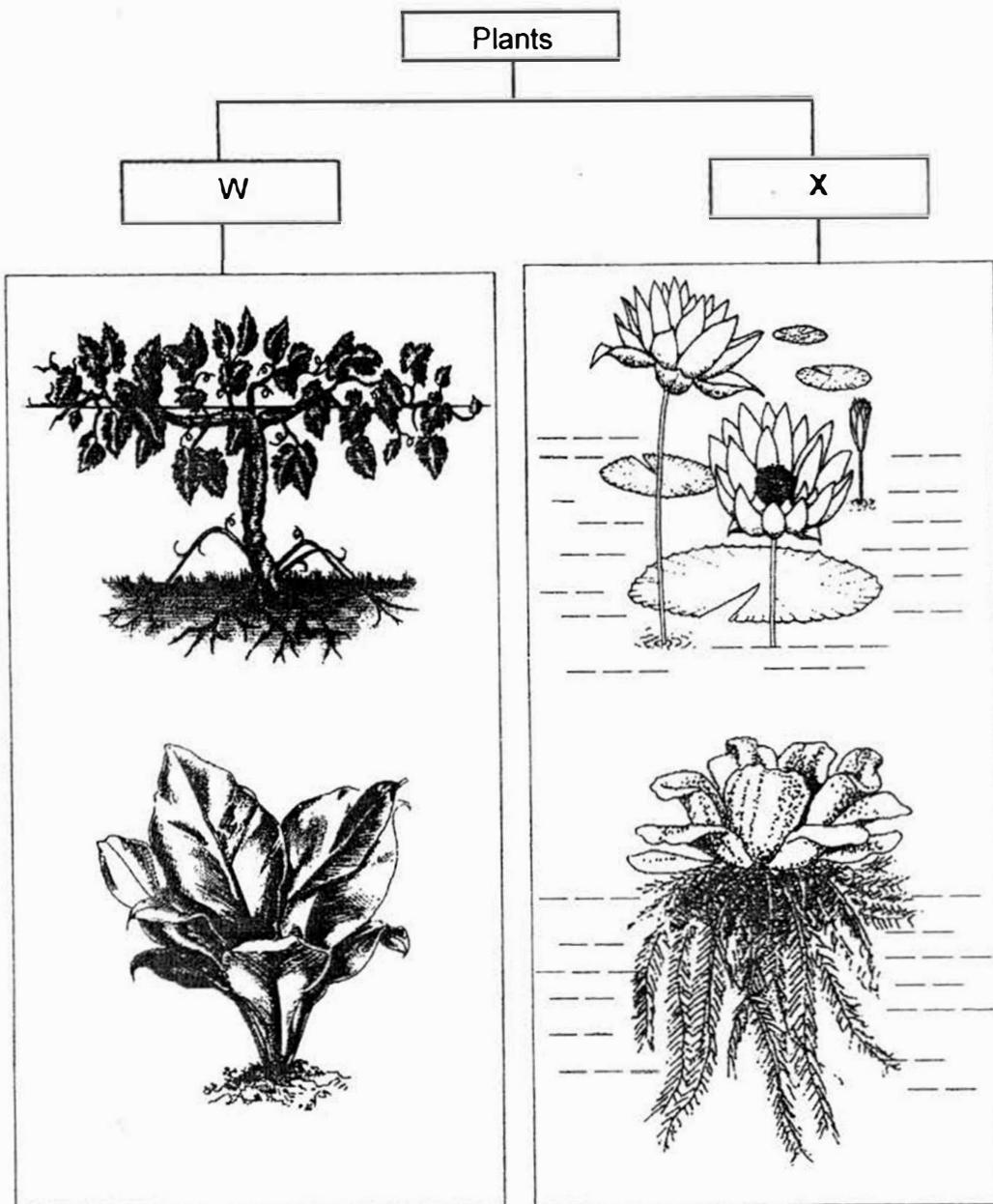
8. The table below shows the characteristics of animals, A, B, C and D. A tick (✓) shows the presence of the characteristic.

Characteristics	A	B	C	D
Does it live in water?	✓			✓
Does it have wings?		✓		
Does it have feelers?			✓	✓
Does it has 3 body parts?			✓	

Which of the following animal(s) is/ are insect(s)?

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

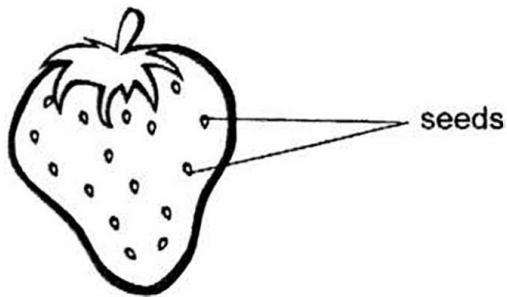
9. Some plants are grouped as shown in the table below. The plants are not drawn to scale.



Based on the information above, how are the plants grouped?

	Group W	Group X
(1)	Land plants	Water plants
(2)	Bears fruits	Does not bear fruits
(3)	Flowering plants	Non-flowering plants
(4)	Reproduce by seeds	Reproduce by spores

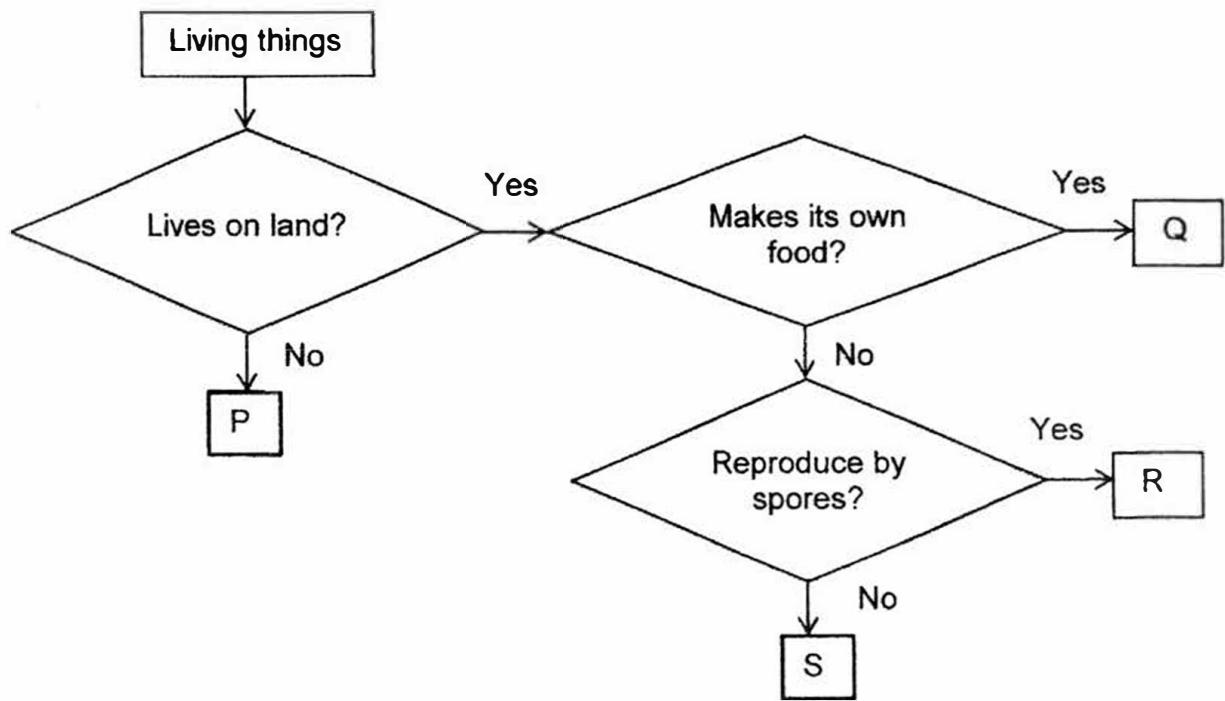
10. This plant part was found from Plant A.



Based on the information above, which one of the following is most likely to be correct?

- (1) It grows in water.
- (2) It has a large trunk.
- (3) It is a flowering plant.
- (4) It is a non-flowering plant.

11. Study the flow chart below.



Which one of the following best represents P, Q, R and S?

	P	Q	R	S
(1)	Hibiscus	Toadstool	Cat	Watermelon
(2)	Orchid	Toadstool	Horse	Pineapple
(3)	Water lily	Rose	Bird's nest fern	Toadstool
(4)	Water hyacinth	Rose	Toadstool	Cat

12. Tina recorded the following observations that she made on a living thing, W.

- It reproduces
- It can only be seen under a microscope
- It comes in different shapes and sizes

Based on the information, which of the following best represents W?

- (1) Fungi
- (2) Bacteria
- (3) Flowering plant
- (4) Non-flowering plant

13. A pupil wrote down the similarities between fungi and bacteria.
Which of the following statement(s) is/are correct?

Similarities	
A	They are micro-organisms.
B	They reproduce by seeds.
C	They feed on living things, dead or alive.

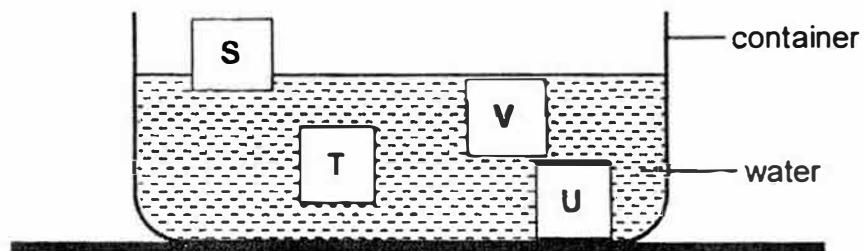
- (1) A only
- (2) C only
- (3) A and B only
- (4) A, B and C

For questions 14 and 15, refer to the diagram given below.

Tom has 4 cubes, S, T, U and V, made of different materials. He wanted to find out which material is more suitable for making a life jacket as shown in the diagram below.



He set up an experiment using the cubes as shown below.



14. Based on the observation above, what property of the materials was Tom trying to find out?

- (1) Strength
- (2) Flexibility
- (3) Degree of transparency
- (4) Ability to float or sink

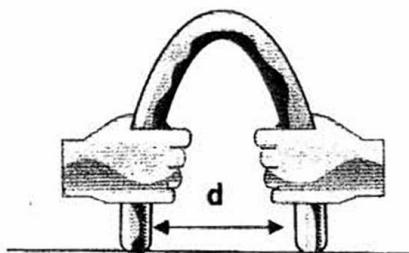
Continue on next page

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15. Based on the results shown on the previous page, material of which cube, S, T, U or V, is most suitable for making the life jacket?

- (1) S
- (2) T
- (3) U
- (4) V

16. Pauline conducted an experiment as shown below.



She bent bars made of different materials, P, Q, R and S, and measured the maximum distance, d, each material bent before it broke.

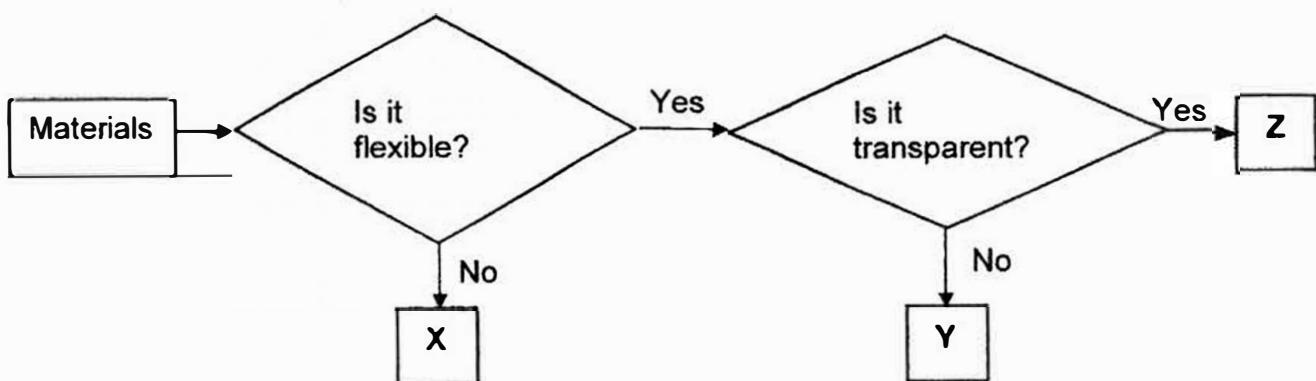
She recorded the results as shown in the table below.

Material	Distance d (cm)
P	7
Q	2
R	5
S	9

Which of the following statements is correct?

- (1) Material S is the most flexible.
- (2) Material Q is the most flexible.
- (3) Material R is less flexible than material P.
- (4) Material P is more flexible than material Q.

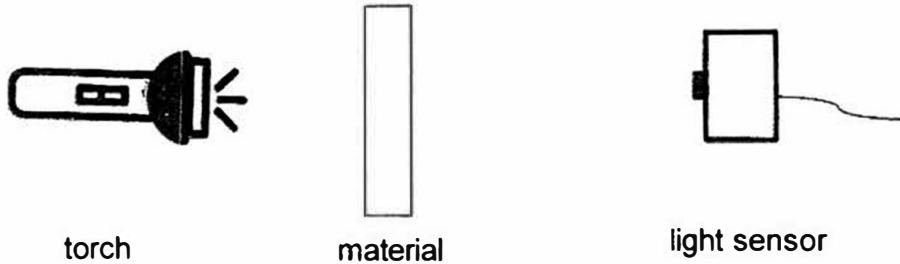
17. Study the flow chart below.



Which of the following best represents objects made by materials X, Y and Z?

	X	Y	Z
(1)	leather jacket	metal cup	clear plastic sheet
(2)	metal cup	wooden pole	leather jacket
(3)	wooden pole	leather jacket	clear plastic sheet
(4)	clear plastic sheet	metal cup	wooden pole

18. Annie conducted an experiment to find out the amount of light (measured in Lux) that passed through four different materials using a light sensor. Her results are shown in the table below.



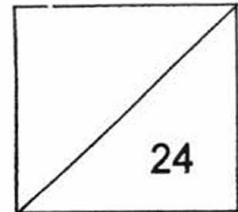
Material	Amount of light that passed through it (Lux)
A	10
B	280
C	620
D	0

Annie wanted to block out all the light in her bedroom.

Which one of the following materials, A, B, C or D, is most suitable to make into curtains for Annie's bedroom?

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

Name; _____ ()
Class: P 3 ()



SECTION B (24 marks)

For questions 19 to 30, write your answers clearly in the spaces provided.

The number of marks available is shown in brackets [] at the end of each question or part question.

19. Susan observed an object, A, for some time and recorded its characteristics below.

- can sing
- can walk on its own
- does not need air, food and water
- cannot reproduce.

Susan concluded that object A is a living thing. Do you agree with her?
Give 2 reasons for your answer.

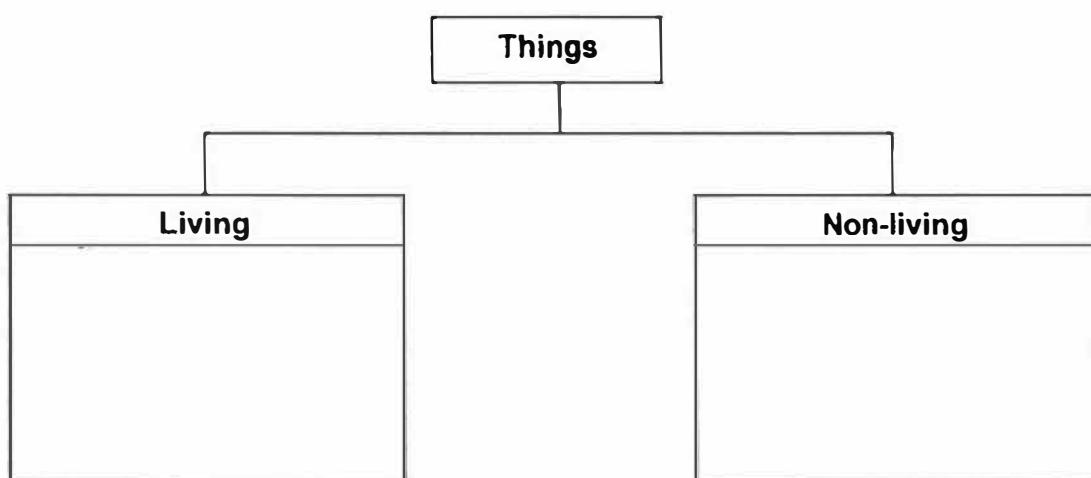
[2]



20. Lily labelled some living and non-living things as A, B, C and D as shown in the diagram below.

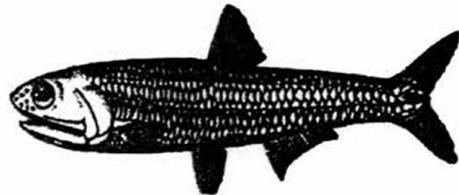


In the classification table below, group the things by writing A, B, C and D in the correct box. [2]



Score	
2	

21. Study Animals X and Y as shown in the diagrams below.



Animal X



Animal Y

Based on your observations, state two different observable physical characteristics between Animal X and Animal Y.

(Do not compare sizes, colours, body shapes and patterns)

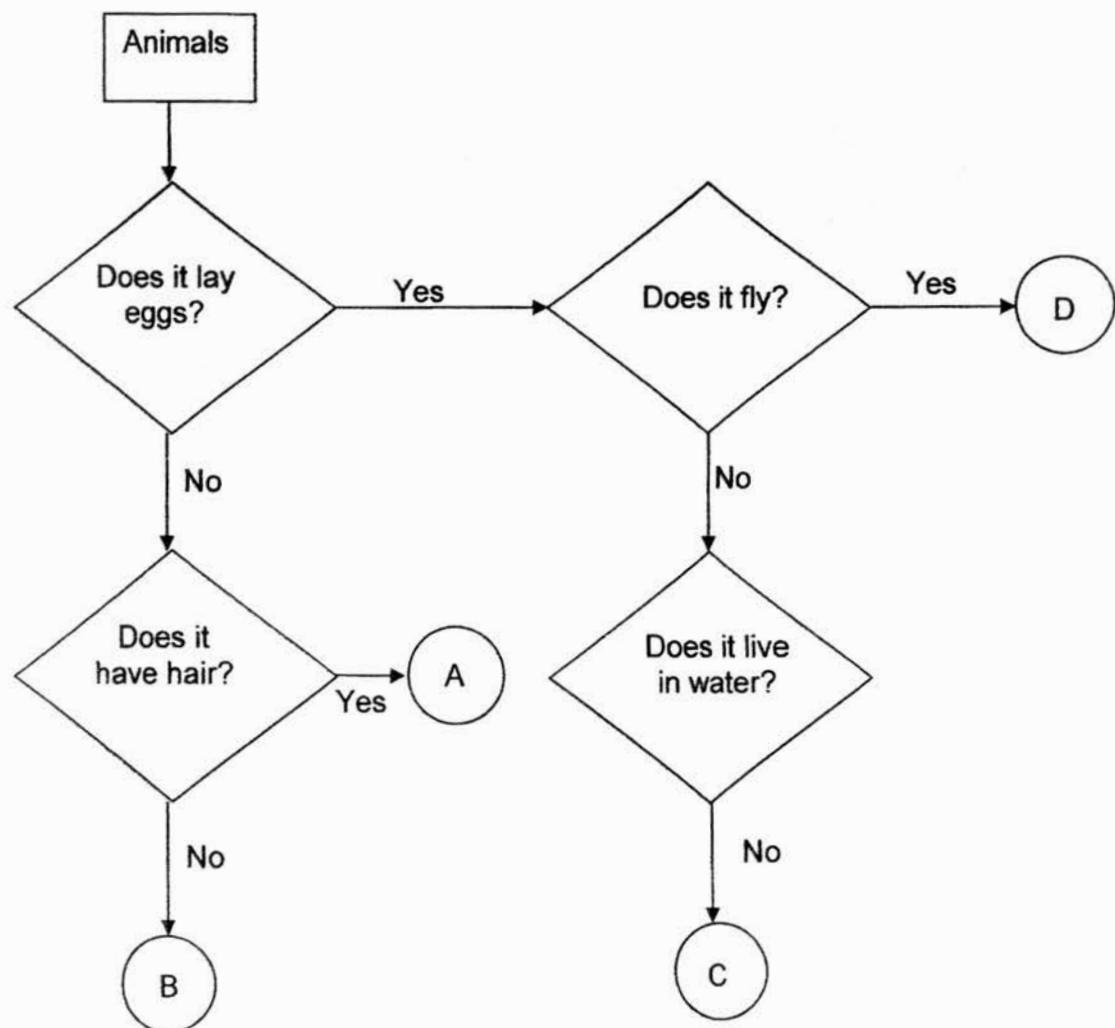
[2]

Difference 1	_____

Difference 2	_____

Score	2
-------	---

22. The flow chart below shows how four animals, A, B, C and D, are grouped.



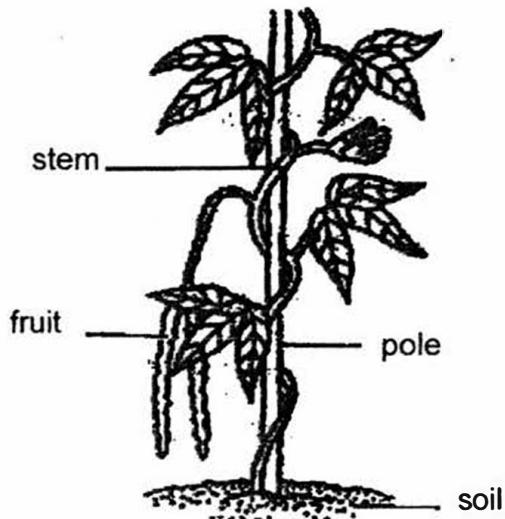
Based on the information above, state two characteristics of animal D. [2]

Characteristic 1	_____

Characteristic 2	_____

Score	
	2

23. Study the diagram below carefully.



Read the following statements about the plant above.

Put a tick (✓) against each statement in the boxes below to show if it is true or false.

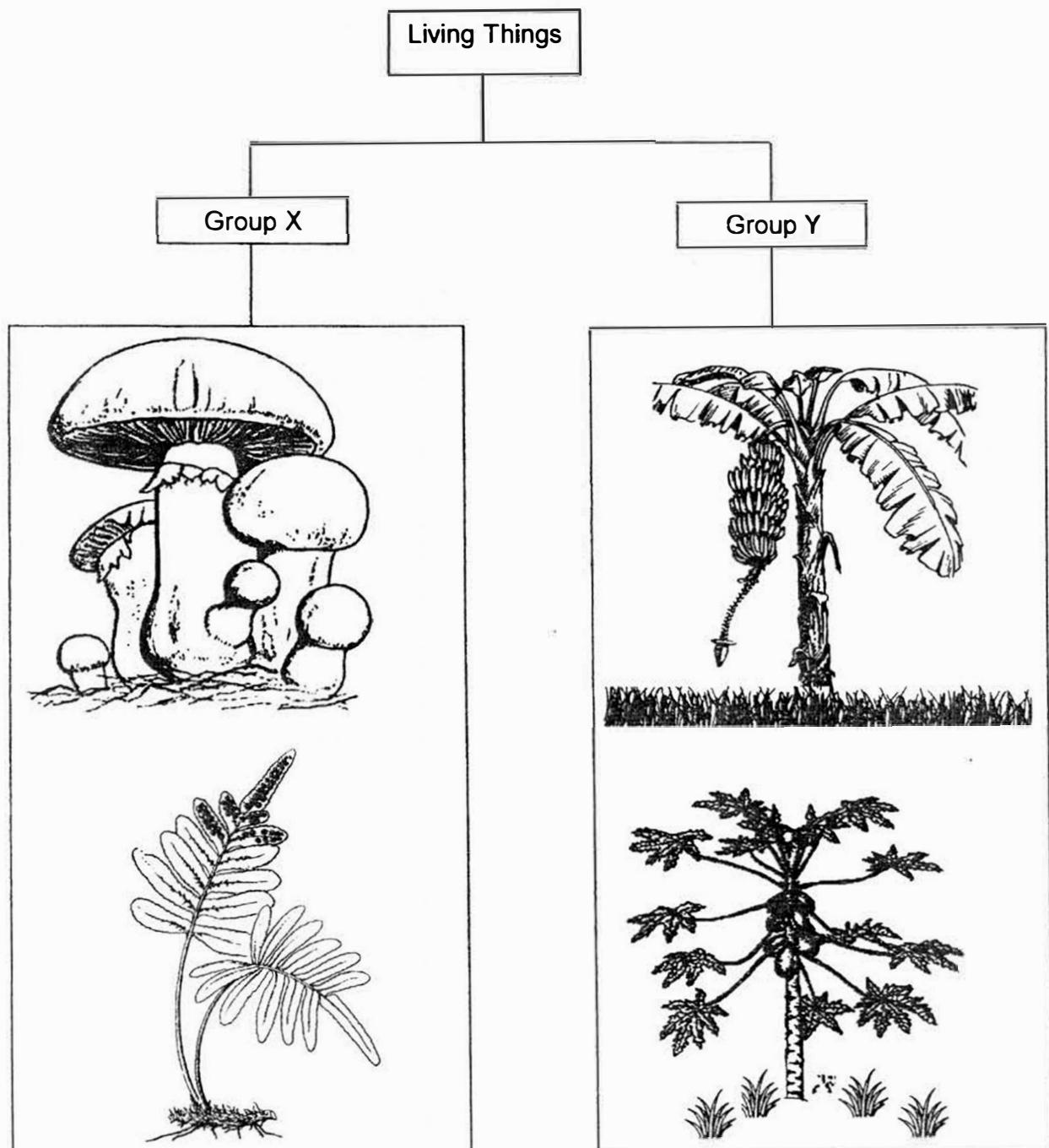
[2]

	Statements	True	False
(a)	This plant is a water plant.		
(b)	This plant has a weak stem.		
(c)	This plant reproduces by seeds.		
(d)	This plant is a non-flowering plant.		

Score	
	2

For questions 24(a) and 24(b), refer to the diagrams below.

24. Study the living things that have been classified under Group X and Y as shown in the diagrams below.



Continue on next page

Continued from previous page

- (a) Based on your observations on the living things in the classification table,
state two similar observable physical characteristics between the living things
in Group Y.

[2]

Similarity 1	_____

Similarity 2	_____

- (b) Write a suitable sub-heading each for X and Y.

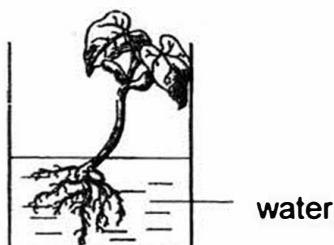
[1]

X : _____

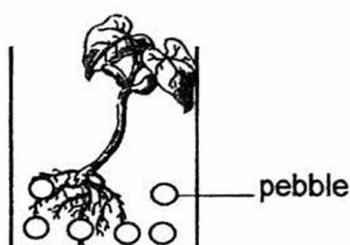
Y : _____

Score	
	3

25. Jenny conducted an experiment as set up below. She placed three identical plants in beakers near an open window as shown below.



water



pebble



- (a) What would happen to Plant B and C after one week? [1]

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

Score	
2	

26. During a Science lesson, 3 students made the following statements about fungi.

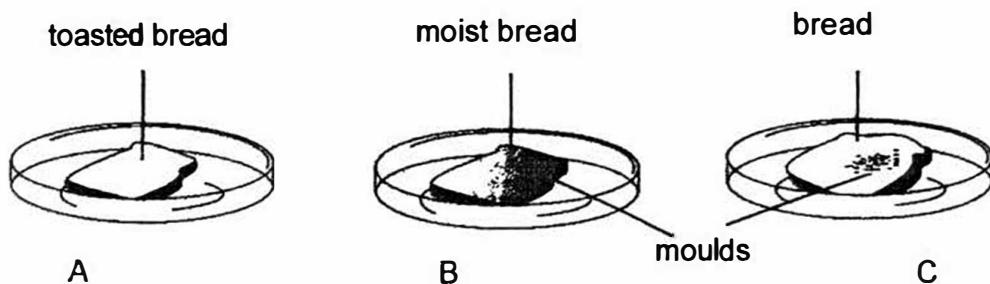
Peter: All fungi are harmful.
Tom : Fungi are non-living things.
John : Fungi can reproduce by spores.

Who made the correct statement about fungi?

[1]



27. Mimi placed three identical slices of bread, A, B, and C under different conditions and recorded her observations after a week as shown below.



- (a) Arrange the breads A, B and C in order, starting with the one that has moulds appearing first. [1]

_____ , _____ , _____

- (b) Based on her observations, state ONE condition present that encourages the growth of bread moulds. [1]

Score	
	2

28. The table below shows the properties of materials A, B and C.
A tick (✓) shows that the property is present.

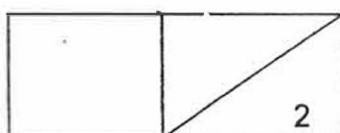
Property Material	Flexibility	Absorbs water	Allows light to pass through
A	✓	✓	
B		✓	✓
C	✓		✓

- (a) Based on the information above, state the properties of Material B. [1]
-

The diagram below shows a camping tent.

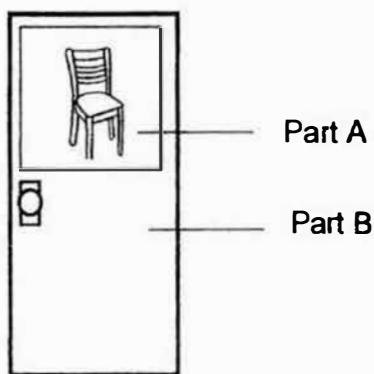


- (b) John chose material A to make into a camping tent to ensure he could be protected from wet weather during an outdoor camp.
Do you agree with his choice? Explain your answer. [1]
-
-



29. A chair was placed behind the door. Jennifer could see the chair clearly when she looked through Part A of the door.

Front view

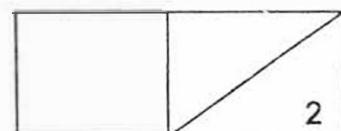


- (a) Name a suitable material which Part A is made of.
Explain your answer.

[1]

- (b) Jenny could not see the chair at all when she tried to look through Part B of the door. Name a suitable material which Part B is made of.
Explain your answer.

[1]



30. John had three bags made of different materials.

He added 1-kg objects, one at a time, into Bag A until it started to break. He repeated the experiment with Bags B and C and recorded the results in the table below.

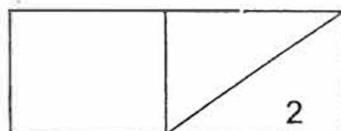
Bag	Greatest number of weights the bag can hold without breaking
A	3
B	1
C	5

- (a) Name the property of material that John is testing in his experiment.
[1]

- (b) John chose Bag A to carry an object weighing 4kg.
Did he make the right choice? Give a reason for your answer.

[1]

The End of Paper



2

ANSWER KEY

YEAR : 2017
LEVEL : PRIMARY 3
SCHOOL : RAFFLES GIRLS` PRIMARY SCHOOL
SUBJECT : SCIENCE
TERM : SA1

SECTION A (18 x2marks)

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

SECTION B (24 marks)

Q19. I do not agree with her because it does not need air , food and water and cannot reproduce.

Q20. Living things: B, D Non-living things: A, C

Q21. Difference 1 : Animal X has scales but Animal Y has feathers.
Difference 2: Animal Y has wings but Animal X does not.

Q22. Characteristic 1: It lays eggs.
Characteristic 2: It flies.

Q23.a) False b) True c) True d) False

Q24.a) Similarity 1: They both have a strong stem
Similarity 2: They both bear fruits

b) X: Reproduces by seed Y: Reproduces by spores

Q25.a) They will die.

b) They did not have any water.

Q26. John

Q27.a) B , C , A

b) Water

Q28.a) It absorbs water and allows light to pass through.

b) I do not agree with his choice as the material used will absorb water.

Q29.a) Glass . It is transparent

b)Metal. It is opaque

Q30.a) Strength

b) No . The bag will tear as it can only hold a maximum of 3 kg objects.

THE END



RAFFLES GIRLS' PRIMARY SCHOOL

SEMESTRAL ASSESSMENT (2)

2014

Name : _____ Index No: _____ Class: P 3 _____

20 October 2014 SCIENCE Attn: 1 h 15 min

Section A	_____
Section B	_____
Your score out of 80 marks	_____
Parent's signature	_____

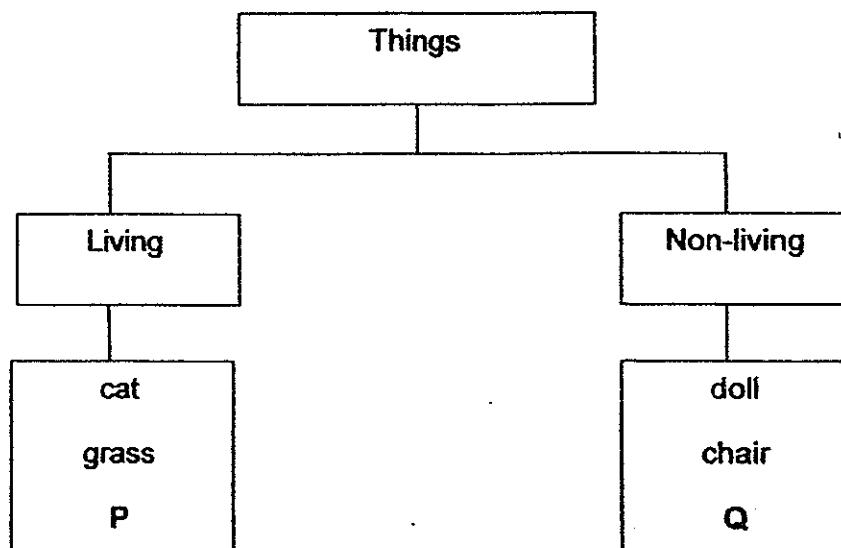
SECTION A (24 X 2 marks)

For each question from 1 to 24, four options are given.

One of them is the correct answer. Make your choice (1, 2, 3 or 4).

Shade the correct oval on the Optical Answer Sheet.

1. Study the classification table below carefully.



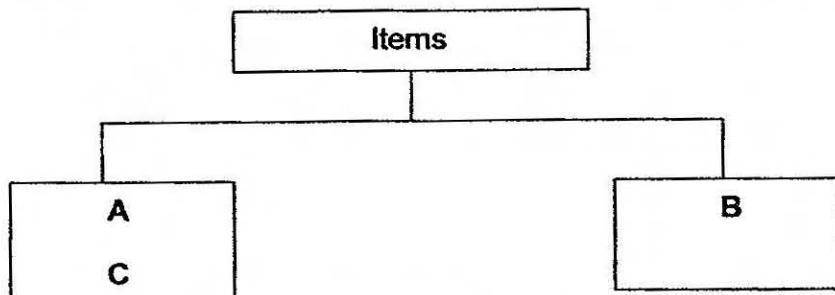
Which one of the following best represents P and Q?

	P	Q
(1)	bird	nail
(2)	balloon	table
(3)	butterfly	worm
(4)	aeroplane	tree

2. The table below shows the characteristic(s) of items A, B and C.

The tick (✓) in the box shows the characteristics the item has.

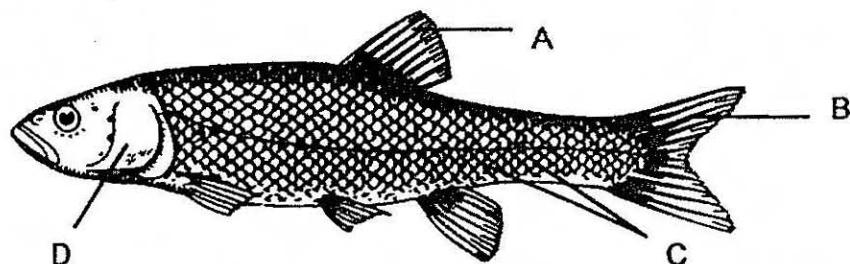
Items	It can make its own food.	It needs air to survive.	It responds to touch.
A		✓	✓
B			✓
C	✓	✓	✓



Which one of the following sets is correct?

	A	B	C
(1)	toy	ant	plant
(2)	ant	plant	toy
(3)	ant	toy	plant
(4)	plant	ant	toy

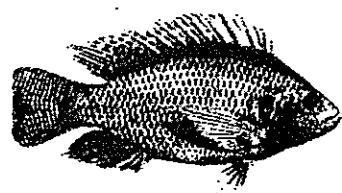
3. The diagram below shows a fish with its labelled parts.



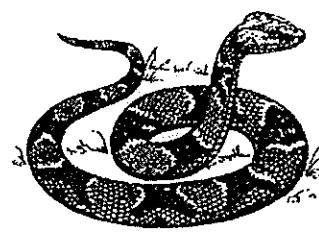
Which of the following parts will protect the fish from injury?

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

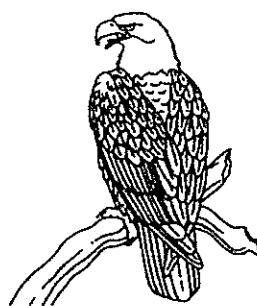
4. The animals below are grouped according to their body covering.



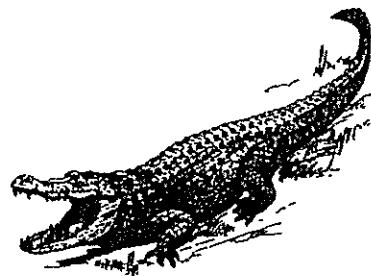
Animal P



Animal Q



Animal R

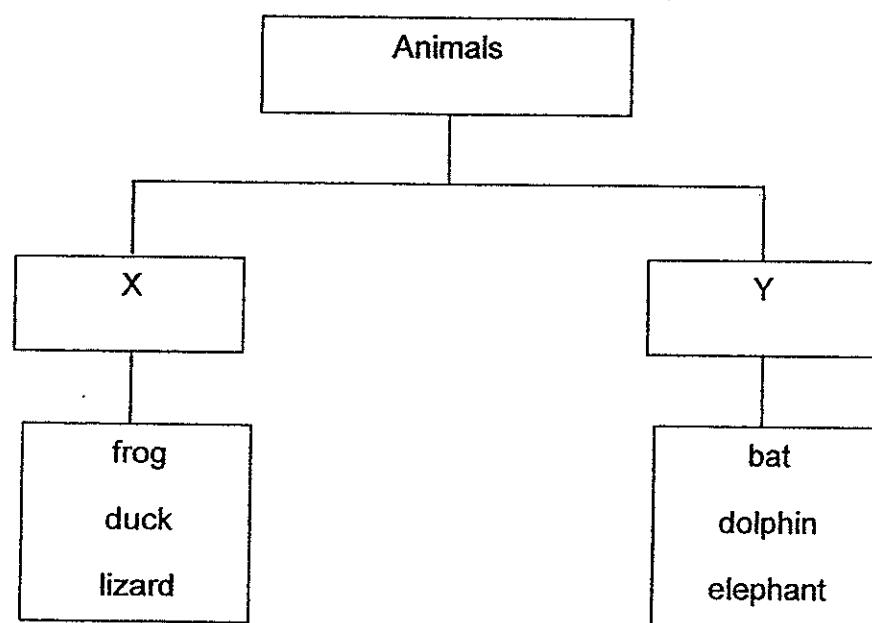


Animal S

Which of the following animals does NOT belong to the group?

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

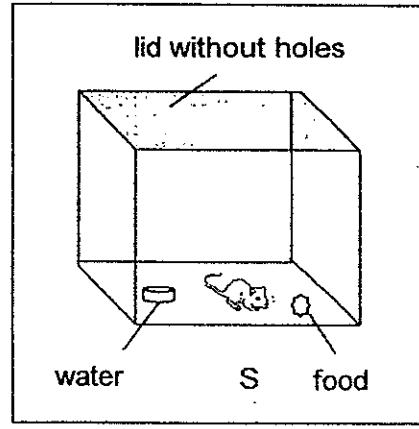
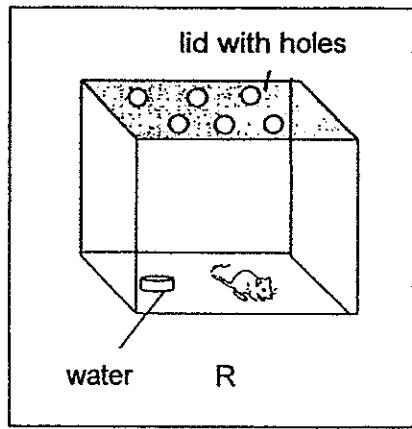
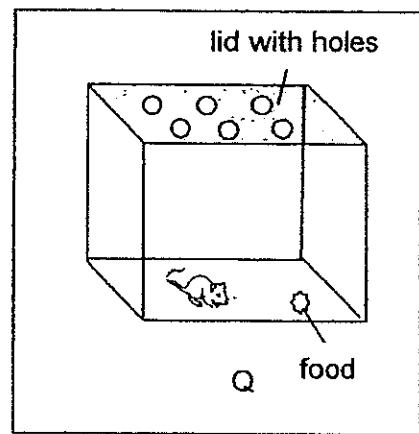
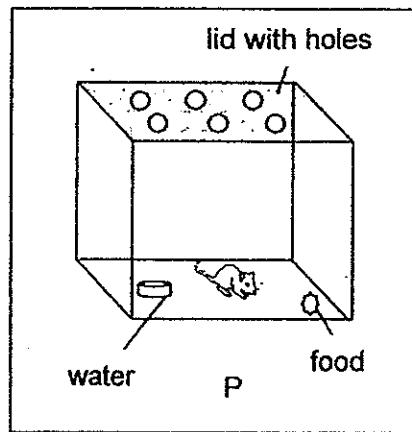
5. Some animals are classified as shown below.



Which one of the following sets of sub-headings for Groups X and Y is correct?

	Group X	Group Y
(1)	lay eggs	give birth to live young
(2)	have scales	have hair
(3)	live in water	lives on land
(4)	animal-eaters	plant- eaters

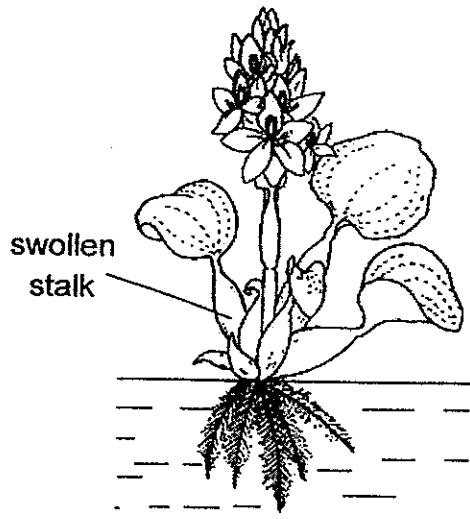
6. Lisa wants to conduct an experiment to find out if food is needed for the mouse to survive.



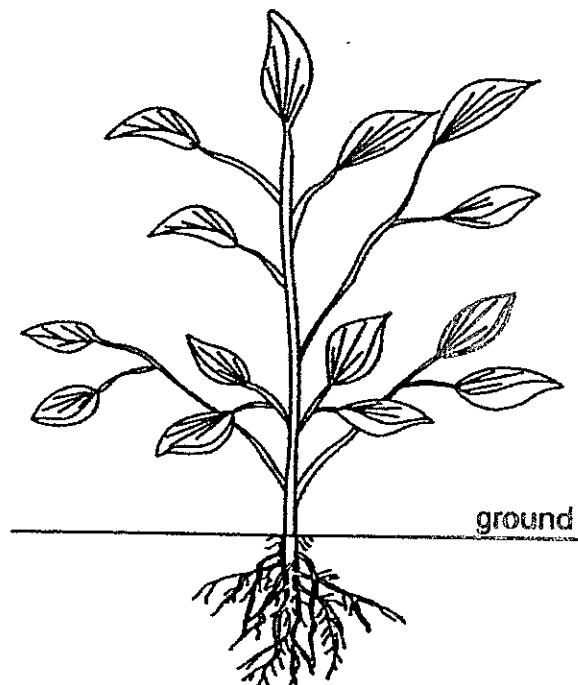
Which of these 2 set-ups should Lisa choose to ensure that she conducts a fair test?

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

7. Observe the two plants carefully.



Plant X



Plant Y

Based on your observations, which of the following statements about the two plants are true?

- A Plant X has flowers but not plant Y.
 - B Both Plant X and plant Y have roots.
 - C Both plant X and plant Y are land plants.
-
- (1) A and B only
 - (2) A and C only
 - (3) B and C only
 - (4) A, B, and C

8. The table below gives some information on 4 organisms, A, B, C and D. A tick (✓) shows the characteristic which it has.

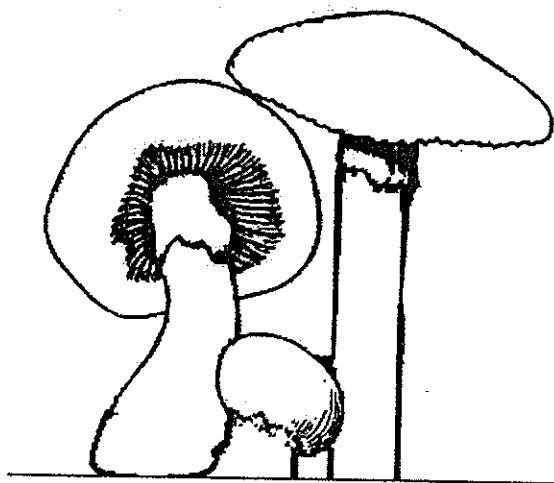
Organism	Bears flowers	Makes food	Grows on land
A	✓	✓	✓
B	✓	✓	
C		✓	✓
D			✓

Jacob found the following plant in his school garden.



Which one of the following organisms represents the plant shown in the diagram above?

9. 4 students found the following type of organisms in their school field.



They made the following observations about the organisms.

Alice : They are fungi.

Ben : They can reproduce.

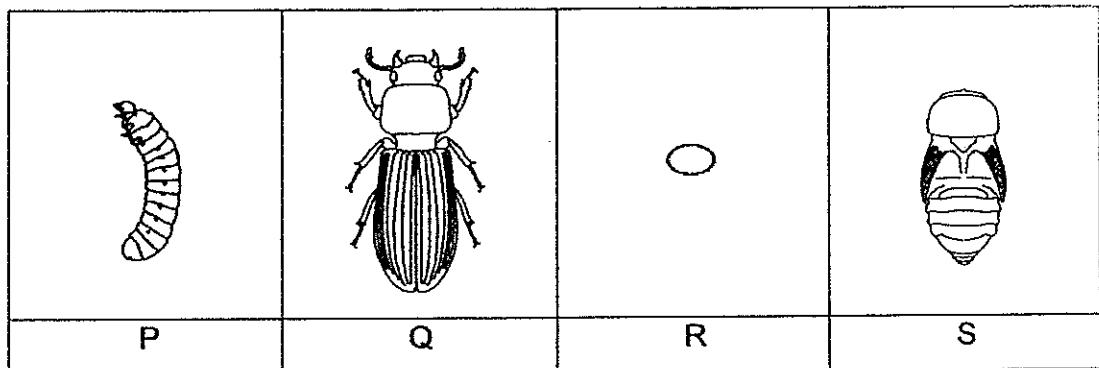
Clara : They are plants without leaves.

Danny : They are non-flowering plants because they have gills which contain spores.

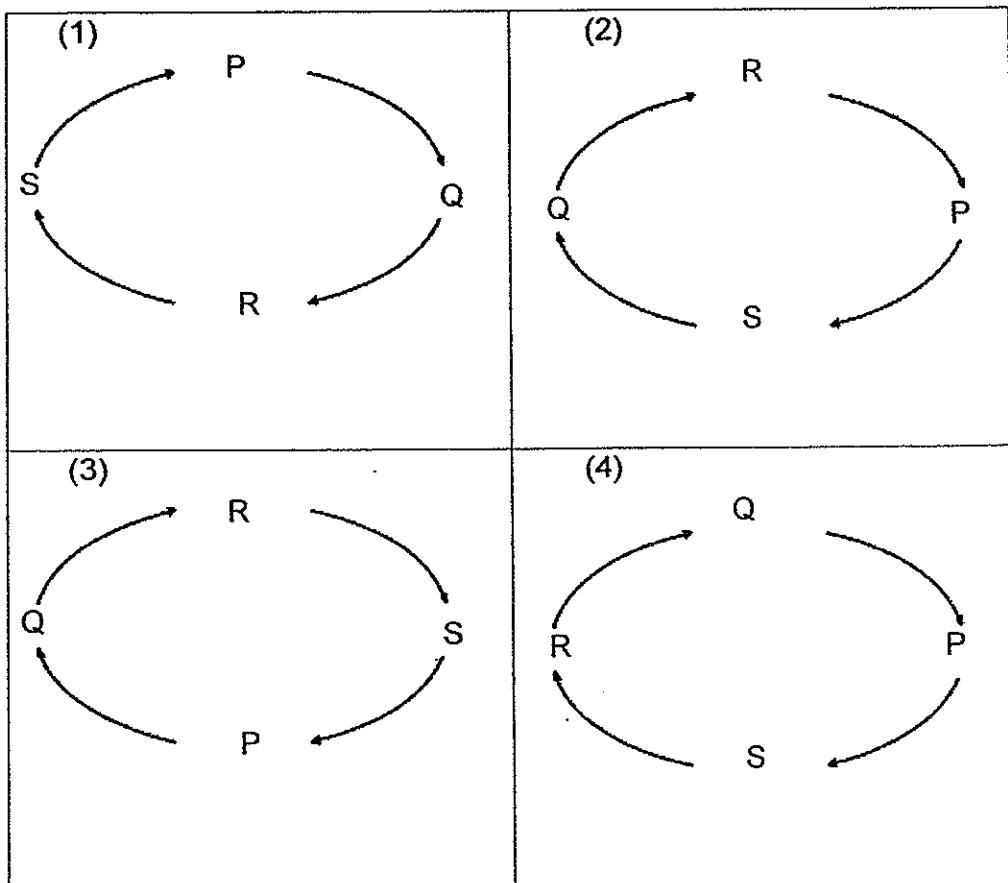
Whose observation(s) is/are correct?

- (1) Alice only
- (2) Alice and Ben only
- (3) Ben and Danny only
- (4) Clara and Danny only

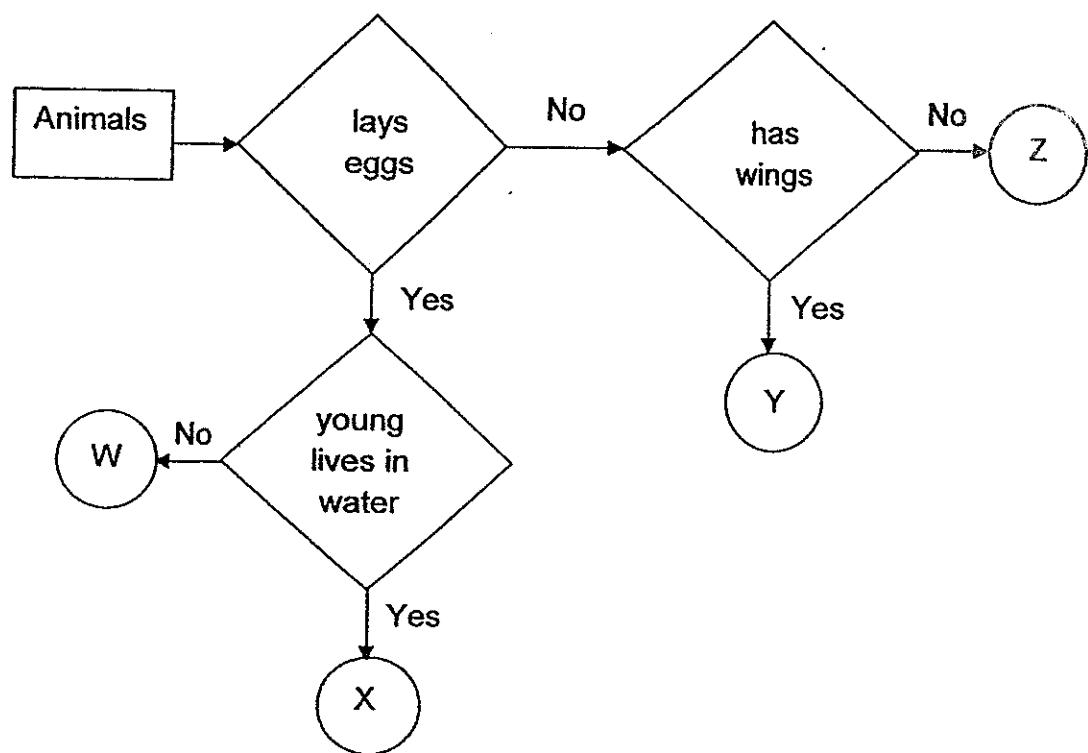
10. The following pictures show the different stages of the life cycle of a mealworm beetle.



Which one of the following diagrams shows the correct order of the stages involved in its life cycle?



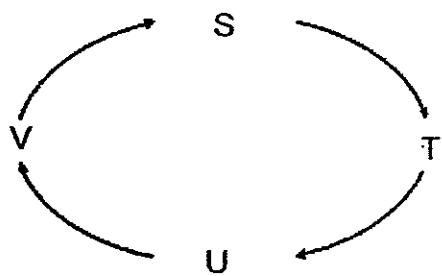
11. The flow chart shows how animals W, X, Y and Z are being grouped.



Which one of the following animals is most likely a frog?

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

12. The diagram below shows the life cycle of an animal.

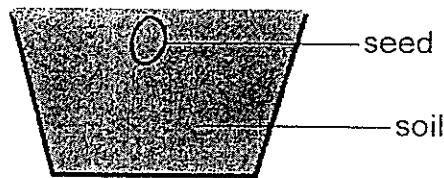


U represents the adult stage of the animal.

At which of the following stages does the animal moult?

- (1) S
- (2) T
- (3) U
- (4) V

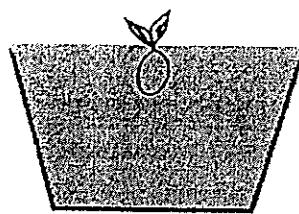
13. Daniel planted a seed in a pot as shown below.



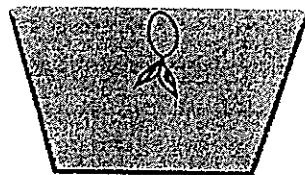
He placed the pot on a table in the kitchen. He pours an equal amount of water into the pot every day.

Which one of these diagrams shows what Daniel would observe after a few days?

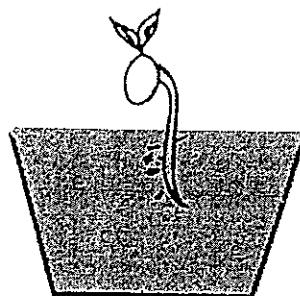
(1)



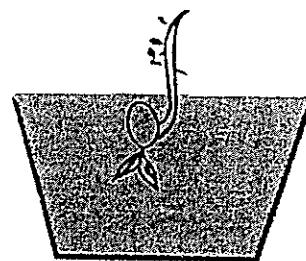
(2)



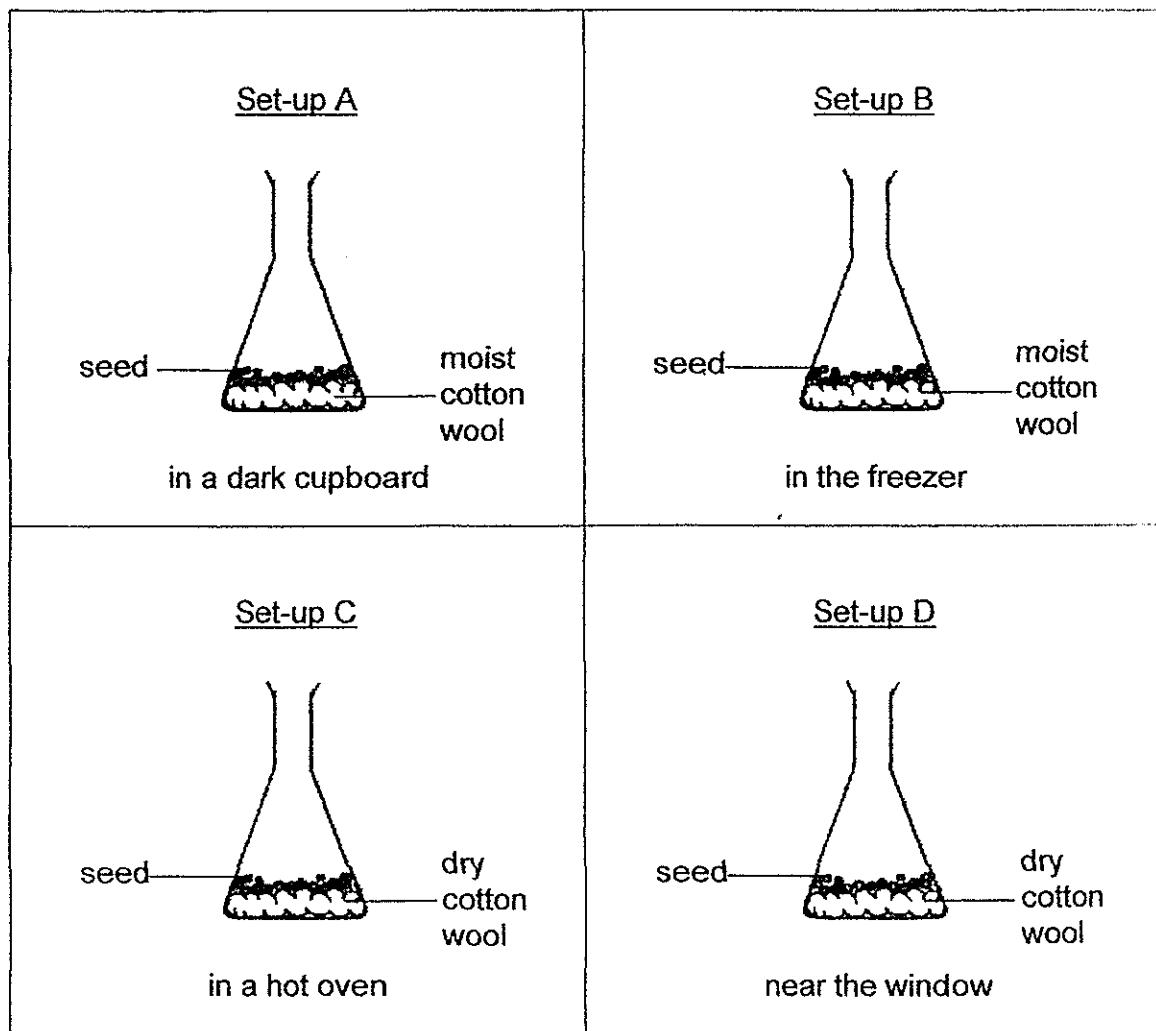
(3)



(4)



14. Ashley prepared set-ups A, B, C and D and placed them in 4 different locations as shown in the diagrams below.

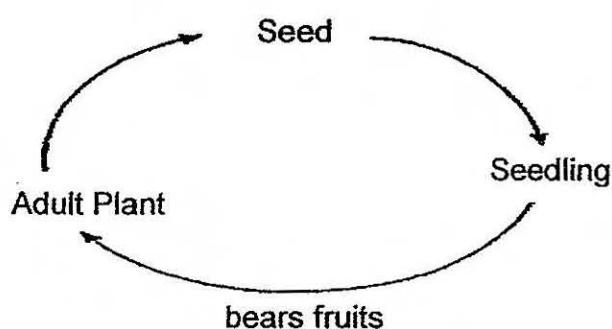


In which of the following set-up(s) would Ashley observe the germinated seeds after a few days?

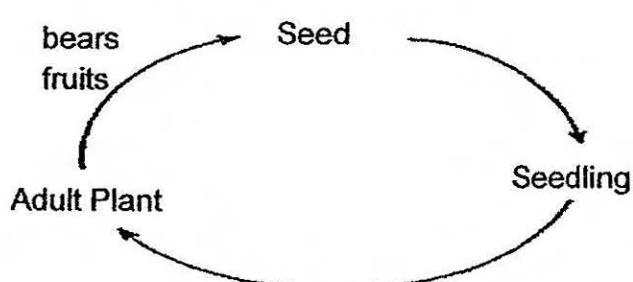
- (1) A only
- (2) D only
- (3) A and D only
- (4) B and C only

15. Which one of the following diagrams shows the life cycle of a flowering plant?

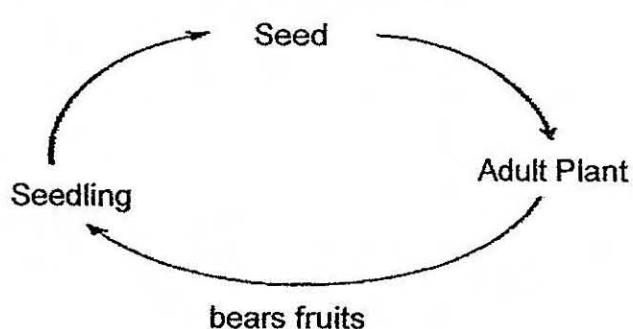
(1)



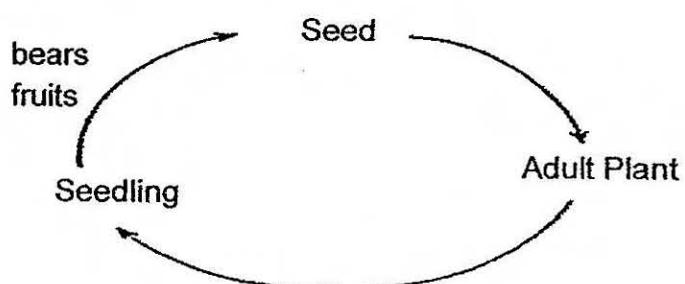
(2)



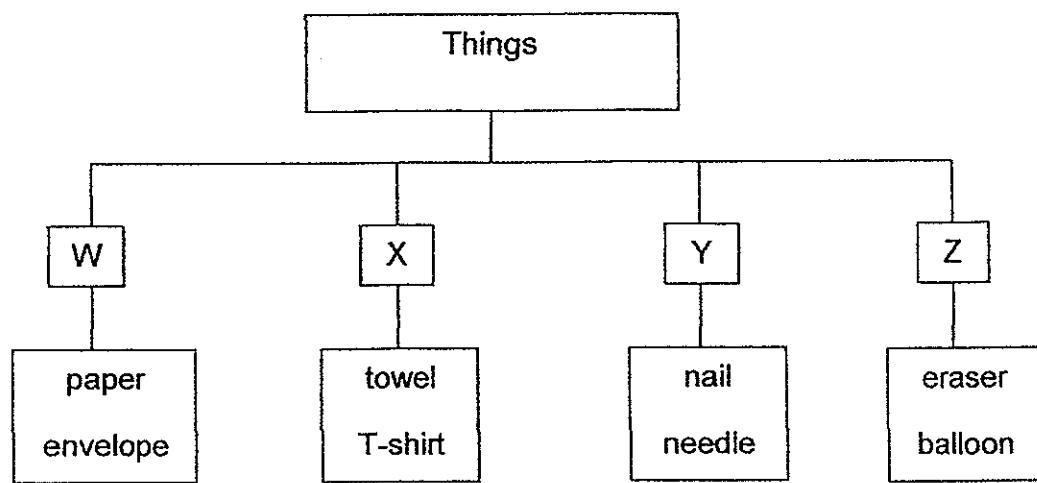
(3)



(4)



16. Some things are classified in the table below.

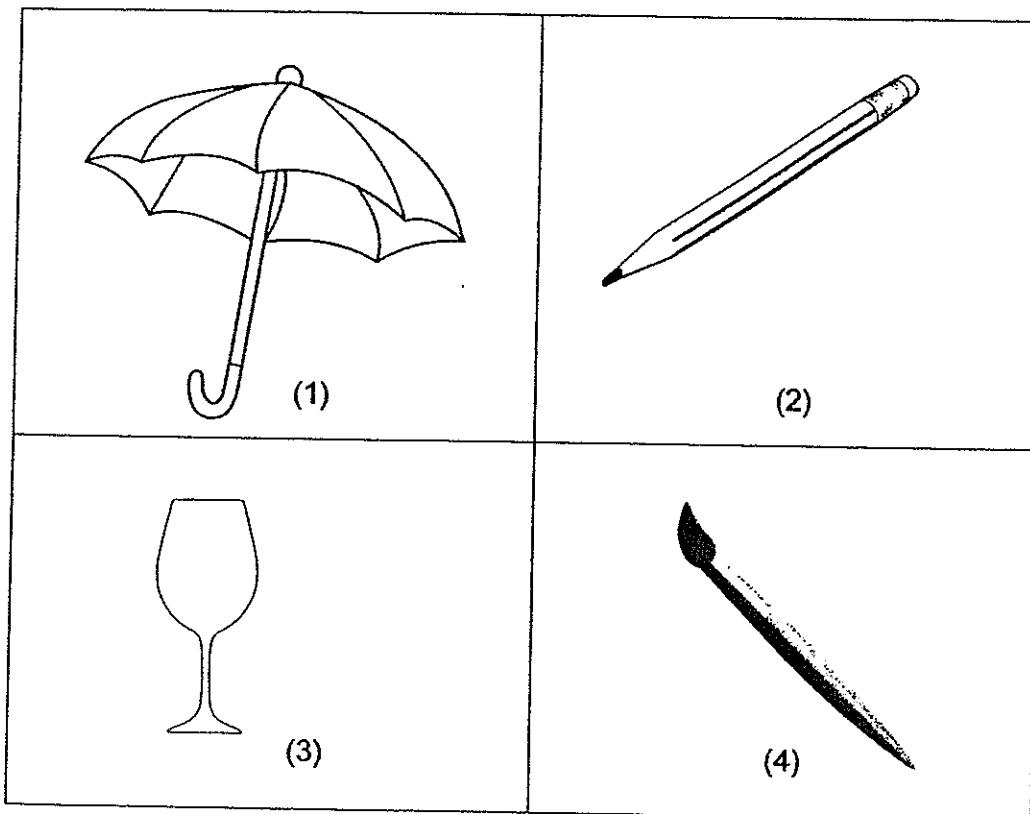


In which of the following groups should a key be placed?

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

17. Look at the diagrams below.

Which one of the following objects is made of only 1 material?



18. Mina conducted an experiment to find out the amount of light (measured in Lux) that passed through four different materials. Her results are shown in the table below.

Material	Amount of light that passed through it (Lux)
W	150
X	680
Y	220
Z	10

Mina wanted her living room to be well-lit.

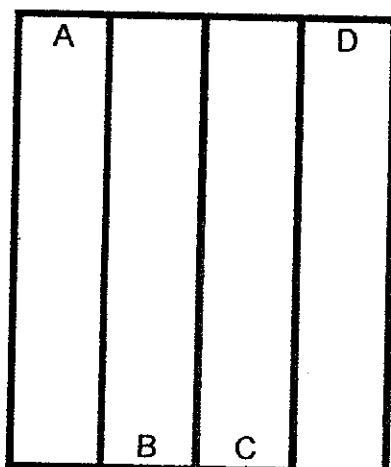
Which one of the following materials, W, X, Y or Z, is most suitable to make into curtains for Mina's living room?

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

19. Which one of the following statements about magnets is NOT true?

- (1) Magnets have two opposite poles.
- (2) Bar magnets are strongest at its poles.
- (3) Magnets can only attract magnetic materials.
- (4) The poles of a ring magnet are found at their ends.

20. Jane put 4 identical magnets side by side as shown below.

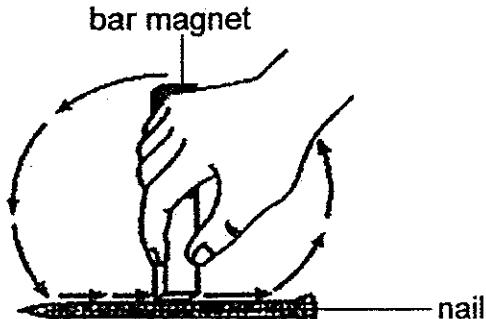


A is the N-pole of the magnet.

What are the poles at B, C and D?

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

Fenny wanted to magnetise an iron nail using a strong bar magnet. She stroked the nail 20 times using one pole of a magnet as shown in the diagram below.



Using the information above, answer questions 21 and 22.

21. Using the magnetised nail, Fenny managed to attract 3 paper clips.

What could Fenny do to attract more paper clips using the nail?

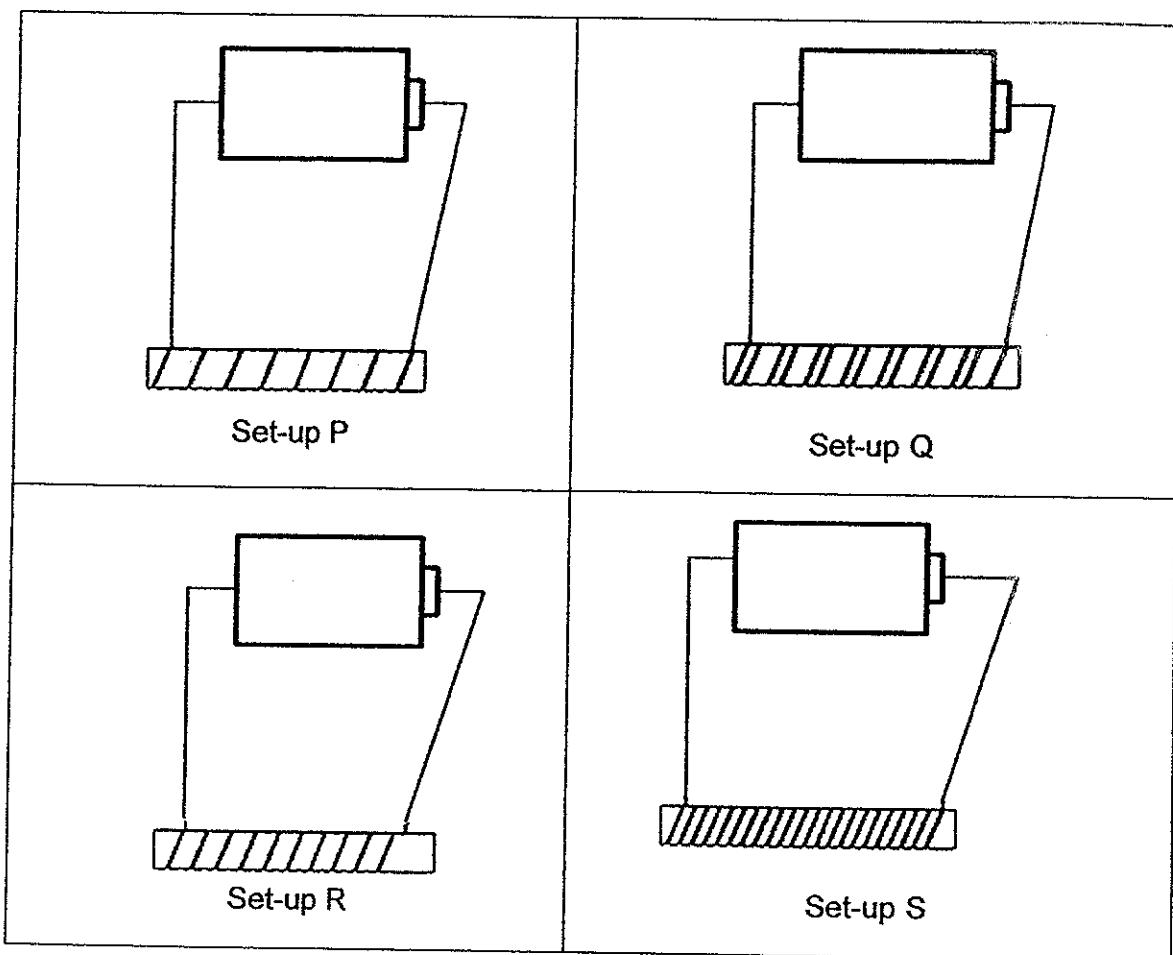
- (1) Heat the nail.
- (2) Throw the nail onto the floor several times.
- (3) Stroke the nail in the opposite direction 20 times.
- (4) Stroke the nail in the same direction another 20 times.

22. Fenny decided to magnetise a wooden pencil by stroking it 20 times in the same direction.

What would Fenny possibly observe?

- The wooden pencil would _____
- (1) not attract any paper clips
 - (2) move towards the paper clips
 - (3) move away from the paper clips
 - (4) attract the same number of paper clips as the nail

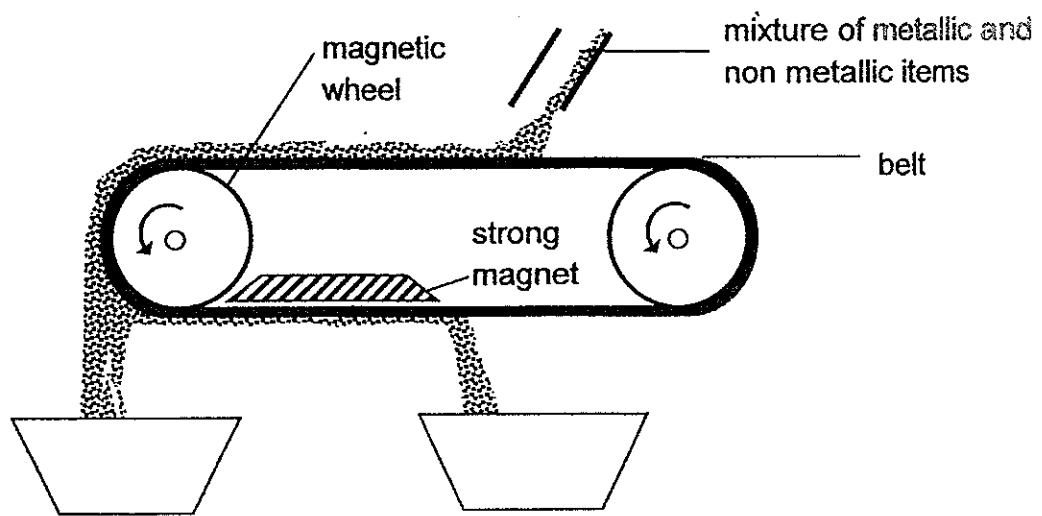
23. Minnet wanted to find out if the number of coils around a magnetic rod affects its magnetic strength. She used identical rods, batteries and wires in her set-ups as shown below.



Which one of the following shows the correct arrangement of the magnetized rod according to their magnetic strengths starting from the weakest to the strongest?

	weakest → strongest			
(1)	P	Q	R	S
(2)	P	R	Q	S
(3)	R	P	Q	S
(4)	S	Q	R	P

24. The diagram below shows a machine which can be used to separate metallic items from the non-metallic items.



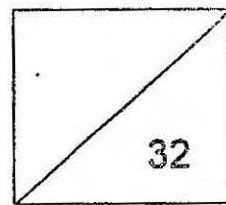
Which of the following mixtures can be sorted into metallic and non-metallic items using the machine above?

(1)	sand	bamboo sticks	gold chains	aluminum rings
(2)	copper wires	marbles	iron nails	plastic strips
(3)	steel buttons	ice-cream sticks	silver rings	aluminum beads
(4)	styrofoam beads	nickel coins	rubber bands	iron filings

End of Section A

Name: _____ ()

Class: P 3 ()

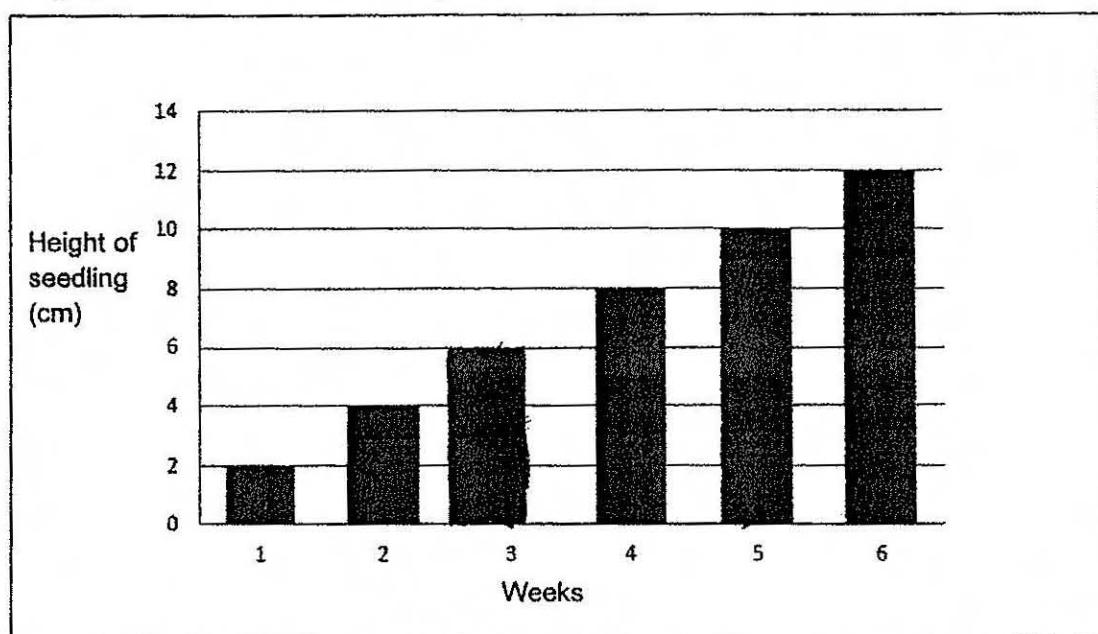


SECTION B (32 marks)

For questions 25 to 39, write your answers clearly in the spaces provided.

The number of marks available is shown in brackets [] at the end of each question or part question.

25. The graph below shows the change in the height of a seedling over 6 weeks.



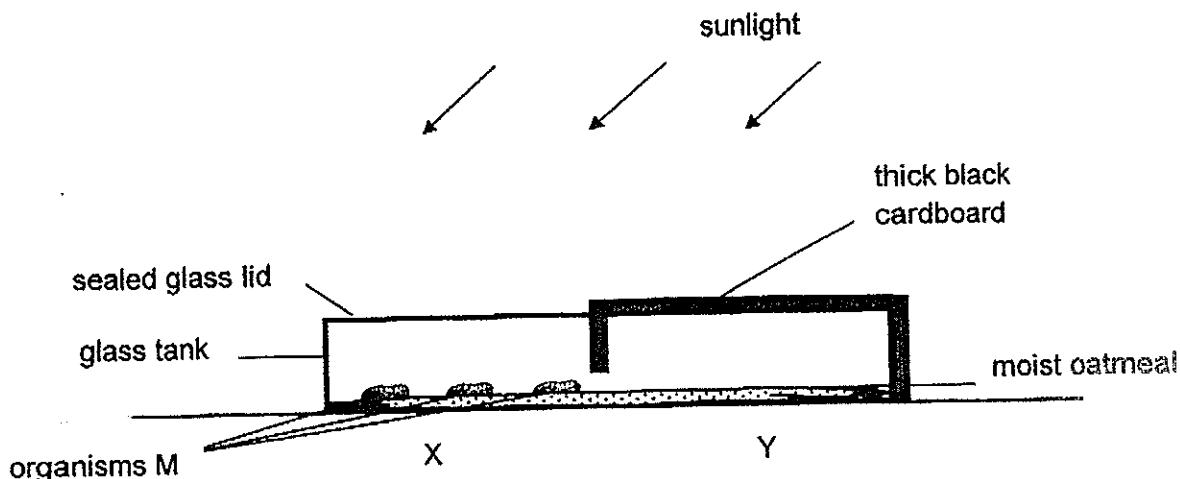
- (a) In the bar graph above, draw a bar to show the height of the seedling in the third week. [1]
- (b) State the characteristic of living things which is shown in the graph above. [1]

Score	
2	

26. Min Min prepared a set-up for an experiment. She divided the sealed glass tank into two parts, X and Y, as shown in the diagram below.

Part Y of the glass tank was covered with a piece of thick black cardboard. She placed three live organisms M in part X of the glass tank and fed them with moist oatmeal.

Then she placed the glass tank near an open window on a bright and sunny day.



5 minutes later, Min Min observed that the organisms M moved towards Part Y of the glass tank.

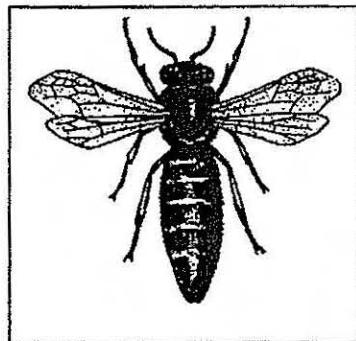
Based on the information above, answer the following questions:

- (a) Name the characteristic of living things shown in the observation made by Min Min. [1]

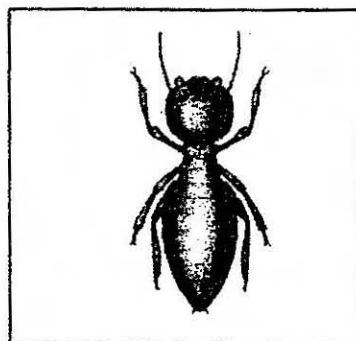
-
-
- (b) A week later, Min Min found that all the organisms M were dead. [1]
Explain clearly why that happened.
-
-

Score	
2	

27. Study Animals P and Q as shown in the diagrams below.



P



Q

Based on your observations, write down one similarity and one difference between animals P and Q.

[Do NOT compare body shapes, sizes and colours.]

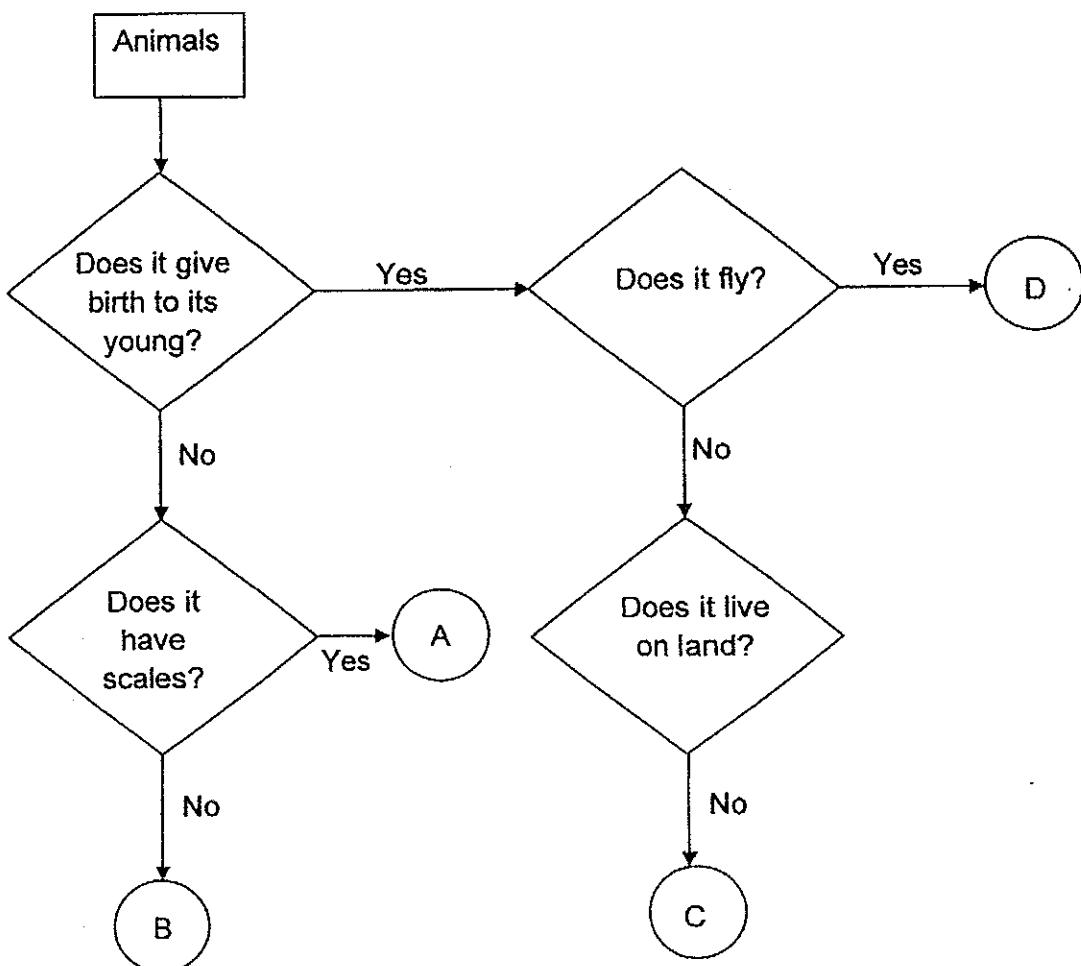
[2]

Similarity	_____

Difference	_____

Score	2
-------	---

28. The flow chart below shows how 4 animals, A, B, C and D, are being grouped.



- (a) Based on the information above, answer the following questions:
State two characteristics of animal C.

[2]

Characteristic 1	_____

Characteristic 2	_____

Score	2
-------	---

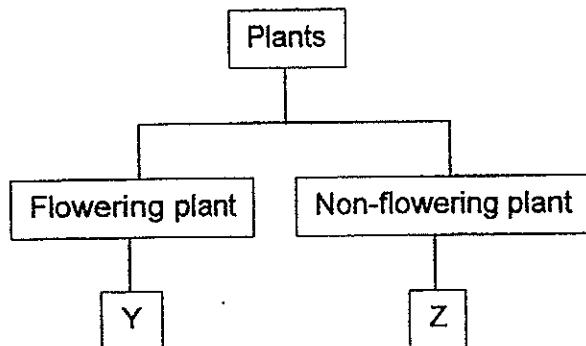
- (b) Based on the information shown in the flow chart, which animals, A, B, C or D, best represent bat and hen respectively? [1]

Write the correct letter, A, B, C or D, in the boxes below.

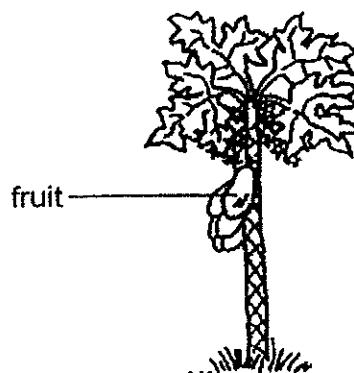
bat	
hen	

Score	
-------	--

29. Candice classified plants as shown in the following diagram.



Candice found the plant shown below in her school garden.



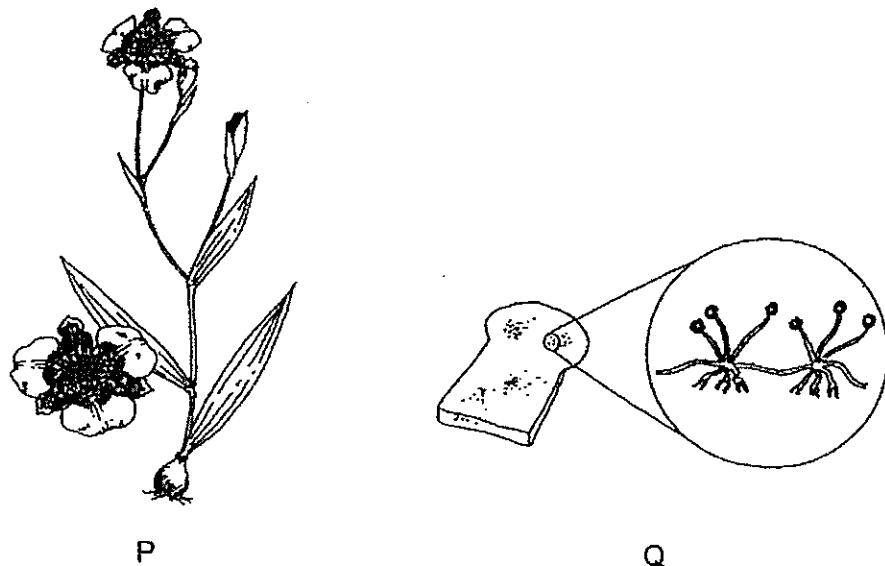
Plant A

- (a) Based on your observations of plant A, in which group would Candice put plant A in? Give a reason for your answer. [1]

- (b) State another observable characteristic of plant A. [1]

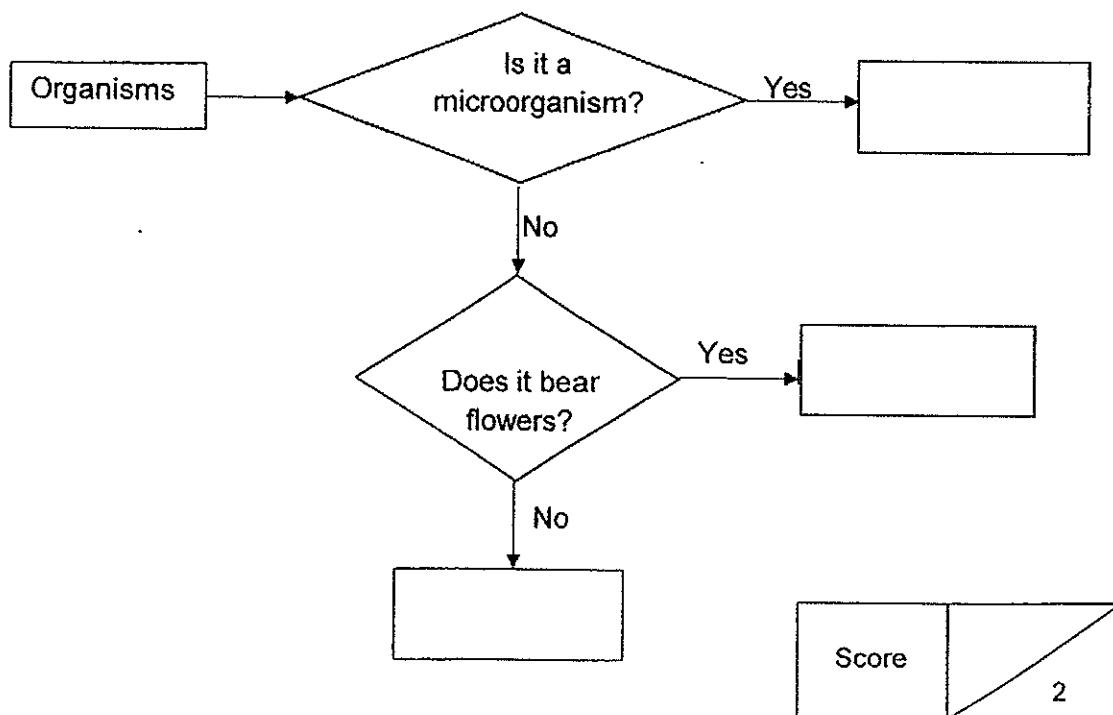
Score	2
-------	---

30. Organisms, P and Q, below can be grouped based on their characteristics.

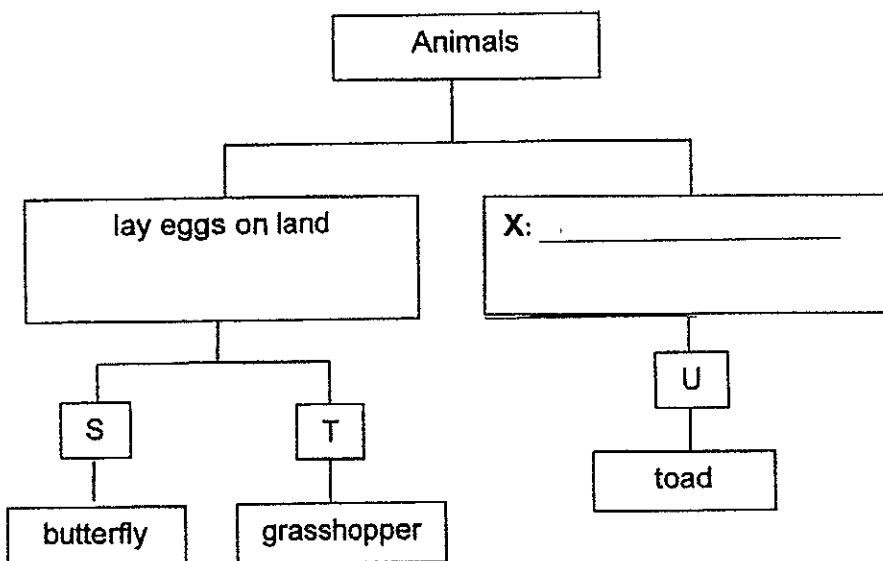


Use the flow chart below to group organisms P and Q. [2]

Write letters P and Q in the correct box.
(Use each letter ONCE only)



31. Some animals are classified as shown below.



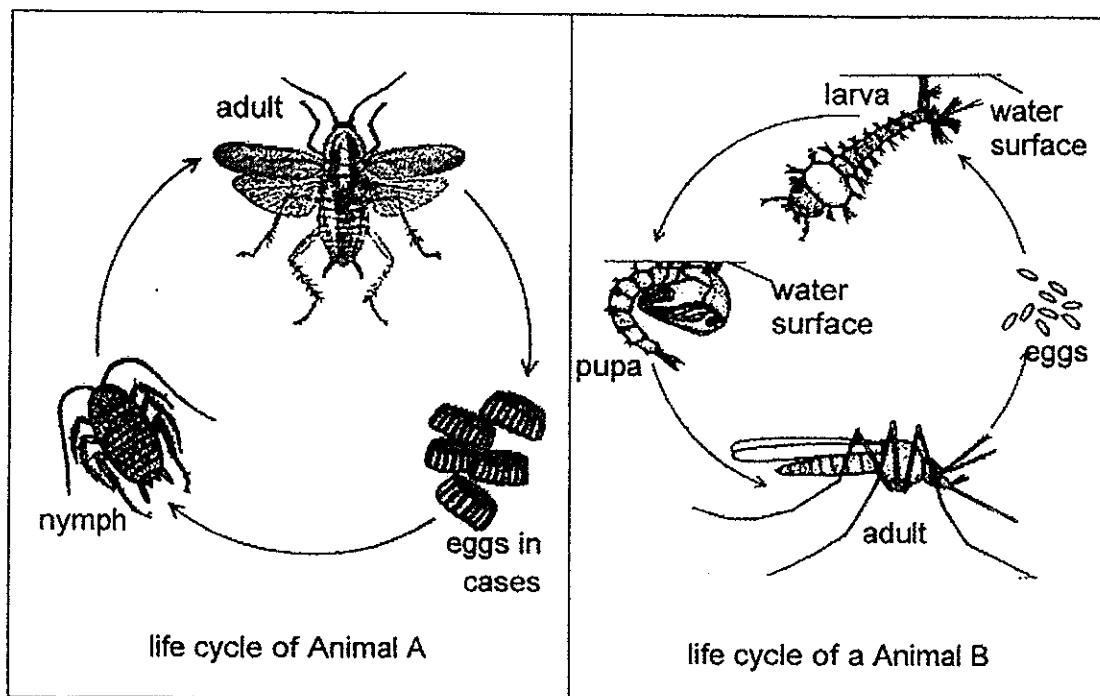
- (a) In the diagram above, write a suitable sub-heading in the box marked X. [1]
- (b) The butterfly and grasshopper are classified according to the number of stages in their life cycles. [1]

Write the number of stages in the life cycle of each animal below.

(i)	S	_____ stages
(ii)	T	_____ stages

Score	
	2

32. The diagrams below show the life cycles of Animals A and B.



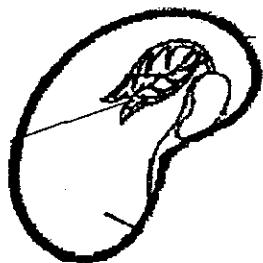
Based on your observations, answer the following questions:

- (a) State one similarity between the life cycles of Animal A and Animal B. [1]

- (b) State one difference between the nymph and adult of Animal A. [1]
[Do NOT compare the size or shape.]

Score	2
-------	---

33. The diagram below shows a developing seed.

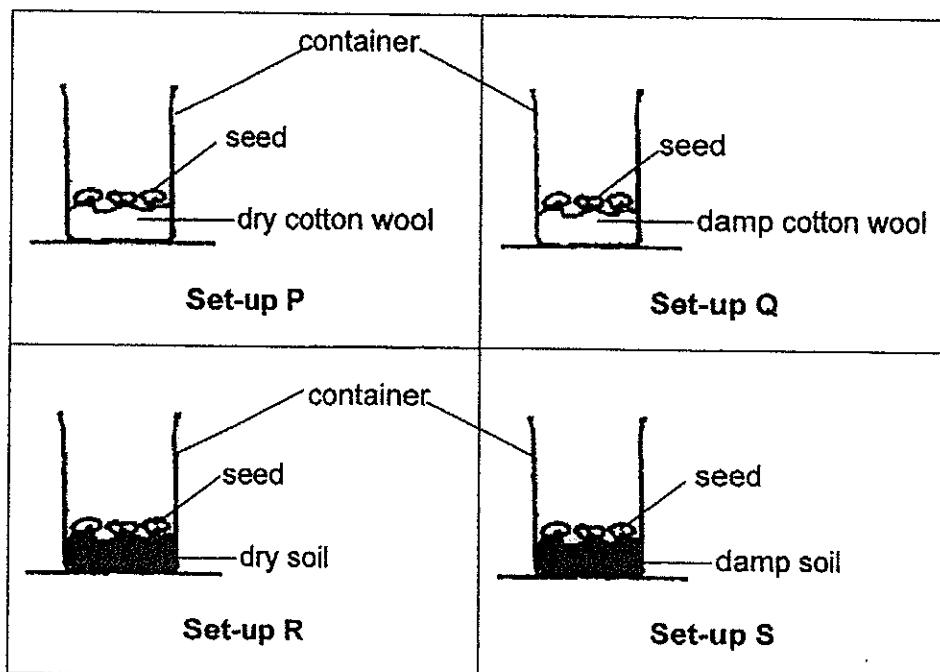


In the diagram above, label [2]

- (a) X, the part which protects the seed;
- (b) Y, the seed leaf.

Score	
2	

34. Tammy put 3 seeds of the same type in each of the 4 set-ups. She placed the 4 set-ups near an open window.



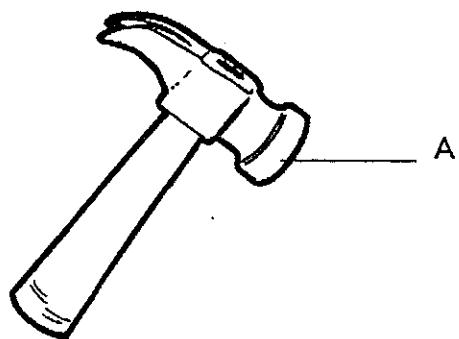
- (a) Tammy wanted to find out if seeds need water to germinate. [1]

Name the 2 set-ups which she should use for her experiment.

- (b) Name the conditions needed for seeds to germinate. [1]

Score	
2	

35. The diagram below shows a hammer with its labelled part A, which is used to hit a nail into the wall.



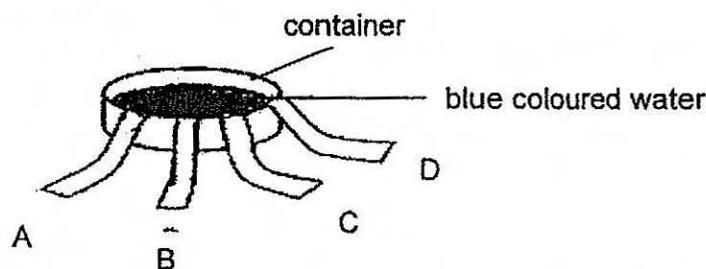
Name a suitable material to make part A such that it will not break [1]
when it hits the nail into the wall.

Give a reason for your answer.

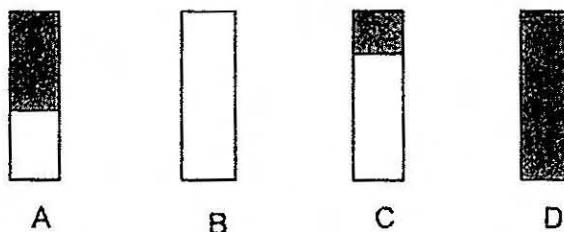
Material	Reason

Score	1
-------	---

36. Ali placed 4 different strips of material of equal size in a container of blue coloured water for 5 minutes.



After a while, Ali took the strips out of the container and made the following observations of the strips.

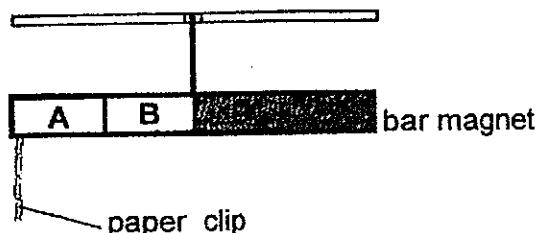


- (a) Which one of the materials, A, B, C or D, is most suitable to make a pair of rain boots? Explain your choice clearly. [2]

- (b) State another property of the material that is taken into consideration [1] when it is chosen to make the pair of rain boots.

Score	3
-------	---

37. Peter and Mary wanted to find out which part of a bar magnet has the greatest magnetic strength. They conducted an experiment using the set-up as shown below.



They recorded the number of paper clips attracted by each of the part in the table below.

Peter's Observation

Part of Magnet	A	B	D	E
No. of paper clips	10	4	5	11

Mary's Observation

Part of Magnet	A	B	D	E
No. of paper clips	4	5	10	11

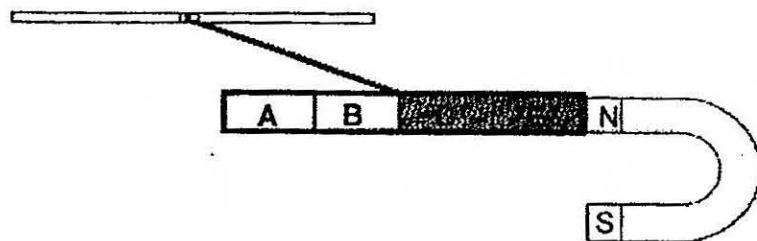
- (a) Based on the information above, whose observation, Peter's or Mary's, was correct? Give a reason for your answer. [1]

Continue on Pg 36

Score	
1	

Continue from Pg 35

Peter brought a U-shaped magnet with its N-pole close to the bar magnet. He observed that the bar magnet moved towards the U-shaped magnet as shown below.

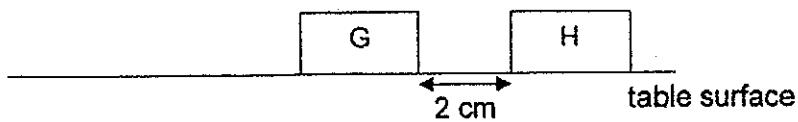


- (b) State the pole of part E of the bar magnet and the property of magnets that is demonstrated in Peter's observation? [1]

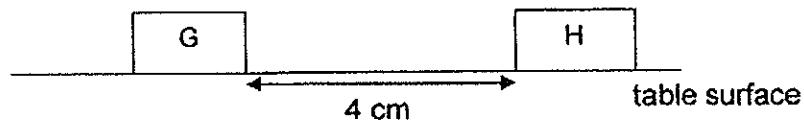
Pole of part E	Property of magnet
_____ - pole	_____

Score	1
-------	---

38. Sammy secured object H on the table and placed object G at a distance away from H as shown below.



Sammy observed that object G moved away from object H as shown in the diagram below.



Sammy repeated his experiment another 2 times, each time making the same observations.

- (a) What could objects G and H possibly be? [1]

G: _____

H: _____

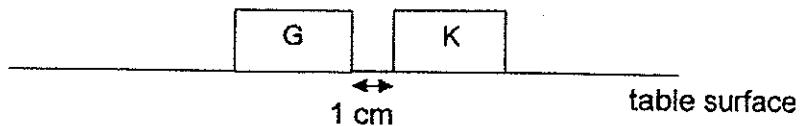
- (b) Explain why object G moved away from object H. [1]

Continue on Pg 38

Score	2
-------	---

Continued from Pg 37

- (c) Sammy replaced object H with object K and placed it about 1 cm away from object G as shown below.



Sammy observed that both object G and K did not move.

Name the property of the material that object K was likely to be made [1] of. Give a reason for your answer.

39. Jamie lost her way in the jungle. She needed to go North but did not have a compass. She only had a bar magnet tied to a string.

- (a) State a property of the magnet which Jamie could use to help her [1] find her way.

- (b) Below are steps NOT arranged in order, which Jamie took to find her [1] way in the jungle.

Write 1, 2 and 3 to show the correct order of steps Jamie took to find out where North is.

Steps	No.
Wait for the magnet to come to a rest.	
Hold the magnet by the string and allow the magnet to move freely.	
Walk in the same direction where the North-seeking pole of the magnet is pointing to.	

Score	3
-------	---

- END OF PAPER -

Page 38 of 38

2014 P3 Science SA2

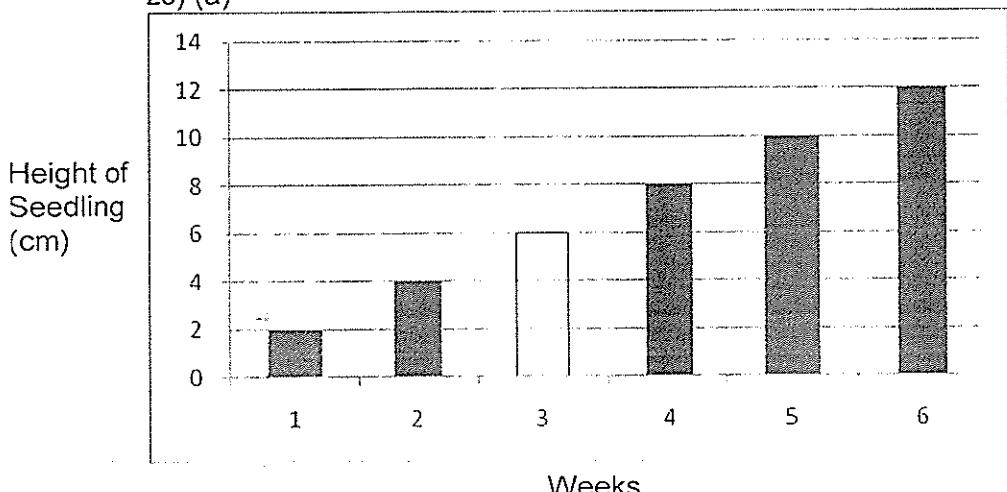
Raffles Girls' Primary School Science SA2 2014

Section A

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

Section B

25) (a)



(b) Living things can grow.

26) (a) Living things respond to changes.

(b) The living organism died as air is absent.

27)

Similarity	Both animals have six legs.
Difference	Animal P has wings but Animal Q does not.

28) (a)

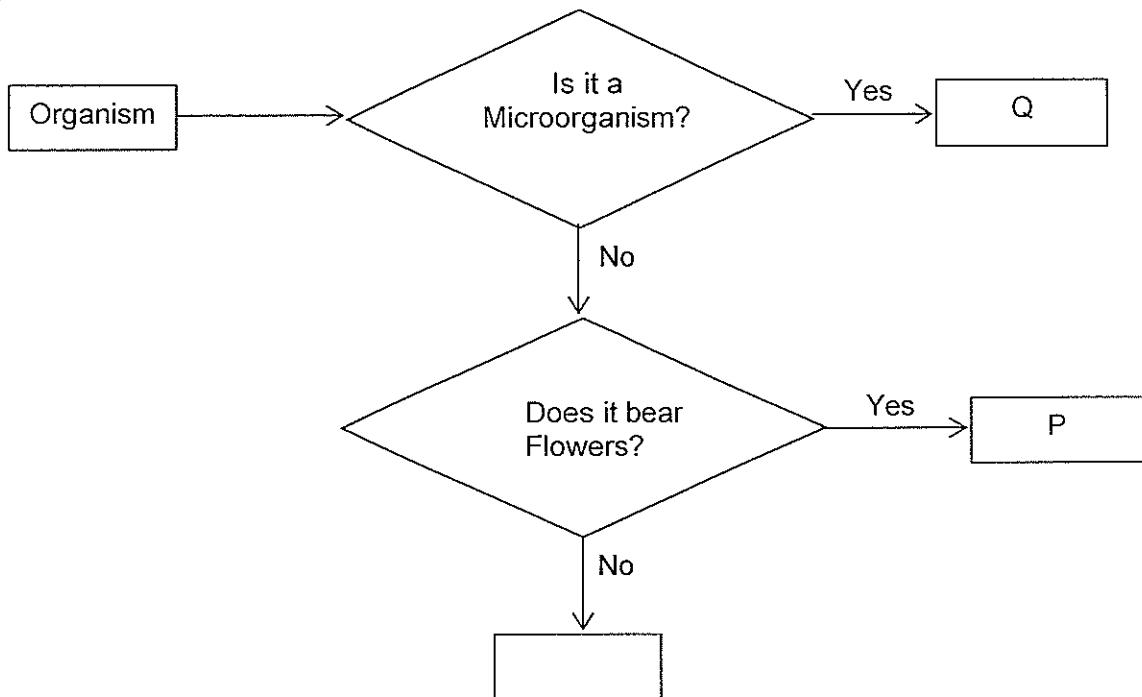
Characteristic 1	Gives birth to young
Characteristic 2	Does not fly

(b)

Bat	D
hen	B

- 29) (a) Flowering plant. Plant A has fruits and fruits develop from flowers.
 (b) Plant A lives on land.

30)



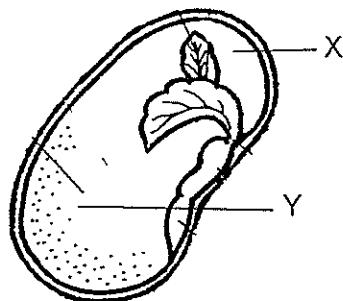
- 31) (a) X: Lay eggs in water

(b)

(i)	S	4 stages
(ii)	T	3 stages

- 32) (a) Both have an egg stage.
 (b) Adult of Animal A has wings but the nymph does not.

33)



- 34) (a) Set-up P and Q.
 (b) Air, warmth and water.

35)

Material	Reason
Metal	Metal is strong and it does not break easily.

- 36) (a) Material B. Material B did not absorb any blue coloured water.
(b) It must be flexible.

- 37) (a) Peter's observation was correct. Part A and E attracts the most number of paper clips as they are the poles of the magnet, which has the strongest magnetic strength.

(b)

Poles of part E	Property of magnet
South-pole	Unlike poles attract.

- 38) (a) G: Magnet
H: Magnet
(b) The like poles of Magnets G and H were facing each other, hence they repelled.
(c) K is a non-magnetic material which cannot be attracted to the magnet.

- 39) (a) A freely-suspended magnet rests in the North-South direction.

(b)

Steps	No.
Wait for the magnet to come to a rest.	2
Hold the magnet by the string and allow the magnet to move freely.	1
Walk in the same direction where the North-seeking pole of the magnet is Pointing to.	3



RAFFLES GIRLS' PRIMARY SCHOOL

SEMESTRAL ASSESSMENT 2

2009

Name: _____ Index No: _____ Class: P3 _____

30th October 2009 **SCIENCE** Att: 1 h15 min

Section A	48	
Section B	32	
Your score out of 80 marks	76	
Highest score	Class	Level
Average score		
Parent's signature		

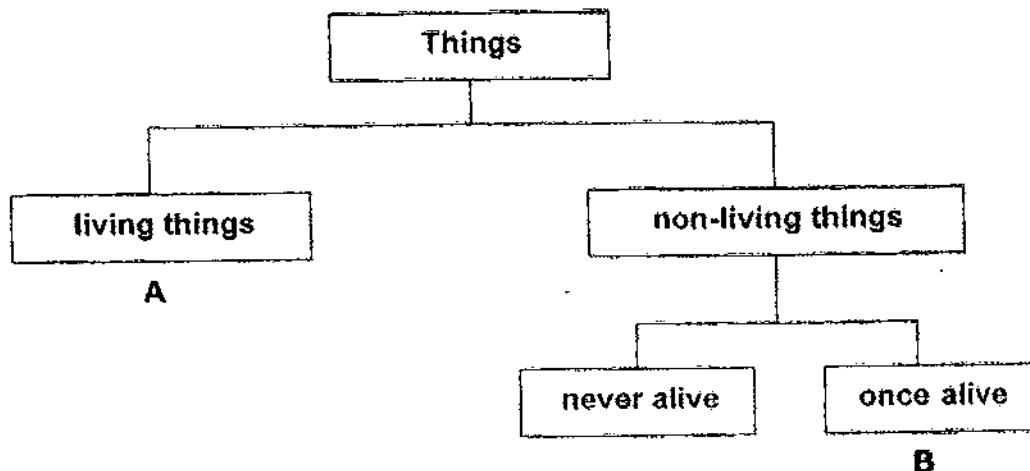
SECTION A (24 x 2 marks)

For each question from 1 to 24, four options are given.

One of them is the correct answer. Make your choice (1, 2, 3 or 4).

Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet (OAS) provided.

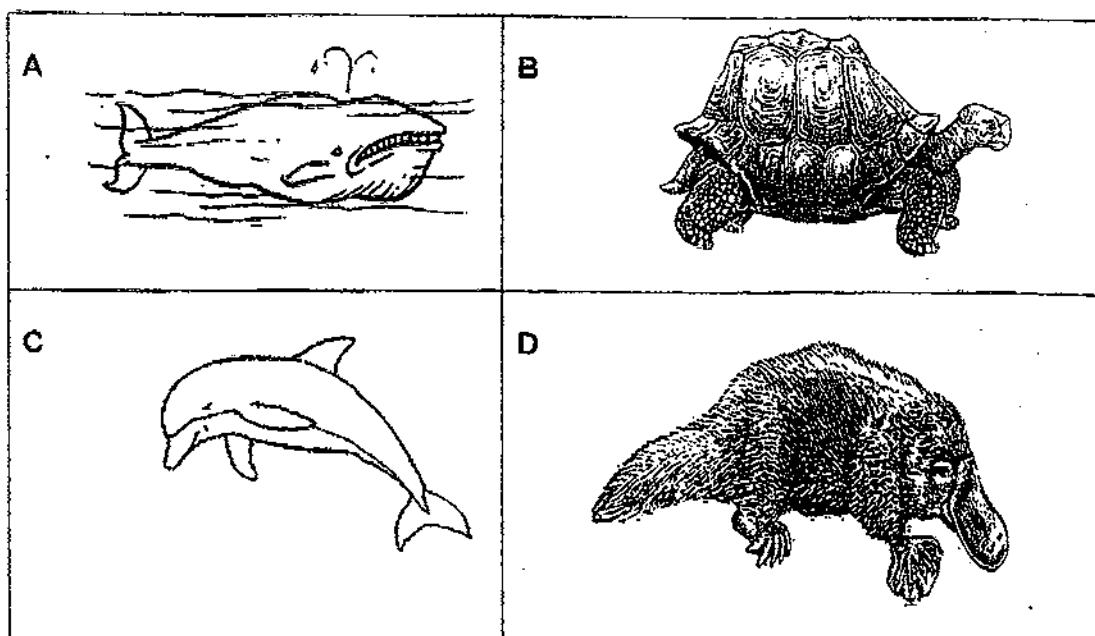
1. The classification chart below shows how some things are classified.



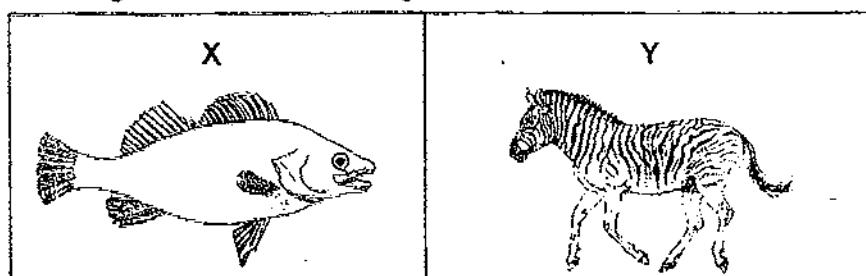
Which one of the following sets represents A and B correctly?

	A	B
(1)	a gorilla	a penguin
(2)	a dolphin	a plastic chair
(3)	a rose plant	a metal can
(4)	bread mould	a story book

2. Which of the following animals do NOT give birth to its young alive?



3. The diagrams below show organisms X and Y.



How are both X and Y similar?

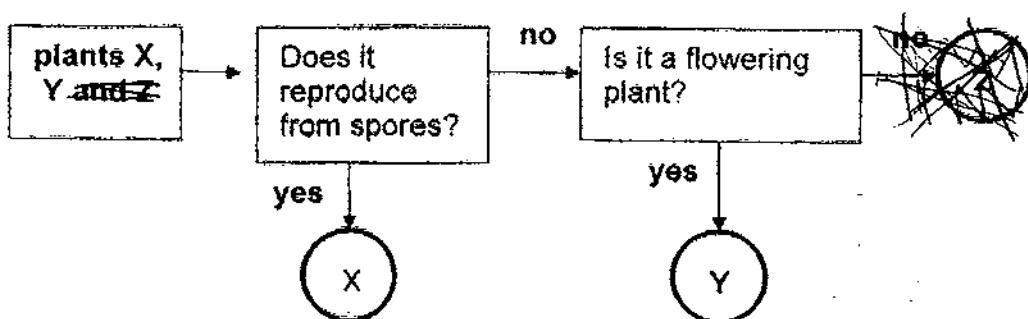
4. John had four similar plants, A, B, C and D, in four identical pots. He placed each plant under a different set of conditions as shown below.

A tick (✓) shows the presence of the condition.

plant	conditions			
	air	sunlight	water	minerals
A		✓	✓	✓
B	✓	✓	✓	
C	✓	✓		✓
D	✓		✓	✓

- Which one of the following sets of plants would NOT be able to survive for 2 weeks?

5. The flow chart below shows how some plants are differentiated.

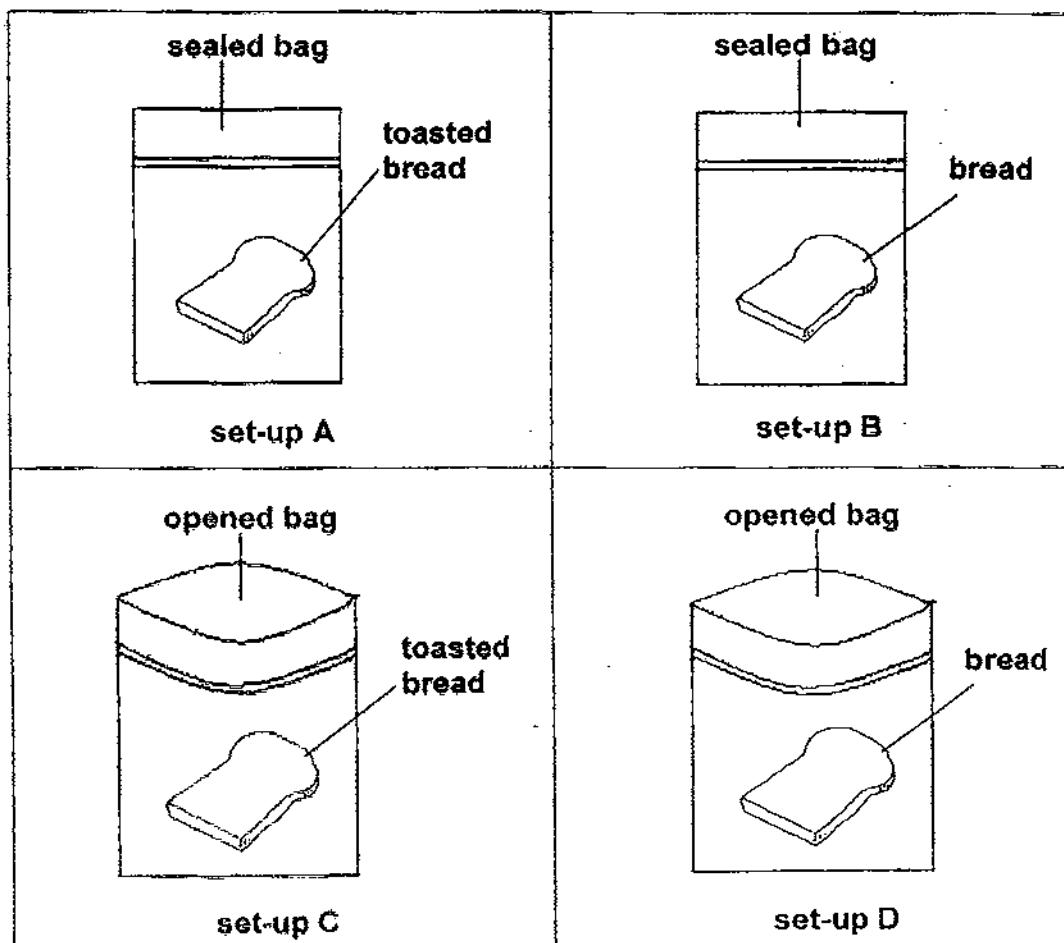


Which one of the following best represents $X \wedge Y$ and $\neg Z$?

	X	Y	Z
(1)	mushroom	rose plant	staghorn fern
(2)	papaya tree	moss	rambutan tree
(3)	rambutan tree	papaya tree	rose plant
(4)	staghorn fern	orchid plant	moss

6. Jenny had four identical clear plastic bags. From the same loaf of bread, she took out 4 pieces of bread of the same size and toasted 2 pieces of bread.

She put each piece of bread in a plastic bag as shown in the diagrams below.



In which of these set-ups would there be the **LEAST** amount of mould growing on the bread after 3 days?

- (1) set-up A
(3) set-up C

- (2) set-up B
(4) set-up D

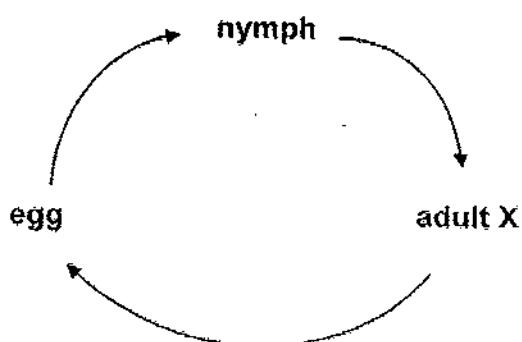
7. Sumei grouped some animals as shown in the classification table below.

Group X	Group Y
toad	beetle
cockroach	mosquito
frog	butterfly

The animals are grouped according to _____.

- (1) how they reproduce
- (2) where they are found
- (3) how they move about
- (4) the number of stages in their life cycles

8. The diagram below shows the life cycle of an animal X.

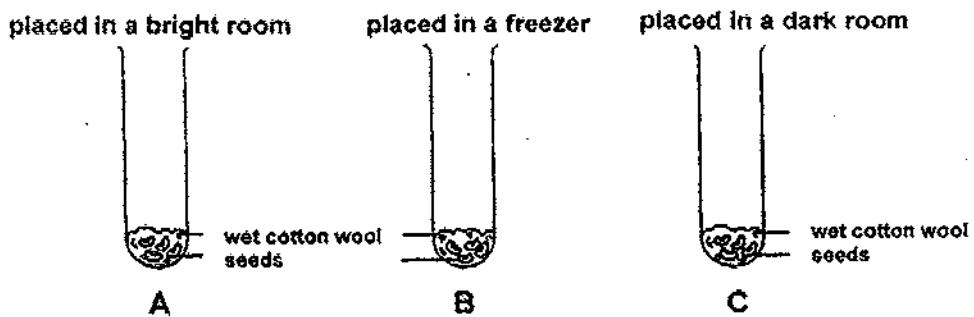


Based on the diagram above, which of the following statements about animal X are correct?

- A Animal X lays its eggs in water.
 - B Animal X has 3 stages in its life cycle.
 - C Animal X does NOT give birth to its young alive.
 - D The nymph of animal X has NO wings but the adult X has.
-
- (1) A and B only
 - (2) B and C only
 - (3) C and D only
 - (4) B, C and D only

9. Sumi had 3 identical test tubes. She put in an equal number of seeds in each test tube. Then she placed each test tube in a different location.

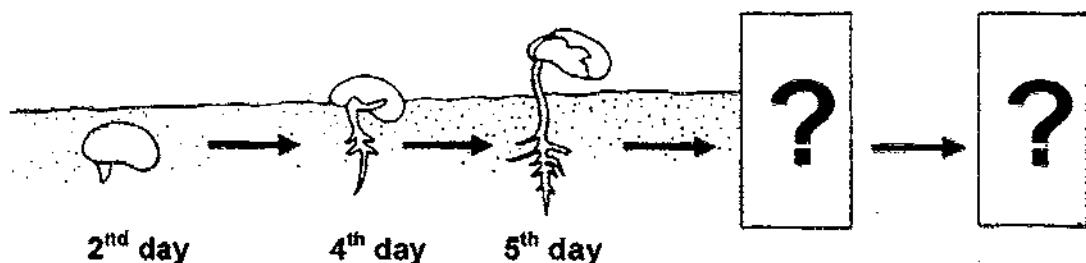
Sumi added an equal amount of water to all the test tubes each day.



In which of these test tube(s) would the seeds most likely grow after a week?

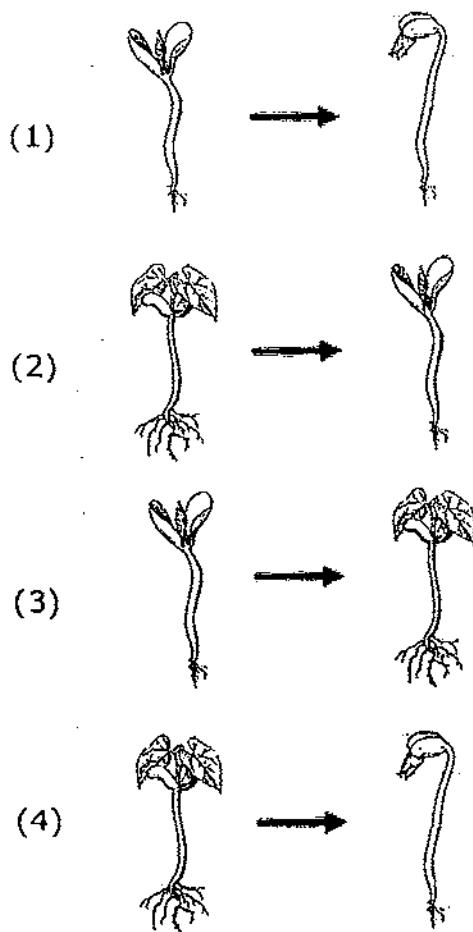
- | | |
|------------|------------------|
| (1) A only | (2) A and C only |
| (3) B only | (4) B and C only |

The diagram below shows the growth of one seed over a 5-day period.

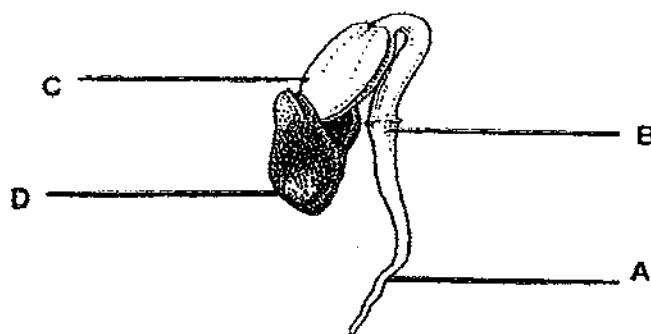


Two stages of the development of the seed are missing.

Based on the information above, answer questions 10 and 11.



The diagram below shows parts of a young seedling.



Based on the diagram above, answer questions 12 and 13.

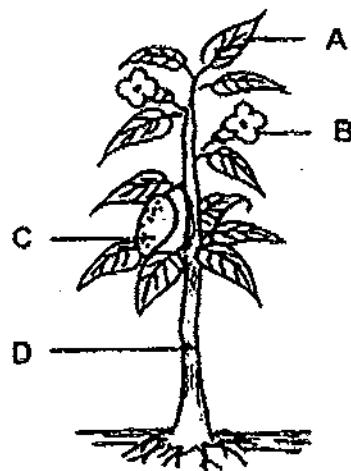
12. Where does the young seedling get its food from?

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

13. Which one of the following statements about the young seedling is **CORRECT**?

- (1) Part B grows after part A.
- (2) Part A takes in water only.
- (3) The first leaf grows from part D.
- (4) Part C can make food in the presence of light.

The diagram below shows parts of a plant.



Based on the diagram above, answer **questions 14 and 15**.

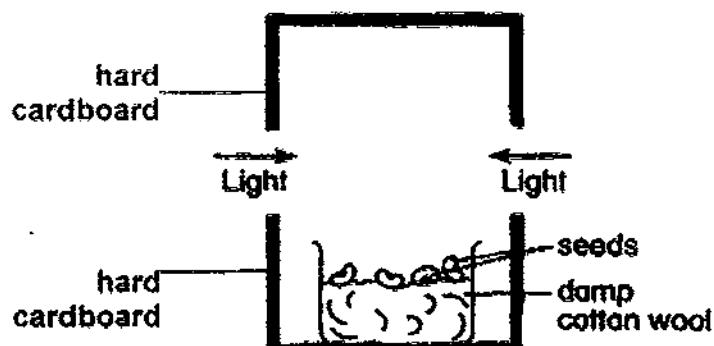
14. Which part of the plant protects the seeds?

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

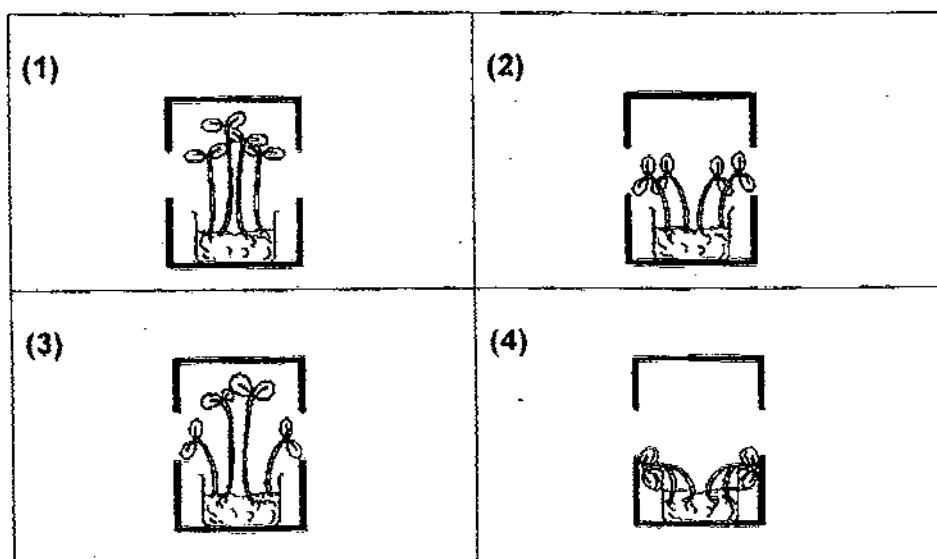
15. Which of the following is/ are the function(s) of part D of the plant?

- | | |
|--|--|
| A It takes in minerals. | B It supports the branches and the flowers only. |
| C It carries water from the roots to other parts of the plant. | D It carries food from other parts of the plant to the leaves. |
-
- | | |
|------------------|-------------------|
| (1) C only | (2) B and C only |
| (3) B and D only | (4) A, B, C and D |

16. Jane set up the following apparatus to conduct an experiment.



Which one of the following diagrams correctly shows the appearance of the seedlings after one week?



17. The table below shows some objects classified under three different groups: X, Y and Z.

group X	group Y	group Z
shirt	book	nail
handkerchief	newspaper	window grill

The objects in each group are classified according to _____

- (1) how heavy they are
- (2) what they are made of
- (3) what they are used for
- (4) whether they absorb water

18. The diagram below shows a pair of glasses with one of its parts marked Z.



Which one of the following shows correctly what part Z is made of and the reason for the material used?

material of Z	reason for material used
glass	It breaks easily.
plastics	It can bend.
glass	It allows light to pass through.
plastics	It absorbs water.

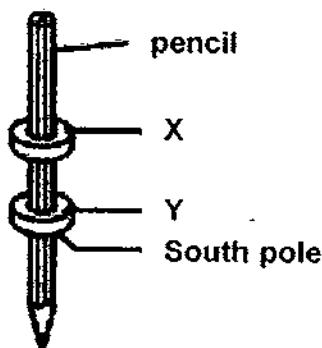
19. Madam Tan wants to buy a foldable chair that she can bring home by herself. The foldable chair needs to have the following properties:

- It must be strong and waterproof.
- It must NOT rust and NOT break easily.
- It must be light enough for her to carry.

What kind of material should Madam Tan's chair be made of?

- | | |
|----------|--------------|
| (1) iron | (2) glass |
| (3) wood | (4) plastics |

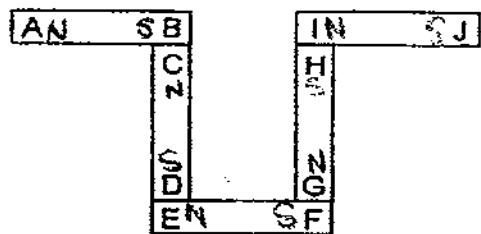
20. Chloe placed two ring magnets, with each of their poles marked X and Y, through a pencil as shown in the diagram below.



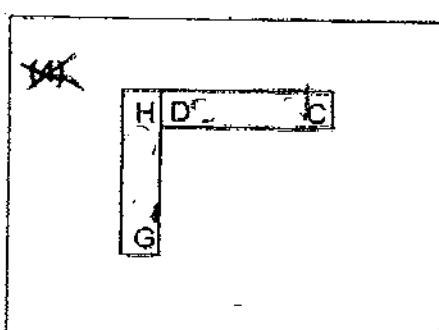
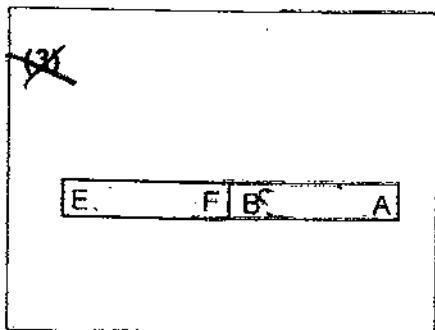
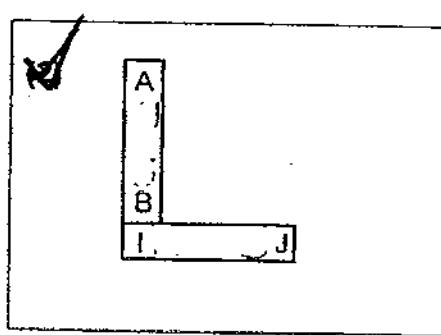
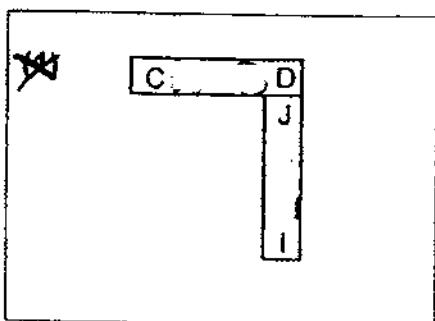
Which one of the following identifies the poles of X and Y correctly?

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

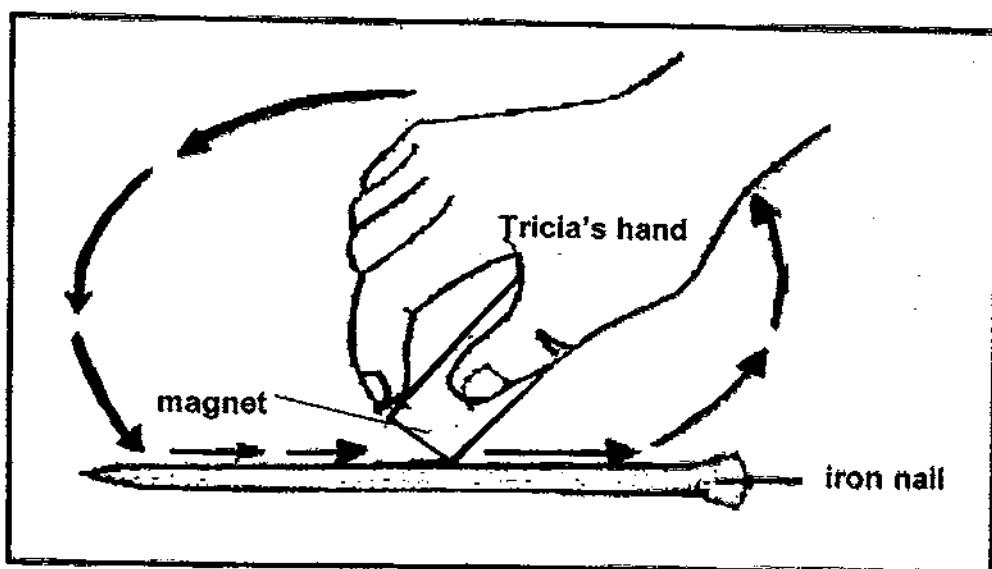
21. Bernice labeled the poles of five bar magnets A to J and arranged them as shown below.



Which one of the following diagrams shows a possible arrangement of two of these magnets?



22. Tricia stroked an iron nail with a bar magnet as shown in the diagram below.



Then she used the iron nail to attract some pins. She repeated the experiment four times, each time increasing 10 strokes in the same direction. She recorded her results in the table as shown below.

number of strokes	number of pins attracted
15	0
25	1
35	1
45	3
55	5

Which of the following actions should Tricia do to increase the number of pins attracted to the iron nail?

- A Hit the iron nail with a hammer.

B Bring the iron nail further away from the pins.

C Increase the number of strokes in the same direction.

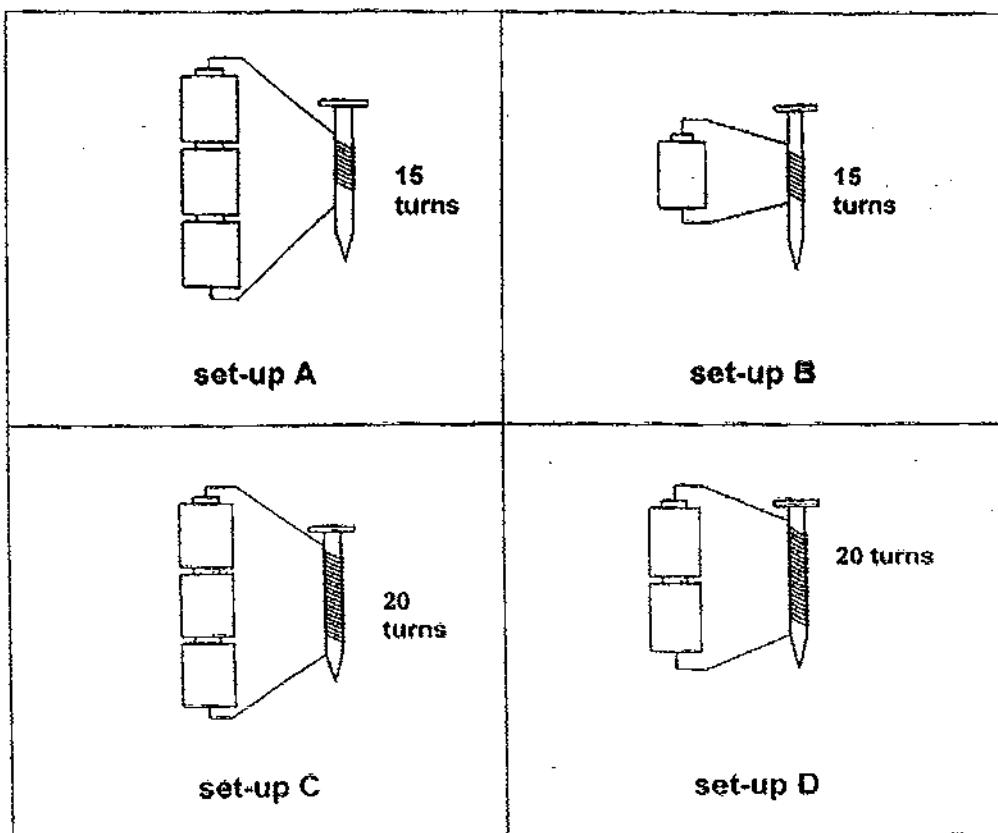
D Change the direction in which the iron nail was stroked.

(1) B only (2) C only

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

23. Genna prepared four set-ups, A, B, C and D, to find out whether the number of coils around an iron affects its magnetic strength.

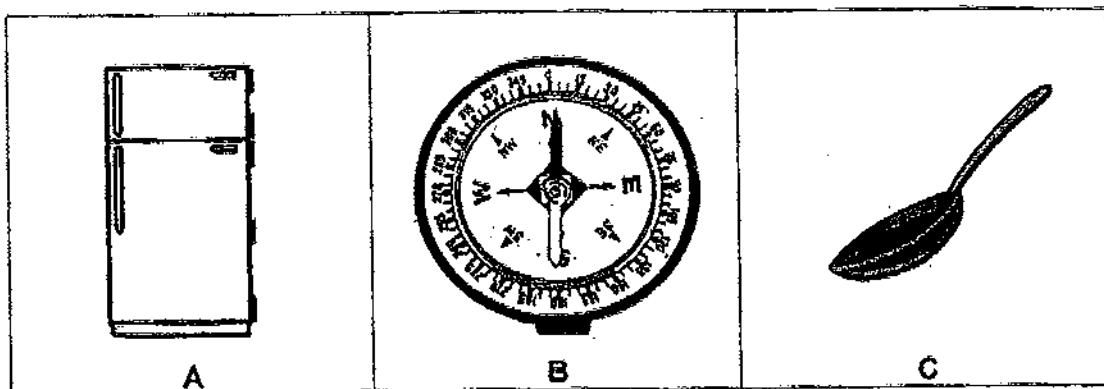
(Note: All the batteries, wires and iron nails used were the same.)



Which two of these set-ups shown above should Genna use to conduct a fair test?

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

24. Ali was given the following items: A, B and C.



Which of these items make use of magnets?

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

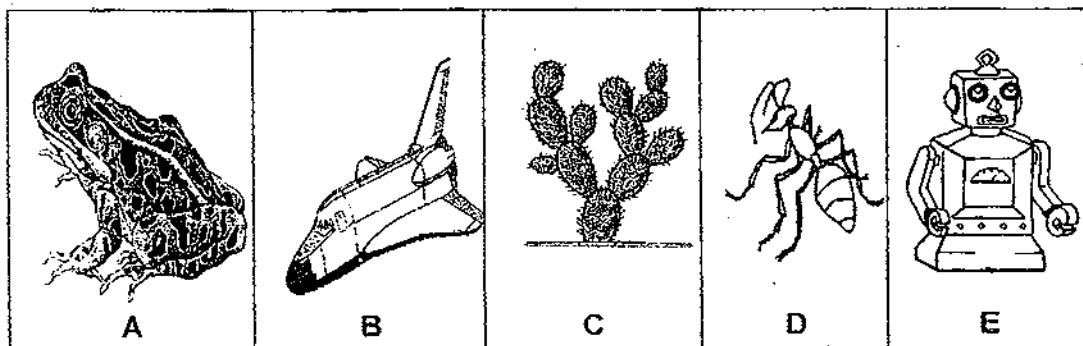
SECTION B (32 marks)

For questions 25 to 37, write your answers clearly in the spaces provided.

The number of marks available is shown in brackets [] at the end of each question or part question.

25. (a) Classify the things (NOT drawn to scale) given in the box below into two groups.

Write letters B, C, ~~D~~^E and ~~D~~^E only. Letter A has been written for you.
Give each group a suitable sub-heading. [3]

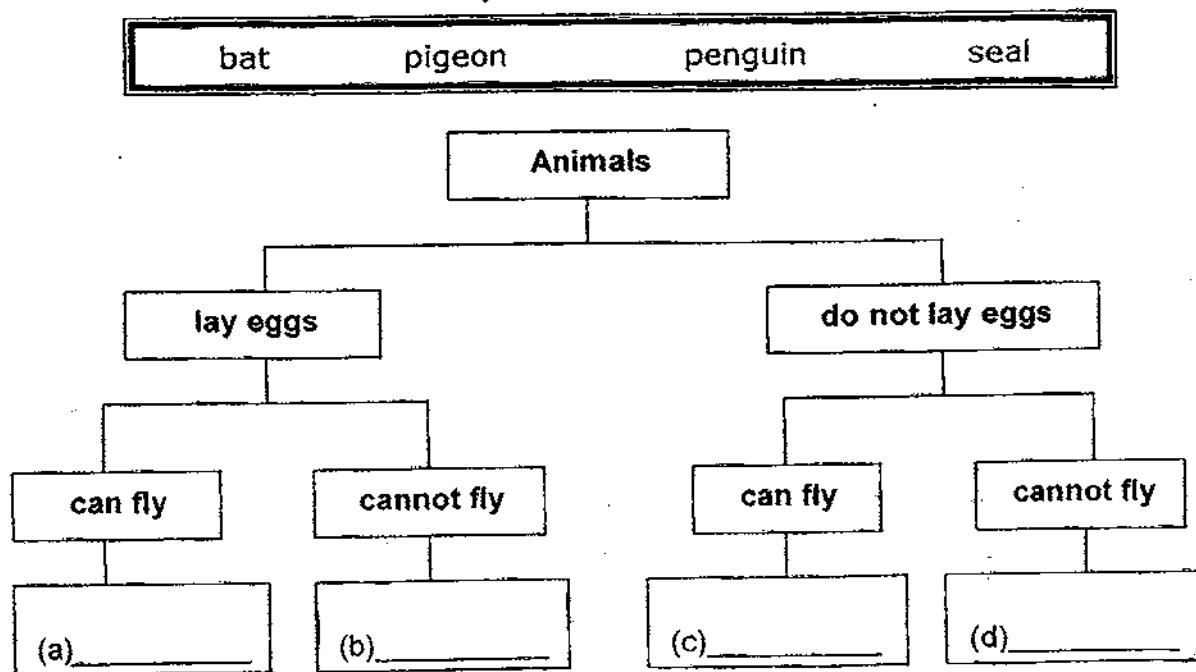


_____	_____
A	

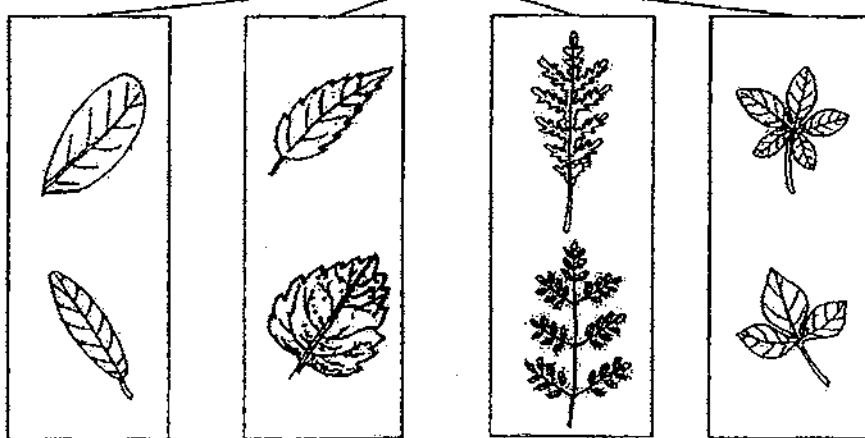
- (b) Name three basic needs of those things grouped with A. [1]

- (c) Is there a need for D to move about? Explain your answer. [1]

26. The classification table below shows how some animals are grouped.
Complete the classification table with words given in the box below.
Use each word ONCE only. [2]



27. The diagrams below show how 8 different types of leaves are grouped according to their physical characteristics.



A

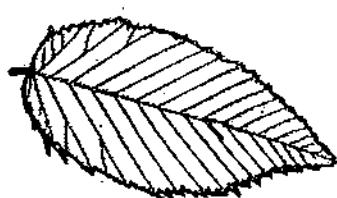
B

C

D

Based on your observations of these leaves, answer the following questions:

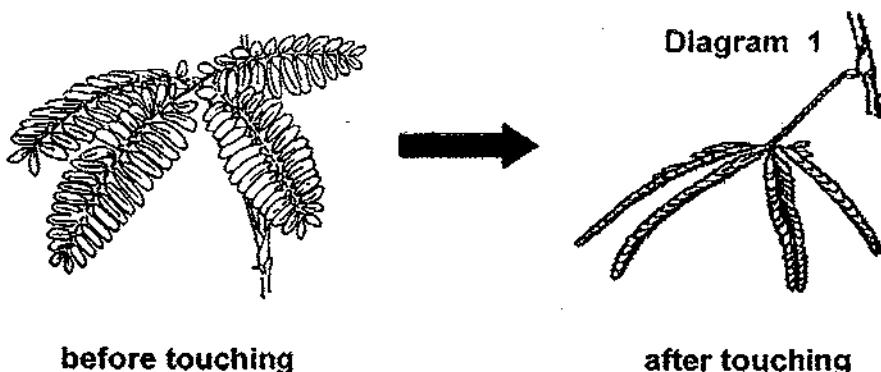
- (a) In which one of these groups, A, B, C or D, does the leaf below belong to? [1]



Group _____

- (b) State **ONE** function of leaves. [1]

28. When Richard touched the mimosa plant, it closed its leaves as shown in Diagram 1 below.



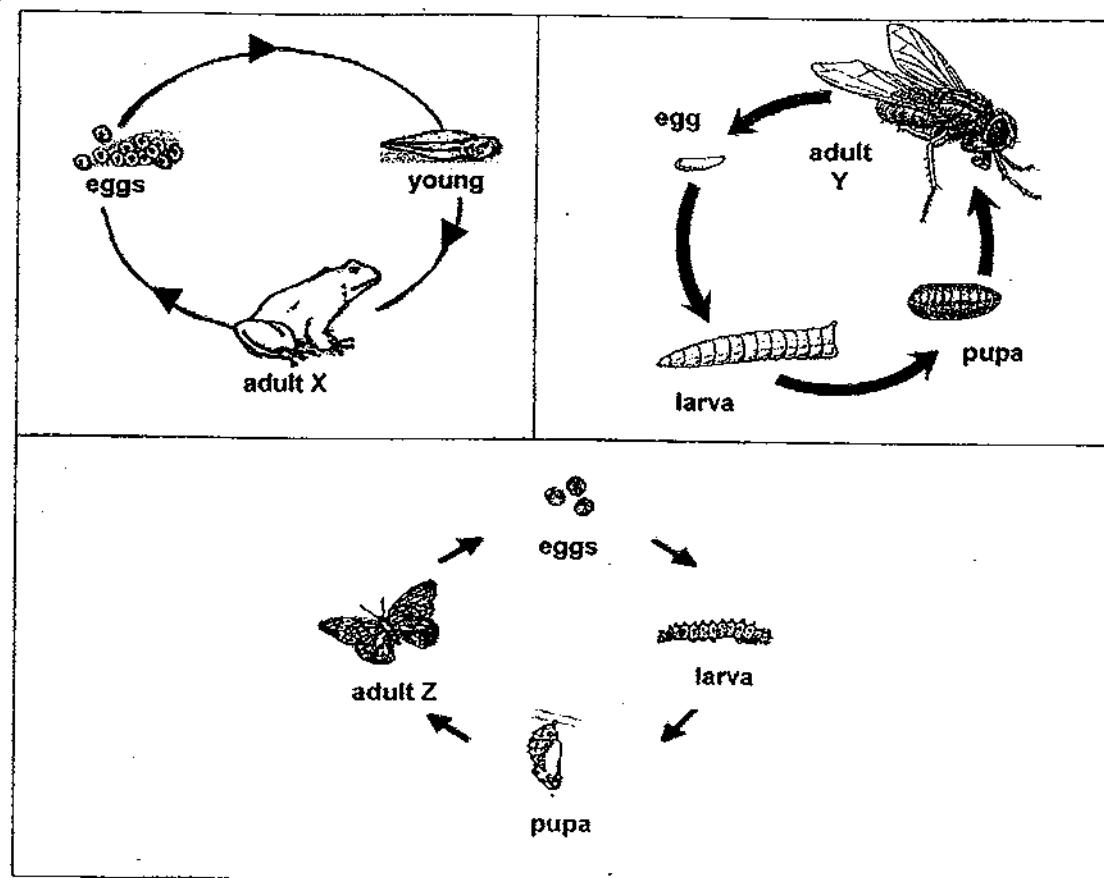
- (a) State ONE characteristic of living things based on Richard's observation of the mimosa plant. [1]

- (b) Richard covered the mimosa plant with a black box. Sufficient water was given to the plant every day.

What would happen to the plant after a week?

Explain your answer. [2]

29. The diagrams below show the life cycles of three animals X, Y and Z.



Based on the information above, answer the following questions:

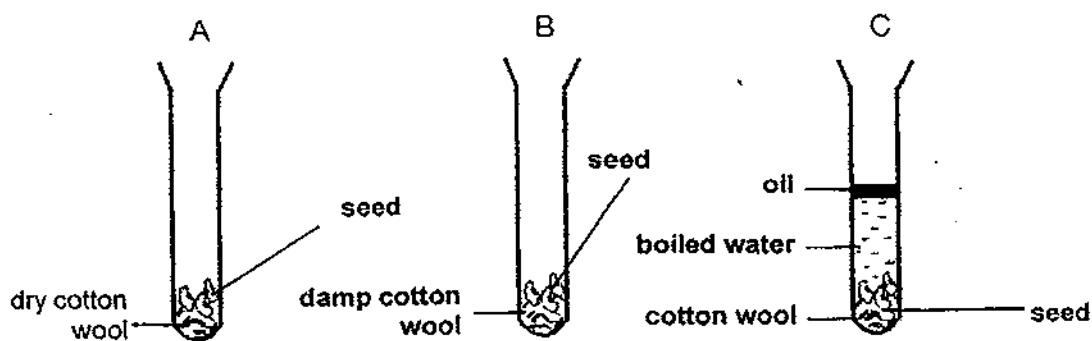
- (a) State **TWO** differences between the life cycles of animals X and Y. [2]

1st DIFFERENCE	
2nd DIFFERENCE	

- (b) Give **ONE** similarity between the life cycles of animals Y and Z. [1]

- (c) Which of these animals, X, Y and/ or Z, is/ are insect(s)?
Give a reason for your answer. (Do NOT mention number of legs.) [1]

30. Harry placed an equal number of seeds in three identical test tubes. Each test tube of seeds was placed under a different set of conditions as shown below.



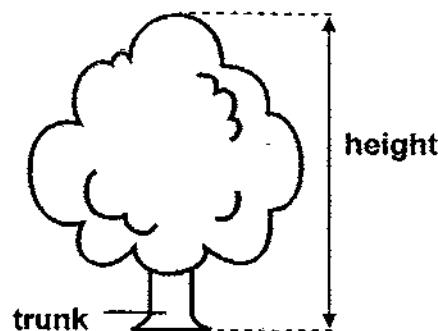
Based on the information above, answer the following questions:

In which of these set-ups, A, B and/ or C, would the seeds NOT be able to germinate?

Explain your answer(s).

[2]

31. Judy measured and recorded the height of a tree as shown below:



Judy has 5 such trees in her garden. She measured and recorded each of their heights according to their age as shown in the table below:

tree	A	B	C	D	E
age (years)	1	2	3	4	5
height (cm)	100	115	200	220	300

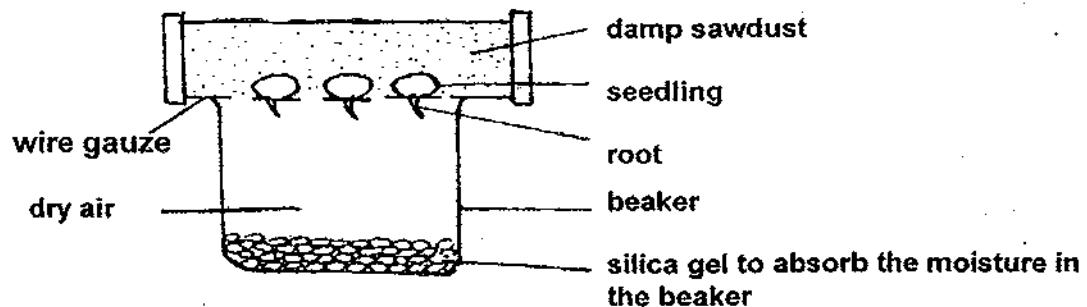
Based on the information above, answer the following questions:

- (a) What can Judy conclude about the height of the trees as they grow older? [1]

- (b) Judy noticed that there was a layer of thick covering known as the bark on each of the tree trunks.

What is the function of the bark? [1]

32. Some seedlings were grown in the set-up as shown below.

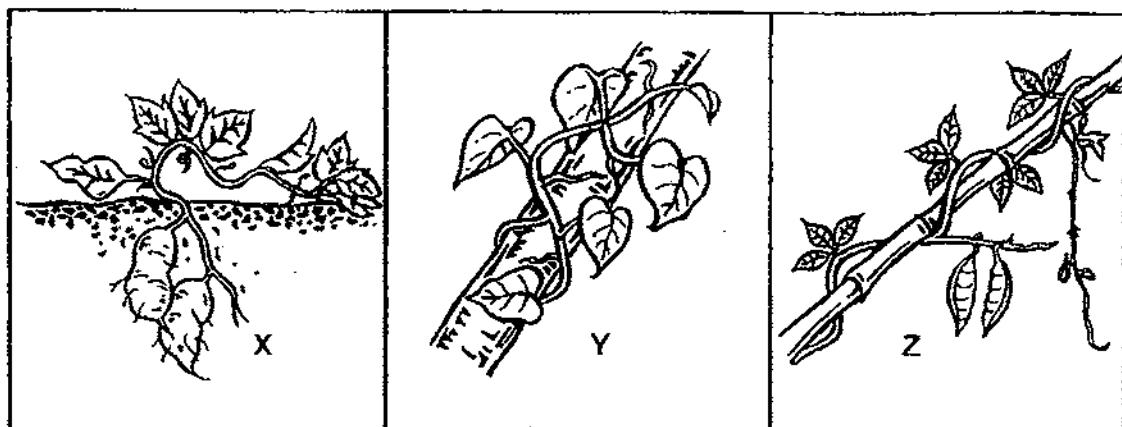


Based on the information above, answer the following questions:

What would be observed of the roots after a few days?

Give a reason for your answer. [2]

33. The diagrams below show how some plants grow.

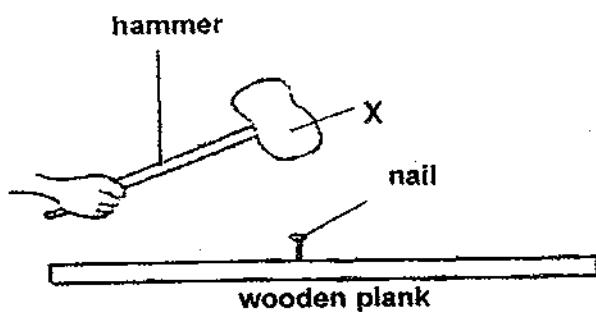


Based on the diagrams above, answer the following questions:

- (a) Give a reason why these plants **CANNOT** stand upright. [1]

- (b) Which **TWO** of these plants can possibly grow on a fence? [1]

34. A carpenter uses a hammer to hit a nail into a piece of wooden plank.

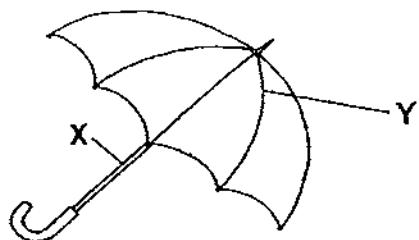


Name a suitable material used to make part X of the hammer.

Give a reason for your choice of material.

[1]

35. Mark has an umbrella with its different parts labelled X and Y as shown in the diagram below.

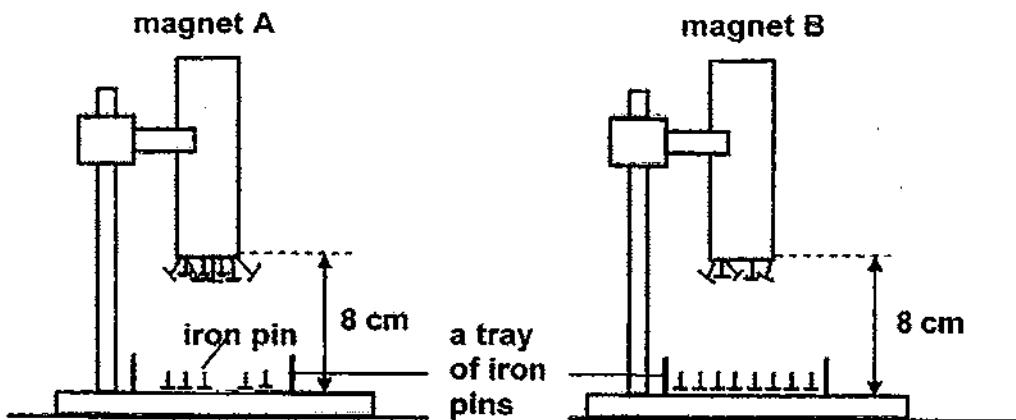


Answer the following questions to complete the table below.

- (a) Suggest suitable material(s) to make parts X and Y. [1]
- (b) Give a reason for each material selected. [2]

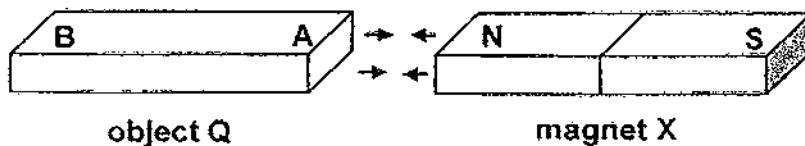
part	material	reason for material used
X		
Y		

36. Two magnets, A and B, of the same size, were used in the following experimental set-ups. Each of the two trays placed below the magnets contained the same number of iron pins at the start of the experiment.



- (a) Based on the experimental set-ups above, compare magnets A and B in terms of their magnetic strength. [1]
-

In the experiment below, part A of object Q was attracted to the N-pole of magnet X.

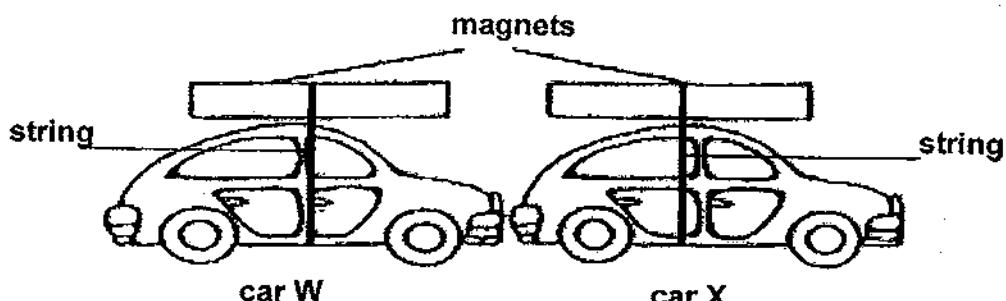


- (b) Based on the information above, which of the following statement(s) is / are 'true', 'false' or 'not possible to tell'?

Put a tick (✓) in the correct boxes below. [1]

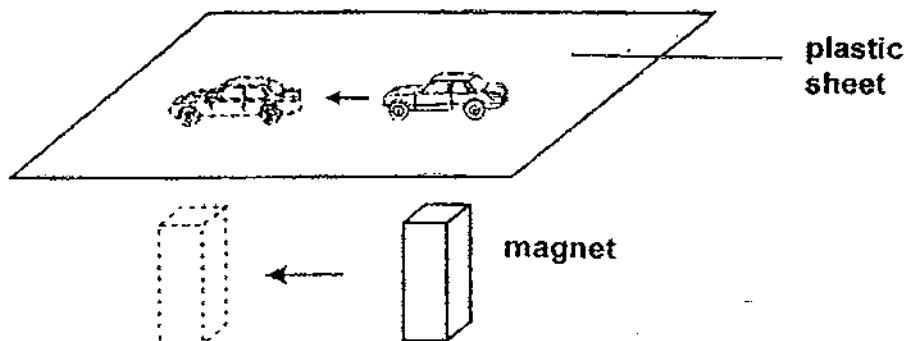
	statement	true	false	not possible to tell
(i)	Object Q is a magnet.			
(ii)	The South pole of the magnet X would attract part B of object Q.			

37. Two identical magnets were each tied to a toy car, W and X, with a string as shown in the diagram below.



- (a) When car W was brought close to car X, car W moved away from car X.
Explain why this happened. [1]

Shannon placed a steel toy car on a plastic sheet and held a magnet under the sheet. When she moved the magnet to the left, she observed that the toy car moved in the same direction, as shown in the diagram below.



Next, Shannon replaced the plastic sheet with a new sheet made of material K. When she moved the magnet under the sheet made of material K to the left, she observed that the toy car did NOT move.

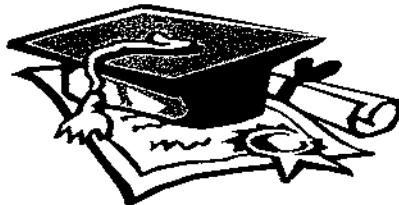
- (b) Based on the information above, suggest what material K could be.

Explain your answer based on Shannon's observation. [1]

- END OF PAPER -

Setters: Mrs Elaine Lim, Ms Chong V, Mr Darren Lau



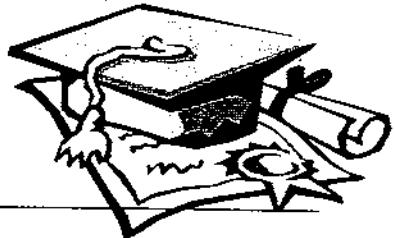


ANSWER SHEET

EXAM PAPER 2009

**SCHOOL : RAFFLES GIRLS' PRIMARY
SUBJECT : PRIMARY 3 SCIENCE**

TERM : SA2



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

Q18	Q19	Q20	Q21	Q22	Q23	Q24
3	4	3	2	2	1	1

25)a) Living Things

Non-living Things

A
C
D

B
F

b) They need air, food and water.

c) Yes. D moves about to find food to eat.

26) a)pigeon b)penguin c)bat

27) a) B.

b) Leaves make food for the plant.

28)a) Living things respond to changes around them

b) The plant will die. The plant does not have sunlight so the leaves cannot make food. Without food, the plant will die.

29)a)1st : Animal X's life cycle has three stages while Animal Y's life cycle has four stages.

2nd: Animal Y's life cycle has a larva stage while Animal X's life cycle does not.

b) Both life cycle has four stages.

c) Animals Z and Y. Both have three body parts.

30) Set-ups A and C. Seeds need air, water and warmth to germinate. In set-up A, the seeds does not have water. In set-up C, the seeds does not have air, both set-up A and C cannot germinate.

**31)a)Trees grow taller as they grow older.
b)The bark protects the trunk.**

32)The roots will grow upwards to get water from the damp sawdust.

**33)a)They have a weak stem.
b)plants Y and Z.**

34)Metal. Metal is hard and strong. If part X was made of a soft material, we cannot use the hammer to hit the nail as Part X will have a dent. Therefore, Part X can be made of metal.

35)a)

**b)X: Metal: It is strong and hard.
Y: Flexible: It is waterproof.**

**36)a)Magnet A is stronger than Magnet B.
b)i)Not ii)T**

37)a)Like poles repel. The like poles of car W and X were facing each other so they repelled.

b)Material K could be iron. Magnetism can pass through non-magnetic materials like paper but magnetism cannot pass through magnetic material such as iron.



RAFFLES GIRLS' PRIMARY SCHOOL

SEMESTRAL ASSESSMENT 2 2010

Name: _____ Index No: _____ Class: P3 _____

28th Oct 2010 SCIENCE Att: 1 h 15 min

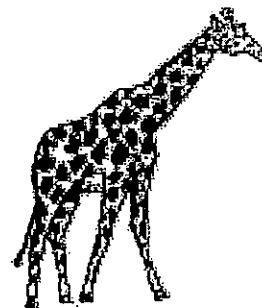
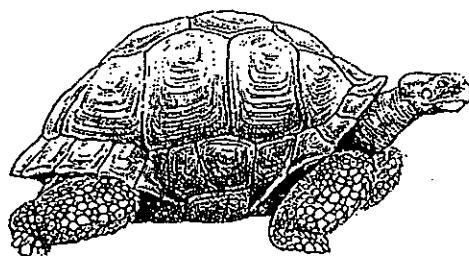
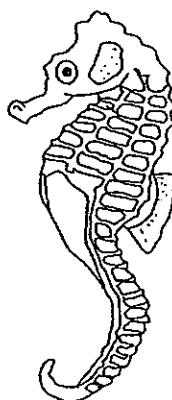
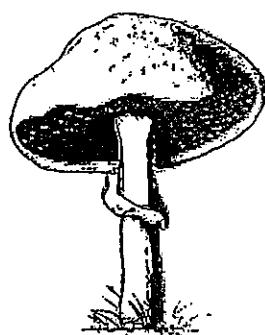
SECTION A (24 x 2 marks)

For each question from 1 to 24, four options are given.

One of them is the correct answer. Make your choice (1, 2, 3 or 4).

Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet (OAS) provided.

1. The pictures below show some examples of living things.



These living things need _____ to survive.

A air

B food

C water

D sunlight

(1) A, B and C only

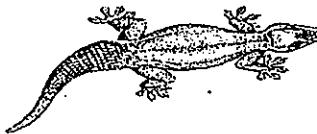
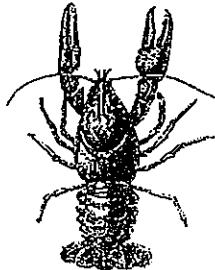
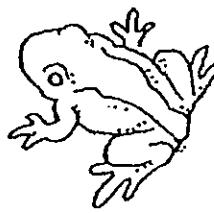
(3) A, C and D only

(2) A, B and D only

(4) B, C and D only

Section A	48	
Section B	32	
Your score out of 80 marks		
Highest score	Class	Level
Average score		
Parent's signature		

The living things as shown below are grouped as follows:

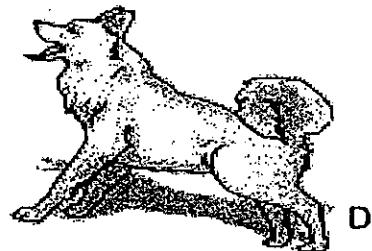
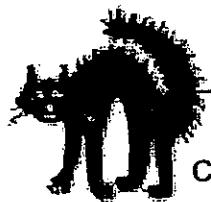
living things	
group A	group B
	
	

Based on the pictures above, answer **questions 2 and 3.**

2. These living things are grouped according to _____.
- (1) their body coverings
 - (2) the number of legs which they have
 - (3) the place where they live: on land or in water
 - (4) whether they respond to changes around them
3. Which one of the following can possibly be suitable sub-headings for the living things in groups A and B?

	group A	group B
(1)	with fins	without fins
(2)	with a tail	without a tail
(3)	without feelers	with feelers
(4)	have wings	have no wings

4. Donna went for a walk at a park and saw two different types of animals, C and D.

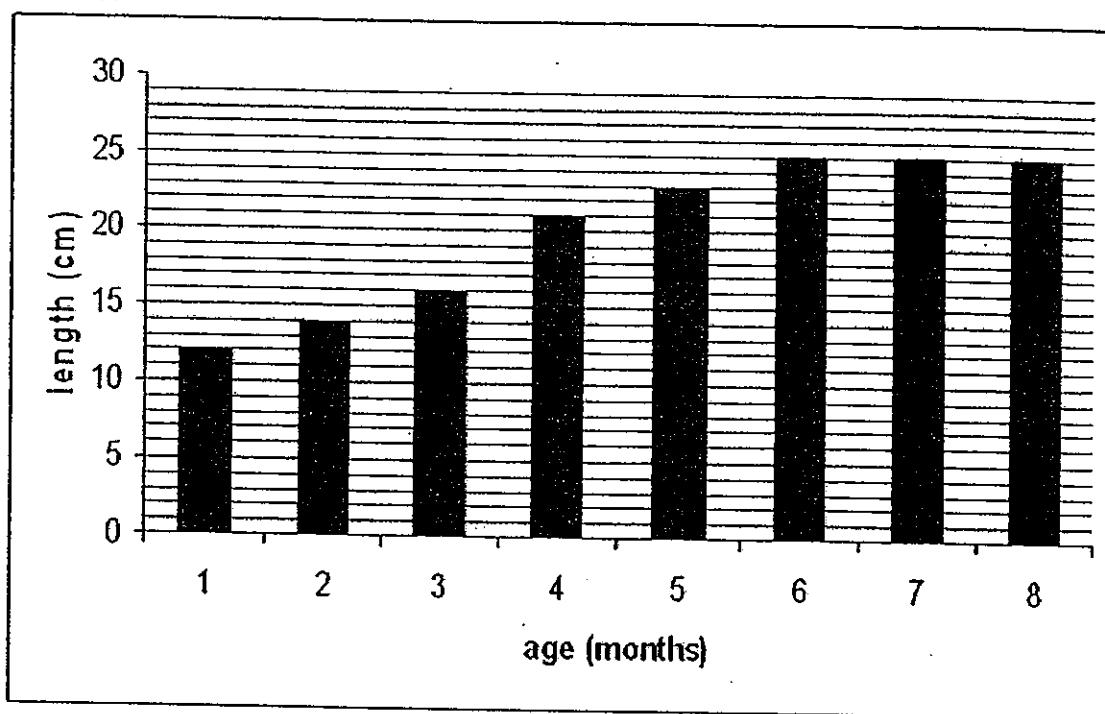


When animal C saw animal D, it got a fright and ran away.

Which one of the following characteristics does animal C show?

- (1) It grows.
- (2) It reproduces.
- (3) It needs air, food and water.
- (4) It responds to changes around it.

The graph below shows the growth in length of an animal over a period of 8 months.



Based on the information above, answer **questions 5 and 6**.

Which one of the following group of animals can organism Q possibly belong to?

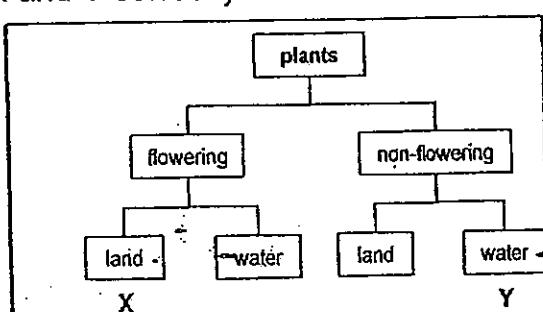
8. The table below gives the information on two plants, X and Y, based on some characteristics.

A tick (✓) in the box shows the characteristics which the plant has.

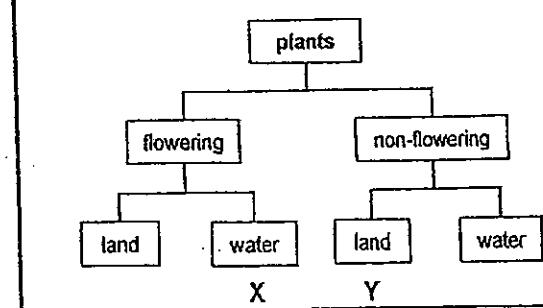
characteristic	plants	
	X	Y
It bears flowers and fruits.	✓	✓
It grows on land.		✓

From the information above, which one of the following diagrams classifies plants X and Y correctly?

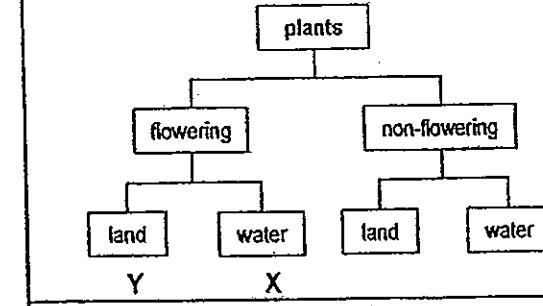
(1)



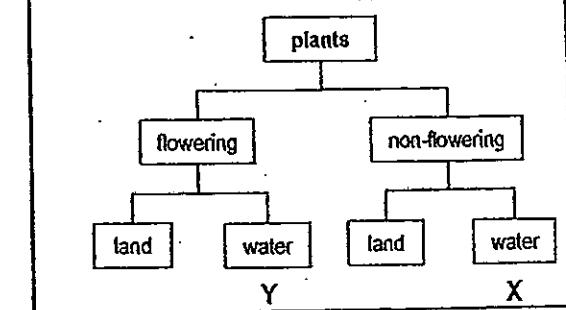
(2)



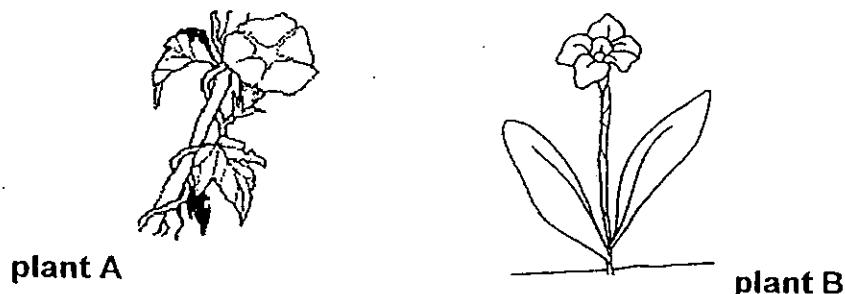
(3)



(4)



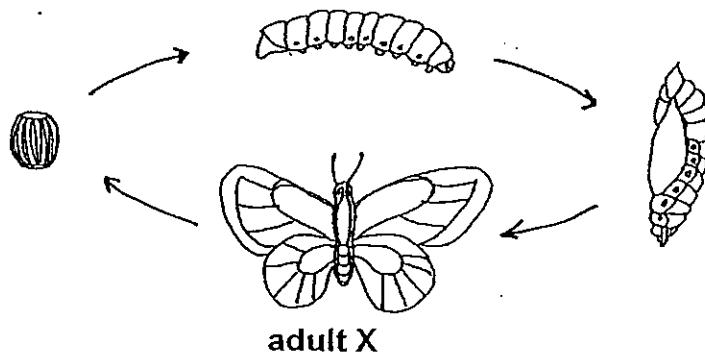
9. The diagrams below show two different types of plants, A and B.



Based on your observations, how are these plants A and B similar?

- (1) Both plants have leaves.
- (2) Both plants have strong stems.
- (3) Both plants have brightly coloured petals.
- (4) Both plants produce flowers with a pleasant smell.

10. The diagram below shows the life cycle of an animal, X.



Based on your observations, which of the following statement(s) about the life cycle of animal X is/ are correct?

- A It develops from an egg.
 - B It has 4 stages in its life cycle.
 - C The young resembles the adult.
-
- (1) A only
 - (2) C only
 - (3) A and B only
 - (4) B and C only

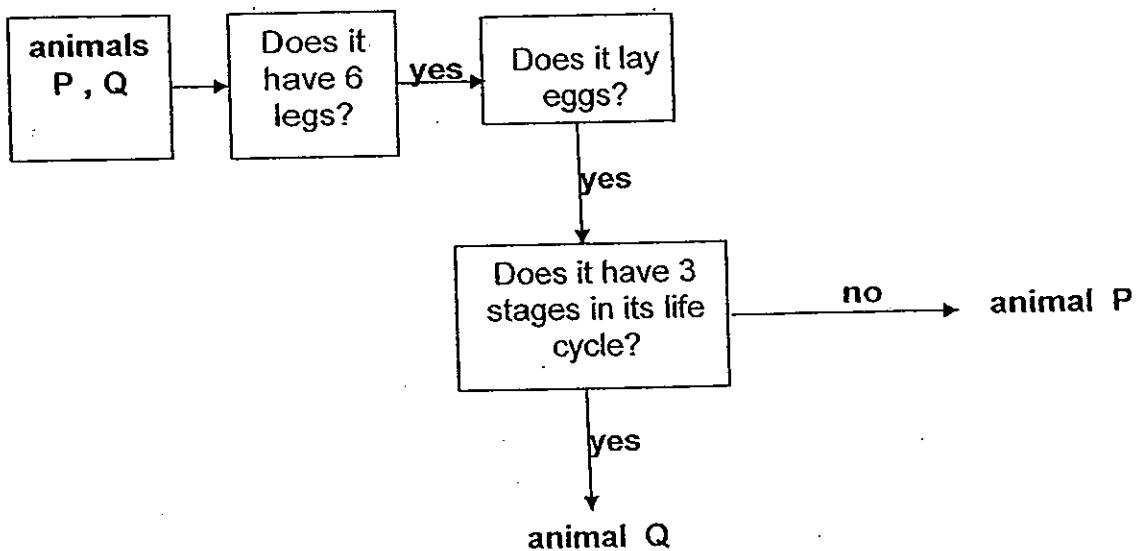
11. The following describes the life cycle of an animal.

- It has 4 stages in its life cycle.
 - The female adult lays its eggs in water.
 - It has wings only at the adult stage.

Which one of the following animals has similar descriptions of the life cycle and characteristics of the animal mentioned above?

- | | |
|---------------|---------------------|
| (1) cockroach | (2) goldfish |
| (3) mosquito | (4) beetle mealworm |

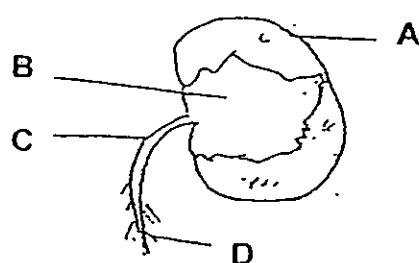
12. The flow chart below shows how animals P and Q are differentiated.



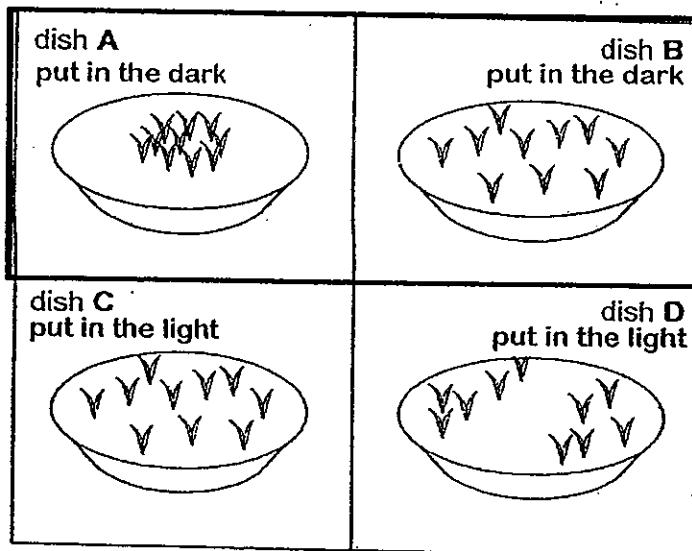
Based on the information above, which one of the following identifies animals P and Q correctly?

	Q	P
(1)	beetle	ladybird
(2)	chicken	beetle
(3)	mosquito	chicken
(4)	dragonfly	mosquito

The diagram below shows a germinating seed.

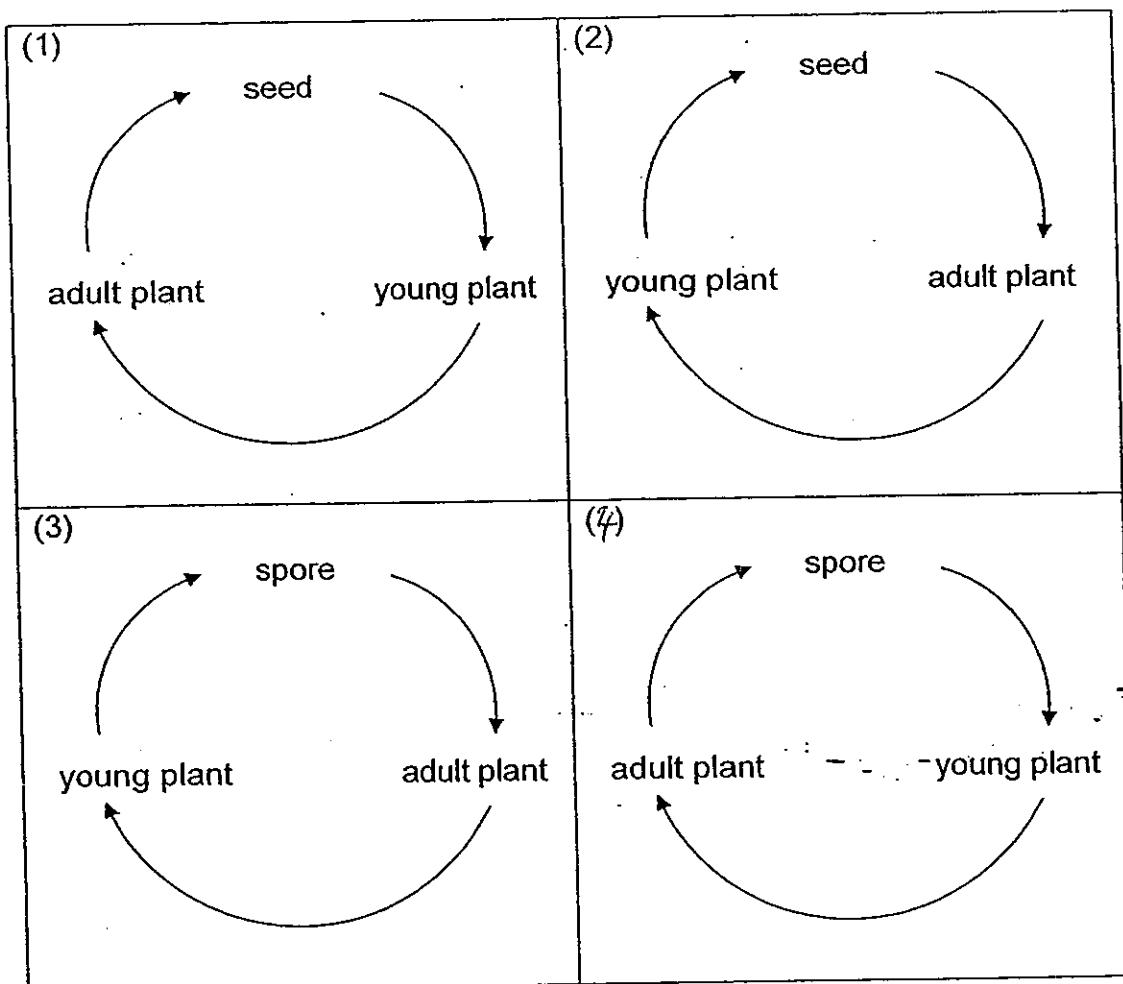


Based on the diagram above, answer questions 13 and 14.



Which of these dishes should Nicole use to ensure a fair test?

16. Which one of the following diagrams shows the life cycle of a flowering plant?



17. Megan compared the hardness of three materials, A, B and C, by scratching each one of them with a different ruler, **ONE** at a time.

She recorded her observations in the table below.

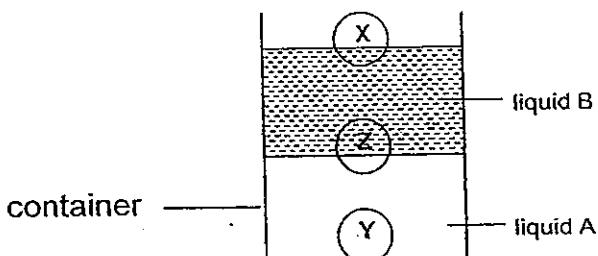
A tick (✓) in the box shows that the material was scratched.

material	Did the plastic ruler scratch the material?	Did the metal ruler scratch the material?
A		✓
B		
C	✓	✓

Which one of the following shows the correct arrangement of these materials according to their hardness?

	→ hardest		
(1)	A	B	C
(2)	B	C	A
(3)	C	A	B
(4)	C	B	A

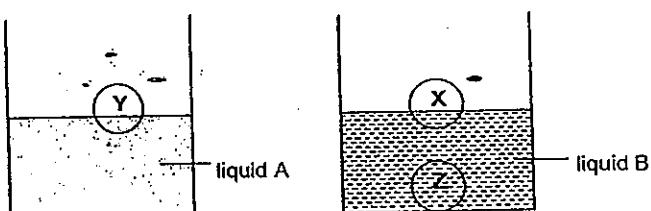
18. Three balls of the same size, each made of a different material, X, Y and Z, were placed in a container filled with liquids A and B. Liquid B floated on liquid A. The balls stayed at the positions as shown below.



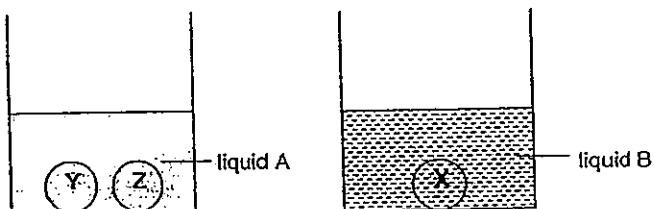
Steve separated liquid A and liquid B into two containers. Then he put in the same balls.

Which one of the following diagrams shows the correct positions of the balls?

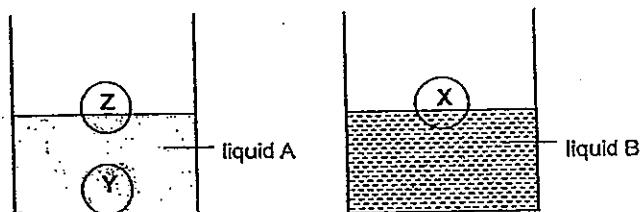
(1)



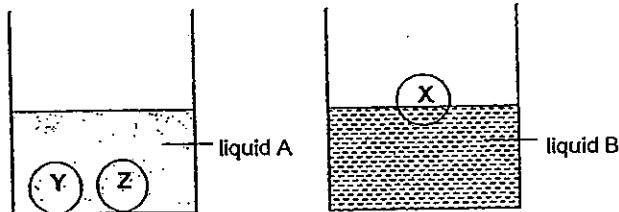
(2)



(3)



(4)



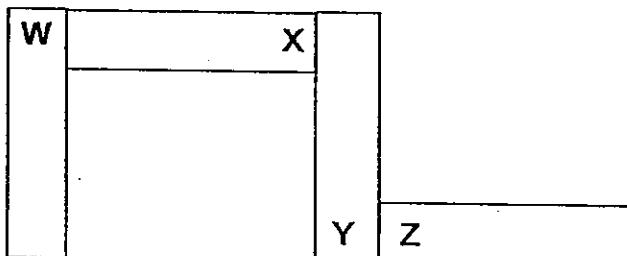
19. Tammy had a mixture of four different types of substances, W, X, Y and Z, in a container.

The properties of the four substances are given in the table below

substance	colour	Can it float?	Is it a magnetic material?
W	blue	yes	no
X	blue	no	no
Y	blue	no	yes
Z	blue	no	yes

Which of these substances could Tammy obtain from the mixture?

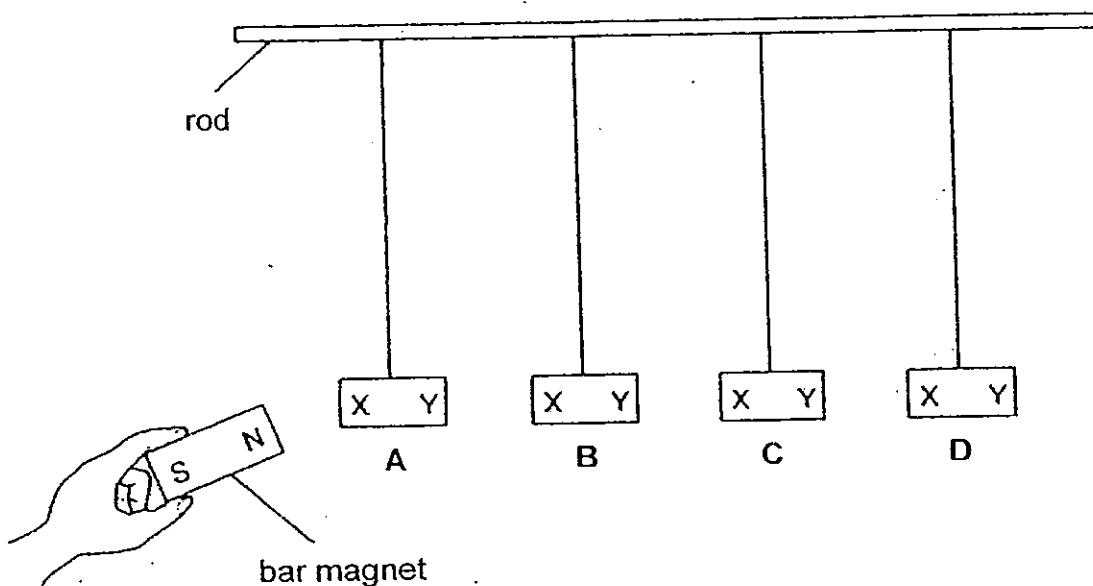
20. The diagram below shows the arrangement of four bars of magnets, each with a pole labelled as W, X, Y or Z.



Which one of the following shows poles W, X, Y and Z correctly?

- | | W | X | Y | Z |
|-----|-------|-------|-------|-------|
| (1) | South | South | North | South |
| (2) | North | South | South | North |
| (3) | South | North | South | North |
| (4) | North | North | North | South |

21. Andrew hung 4 metal bars of the same size from a horizontal rod as shown below.



He brought the N-pole of a bar magnet near X and then Y of each metal bar.

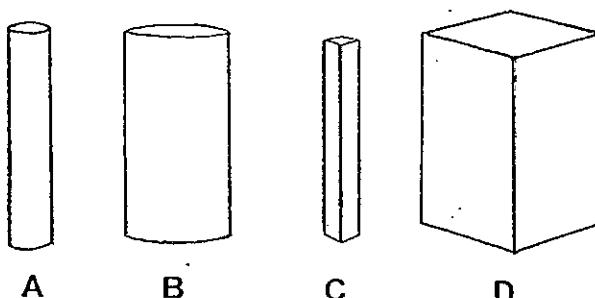
Andrew recorded his observations in the following table:

bar	observations	
	N-pole of magnet and X	N-pole of magnet and Y
A	repelled	attracted
B	attracted	attracted
C	no reaction	no reaction
D	repelled	attracted

Which one of the following statements is correct?

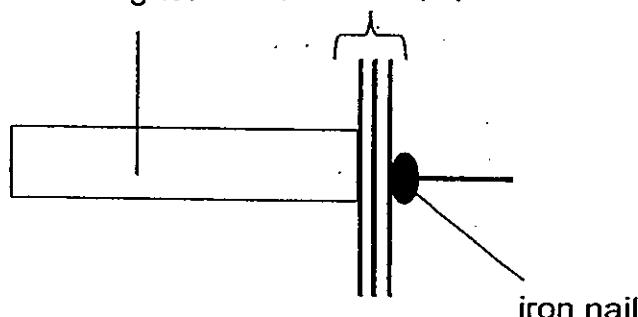
- (1) Only B was a magnet.
- (2) Only C was a magnet.
- (3) All the bars were magnets.
- (4) Both A and D were magnets.

22. Ravi had four magnets, A, B, C and D, as shown below.



He wanted to find out which magnet was the strongest.
He put pieces of paper, **ONE** at a time, between each magnet and an iron nail
as shown in the diagram below.

magnet pieces of paper



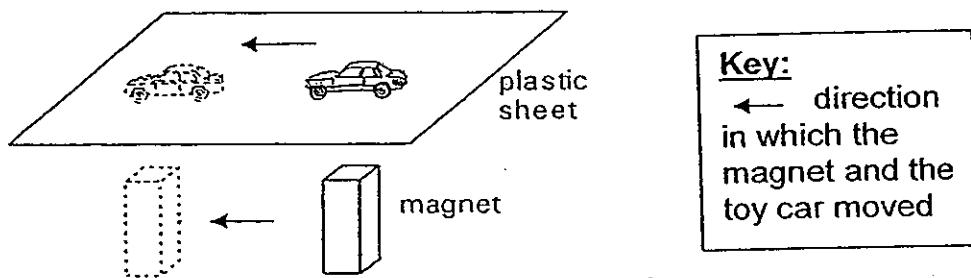
The table below shows how many pieces of paper Ravi put between each magnet and the iron nail just before the nail dropped off.

magnet	number of pieces of paper
A	19
B	5
C	10
D	8

Which one of the following could Ravi possibly conclude?

- (1) Magnet A is the strongest magnet.
- (2) Magnet A is as strong as magnet D.
- (3) Magnet B is stronger than magnet C.
- (4) Magnet D is stronger than magnet C.

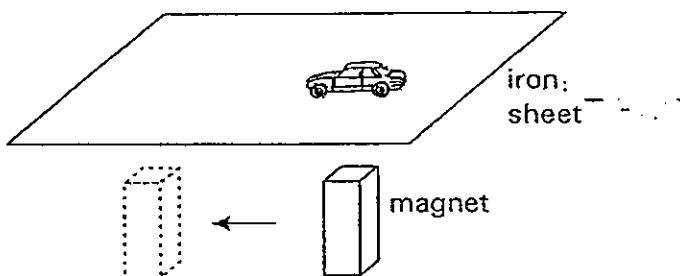
23. Nurul placed a metal toy car on a plastic sheet and held a magnet under the sheet as shown in the diagram below.



Key:
← direction
in which the
magnet and the
toy car moved

She noticed that when the magnet moved, the toy car would move in the same direction.

Next, Nurul replaced the plastic sheet with an iron sheet. When she moved the magnet, the toy car did not move.



What was Nurul trying to find out?

She was trying to find out if _____.

- (1) the toy car was magnetic
- (2) the magnet repelled the plastic sheet
- (3) magnetic force could pass through the iron sheet
- (4) the iron sheet attracted the magnet and the toy car

24. Which of the following objects make use of magnets?

- A stapler
 - B compass
 - C television
 - D mobile phone
-
- (1) A and B only
 - (2) C and D only
 - (3) B, C and D only
 - (4) A, B, C and D

Name : _____

Index No: _____ Class: Primary 3 _____ Marks

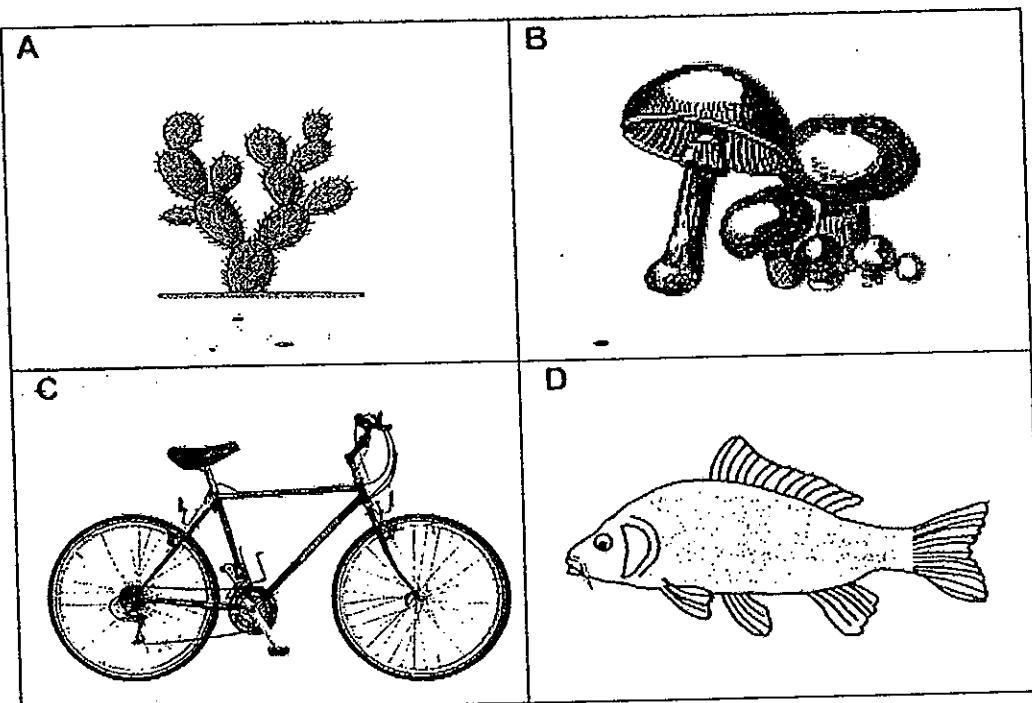
32

SECTION B (32 marks)

For questions 25 to 37, write your answers clearly in the spaces provided.

The number of marks available is shown in the brackets [] at the end of each question or part question.

25. The pictures below show different types of things.



To be continued on the next page

Based on the pictures on page 17, answer the following questions:

- (a) Compare A and D.

State one common characteristic between A and D.

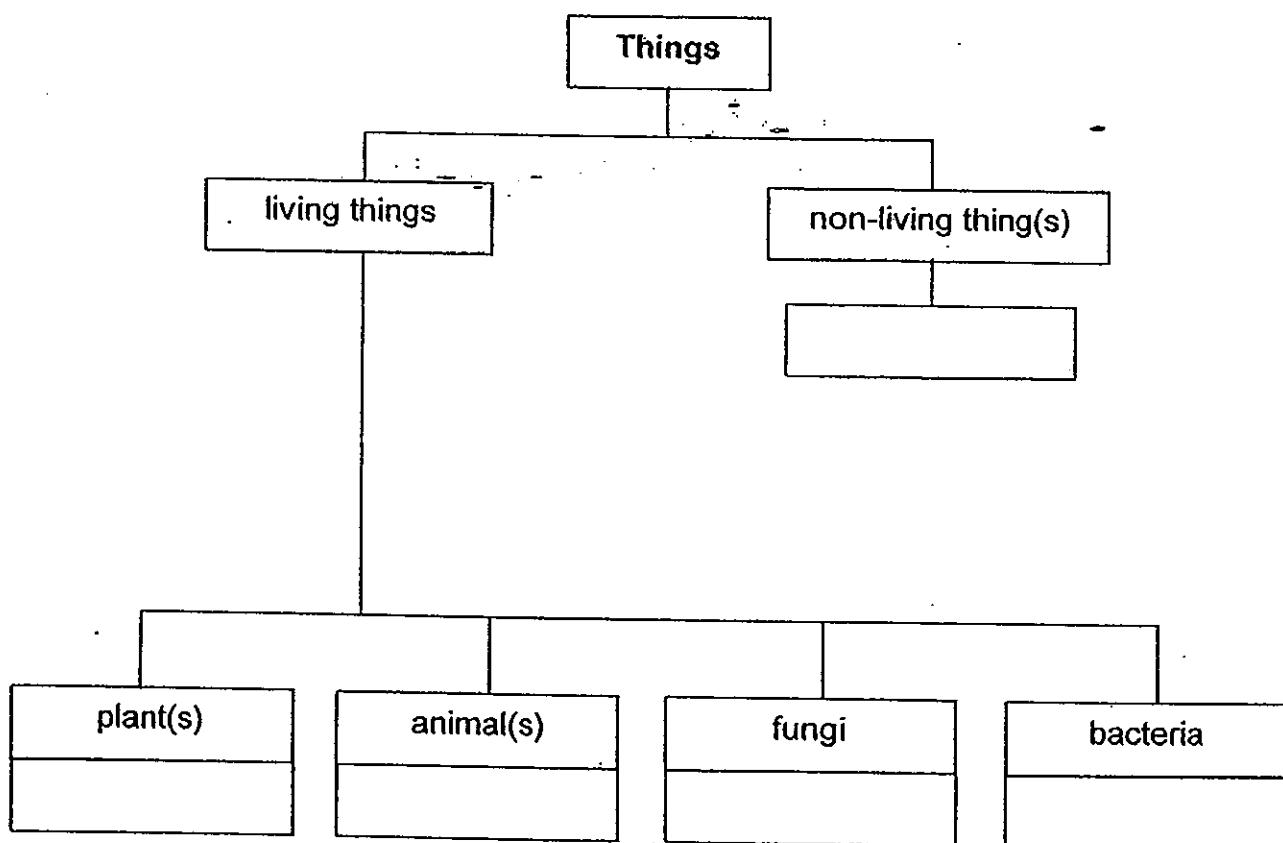
[1]

- (b) Complete the following diagram.

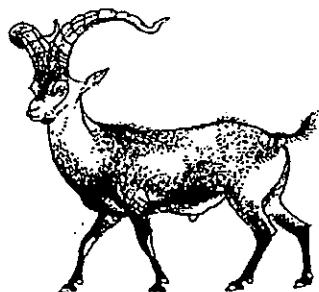
Write letters A, B, C and D ONCE only in the appropriate box(es) below.

You need **NOT** fill in all the boxes.

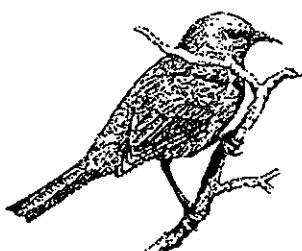
[2]



26. Two different animals, S and T, are shown below.



animal S



animal T

Based on your observations, answer the questions below:

Compare these animals, S and T.

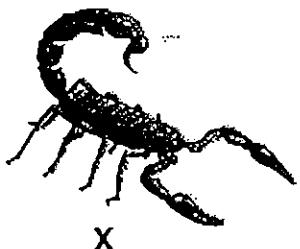
Write each of the following:

(Do NOT compare size and colour.)

[2]

ONE SIMILARITY	
ONE DIFFERENCE	

27. The diagram below shows three different types of animals, X, Y and Z.



X



Y



Z

Based on your observations, answer the following questions:

Which one of these animals, X, Y or Z, is NOT an insect?

Give a reason for your answer.

[2]

animal	reason

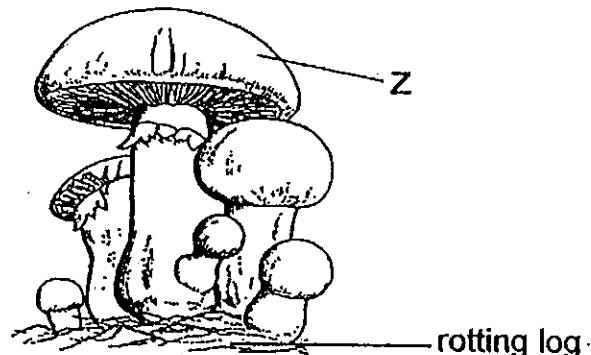
28. Observations of some organisms are tabulated as shown below. A tick (✓) in each box shows the characteristic that each organism has.

observation	organism		
	W	X	Y
It lives on land.	✓	✓	✓
It has feathers.			✓
It has hair on its body.		✓	
It gives birth to its young.		✓	

Based on the information above, name the group of animals which each of the following belongs to: [2]

X	
Y	

29. The diagram below shows a group of living things of the same species.

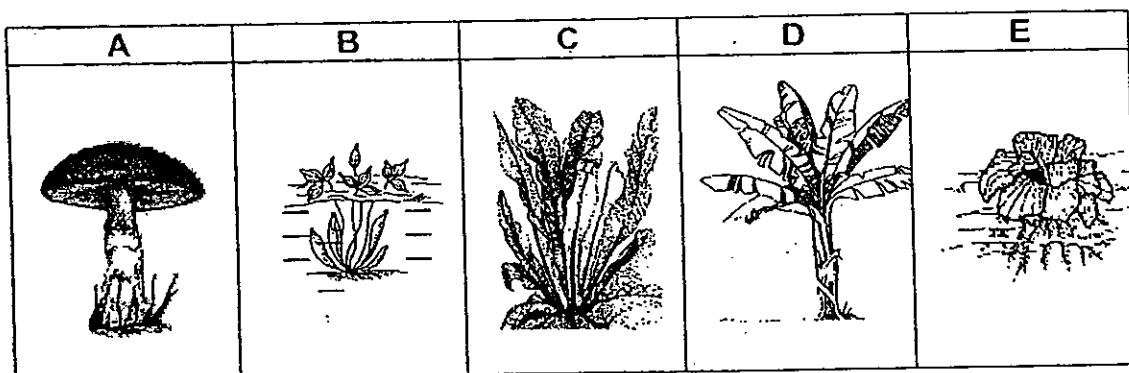


Based on the diagram above, answer the following questions:

- (a) How does Z reproduce? [1]

- (b) How does Z get its food? [1]

30. The diagrams below show organisms A, B, C, D and E.

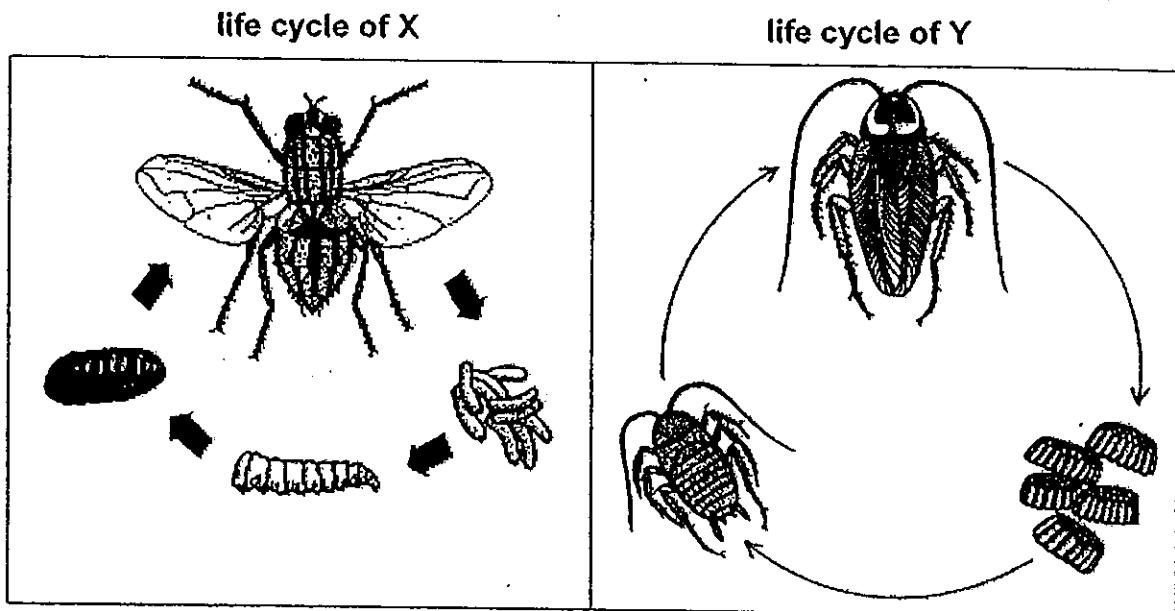


Classify these organisms into two different groups.

- (a) Write letters B, C, D and E in the appropriate boxes below.
Letter A has been written down for you. [1]
- (b) Write down a suitable sub-heading for each group of organisms. [2]

organisms	
Group 1 : <hr/>	Group 2 : <hr/>
	A

31. The diagram below shows the life cycles of two different organisms, X and Y.



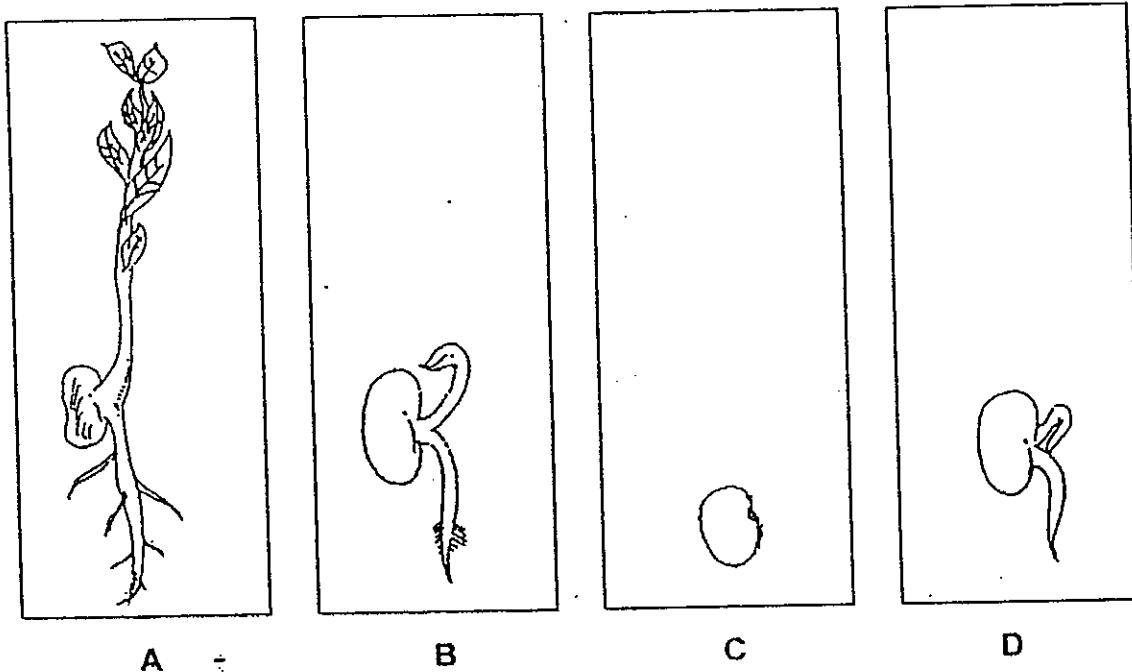
Based on the diagrams above, answer the following questions:

- (a) How many stages are there in the life cycle of X? [1]

- (b) Name the stage in which organism X moults several times. [1]

- (c) Name one similarity between the young and adult of organism Y. [1]

32. The diagrams below show the different stages in the growth of a germinated seed.



- (a) Arrange the stages in the growth of a germinated seed in the correct order.
Write the letters A, B, C and D in the appropriate boxes below. [1]

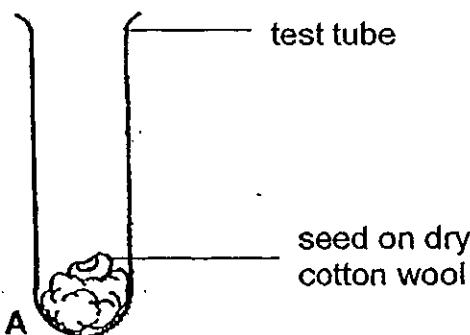
1st stage

--	--	--	--

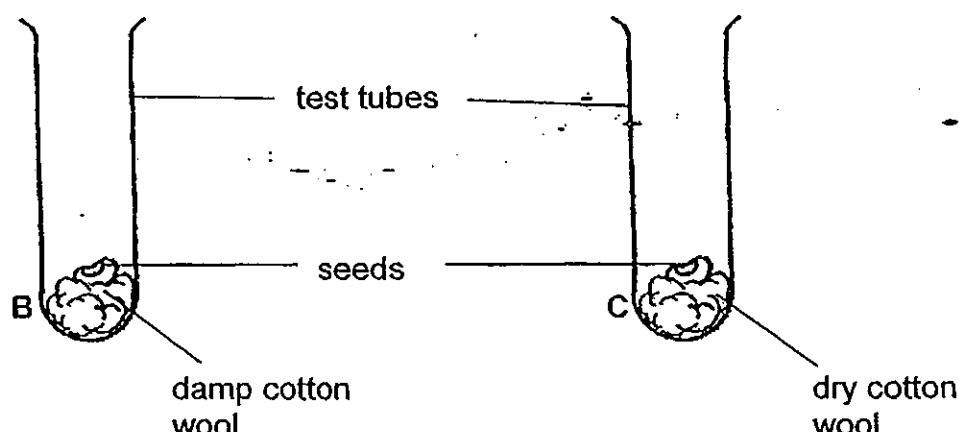
- (b) At which stage(s), A, B, C and / or D, can the seedling make its own food?
Write letters, A, B, C and / or D ONLY. [1]
-

33. Clare placed a seed in each of the 3 identical test tubes, A, B and C, as shown in the diagrams below.

placed in the light



placed in the dark



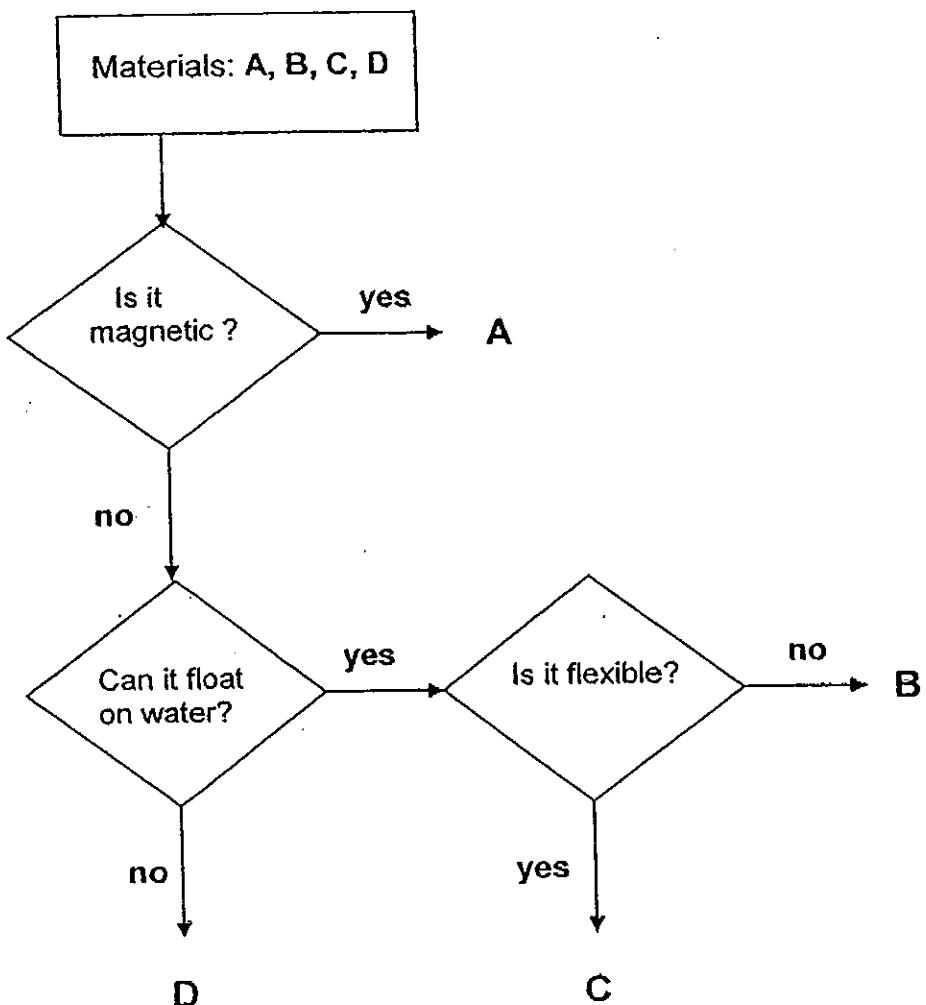
In which of these test tubes, A, B and / or C, would the seed(s) NOT be able to germinate?

Give a reason for each of your answer(s).

[2]

test tube (s)	reason (s)

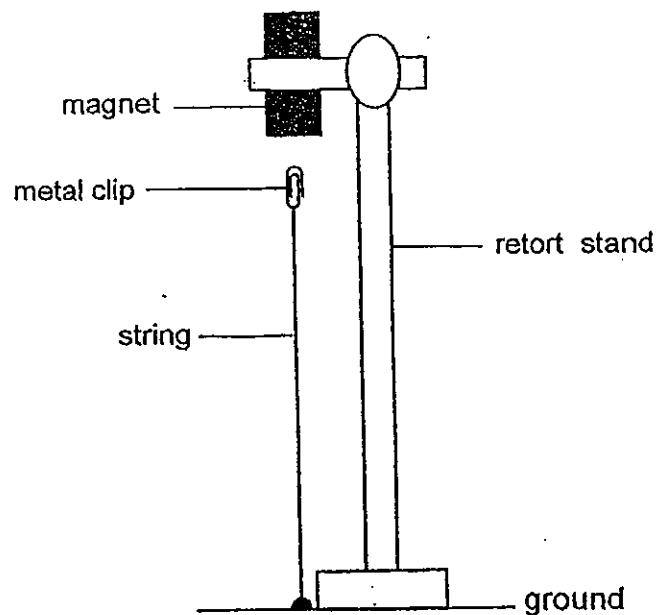
34. The flow chart below differentiates some materials: A, B, C and D.



Based on the information above, state two similarities between material B and material C. [2]

SIMILARITY 1	
SIMILARITY 2	

35. Emma set up an experiment using the apparatus as shown below.

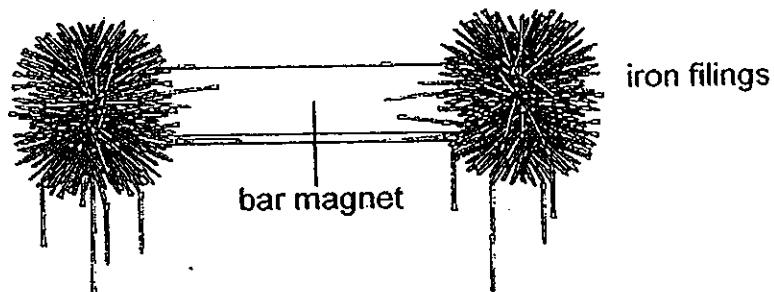


- (a) Give a reason why the metal clip did NOT drop to the ground. [1]

Next, Emma replaced the metal clip with a plastic clip.

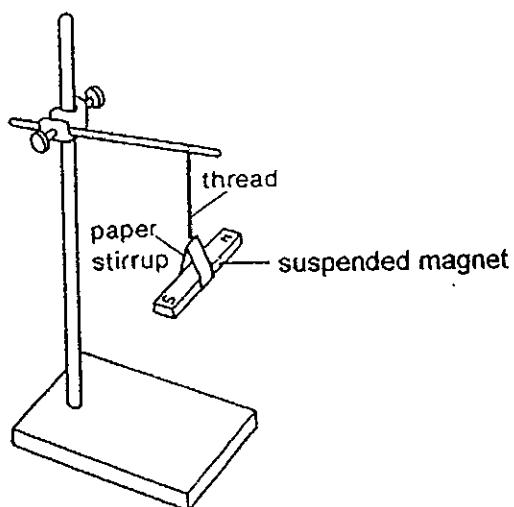
- (b) Could the plastic clip remain in the air like the metal clip?
Give a reason for your answer. [1]

36. Sara used a bar magnet to attract some iron filings. She noticed that the iron filings were attracted to the ends of the bar magnet only.



- (a) Give a reason why the iron filings were attracted to the ends of the magnet. [1]

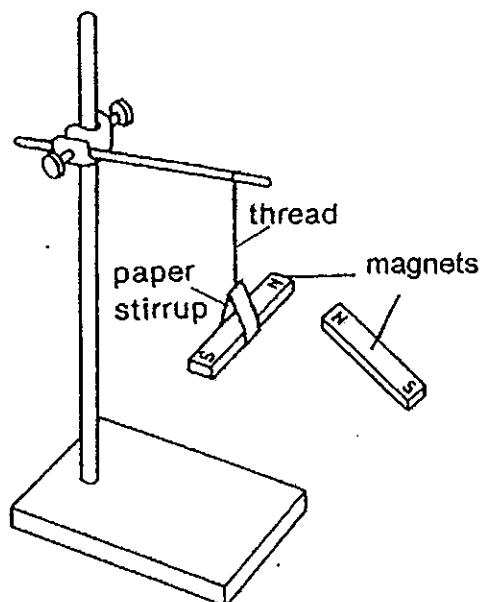
Sara removed the iron filings and hung the bar magnet in a paper stirrup as shown below.



Sara turned the bar magnet in the paper stirrup freely. The bar magnet stopped turning after a while.

- (b) In which direction would the bar magnet point to when it finally came to a rest? [1]

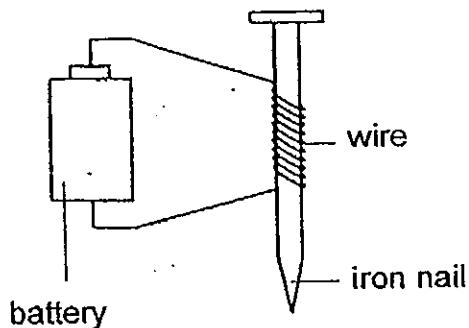
Next, Sara brought ANOTHER bar magnet near to the N-pole of the suspended magnet.



- (c) Describe how the suspended magnet moved when the N-poles of both magnets were brought near to each other. [2]

Give a reason for your answer.

37. Peter made an electromagnet by placing an iron nail in a coil of wire joined to the ends of a battery. He wanted to find out if the number of turns of the coil would affect the strength of the electromagnet. He tested the strength of the electromagnet by counting the number of steel paper clips it could attract at one of its ends.



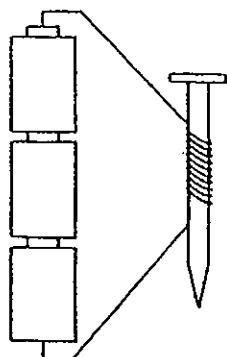
Peter recorded his results in the table below.

number of turns round the iron nail	number of paper clips attracted
10	5
15	8
20	10
25	12

- (a) Based on the information above, fill in each blank with a suitable word. [1]

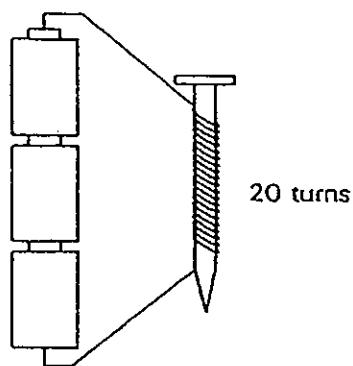
The _____ the number of turns round the iron nail,
the _____ the number of paper clips was attracted to
the iron nail.

Next, Peter wanted to find out if the number of batteries affected the strength of the electromagnet. He had two set-ups, A and B, as shown below.



10 turns

set-up A



20 turns

set-up B

Peter's teacher said that he did **NOT** conduct a fair test.

- (b) Suggest two ways in which Peter could do to conduct a fair test for his experiment. [2]

SUGGESTION 1	
SUGGESTION 2	

- END OF PAPER -

Setters: Ms Ho Win Nie, Mr Johnson Ong



RAFFLES GIRLS' PRIMARY SCHOOL
2010 PRIMARY 3 SCIENCE SA 2 ANSWER KEY

Setters : Ms Ho Win Nie, Mr Johnson Ong

SECTION A (24 X 2 marks)

1.	1
2.	2
3.	3
4.	4

5.	1
6.	3
7.	3
8.	3

9.	1
10.	3
11.	3
12.	4

13.	1
14.	2
15.	3
16.	1

17.	3
18.	3
19.	3
20.	4

21.	4
22.	1
23.	3
24.	3

SECTION B (32 marks)

No.	Marks	Suggested answers	Remarks
25	1	<p>Both</p> <ul style="list-style-type: none"> • need food, air and water • can die • can reproduce • can grow • respond to changes around them 	<p>Any characteristic of living things Accept also:</p> <ul style="list-style-type: none"> - Need air, food, water and warmth - Both do not have legs - Both can move by themselves <p>Do not accept</p> <ul style="list-style-type: none"> - Both are living things - Both have outer covering
	2	<p>plants : A</p> <p>animals : D</p> <p>non-living thing : C</p> <p>fungi : B</p>	NO partial marks
26	2	<p>SIMILARITY :</p> <p>Both have</p> <ul style="list-style-type: none"> • legs • eyes • a tail • at least 2 legs <p>DIFFERENCE:</p> <ul style="list-style-type: none"> • S has 4 legs while T has 2 legs. • T has a beak while S has a mouth or S does not. • T has wings but not S. • S has a pair of horns but not T. • S has hair but T has feathers. 	<p>Do not accept</p> <ul style="list-style-type: none"> - Both are living things - Both have outer covering - Both do not have feet <p>Do not accept:</p> <ul style="list-style-type: none"> - S has ears but T does not

			<ul style="list-style-type: none"> T has feathers but S does not. [½] S has hair but T does not. [½] 		
27		2	<p><u>Animal:</u> X</p> <p><u>Reason:</u> X has <ul style="list-style-type: none"> 8 legs as compared to an insect that has 6 legs. (2m) feelers as compared to an insect that has no feelers (2m) doesn't have 3 body parts as compare to an insect that has 3 body parts. (2m) no 6 legs as compared to an insect that has 6 legs. (2m) </p>	<p>Mark holistically</p> <p>Award marks only when the animal is identified correctly with the correct reason given Note: No comparison with an insect, deduct 1 mark. Do not accept: - 3 body parts - 8 legs only</p>	
28		2	<p>X : mammal</p> <p>Z : bird</p>	<p>[1] for each correct answer -[½] for wrong spelling</p>	
No.	Marks		Suggested answers		
29	a	1	by spores		
	b	1	<ul style="list-style-type: none"> - They feed on dead/rotting matter/log. - They feed on dead/decaying/rotting/rotten, organisms/things/plants/matter. - They feed of plant (0.5m) 	<p>-[½] for wrong spelling of words in bold -[½] for mentioning of 'living'</p>	
30	a	1	Group 1 : do not reproduce by spores B, D, E Group 2 : reproduce by spores A, C	<p>Mark holistically</p> <p>Make parallel comparison</p> <p>Reproduce by seeds for group not acceptable cause cannot see fruits on pictures.(no mark)</p>	
	b	2	<p>Group 1 : [organisms] found in/on water B, E Group 2 : [organisms] found on land A, C, D</p> <p>Group 1 : plants : B, C, D, E Group 2 : fungi : A</p> <p>Group 1 : found on/in water : B, E Group 2 : found on land : A, C, D,</p>		
31	a	1	4	<p>Not acceptable for word is totally different meaning</p>	
	b	1	<u>larval stage / larva</u>		
	c	1	<ul style="list-style-type: none"> Both legs or 6 legs. Both have feeler/ a pair of feelers/antennae. young resemble its adult 		
32	a	1	C B D A	<p>NO partial marks</p>	
	b	1	A		
33		2	<u>Answer:</u> A and C A or C given only, award [½] <u>Reason:</u>	<p>Mark holistically</p> <p>Award marks only when the test tubes are identified correctly with the</p>	

		<ul style="list-style-type: none"> Seeds in both test tubes did not get water. Seeds in both test tubes did not get moisture. Water was not present in test tubes A and C. Plants need water to germinate (apply rule R4) 	correct reason given -[½] for wrong spelling of words in bold mentioned about DRY cotton wool only, no marks awarded.
--	--	---	--

No.	Marks	Suggested answers	Remarks
34	2	<p>Both B and C</p> <ul style="list-style-type: none"> are non-magnetic (materials). are not magnetic (materials) can float on water 	Any 2 of these possible answers -[½] for wrong spelling of words in bold i.e magnetic but not material
35	a	<p>The magnet attracted the metal clip. <i>The metal clip attracted/attracting to / by the magnet.</i> <u>Magnetic force is pulling on the magnet.</u></p>	[0] The metal clip attracted/ is attracting the magnet.
			Magnet is pulling on the magnet (0m). Magnetic force is holding the clip. (1/2 m) Metal clip is made of magnetic material (1/2 m)
36	b	<u>Answer:</u> No. <u>Reason:</u> <ul style="list-style-type: none"> The magnet could not attract non-magnetic materials such as plastics. <p><i>Plastic is a not magnetic/ not a magnetic object.</i></p>	Plastic is not made up of nickel, iron, steel or cobalt. ½ m if 'magnetic' is spelled incorrectly
	a	A magnet is strongest at its poles /ends.	-[½] for wrong spelling of word in bold Do NOT accept: other form of strong e.g. stronger, powerful
	b	<ul style="list-style-type: none"> North-South direction N-S direction North only South only 	-[½] for wrong spelling
	c	<u>Description:</u> <ul style="list-style-type: none"> The suspended magnet moved/swing/(any form of movement related to movement) away from the other magnet. 	Mark holistically Award marks only when the description is correct with the

			<ul style="list-style-type: none"> Both magnets moved away from each other. They repelled <p>Reason: Like poles of both magnets were facing each other. Like poles repel.</p>	correct reason given -[½] for wrong spelling of repel						
37	a	1	<table> <tr> <td>more</td> <td>more</td> </tr> <tr> <td>greater</td> <td>greater</td> </tr> <tr> <td>fewer</td> <td>fewer</td> </tr> </table>	more	more	greater	greater	fewer	fewer	-[½] for wrong spelling Penalise ONCE only Mark holistically Concepts: 1. coils 2. batteries
more	more									
greater	greater									
fewer	fewer									
b	2	<ul style="list-style-type: none"> Use a different number of batteries in <u>each set-up</u> Use the same number of turns in <u>both set-ups</u> Remove a battery from set-up A/B Add another battery to set-up A/B 	-[½] for wrong spelling of <ul style="list-style-type: none"> • battery 							

- END OF PAPER -



RAFFLES GIRLS' PRIMARY SCHOOL

SEMESTRAL ASSESSMENT (2)

2013

Name : _____ Index No: _____ Class: P 3 _____

Section A	4
Section B	3
Your score out of 80 marks	
Parent's signature	

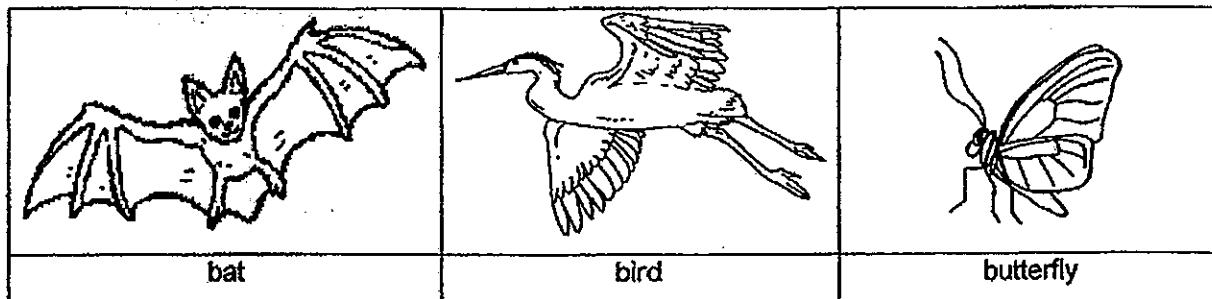
21 October 2013 SCIENCE Attn: 1 h 15 min

SECTION A (24 X 2 marks)

For each question from 1 to 24, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval on the Optical Answer Sheet (OAS).

1. Which one of the following statements about living things is true?
 - (1) All living things need food to live.
 - (2) All living things will survive without water.
 - (3) Living things are only made up of plants and animals.
 - (4) All living things reproduce by giving birth to live young.

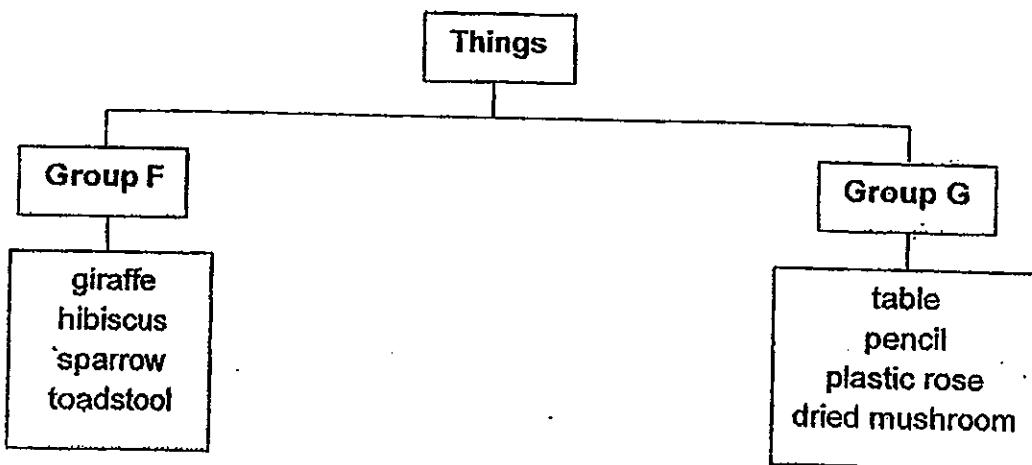
2. The following diagram shows three animals (not drawn to scale).



What are 2 observable characteristics that they all have in common?

- (1) fur and legs
- (2) fur and feathers
- (3) wings and legs
- (4) wings and feathers

3. Two different groups of things are shown in the diagram below.



Which of the following could possibly represent F and G?

	Group F	Group G
A	alive	not alive
B	make their own food	cannot make their own food
C	can respond to changes	cannot respond to changes
D	can move from place to place	cannot move from place to place

4. The following classification charts, A, B, C and D, show 4 ways of grouping insects.

A	B	C	D
Insects Lay eggs Give birth	Insects Has 6 legs Has 8 legs	Insects Has 2 body parts Has 3 body parts	Insects Has 1 pair of wings Has 2 pairs of wings

Which of the following classification chart(s) is/ are incorrect?

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

5. Leela observed an animal and made the following observations:

- It has gills.
- It has tail and fins.
- It give birth to live young.
- It has a body covering of scales.

Which one of the following animals did Leela most likely observe?

- (1) whale
- (2) guppy
- (3) dolphin
- (4) crocodile

6. The table below shows the characteristics of animals W, X, Y and Z.

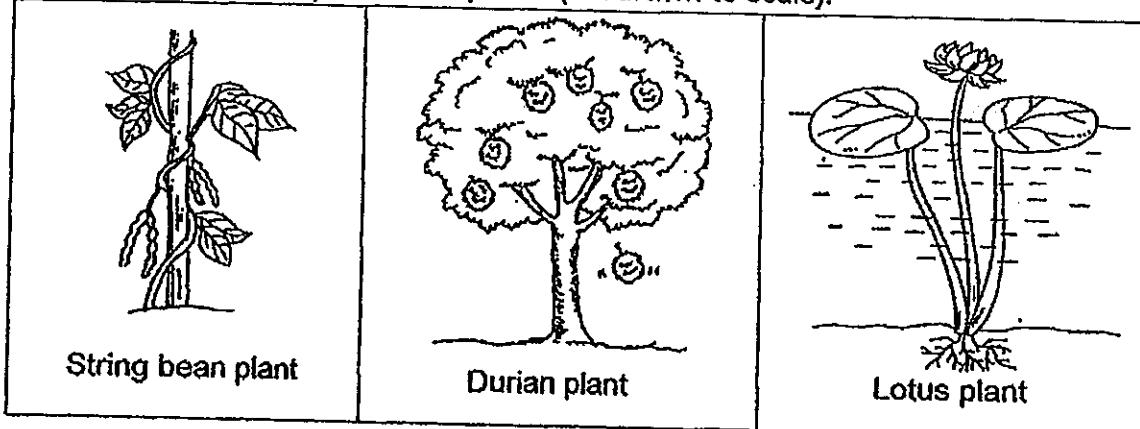
Animals	Has 2 legs	Has 4 legs	Has wings	Feed their young with milk
W	✓		✓	
X	✓		✓	✓
Y	✓			✓
Z		✓		✓

Based on the table above, which of the following statements is/ are true?

- A Animal X is an insect.
- B Only animal Z is a mammal.
- C Both animals W and X are birds.
- D Animals X, Y and Z are mammals.

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

7. The following diagrams show 3 plants (not drawn to scale).

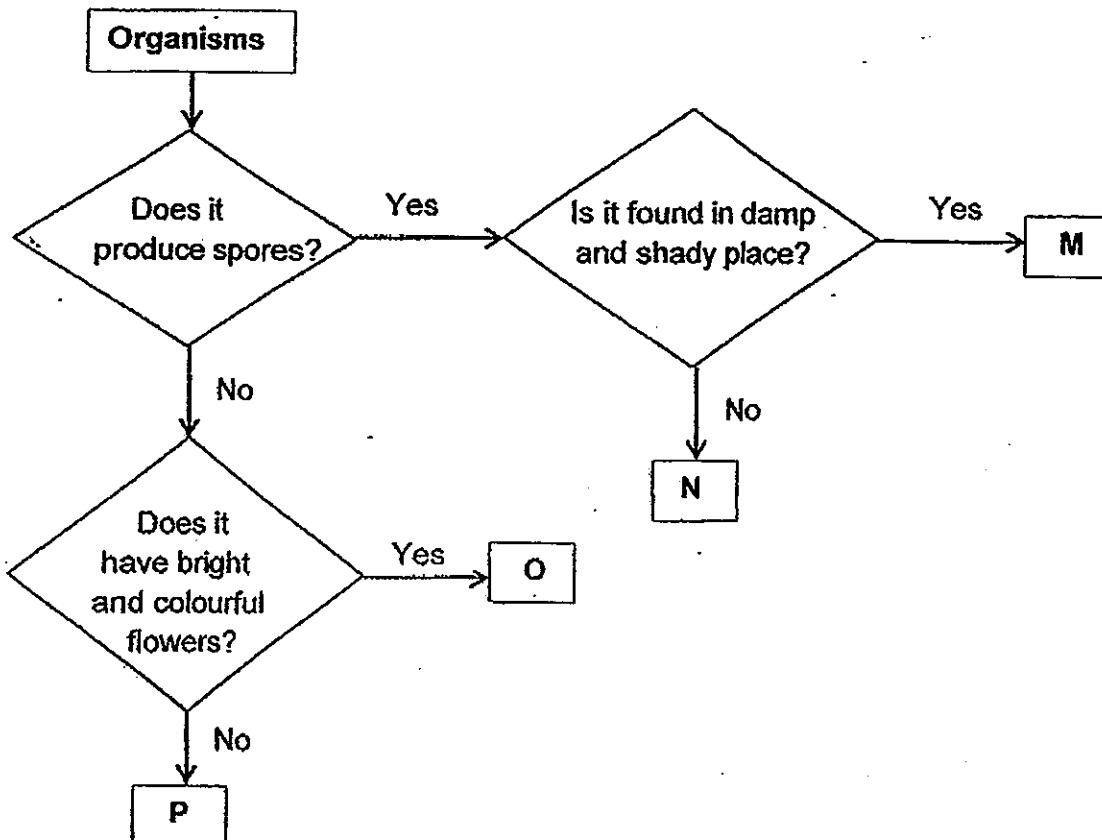


What are the similarities of the 3 plants shown above?

- A They are land plants.
 - B They are flowering plants.
 - C They reproduce by seeds.
-
- (1) A and B only
 - (2) B and C only
 - (3) C and D only
 - (4) A, B and C

8. Peter found an organism Z in a park. He recorded his observations of Z in the table below.

It produces spores.	✓
It has bright and colourful flowers.	✗
It is found in damp and shady area.	✓



Which one of the following best represents organism Z?

- | | |
|-------|-------|
| (1) M | (2) N |
| (3) O | (4) P |

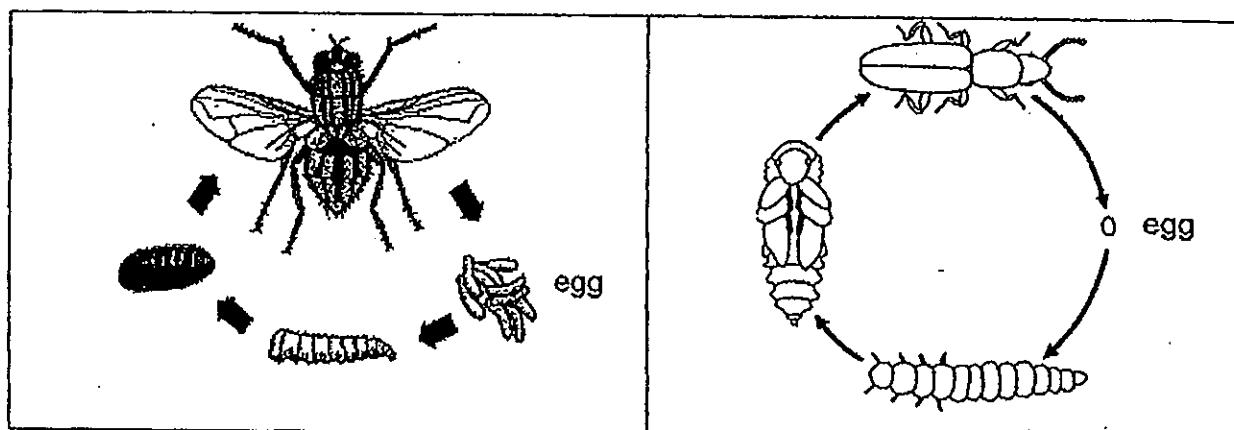
9. Which one of the following statements about fungi is true?

- (1) All have seeds.
- (2) All can make their own food.
- (3) All get their food from dead things.
- (4) All cannot be seen with our naked eyes.

10. Which one of the following best represents one particular stage in a life cycle?

- (1) A tiger running
- (2) A leaf falling
- (3) A seed sprouting
- (4) A bird feeding on seeds

11. The diagrams below show the life cycles of two different animals.



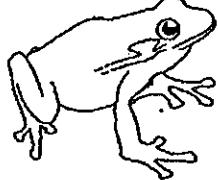
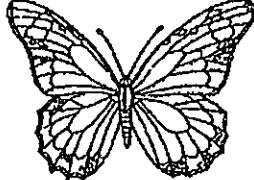
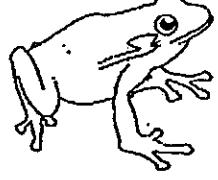
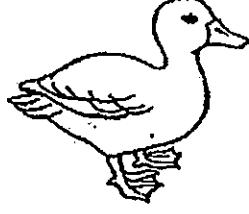
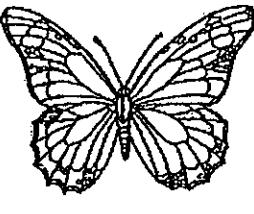
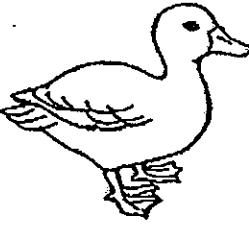
Which of the following statements of the two life cycles above are correct?

- A They have a 4-stage life cycle.
 - B Their pupa feeds on the same diet as the adult.
 - C They do not eat when they are at their pupal stage.
 - D The diet of the larva is different from the diet of the adult.
-
- (1) A only
 - (2) C and D only
 - (3) A, B and D only
 - (4) A, C and D only

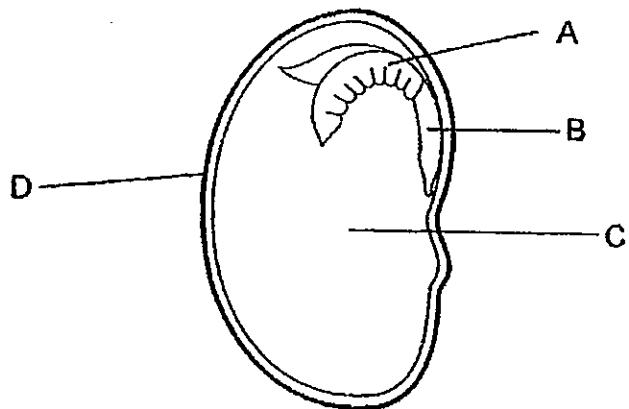
12. The information of animals G and H are given in the table below.

Questions	Animal G	Animal H
Does the young look like its parent?	Yes	No
Do both the young and adult live on land?	Yes	No
How many stages are there in its life cycle?	3	4

Based on the information above, which of the following best represent animal G and H? (Note: the diagrams are not drawn to scale)

	Animal G	Animal H
(1)		
(2)		
(3)		
(4)		

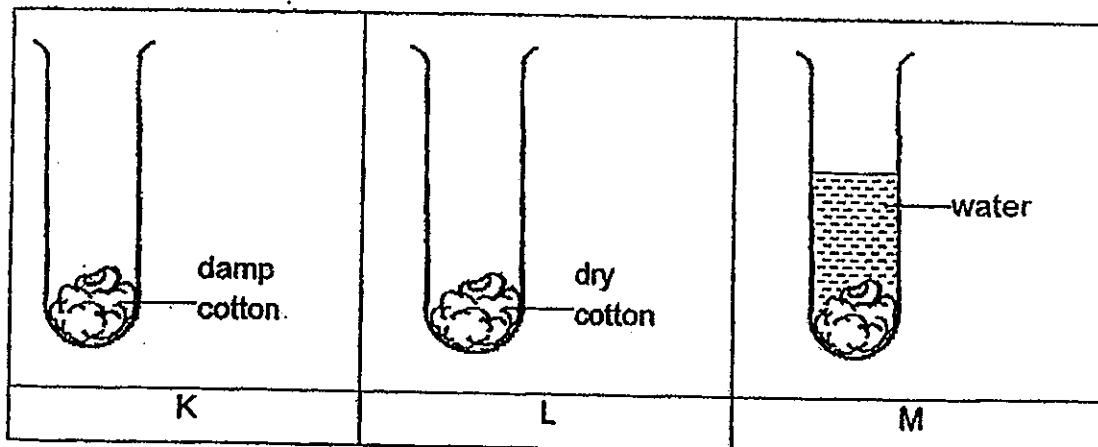
13. The diagram below shows a seed with its labelled parts A, B, C and D.



Which part of the seed protects the baby plant?

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

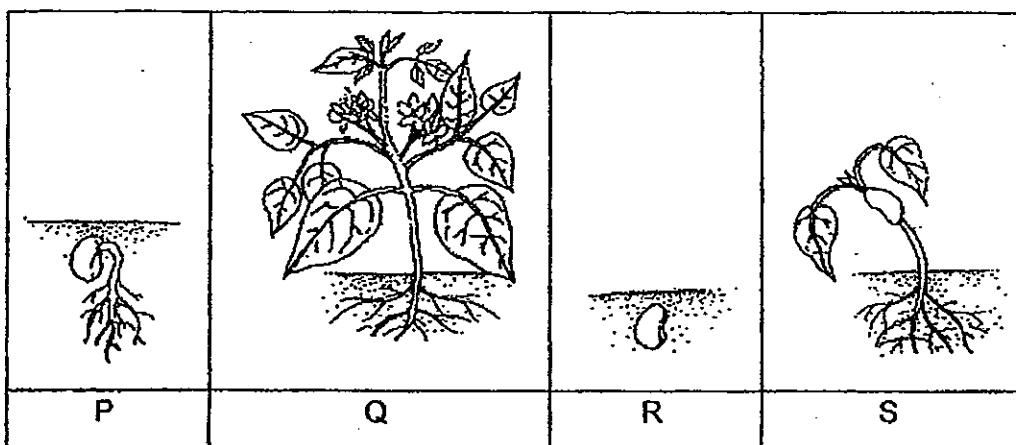
14. A seed of the same type was placed in each of the set-ups, K, L and M. The set-ups were placed in a room as shown in the diagram below.



In which of the following set-up(s) will the seed most likely to develop a root after some time?

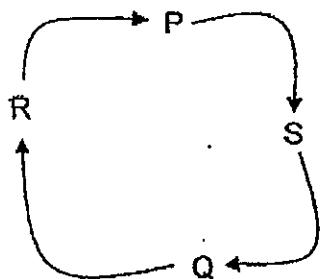
- | | |
|------------------|----------------|
| (1) K only | (2) M only |
| (3) K and M only | (4) K, L and M |

15. The pictures below shows a plant at different stages of development, not arranged in order.

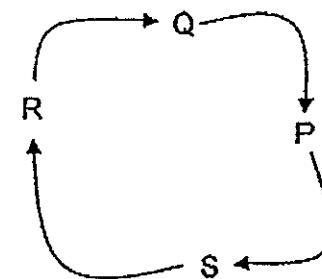


Which one of the following shows the correct sequence of growth of the seed?

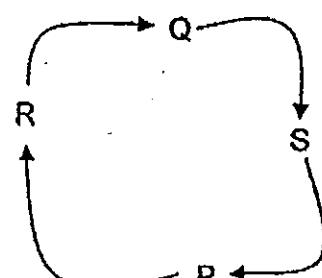
(1)



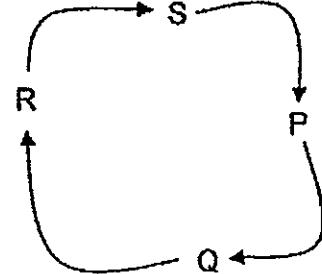
(2)



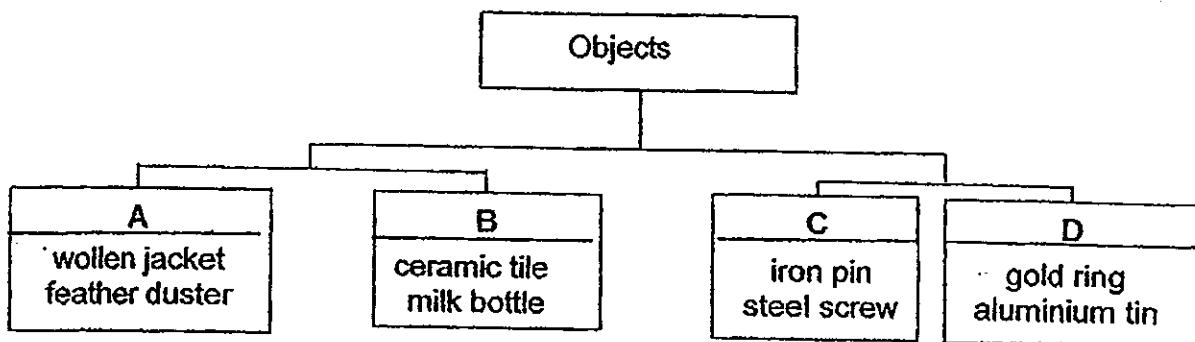
(3)



(4)



16. The classification chart below shows how some objects are classified.

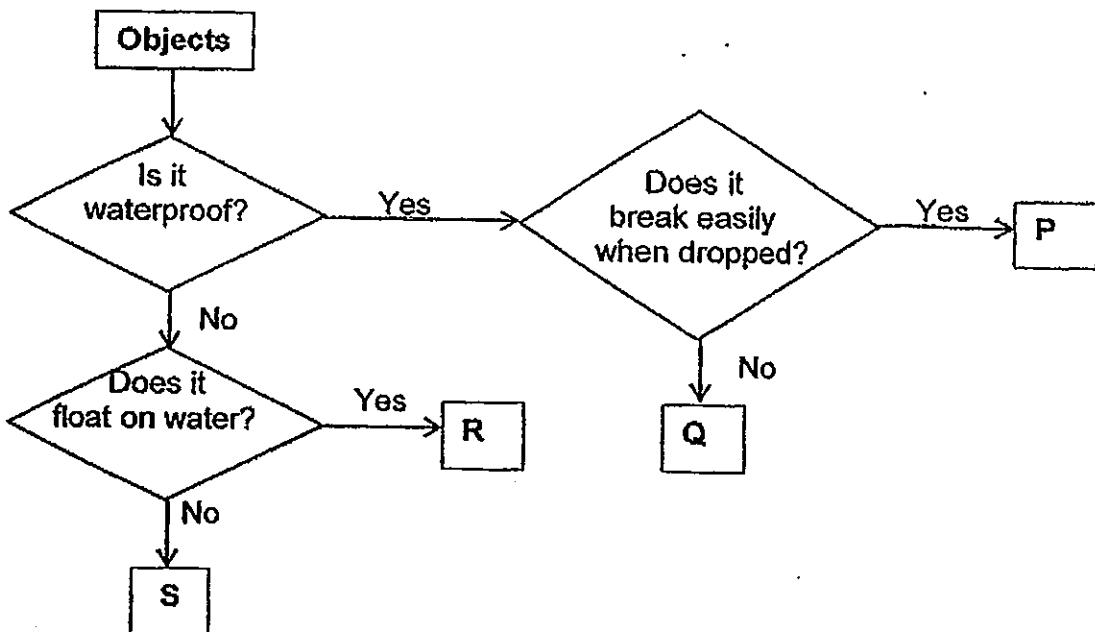


Based on the information above, in which group, A, B, C or D, should a leather wallet be placed?

- (1) A
(3) C.

- (2) B
(4) D

17. Four objects, P, Q, R and S, each made of a different material, were grouped using the flow chart as shown below.

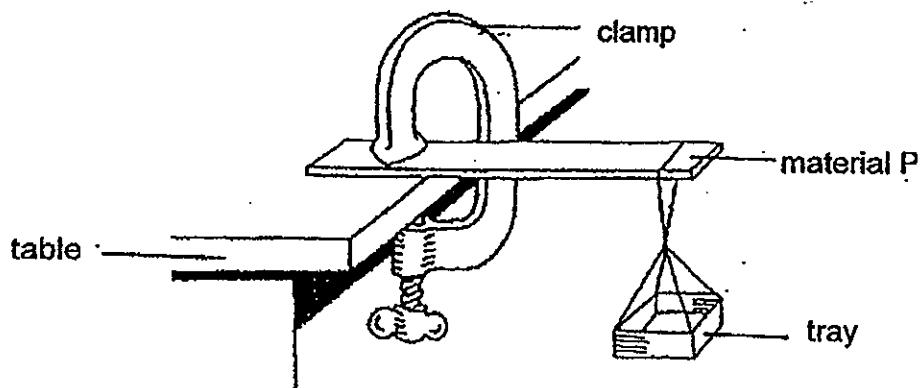


Which one of the following identifies objects P and R correctly?

	P	R
(1)	mirror	marble
(2)	mirror	toothpick
(3)	rubber band	marble
(4)	rubber band	toothpick

18. Min Li used the following set-up to find out which type of material, P, Q or R, was the strongest. The materials were of the same thickness and length.

She clamped one end of material P on a table and hung a tray on its other end as shown in the diagram below.



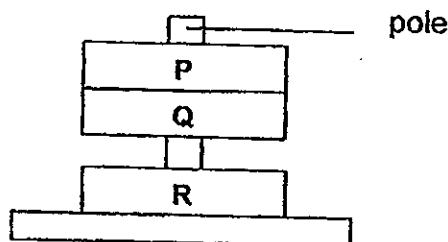
Min Li put a 5-g weight on the tray, one at a time, until the material P began to break. She repeated the same experiment by replacing material P with Q and R respectively.

At the end of her experiment, Min Li concluded that R was the strongest and Q was stronger than P.

Which one of the following most probably shows Min Li's results of her experiment?

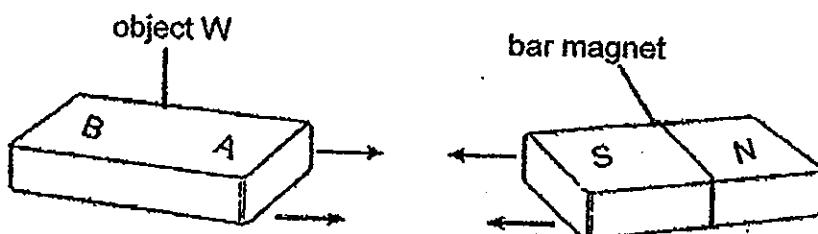
	Minimum number of 5-g weights on the tray that caused the material began to break		
	P	Q	R
(1)	3	7	16
(2)	10	7	16
(3)	16	3	7
(4)	16	7	3

19. Janet placed three rings, P, Q and R, of the same size and thickness through a pole. The diagram below shows Janet's observation.



Based on Janet's observation, which one of the following statements about the rings is definitely true?

- (1) Rings P and Q were magnets.
 - (2) Like poles of rings Q and R were facing each other.
 - (3) Unlike poles of rings P and R were facing each other.
 - (4) Two of the three rings were made of a non-magnetic material.
20. Minah brought a strong bar magnet near object W. The bar magnet attracted part A of object W to its S-pole as shown in the diagram below.



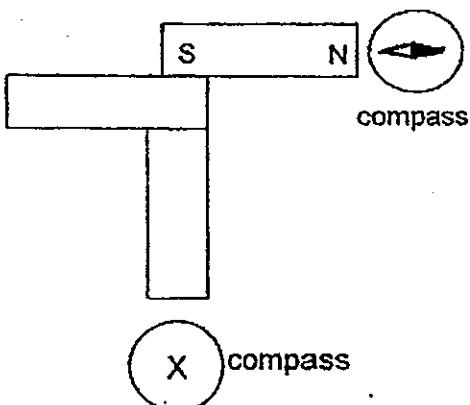
Based on the above observation, Minah made the following conclusions:

- A Object W is a magnet.
- B Object W is made of a magnetic material.
- C The N-pole of the bar magnet would repel part A of object W.

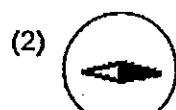
Which of Minah's conclusions is/ are definitely correct?

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

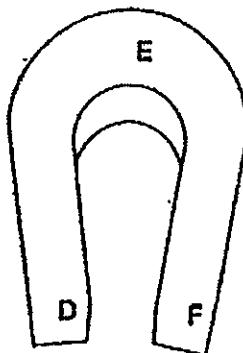
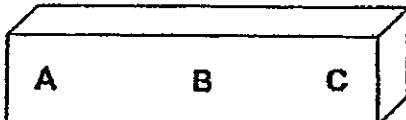
21. Jim arranged three magnets as follows.



Which one of the following diagrams shows the correct position of the needle in compass X?



22. The diagram below shows 2 magnets.



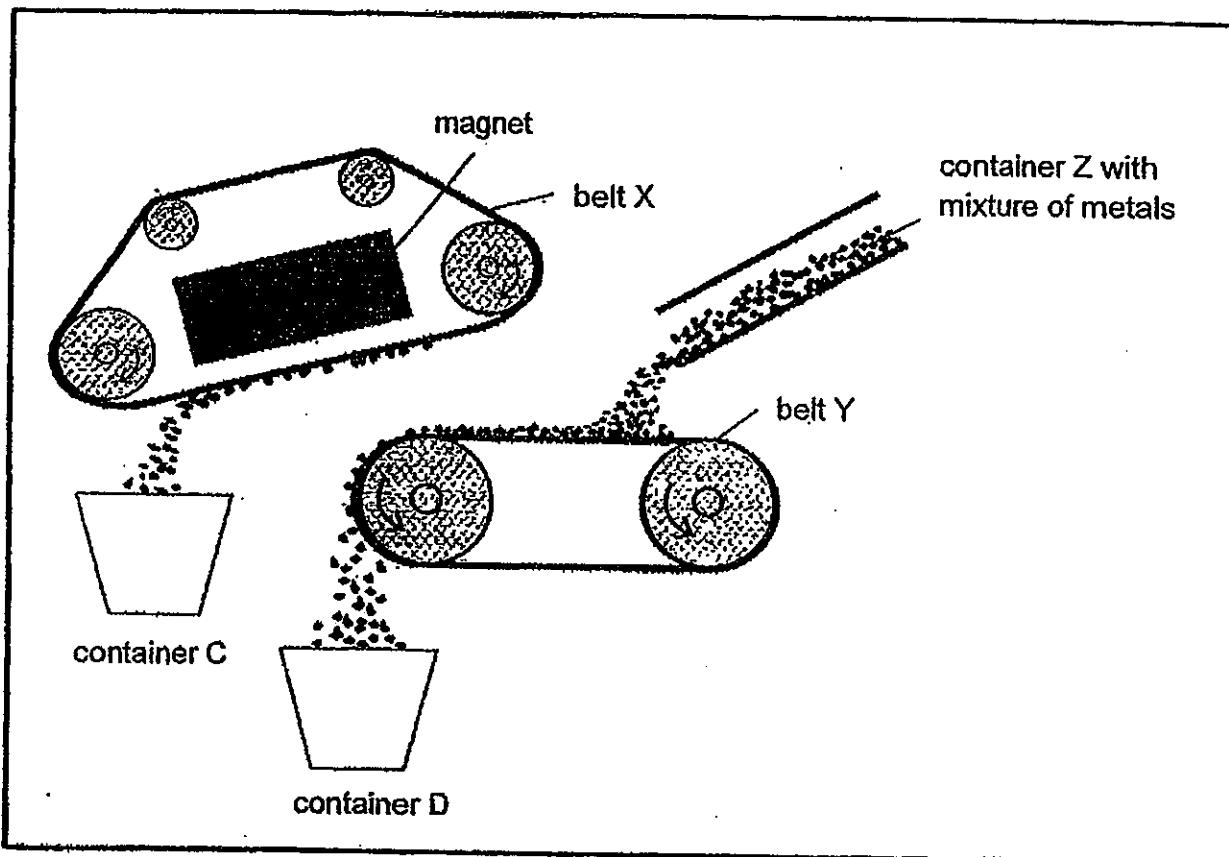
Which parts of the 2 magnets will attract the most number of paper clips?

- (1) A, B, C and E
- (2) A, C, D and F
- (3) B, C, D and E
- (4) B, D, E and F

23. Mr Lee used the following machine which consists of 2 moving belts, X and Y, to separate magnetic metals from non-magnetic metals.

The 2 belts are moving at the same time. Moving belt X contains a strong magnet as shown in the diagram below.

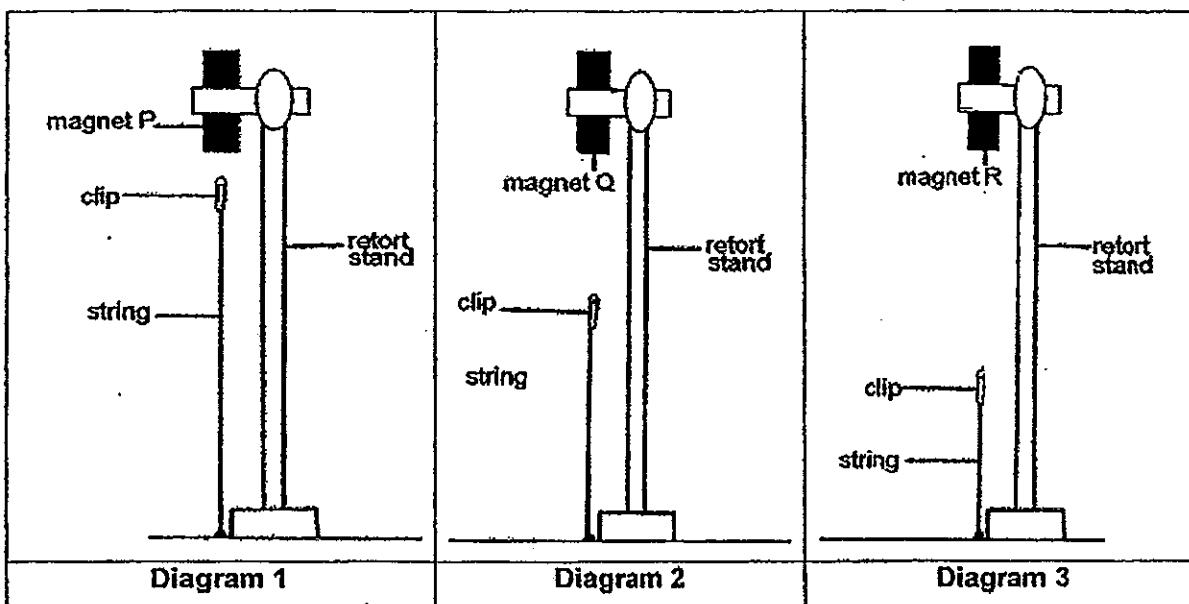
He started the separation process by first pouring a mixture of metals from container Z onto the moving belt Y.



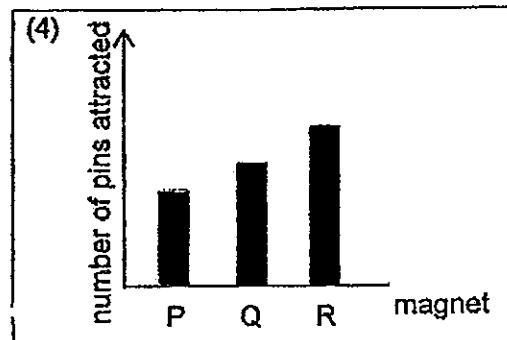
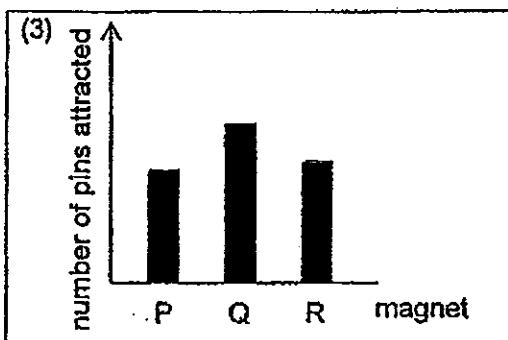
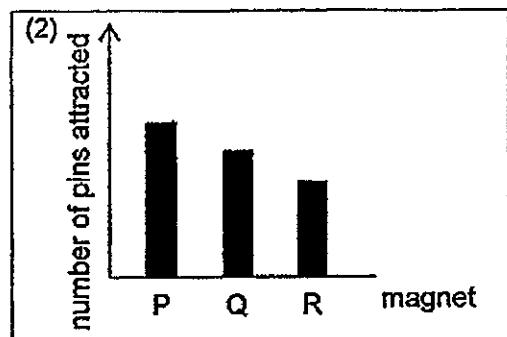
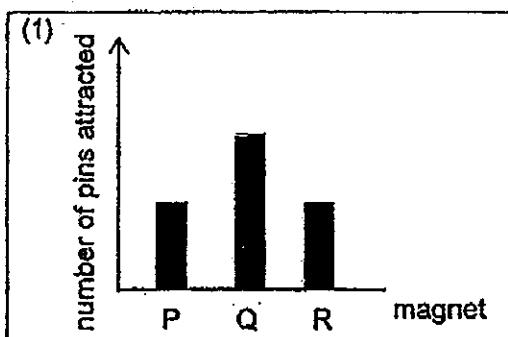
Which of the following container(s) would contain only the non-magnetic metals after the separation process?

- (1) C only
- (2) D only
- (3) C and D only
- (4) C and Z only

24. Kumar wanted to find out the magnetic strength of magnets P, Q and R. He hung the magnet above a paper clip attached to a string. He adjusted the length of the string until the magnet started to attract the paper clip as shown in the diagrams below.



Based on the information above, which one of the following graphs would show the correct number of pins attracted by magnets P, Q and R?

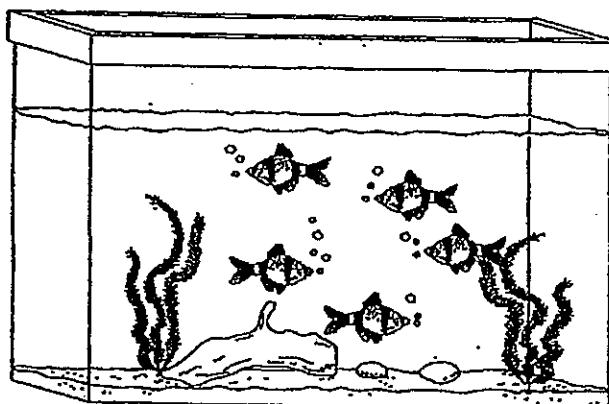


SECTION B (32 marks)

For questions 25 to 39, write your answers clearly in the spaces provided.

The number of marks available is shown in brackets [] at the end of each question or part question.

25. Amy kept fishes in a fish tank. After some time, the number of fishes in the tank increased even though no fish was added to the tank.



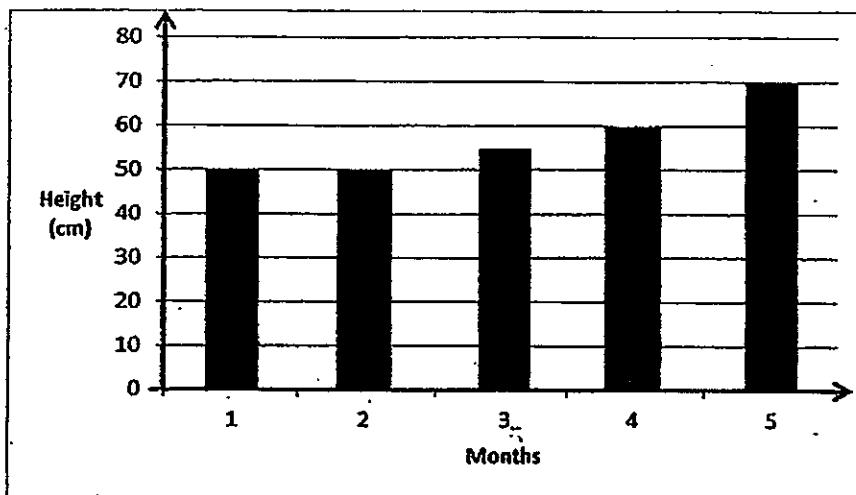
- (a) What could be the possible reason for the increased number of fishes? [1]

When Amy removed the plants from the tank and covered the tank with an air-tight lid, she observed that all the fish died the next day.

- (b) Explain why the fish died. [2]

Score	
3	

26. The graph below shows the height of Peter over 5 months.

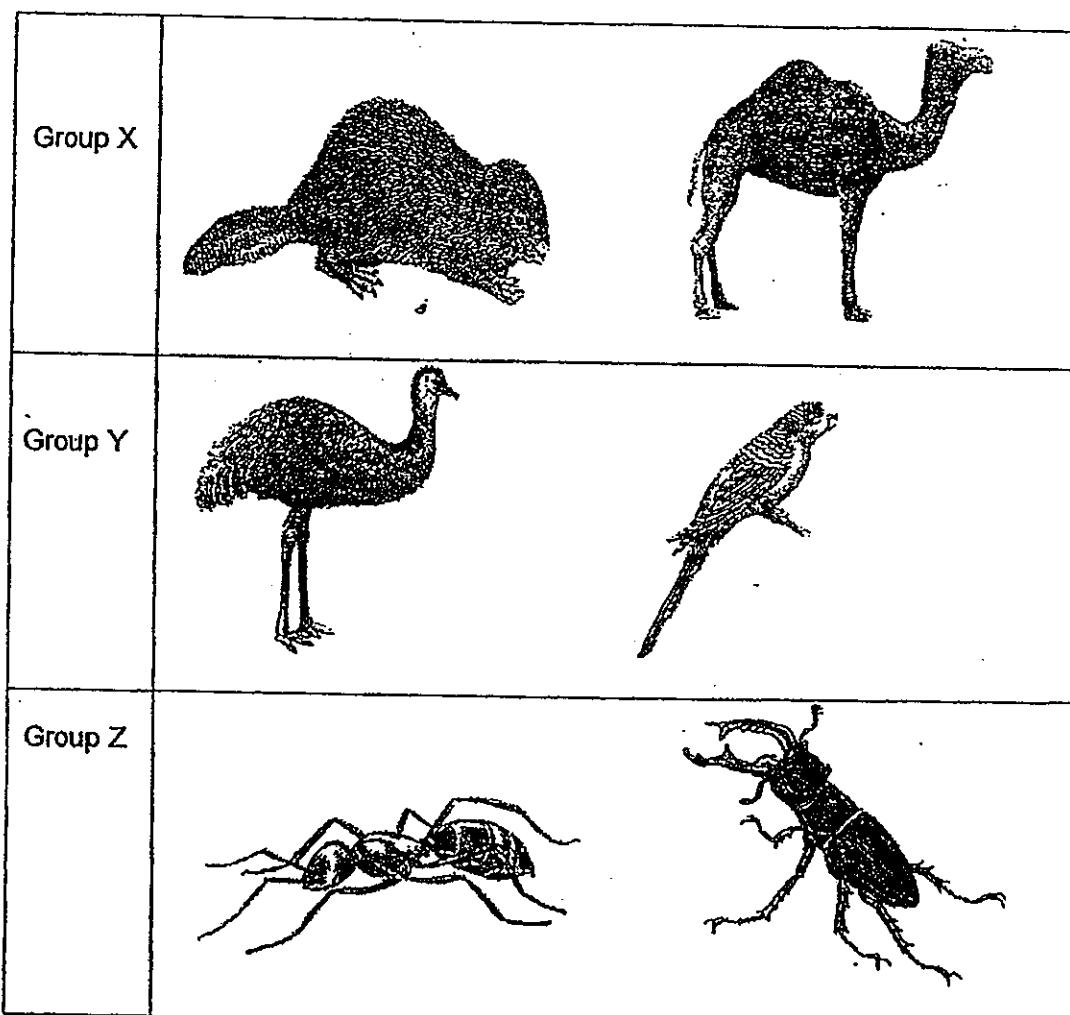


- (a) Based on the graph, describe the change in Peter's height over time. [1]

- (b) What is the characteristic of living things that is shown by the observation in your answer in (a)? [1]

Score	
2	

27. The animals, not drawn to scale, shown below are classified according to their common characteristics.



Based on the information above, answer the following questions:

- (a) Name the body covering of the animals in each of these groups: [2]

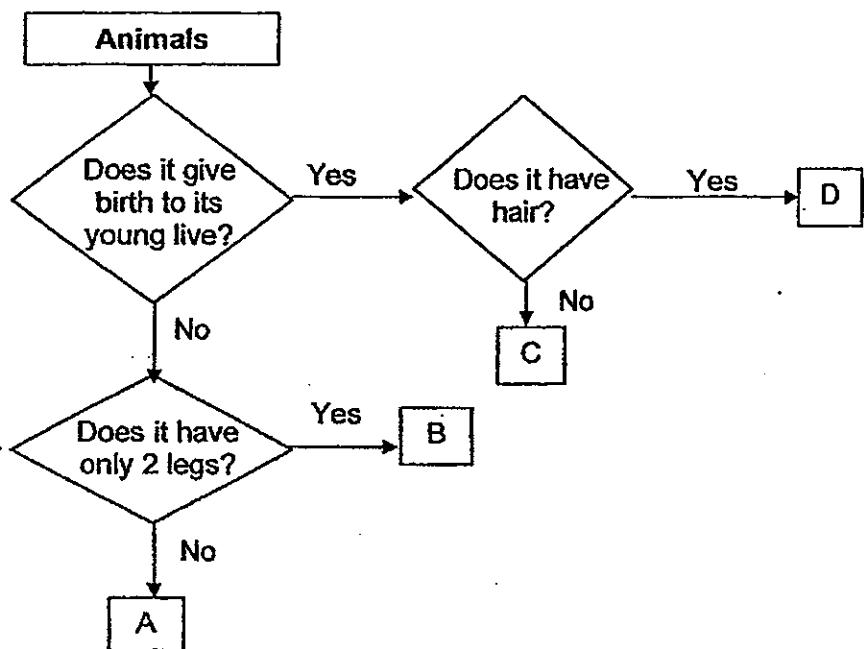
(i) Group X : _____

(ii) Group Y : _____

- (b) Name the animal group of Z. [1]

Score	
	3

28. Study the flow chart as shown below.



Based on the information above, answer the following questions:

(a) Which animals, A, B, C or D, best represent whale and ostrich respectively? [1]

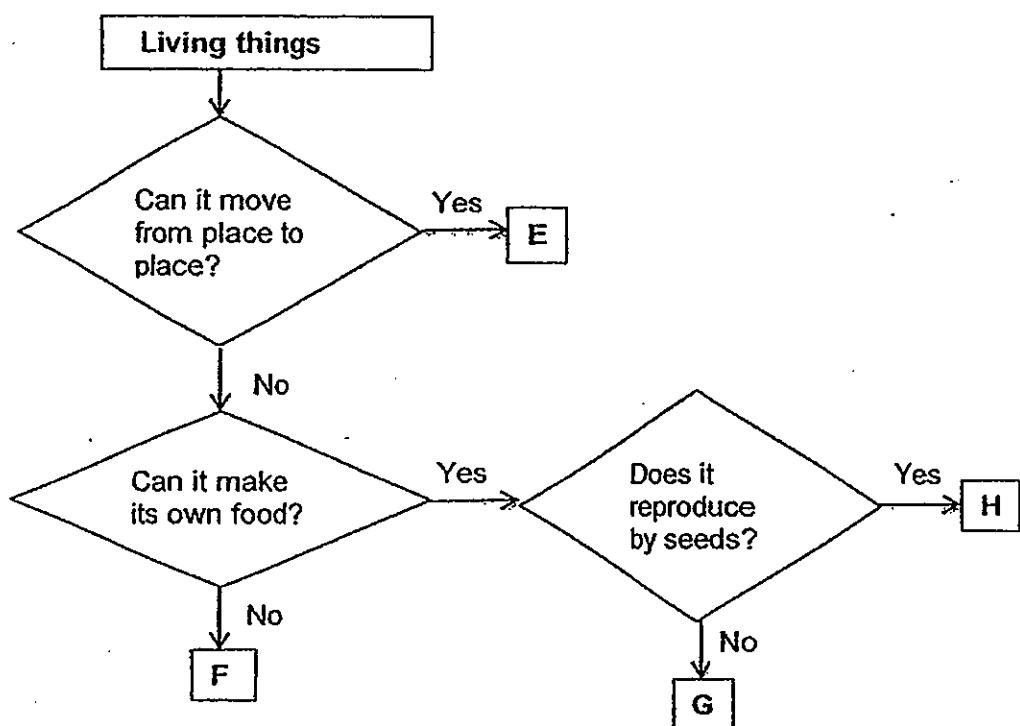
(i) whale : _____

(ii) ostrich : _____

(b) State one similarity between animal C and D. [1]

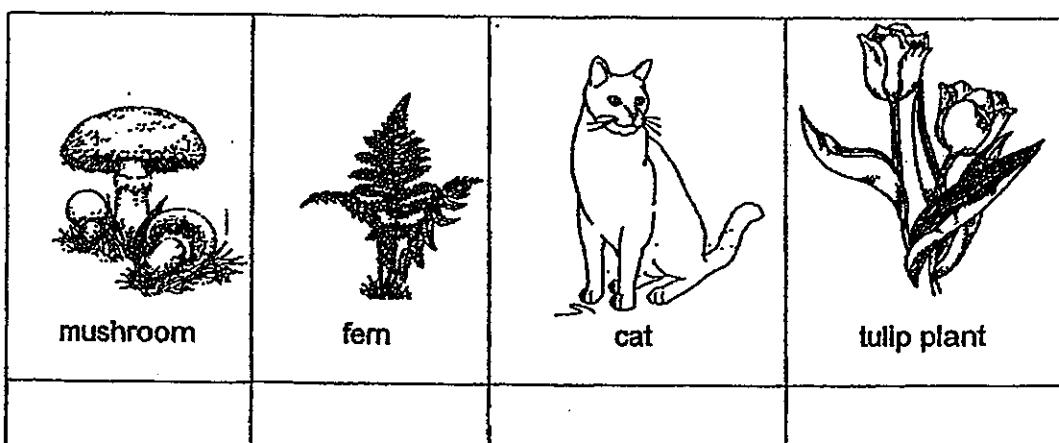
Score	
2	

29. The flow chart differentiates some living things below.



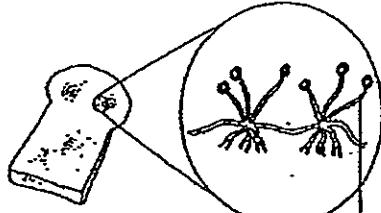
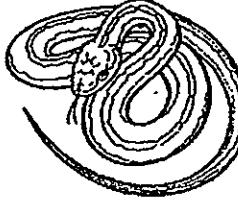
Based on the information above, identify the following living things (not drawn to scale).

Write the letters E, F, G or H in the boxes provided. Use each letter ONCE only. [2]



Score	
	2

30. The table below shows how Janet grouped some living things.

Living things	
X	Y
 Daisy Plant	 Bread mould
 Morning Glory Plant	 Python
 Bird's Nest Fern	 Bracket fungus

- (a) Suggest a sub-heading of each group.

[1]

X : _____

Y : _____

- (b) Joe looked at Janet's classification and told her that he could regroup them into 3 groups.

Suggest how Joe could group the living things into 3 groups. [1]

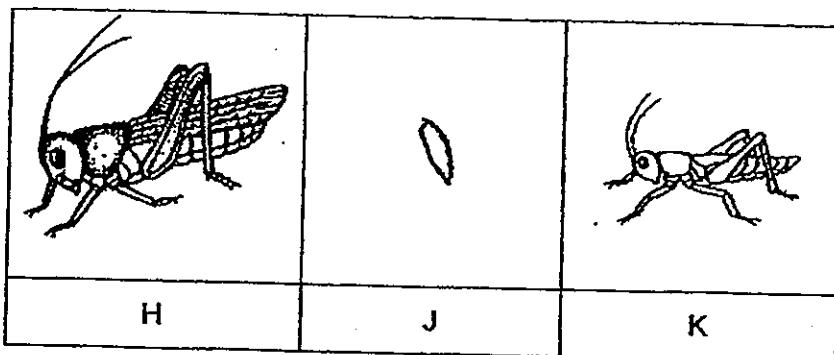
Group 1: _____

Group 2: _____

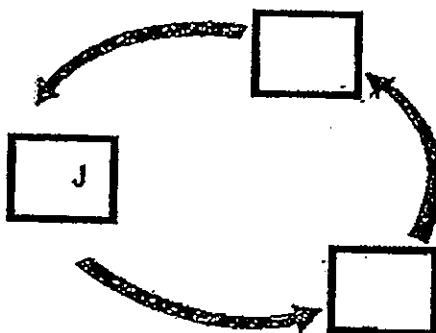
Group 3: _____

Score	
	2

31. The diagrams below show the different stages of the life cycle of an insect, not arranged in the correct order.



- (a) Fill in the stages of growth, H, J and K, in the correct order in the diagram below. [1]

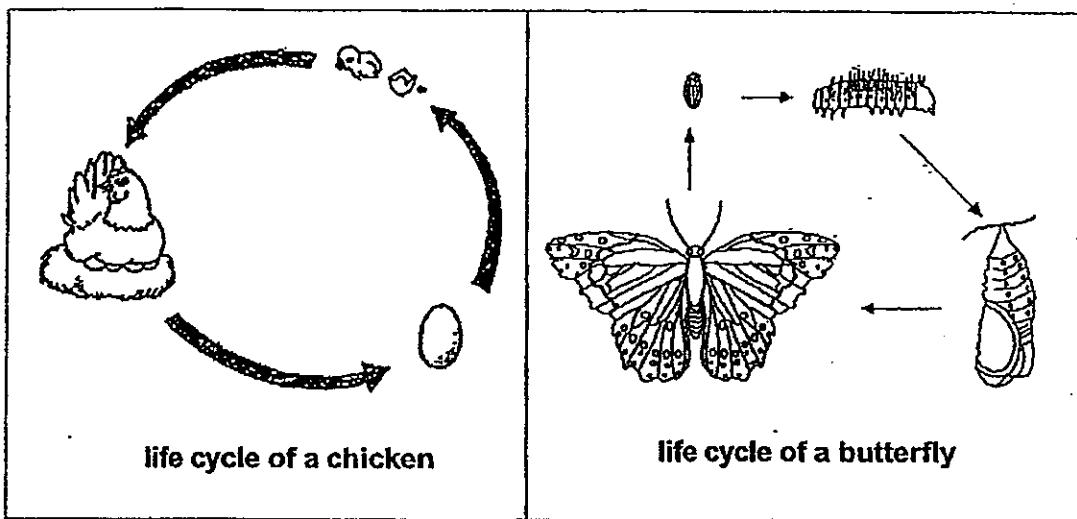


- (b) State one similarity between the organism in stage H and stage K. [1]

SIMILARITY	<hr/> <hr/> <hr/>
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Score	2
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32. The diagrams below shows the life cycles of a chicken and butterfly.

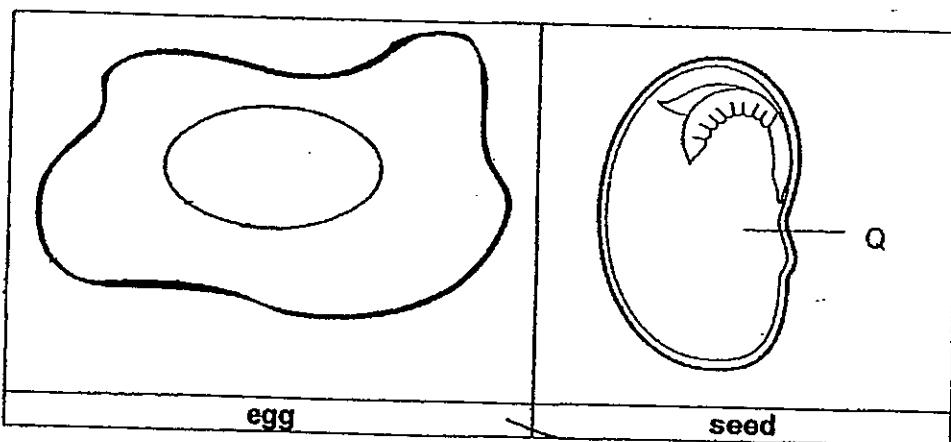


- (a) Based on the information above, state one difference between the two life cycles. [1]

- (b) State one difference between the young stage of the chicken and pupal stage of a butterfly. [1]

Score	
2	

33. The diagrams below show an egg and a seed.



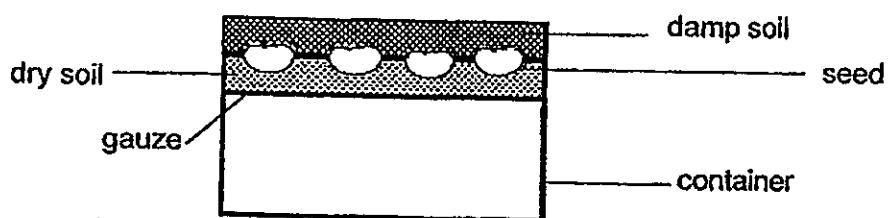
- (a) State a similarity between the egg and the seed.
[Do NOT compare the size and shape.]

[1]

- (b) In the diagram above, mark and label with the letter R, the part of the egg that has the same function as part Q of the seed.

[1]

34. David placed some seeds between two layers of soil, dry and damp, in a container as shown in the diagram below.



David placed the container on a table in the science laboratory.

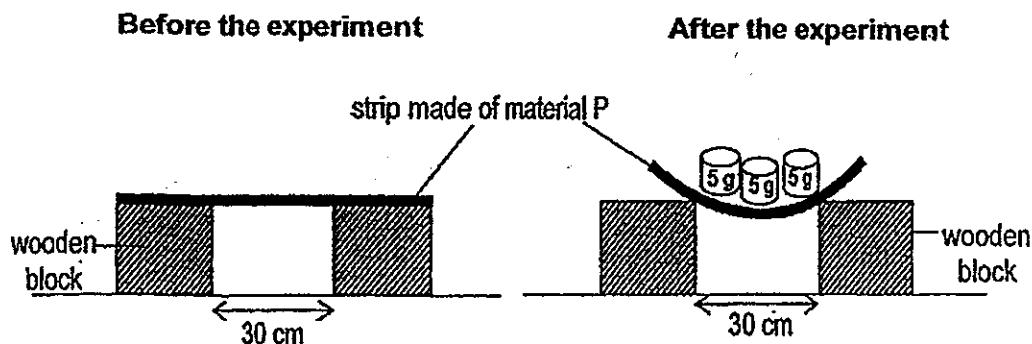
In which direction would the roots of the seeds grow?
Explain your answer.

[2]

Score	
	4

35. Agnes placed a strip made of material P on two wooden blocks 30 cm apart. Next, she added 5-g weight on it, one at a time, until the strip first started to bend.

She observed that the strip made of material P just started to bend when three 5-g weights were placed on it as shown in the diagram below.



Agnes repeated her experiment using another strip made of material Q of the same length and size. She recorded her observations in the table below.

Strip of material	Number of weights on the strip just before strip started to bend
P	3
Q	2

Based on the information above, answer the following questions:

- (a) State another variable that must be kept the same in order for Agnes to conduct a fair test. [1]

- (b) State the property of the materials which Agnes was trying to compare in the above experiment. [1]

Score	
	2

36. Sufen tested the hardness of three rods, each made of different materials, X, Y and Z. She recorded her observations as shown below:

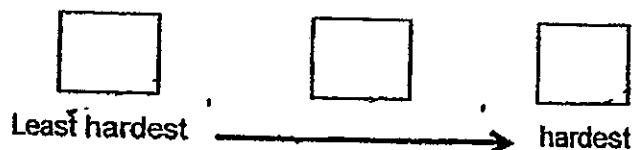
Material of rod	Did rod made of material X scratch the rod?	Did rod made of material Y scratch the rod?	Did rod made of material Z scratch the rod?
X		no scratches	moderate scratches
Y	fine scratches		deep scratches
Z	no scratches	no scratches	

Based on Sufen's observations above, answer the following questions:

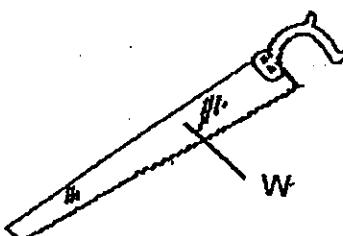
- (a) Arrange materials, X, Y and Z, according to their hardness, starting from the least hard.

Write letters X, Y and Z in the given boxes below.

[1]



The diagram below shows a saw.

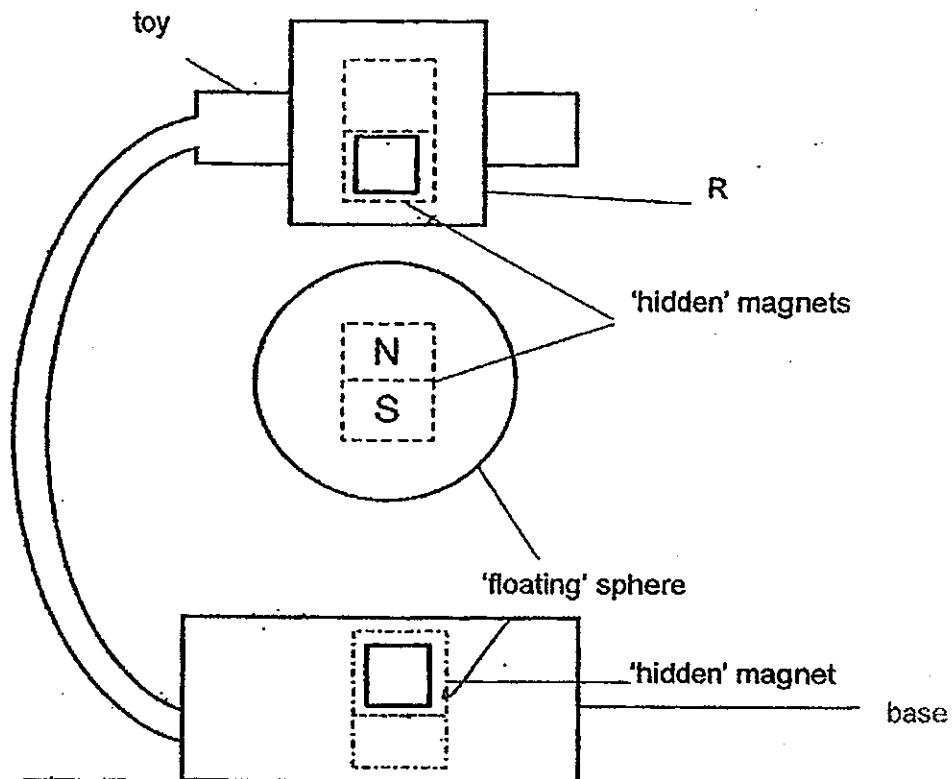


- (b) Which material, X, Y or Z, is most suitable to make part W of the saw? Give a reason for your answer.

[1]

Score	
	2

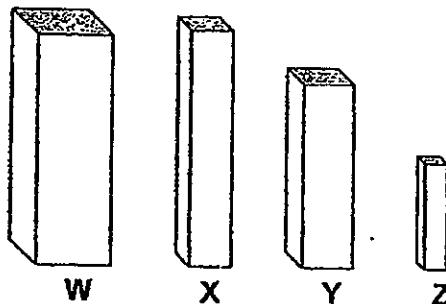
37. The diagram below shows the 'hidden' magnets in a toy which has a 'floating' sphere.



- (a) In the diagram above, write the poles of the 'hidden' magnets in part R and in the base of the toy facing the floating sphere, with the letter "N" or "S" in the boxes provided. [1]
- (b) Explain clearly why the sphere shown in the above diagram is able to float. [1]

Score	
2	

38. Ai Lan positioned the poles of magnets W, X, Y and Z of different sizes at an equal distance from a tray of pins.



She recorded the number of pins attracted to each magnet in the table below.

Magnet	Number of pins attracted
W	12
X	26
Y	5
Z	31

Based on the information above, answer the following questions:

- (a) What could Ai Lan conclude about the magnetic strength of the magnets and their sizes? [1]

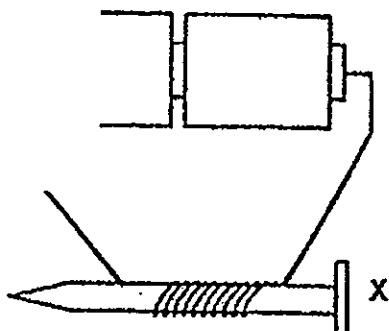
Ai Lan heated magnet Z and repeated the above experiment.

- (b) Would the number of pins attracted to magnet Z be the same, more than 31 or less than 31?

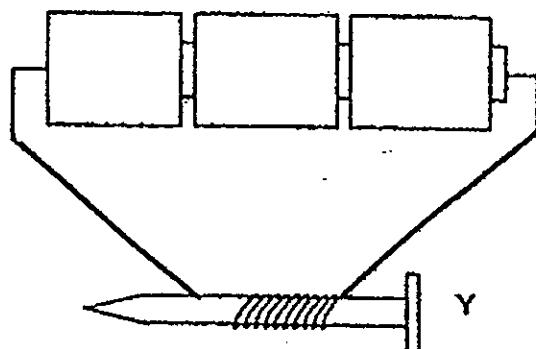
Give a reason for your answer. [1]

Score	
2	

39. Peiyan uses the following set-ups, A and B, to find out if the number of batteries affects the strength of the electromagnet.



Set-up A



Set-up B

- (a) Which one of these electromagnets, X or Y, has a greater magnetic strength?

Give a reason for your answer.

[1]

- (b) Using the same set-up A, without adding anything to it, describe another way which Peiyan can do to increase the magnetic strength of electromagnet X.

[1]

- END OF PAPER -

Score	
	2



Answer Ke

EXAM PAPER 2013

SCHOOL : RAFFLES GIRLS' PRIMARY SCHOOL

SUBJECT : PRIMARY 3 SCIENCE

TERM : SA2

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

Q18	Q19	Q20	Q21	Q22	Q23	Q24
1	2	2	3	2	2	4

Section B

Q25

- a) The fishes have reproduced, increasing the number of fishes
- b) The fishes died as they did not have enough water

Q26

- a) His height increases at month 3
- b) Living things grow

Q27

- a) i) Hair/ Fur
ii) Feathers

b) Insects

Q28

- a) i) D
ii) B
- b) They both give birth to its young alive

Q29) Mushroom: F

Fern: G

Cat: E

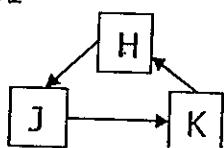
Tulip plant: H

Q30

- a) X: Can make its own food
Y: cannot make its own food
- b) Group 1: Plants
Group 2: Fungi
Group 3: Animals

Q31

a)



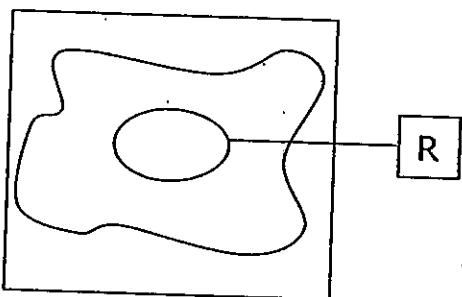
- b) Stages H and K both feed on leaves

Q32

- a) The life cycle of a chicken has three stages while the butterfly has four stages
- b) The young of the chicken can move by itself but the pupa of the butterfly cannot move by itself

Q33

- a) Both the seed and egg help in reproduction
- b)



Q34) The roots will grow upwards. Seeds need moisture to germinate

Q35

- a) Thickness of the material used
- b) The flexibility of materials

Q36

- a) Y, X, Z
- b) Material Z. It is the hardest material

Q37

- a) R: N
Base: S
- b) Like poles of each hidden magnets are facing each other and like poles repel

Q38

- a) The thinner the magnets are, the stronger it will be. The size of the magnet do not matter
- b) Less than 31. Magnet Z lost its magnetism due to heat

Q39

- a) Y. Electromagnet Y has more batteries than electromagnet X
- b) Add a greater number of coils to electromagnet X



RAFFLES GIRLS' PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 2

Name : _____ Index No: _____ Class: P3

28th October 2011 **SCIENCE** Att: 1 h 15 min

Practical	20	
Section A	48	
Section B	32	
Your score out of 100 marks		
	Class	Level
Highest score		
Average score		
Parent's signature		

SECTION A (24 x 2 marks)

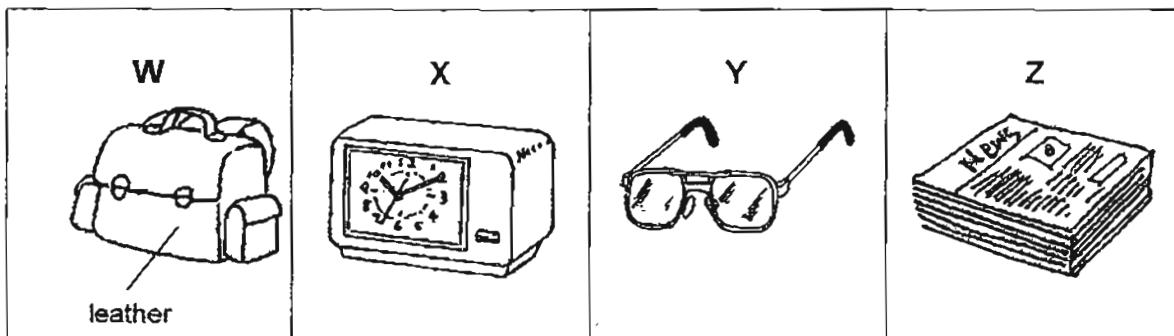
For each question from 1 to 24, four options are given.

One of them is the correct answer.

Make your choice (1, 2, 3 or 4).

Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet (OAS) provided.

1. Ali was given the following objects: W, X, Y and Z (NOT drawn to scale).



He classified the objects as follows:

objects	
group 1	group 2
W	X
Z	Y

Based on the information above, how did Ali group these objects?

- (1) according to their size
- (2) according to their shapes
- (3) according to the number of parts which each has
- (4) according to the type of material(s) they are made of

The following table gives information on four different organisms, W, X, Y and Z, based on some of their characteristics.

A tick (✓) shows that the organism has the characteristic.

characteristic	organism	W	X	Y	Z
lives in water			✓	✓	✓
has hair on its body		✓		✓	
can make its own food			✓		
can move about on its own		✓		✓	✓

Based on the information above, answer questions 2 and 3.

2. Which of the following statements about W, X and Y are true?

- A X is a plant.
- B Only W is a mammal.
- C Only W does not live in water.
- D W, X and Y are aquatic organisms.

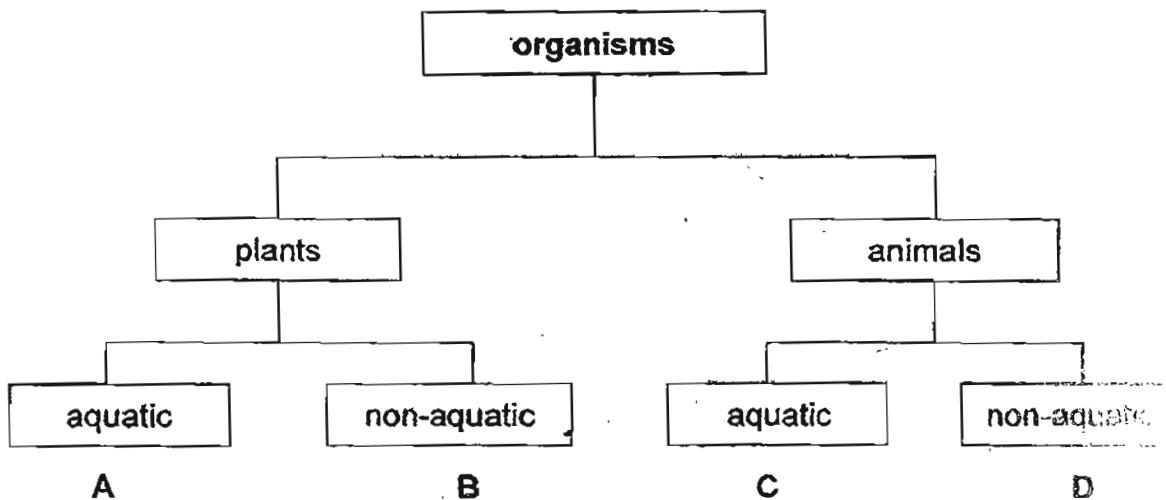
- (1) A and B only
(3) B and D only

- (2) A and C only
(4) A, C and D only

continued on the next page

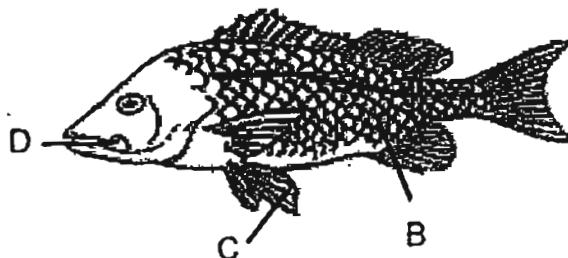
continued from the previous page

3. In which groups do organisms X and Z belong to in the following classification diagram?



	organism X	organism Z
(1)	A	B
(2)	A	C
(3)	B	C
(4)	B	D

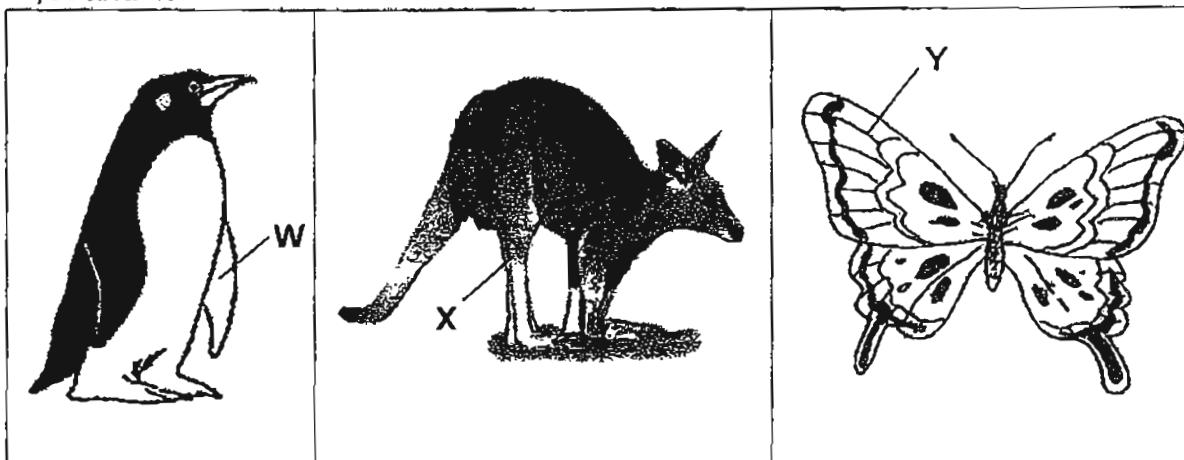
4. The picture below shows a fish with some of its parts labelled B, C and D.



Which one of the following identifies the function of each part correctly?

	B	C	D
(1)	to keep itself warm	to protect itself from injury	to take in food
(2)	to take in air from water	to balance itself in water	to protect itself from injury
(3)	to protect itself from injury	to balance itself in water	to take in food and air
(4)	to balance itself in water	to protect itself from injury	to take in air and water

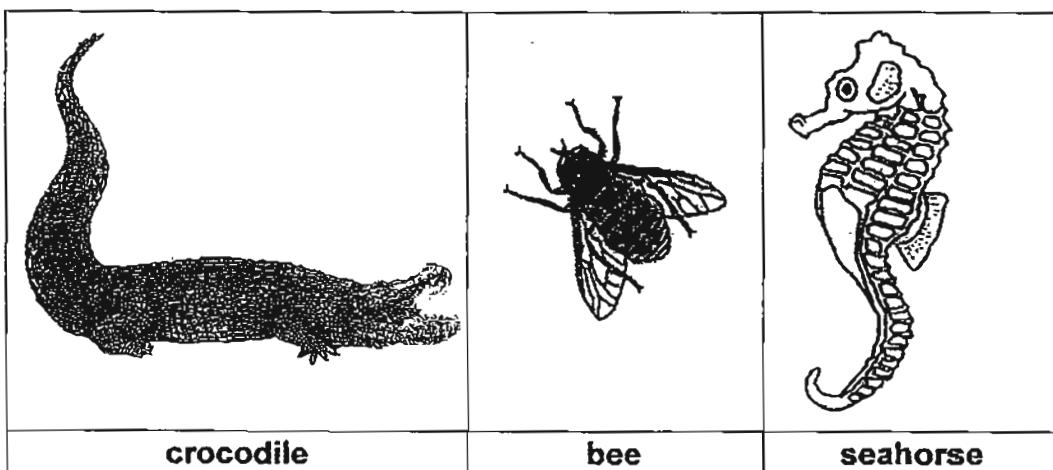
5. The diagrams below show different types of animals with one of its parts labelled : W, X and Y.



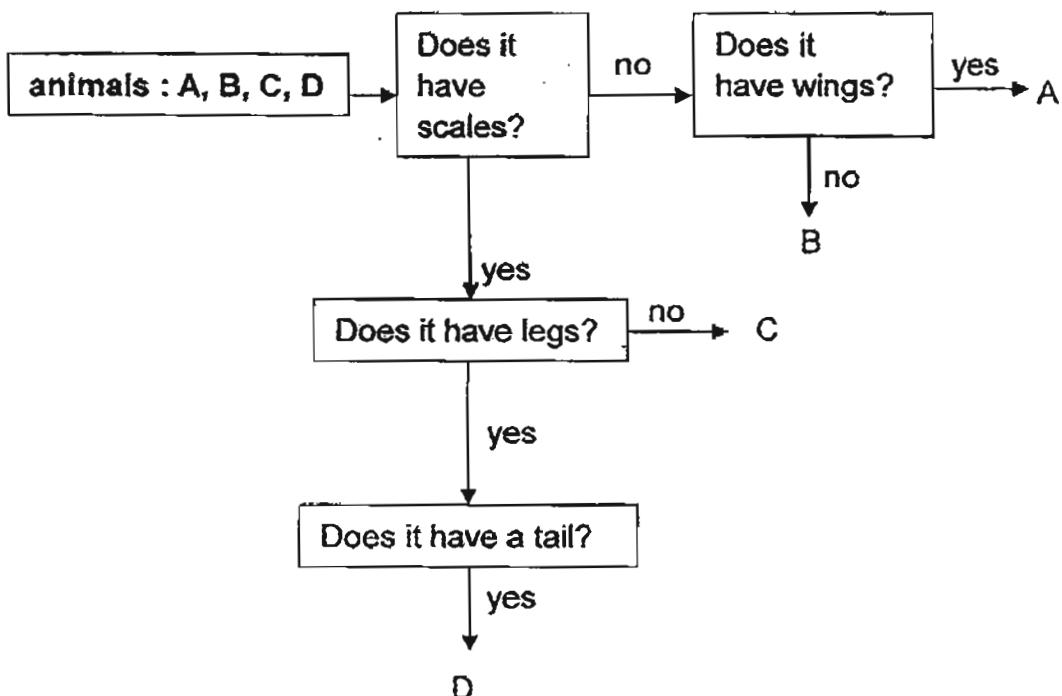
How does each of these parts enable the animals to move?

	W	X	Y
(1)	to fly	to run	to glide
(2)	to swim	to hop	to fly
(3)	to swim	to walk	to fly
(4)	to glide	to crawl	to soar

6. Jia Yi was given the following animals:



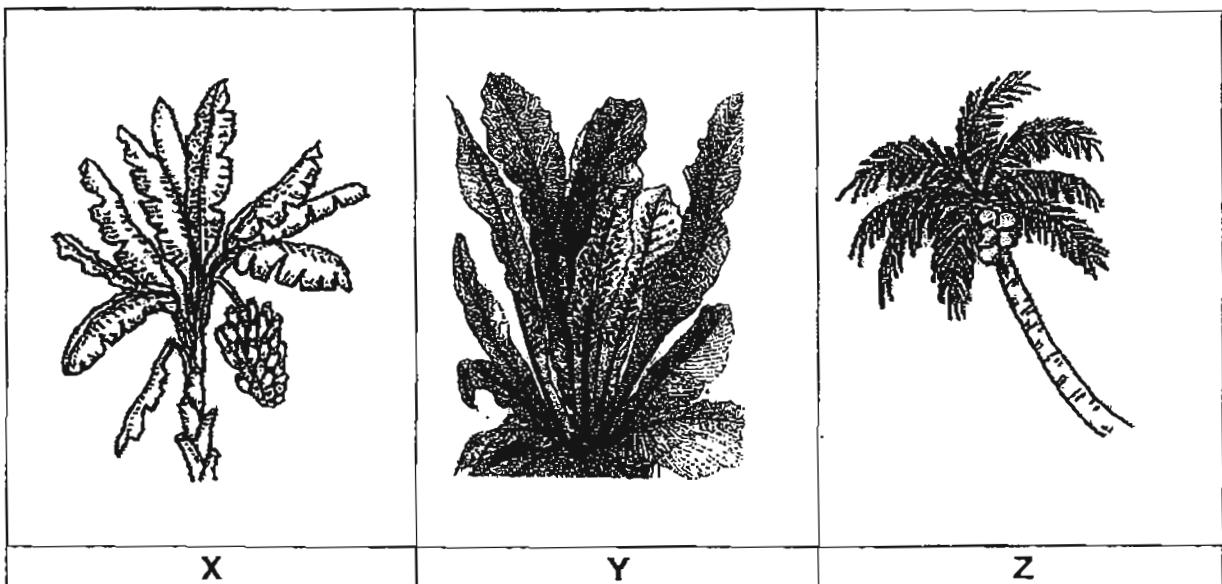
She wanted to use the flow chart below to classify them.



Using the flow chart, which one of the following identifies these animals correctly?

	crocodile	bee	seahorse
(1)	A	B	D
(2)	B	C	A
(3)	C	A	D
(4)	D	A	C

7. Which one of the following statements about plants is NOT true?
- (1) Non-flowering plants do not bear fruits.
 - (2) Plants need air, water and food to grow.
 - (3) Flowering plants bear flowers all the time.
 - (4) Ferns are non-flowering plants which reproduce from spores.
8. Some pupils came across three different types of plants, X, Y and Z, as shown in the diagrams below.



The pupils made the following statements about these plants:

- A Z is a flowering plant since it bears fruits.
- B Y is a non-flowering plant because it reproduces by spores.
- C X, Y and Z are non-flowering plants as they do not bear flowers.
- D Both X and Y are non-flowering plants as they do not bear fruits.

Which of these statement(s) is/ are correct?

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

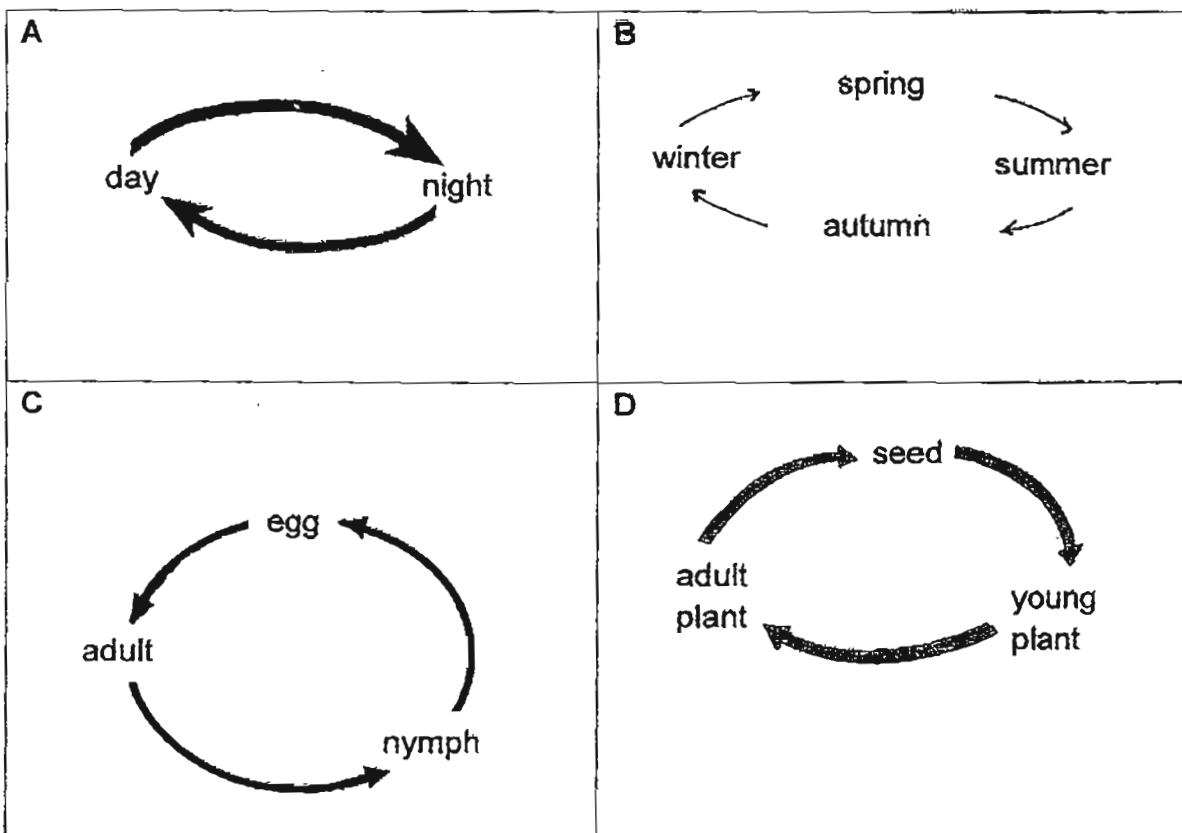
9. Which of the following cannot be seen with our naked eyes?

- A ferns
- B fungi
- C yeast
- D mosses
- E bacteria

- (1) A and B only
- (3) A, B and D only

- (2) C and E only
- (4) C, D and E only

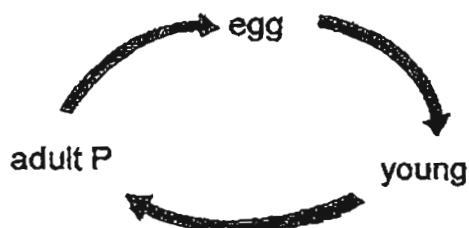
10. Which of the following are correct examples of cycles?



- (1) A and B only
- (3) A, B and D only

- (2) C and D only
- (4) A, C and D only

11. The diagram below shows the life cycle of an animal P.



Which of the following animals has/ have the same number of stages in its life cycle/ their life cycles as animal P?

- A frog
 - B chicken
 - C butterfly
 - D mosquito
-
- (1) A only
 - (2) A and B only
 - (3) C and D only
 - (4) B, C and D only
12. The young of insects will replace their body coverings with new ones as they grow in size. This process is known _____.
- (1) hatching
 - (2) moulting
 - (3) fertilisation
 - (4) reproduction

13. Shermaine recorded the stages of growth of a germinated seed as follows:

- A The root appeared.
- B The shoot appeared.
- C The seed took in water.
- D The first leaves appeared.
- E The seed coat dropped off.

Which one of the following shows the correct sequence of growth of the germinated seed?

1 st stage				
(1)	C	B	A	D
(2)	C	E	A	B
(3)	E	C	A	B
(4)	E	C	B	A

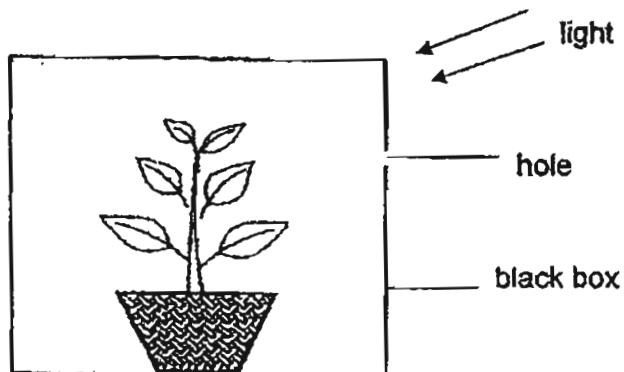
14. Madam Siti grew two different types of plants as shown below.



Why did Madam Siti place supports for both plants to cling onto?

- A The plants had weak stems.
 - B The plants could get more air.
 - C The plants could take in more water.
 - D The plants could receive more light to make food.
-
- | | |
|------------------|------------------|
| (1) A only | (2) A and C only |
| (3) A and D only | (4) B and D only |

15. Divya placed a plant in a black box with a small hole at one of its sides. She put the box in an open space and watered the plant in it everyday.



After a few days, Divya observed that the plant grew towards the hole.

What was Divya trying to find out from her experiment?

- (1) To find out if the plant responded to light
- (2) To find out if the plant needed air to grow
- (3) To find out if the plant grew better in a black box
- (4) To find out if the plant needed water to stay alive

16. The table below describes the property/ properties of 3 similar cups, X, Y and Z, each made of a different material.

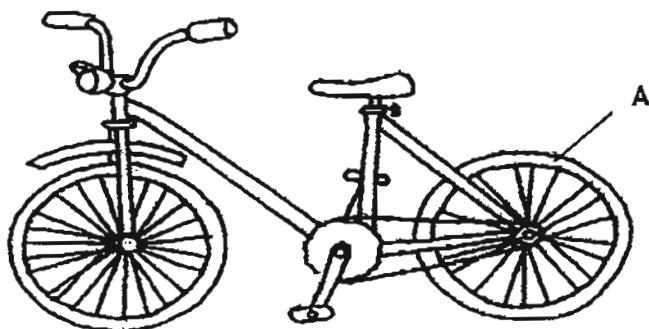
A tick (✓) in the box indicates the presence of such a property.

property of material	X	Y	Z
breaks into pieces when dropped	✓		✓
it allows the object in it to be seen			✓
can be scratched with a plastic ruler		✓	

Which one of the following identifies the materials of these cups correctly?

	X	Y	Z
(1)	metal	paper	clear plastics
(2)	ceramic	metal	clear glass
(3)	ceramic	paper	clear glass
(4)	clear glass	paper	ceramic

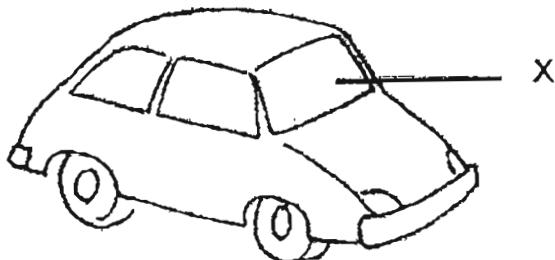
17. The diagram below shows the labelled part, A, of a bicycle.



What is part A made of and the reason for the use of such a material?

material	reason
(1) metal	It is strong.
(2) wood	It is hard.
(3) rubber	It is stretchable.
(4) plastics	It can support a heavy body.

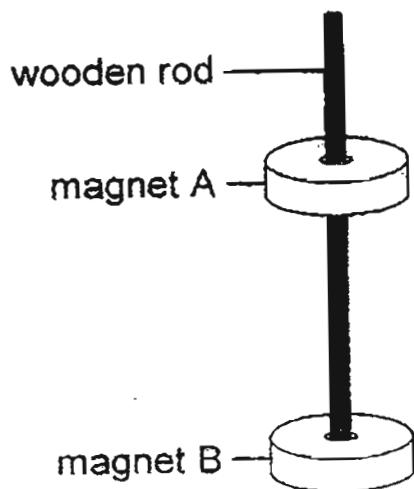
18. Part X of the car shown below is made of glass.



Why is glass commonly used to make part X of the car?

- A We can see through glass.
 - B We can break glass easily.
 - C Glass is a non-magnetic material.
 - D Glass does not allow water to pass through.
-
- | | |
|------------------|------------------|
| (1) A and B only | (2) A and D only |
| (3) B and D only | (4) C and D only |

19. Three pupils, Ashley, Ben and Charis, observed that magnet A "floated" above magnet B as shown below.



The pupils made the following conclusions:

Ashley : Magnet A lost its magnetism.

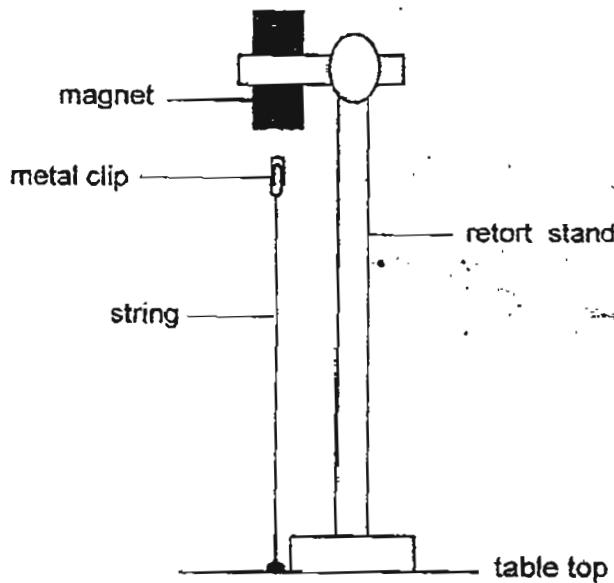
Ben : Like poles of magnets A and B were facing each other.

Charis : Unlike poles of magnets A and B caused them to push each other apart.

Which of these pupils made the correct statement(s)?

- (1) Ben only
- (2) Charis only
- (3) Ashley and Charis only
- (4) Ashley, Ben and Charis

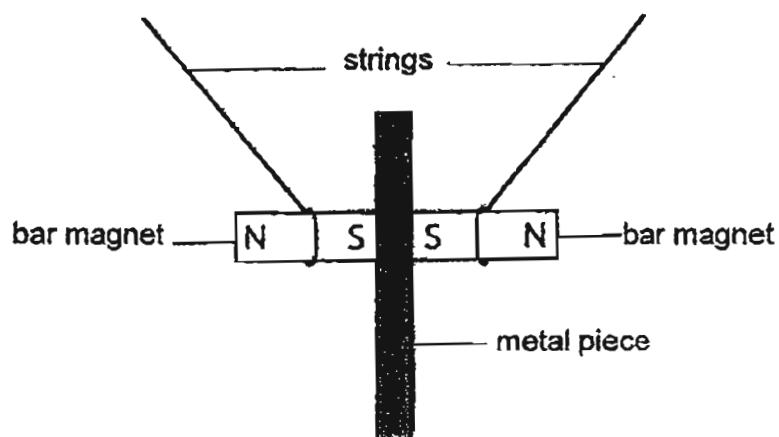
20. Janelle clamped a bar magnet to a retort stand. She brought a metal clip, held to the table top by a string, near the bar magnet. The metal clip remained in the air as shown below.



Which one of the following explains why the metal clip did not drop to the table top?

- (1) The magnet attracted the metal clip.
- (2) The string held the metal clip upright.
- (3) The magnet repelled the metal paper clip.
- (4) The metal clip was not heavy enough to drop to the table.

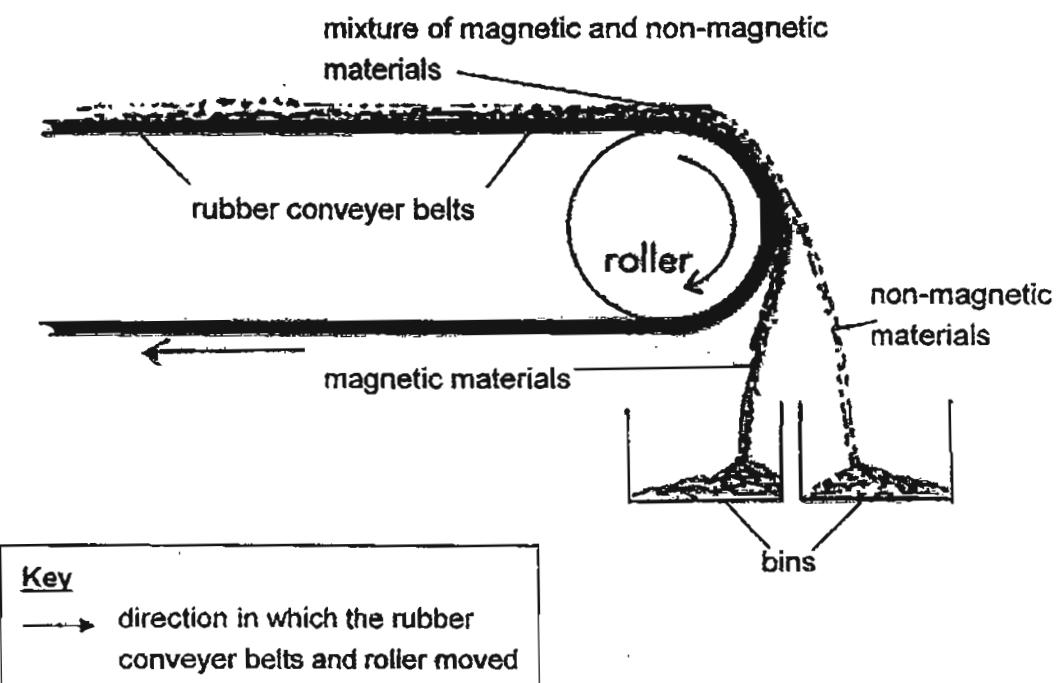
21. Two bar magnets, suspended by strings, were separated by a thin metal piece.



Which one of the following statements best explains the behaviour of these bar magnets?

- (1) The metal piece attracted the magnets.
- (2) The magnets lost their magnetic strength.
- (3) Magnetism could not pass through the metal piece.
- (4) Like poles of these bar magnets attracted each other.

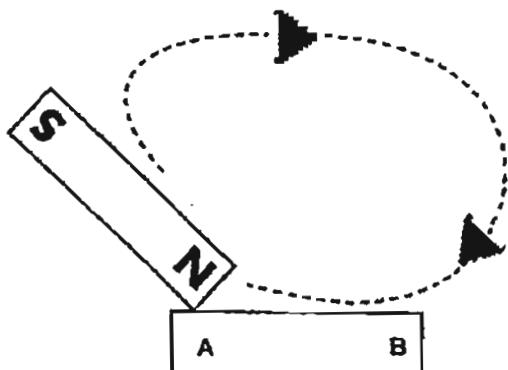
22. A mixture of magnetic and non-magnetic materials found in sand is separated using the machine as shown below.



Based on the information above, which of these statements are true?

- A Magnetic force can pass through rubber.
 - B Magnetic materials are attracted to the roller.
 - C Non-magnetic materials cannot be attracted to the roller.
-
- | | |
|------------------|------------------|
| (1) A and B only | (2) A and C only |
| (3) B and C only | (4) A, B and C |

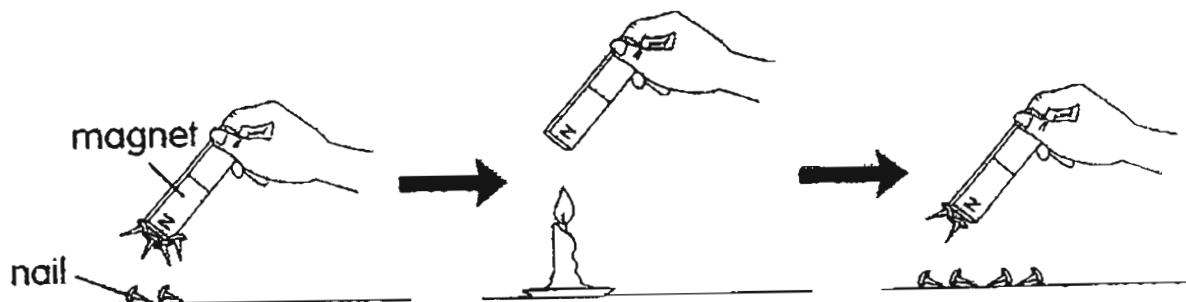
23. An iron bar AB was magnetised using the "stroking" method as shown below.



Which one of the following statements about the magnetised iron bar AB is incorrect?

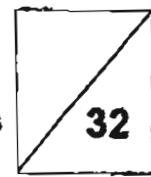
- (1) AB has a North and South pole.
- (2) AB is not able to attract a pin made of iron.
- (3) AB will lose its magnetism when dropped many times.
- (4) AB will come to rest in the North-South direction when it is freely suspended.

24. Deene conducted an experiment as shown below.



What could Deene conclude from her experiment?

- (1) A magnet had to be heated before use.
- (2) A magnet became stronger when heated.
- (3) A magnet lost its magnetism when heated.
- (4) Heating the magnet did not change its magnetic strength.



Name : _____ Index No: _____ Class: Primary 3 _____

SECTION B (32 marks)

For questions 25 to 38, write your answers clearly in the spaces provided.

The number of marks available is shown in the brackets [] at the end of each question or part question.

25. The table below shows the recorded length of a fish in a pond at the end of each week during a period of time.

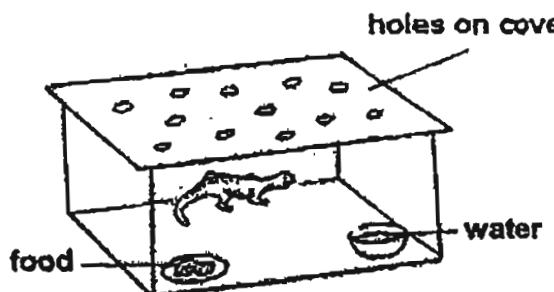
end of week	1	2	3	4	5	6
length of fish (cm)	2	6	11	15	15	15

Based on the information above, answer the following questions :

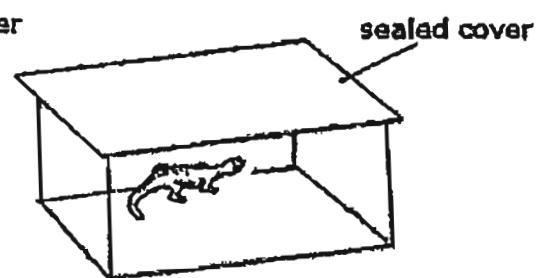
- (a) Describe the changes in the fish from weeks 1 to 4. [1]

- (b) What could be concluded about the length of the fish from week 4 onwards? [1]

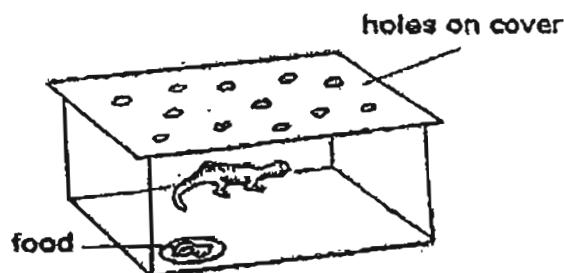
26. Four similar-sized lizards of the same type were each placed in identical containers in the set-ups as shown below.



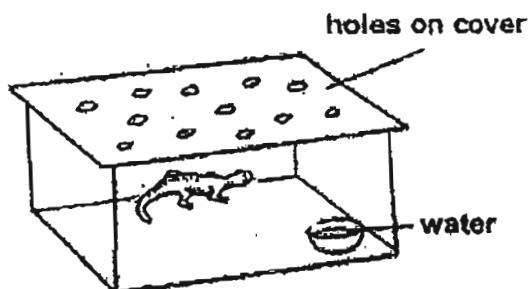
set-up A



set-up B



set-up C



set-up D

continued on the next page

continued from the previous page

Based on the information on page 20, answer the following questions:

(a) Which one of these lizards would die first?

Name the set-up, A, B, C or D.

Explain your answer.

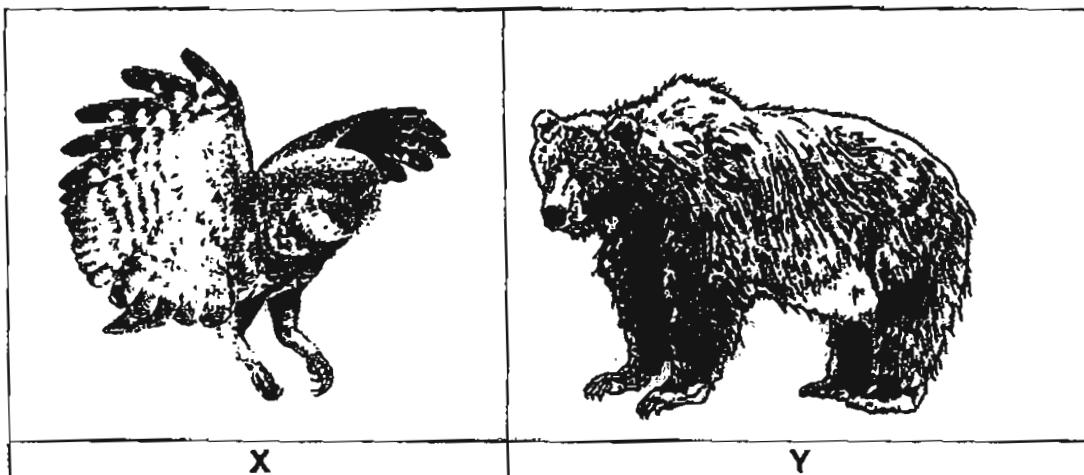
[1]

lizard in set-up	explanation

(b) State the characteristics of living things demonstrated in this experiment.

[1]

27. Below are pictures of animals X and Y.



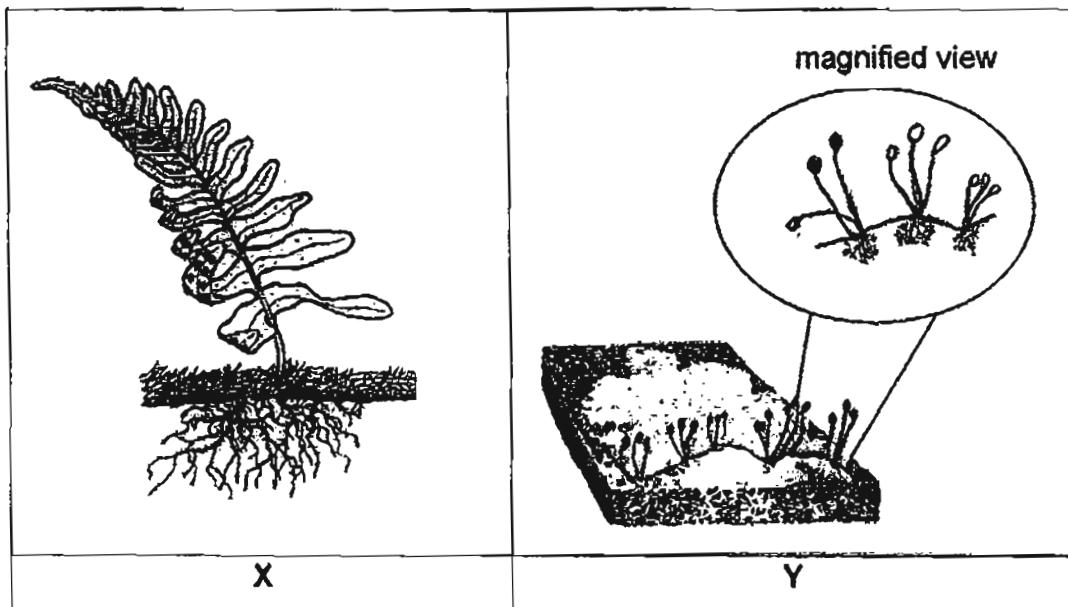
- (a) Give one function of the body coverings of these animals. [1]

Based on your observations of these animals, compare animals X and Y.

- (b) State each of the following in the table below.
(Do NOT compare their shape and size, and do NOT state what each animal is.) [2]

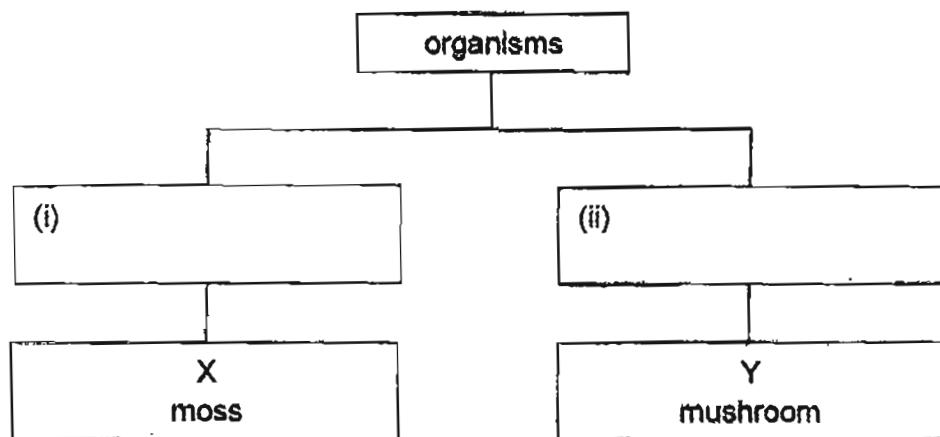
ONE SIMILARITY between X and Y	
ONE DIFFERENCE between X and Y	

28. Below are pictures of two different types of organisms, X and Y.



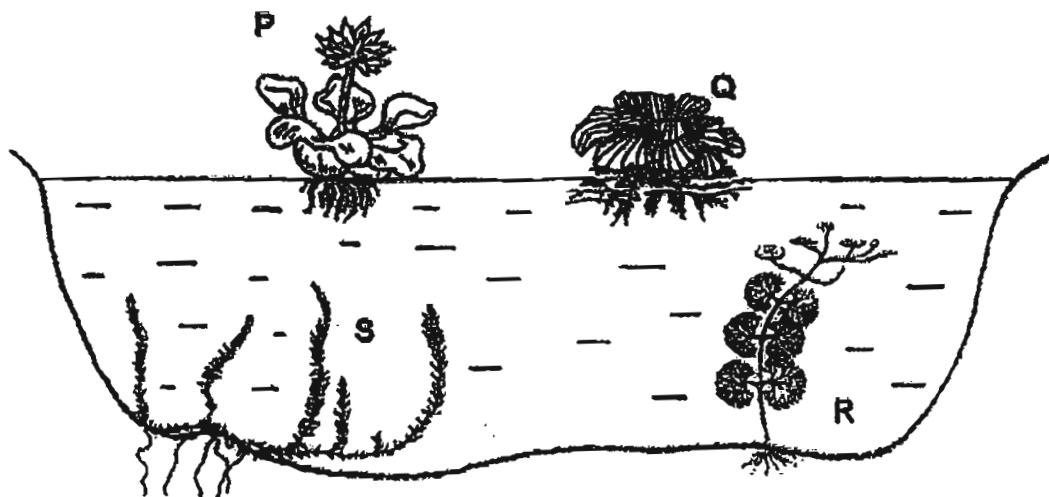
Based on your observations of these organisms, answer the following questions :

- (a) These organisms, X and Y, can be classified as shown below.
Write the group of living things which X and Y belong to in (i) and (ii).
[1]



- (b) How do X and Y reproduce? [1]

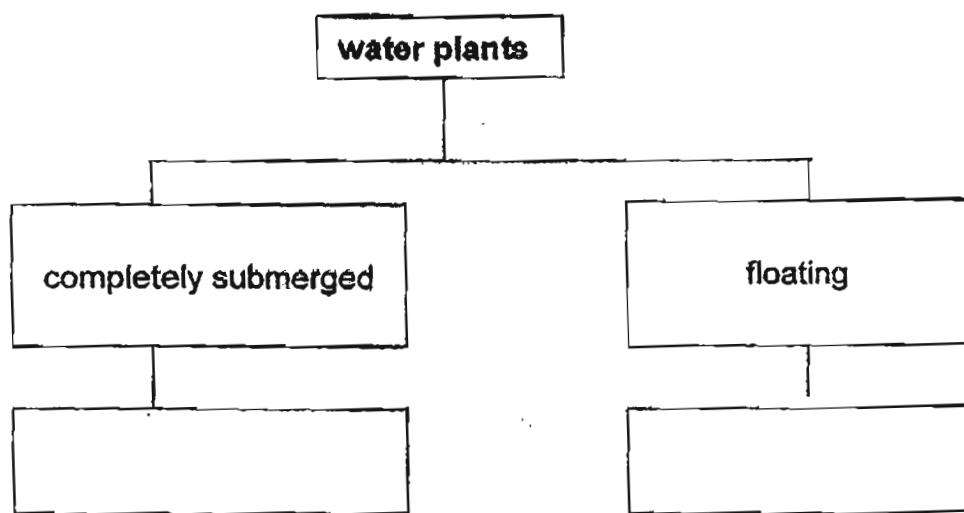
29. In a pond, some plants, P, Q, R and S, were found growing as shown in the diagram below :



Based on the diagram above, answer the following questions :

- (a) Classify these plants using the classification diagram below.
Write letters P, Q, R and S ONCE only.

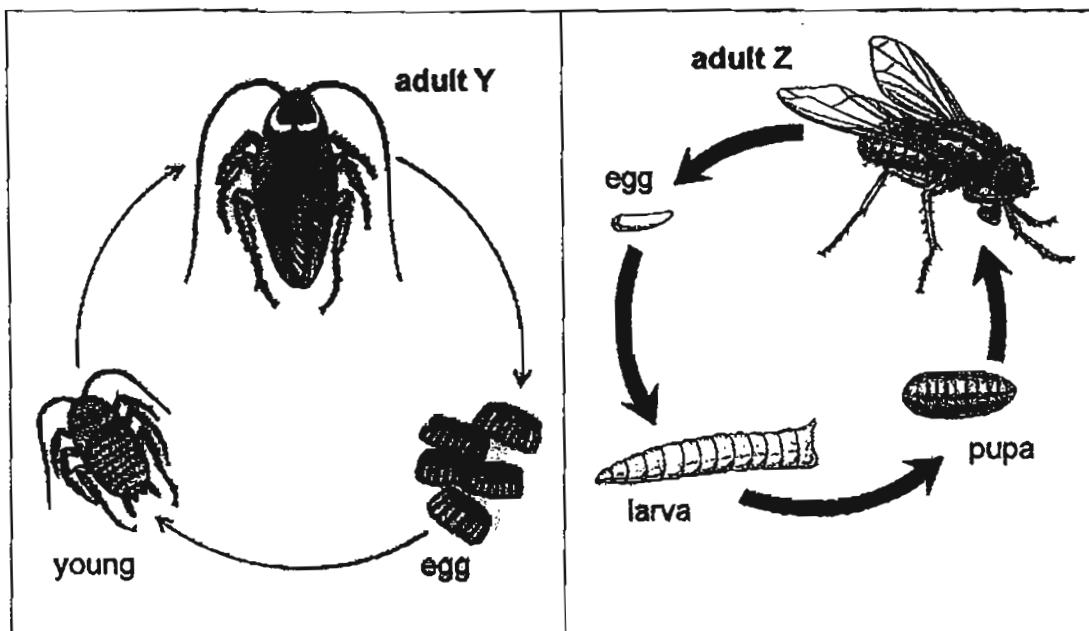
[2]



- (b) When the number of plants, P and Q, increased quickly and covered the surface of the pond completely, plants R and S could not survive.
What was the reason for this?

[1]

30. The diagrams below show the life cycles of two types of organisms : Y and Z.



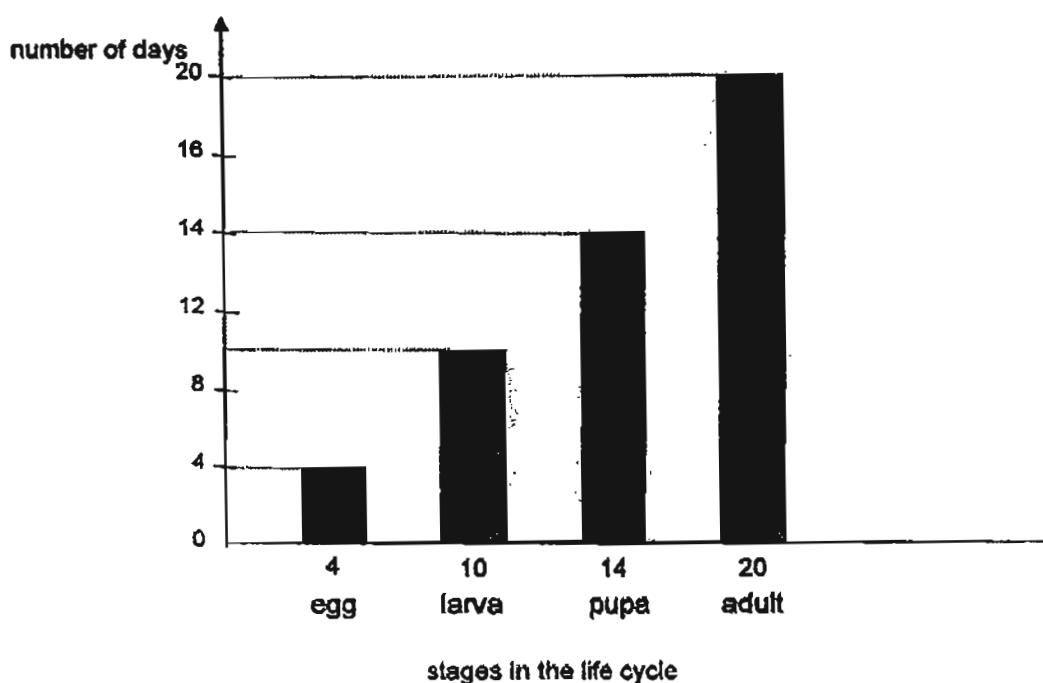
Based on your observations of the diagrams above, compare the life cycles of organisms Y and Z.

State two differences between the life cycles of Y and Z.

(Do NOT compare the physical characteristics of the two organisms.) [2]

DIFFERENCE 1	
DIFFERENCE 2	

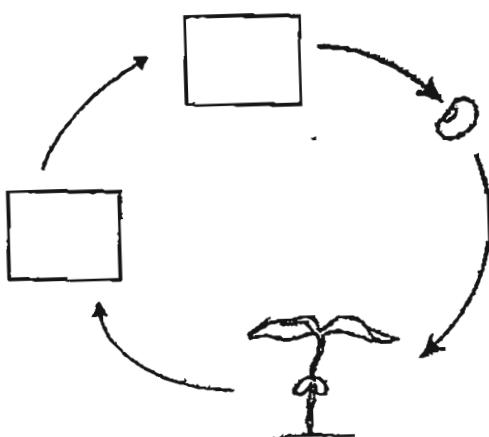
31. The diagram below shows the duration of each stage in the life cycle of an organism.



Based on the diagram above, answer the following questions:

- (a) Name the stage which lasts for the shortest time. [1]
-
- (b) Name the stage of the organism on the 20th day after the egg has hatched. [1]
-

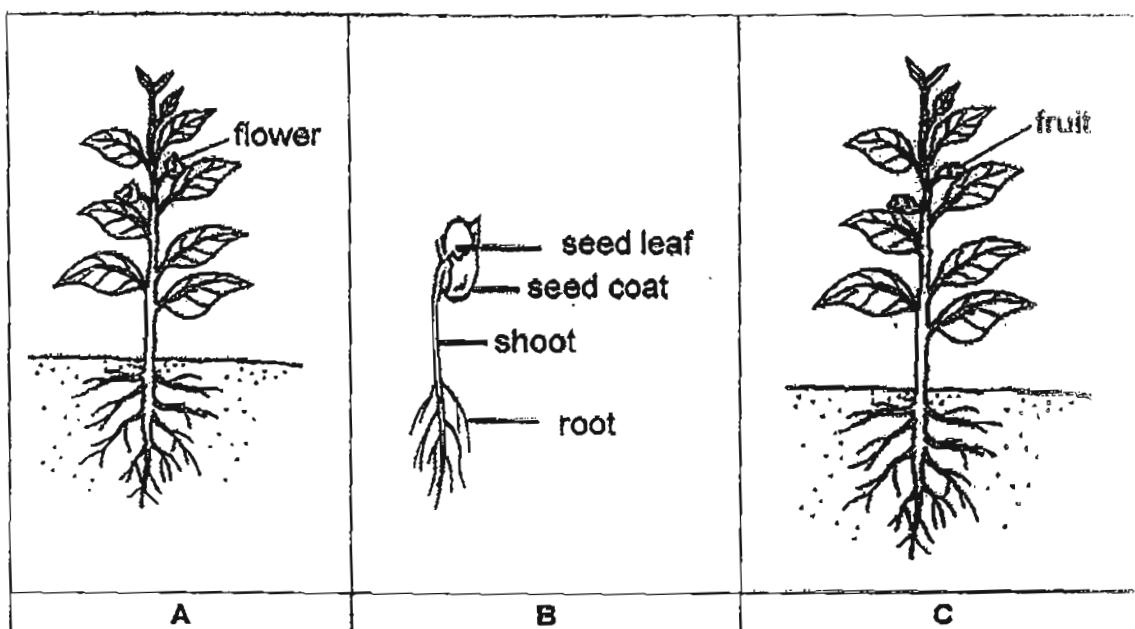
32. The diagram below shows an incomplete life cycle of a flowering plant.



- (a) Complete the diagram above using the pictures below.

In the boxes above, write letters A, B and / or C ONCE.

[1]



- (b) Which part of the seedling will eventually drop off?

Name the part and state one of its functions.

[1]

part of the seedling	function

33. Alex carried out an experiment using two identical pots with an equal number of seedlings. One pot was placed under light while the other pot was kept in a black box with a small hole at one of its sides.

Alex measured and recorded the average heights of the seedlings over 15 days.

day	average height of seedlings (mm)	
	in pot under light	in pot in a box
3	4	5
6	6	8
9	14	20
12	23	32
15	42	52

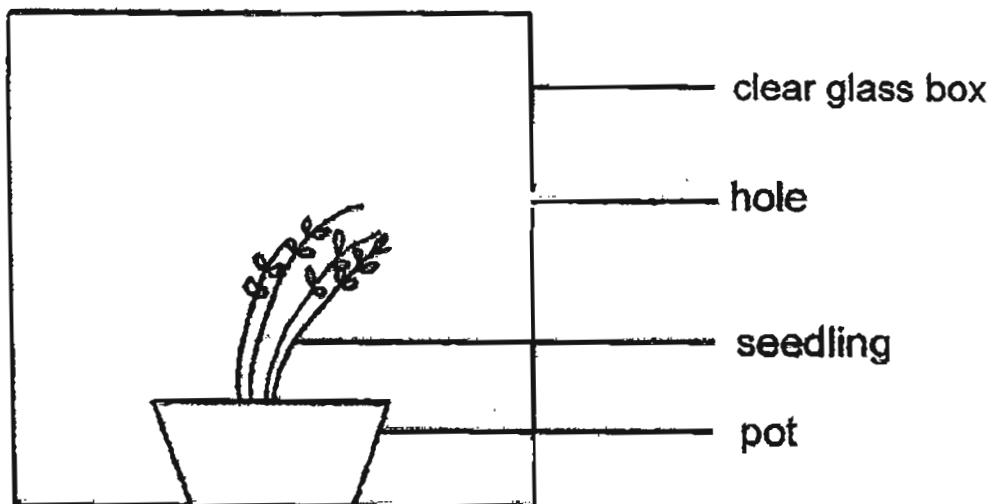
Based on the information above, answer the following questions:

- (a) Compare the average height of the seedlings in the two pots.
State one difference in Alex's observations of the seedlings. [1]

continued on the next page

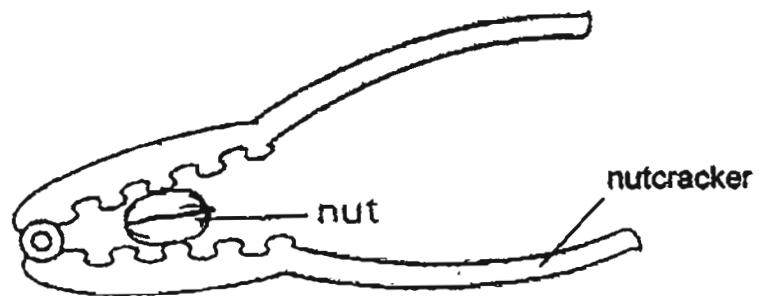
continued from the previous page

In ANOTHER experiment, Alex placed a pot of seedlings in a clear glass box with a small hole at one of its sides. He predicted that the seedlings would grow towards the hole in the box as shown below.



- (b) Was Alex correct in his prediction? Explain your answer. [1]

34. The diagram below shows a nutcracker that is used to crack a nut.



The nutcracker is made of stainless steel.

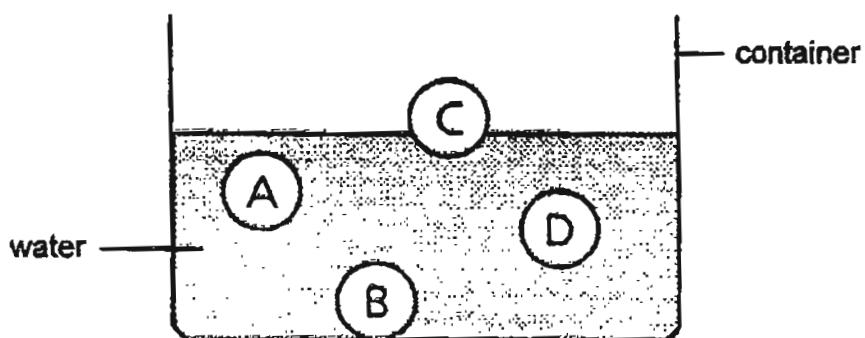
Give two reasons why it is made of stainless steel.

[2]

REASON 1	
REASON 2	

35. There are four solid balls of equal size, each made of a different material. They were dropped from the same height into a plastic container of water.

The diagram below shows the position of each ball in a container of water.



None of the balls was made of wood.

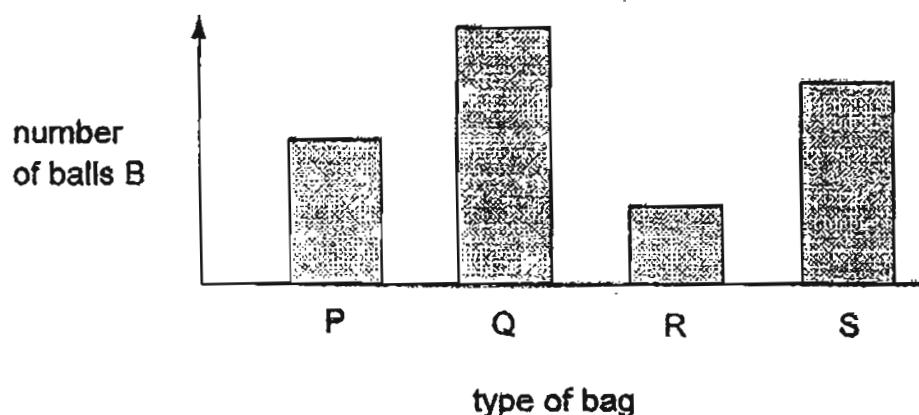
- (a) Suggest a material for ball B. [1]
-

continued on the next page

continued from the previous page

Megan filled four bags, P, Q, R and S, with balls B, one at a time. The bags were of equal size and each made of a different material.

The bar graph below shows the maximum number of balls B that each bag could hold just before it broke.



Based on the information above, answer the following questions :

- (b) Which one of these bags is best used as a school bag?

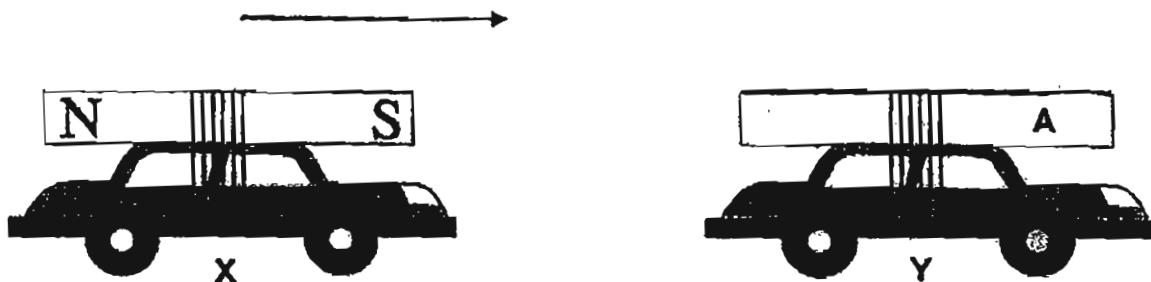
Write letter P, Q, R or S only.

Explain your answer.

[1]

bag	explanation

36. Meiling tied a strong bar magnet and an object A to two identical toy cars, X and Y, respectively. She moved toy car X towards toy car Y in the direction of the arrow as shown below.



Meiling observed that toy car Y moved away from toy car X.

Next, Meiling replaced object A with similar objects B, C and D, ONE at a time, and recorded her observations as follows:

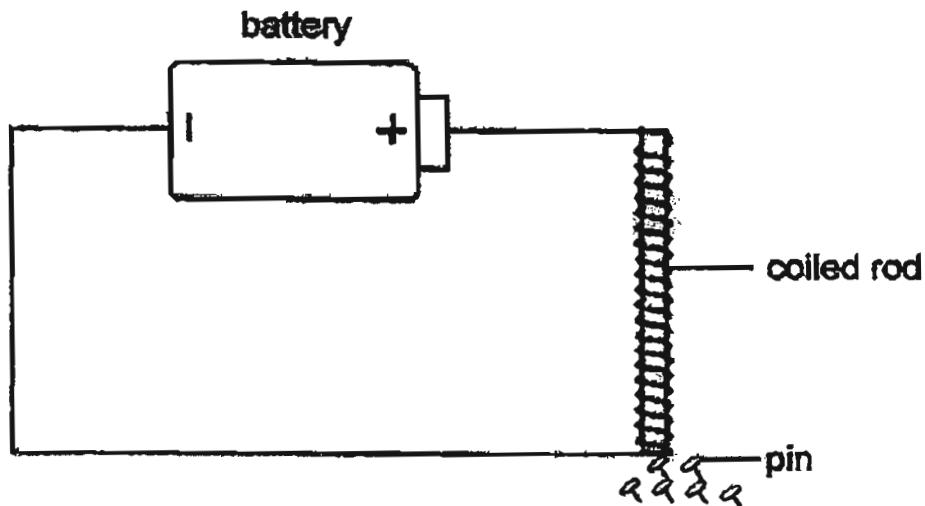
object	A	B	C	D
observation	car Y moved away	car Y did not move at all	car Y moved towards car X	car Y did not move at all

Based on the information above, answer the following questions:

- (a) Which one of these objects, A, B, C or D, was definitely a magnet?
Give a reason for your answer. [1]

- (b) Other than the object mentioned in (a), which of these objects, A, B, C and / or D, was / were magnetic?
Give a reason for your answer. [1]

37. Nicole used 4 rods, A, B, C and D, of the same length and thickness, each made of a different material. She coiled an equal number of turns round each rod using the same type of wire. Next, she connected coiled rod A to a battery in a circuit and observed the number of pins it attracted.



Nicole replaced coiled rod A with coiled rods B, C and D, ONE at a time, and recorded her results in the table as shown below.

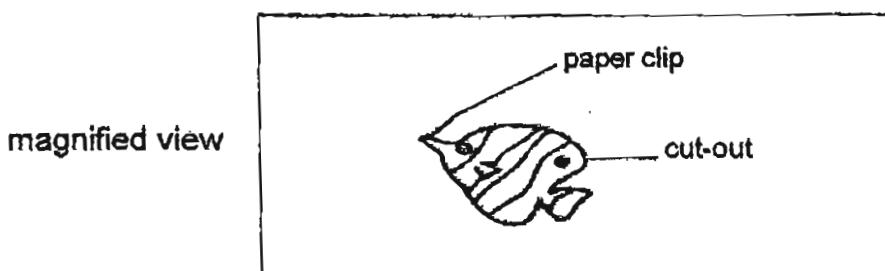
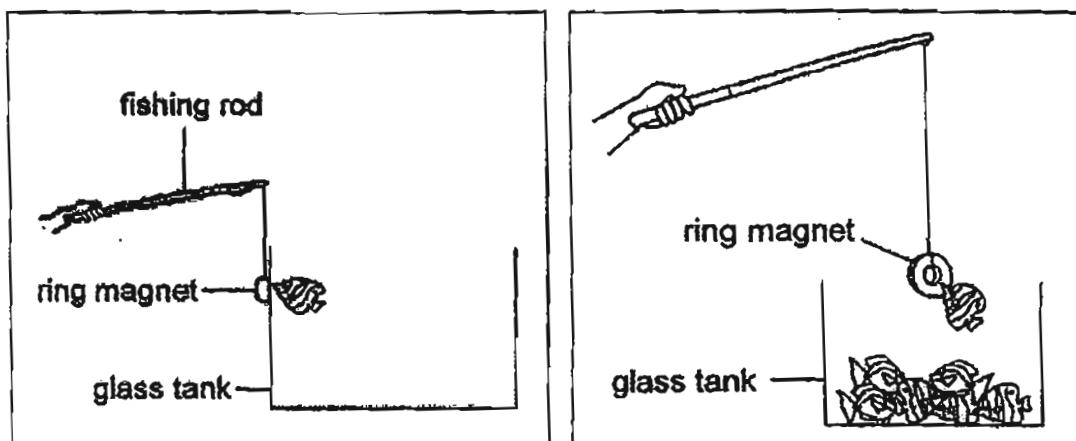
coiled rod	A	B	C	D
number of pins the rod attracted	20	13	0	5

Based on the information above, answer the following questions:

- (a) Write letter A, B, C and / or D in each blank. [2]
- Rod(s) _____ was / were most likely made of plastics.
 - Rod _____ was the strongest electromagnet.
- (b) State two ways in which Nicole could make the electromagnet(s) stronger. [2]

1 st WAY	
2 nd WAY	

38. Jerlynn made a fishing rod with a ring magnet at one end. She used her fishing rod to fish out the cut-outs from the ~~glass~~^{tank} as shown below.



Based on the information above, answer the following questions :

Put a tick (✓) in the correct box(es).

[2]

Statement	true	false	not possible to tell
The cut-outs were made of a magnetic material.			
The paper clip was made of nickel.			
Magnetism can pass through glass.			
When the ring magnet was replaced with a bar magnet, it could not attract the paper clip on the cut-out.			

END OF PAPER

Setters : Mrs Elaine Lim, Ms Florence Kong

Answer Ke

EXAM PAPER 2011

**SCHOOL : RAFFLES GIRLS
SUBJECT : PRIMARY 3 SCIENCE**

TERM : SA 2

Section A

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

Q18	Q19	Q20	Q21	Q22	Q23	Q24
2	1	1	3	3	2	3

Section B

**Q25 a) The fish grow longer from week 1 to week 4.
b) The length of the fish remain the same from week 4 onwards.**

**Q26 a) B. The lizard in set-up does not have air, food and water.
b) Living thing need air, food and water.**

**Q27 a) The body coverings of these animals protect them from injury.
b) Both animal have a pair of eyes.
Animal X has two legs but Animal Y has four legs.**

**Q28 a) i) Non-flowering (ii) fungi
b) X and Y reproduce by spores.**

Q29 a)

water
plants

completely
submerged

floating

S and R

P and Q

(b) P and Q block the sunlight and R and S could not make food.

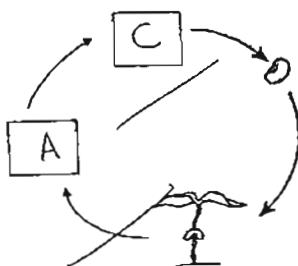
Q30)

DIFFERENCE 1	Organism Y has 3 stages but organism Z has 4 stages.
DIFFERENCE 2	Organism Z has a larval stage but organism Y does not.

Page 2

- Q31a) Egg stage.
b) Pupa stage

Q32 a)



Q32b)

part of the seedling	function
seed coat	the seed coat protect the seed.

Q33 a) the seedling in the pot in a box grow taller than the seedling in the pot under the light.

b) The seedling received light from all direction.

Q34) Reason 1 : It is strong.
Reason 2 : It does not break easily.

Q35 a) Metal
b) Q . It is the strongest and can hold the most number of balls before it broke.

Q36 a) A. Because only magnets repel each other magnetic material cannot repel a magnet.

b) C. Because it move towards car X like all magnetic materials, magnets can attracted them.

Q37 a) (i) (ii) A
b) 1st way – Put more batteries
2nd way - Turn more coils.

Q38)

Statement	TRUE	FALSE	not possible to tell
The cut-outs were made of magnetic material.		✓	
The paper clip was made of nickel.			✓
Magnetism can pass through glass	✓		
When the ring magnet was replaced with a bar magnet, it could not attract the paper clip on the cut-out.		✓	

-- end paper --



RAFFLES GIRLS' PRIMARY SCHOOL

SEMESTRAL ASSESSMENT (1)

2014

Name: _____ Index No: _____ Class: P3

6 May 2014 SCIENCE Att: 1 h 15 min

Section A	35
Section B	24
Your score out of 100 marks	
Parent's signature	

SECTION A (18 x 2 marks)

For each question from 1 to 18, 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 (OAS) provided.

1. Which one of the following is not a characteristic of all living things?
 - (1) They die.
 - (2) They reproduce.
 - (3) They make their own food.
 - (4) They need air, food and water.
 2. Which one of the following is not a living thing?
 - (1) Fire
 - (2) Goldfish
 - (3) Mushroom
 - (4) Bread mould

3. Which one of the following shows how living things respond to the changes around them?

- (1) A boy becoming heavier.
- (2) A cow giving birth to a young.
- (3) A flower developing into a fruit.
- (4) A snail hiding in its shell when touched.

4. Some things are classified into group A and B as shown in the table below.

A	B
ball	cat
pen	fungi
paper	bacteria

Which of the following headings best describe the objects in A and B?

	A	B
(1)	Living things	Non-living things
(2)	Non-living things	Living things
(3)	Things that were never alive	Things that were once alive
(4)	Things that were once alive	Things that were never alive

5. Which of the following statement(s) is/are true about all insects?

- A They have wings.
 - B They have 6 legs.
 - C They have 3 body parts.
 - D They reproduce by giving birth to their young alive.
- (1) B only
(2) B and C only
(3) A, B and C only
(4) A, B, C and D

6. The following table describes the characteristics of animal groups, X and Y.

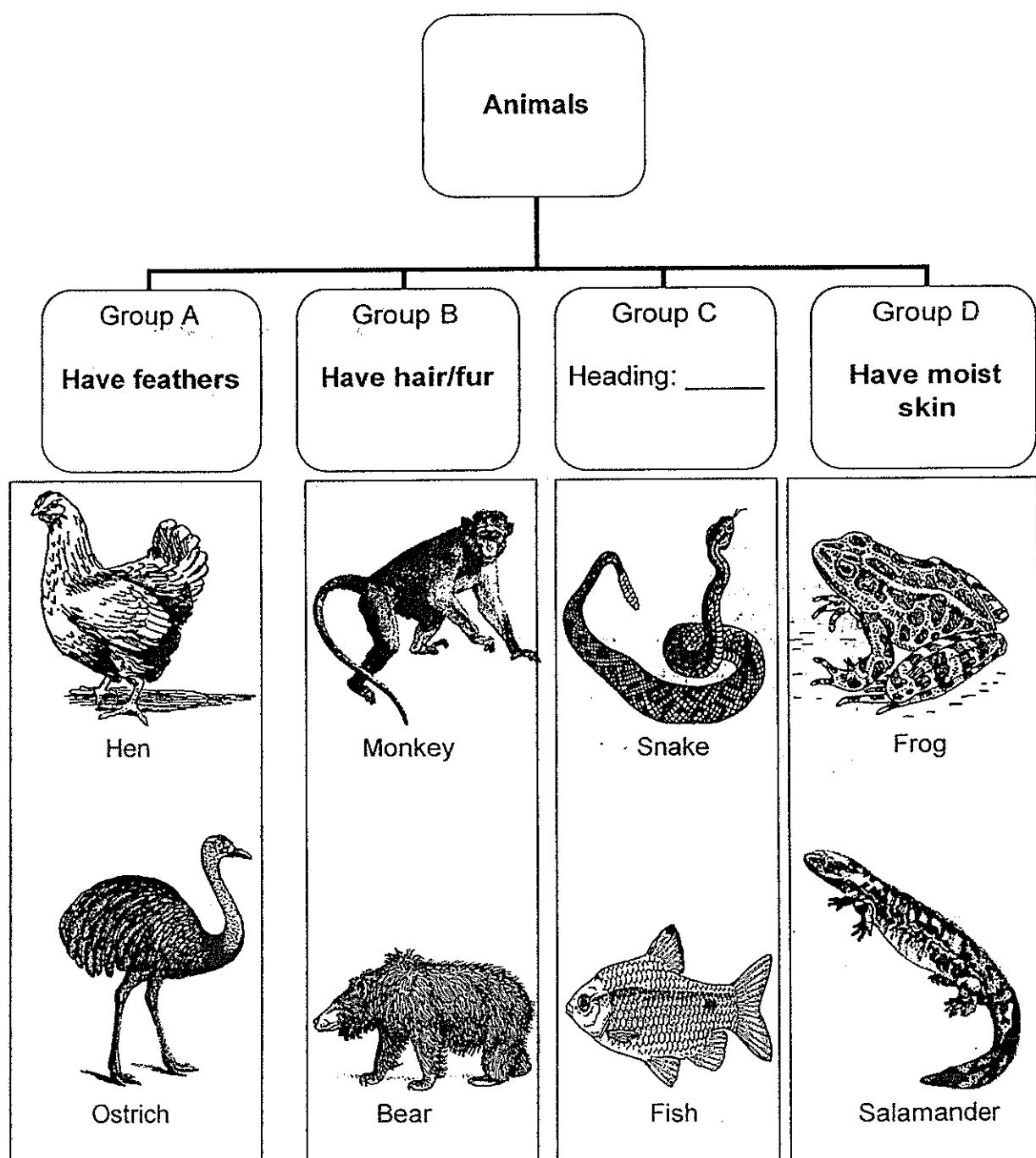
Characteristics	X	Y
Have moist skin		✓
Have hair on its body	✓	
Give birth to young alive	✓	
Live on water and on land		✓

Which one of the following best represents animal groups, X and Y?

	X	Y
(1)	Birds	Reptiles
(2)	Mammals	Fish
(3)	Insects	Reptiles
(4)	Mammals	Amphibians

For questions 7 and 8, refer to the classification chart below.

The animals in the classification table below are grouped according to their similarities.
(Note: The animals are not drawn to scale)

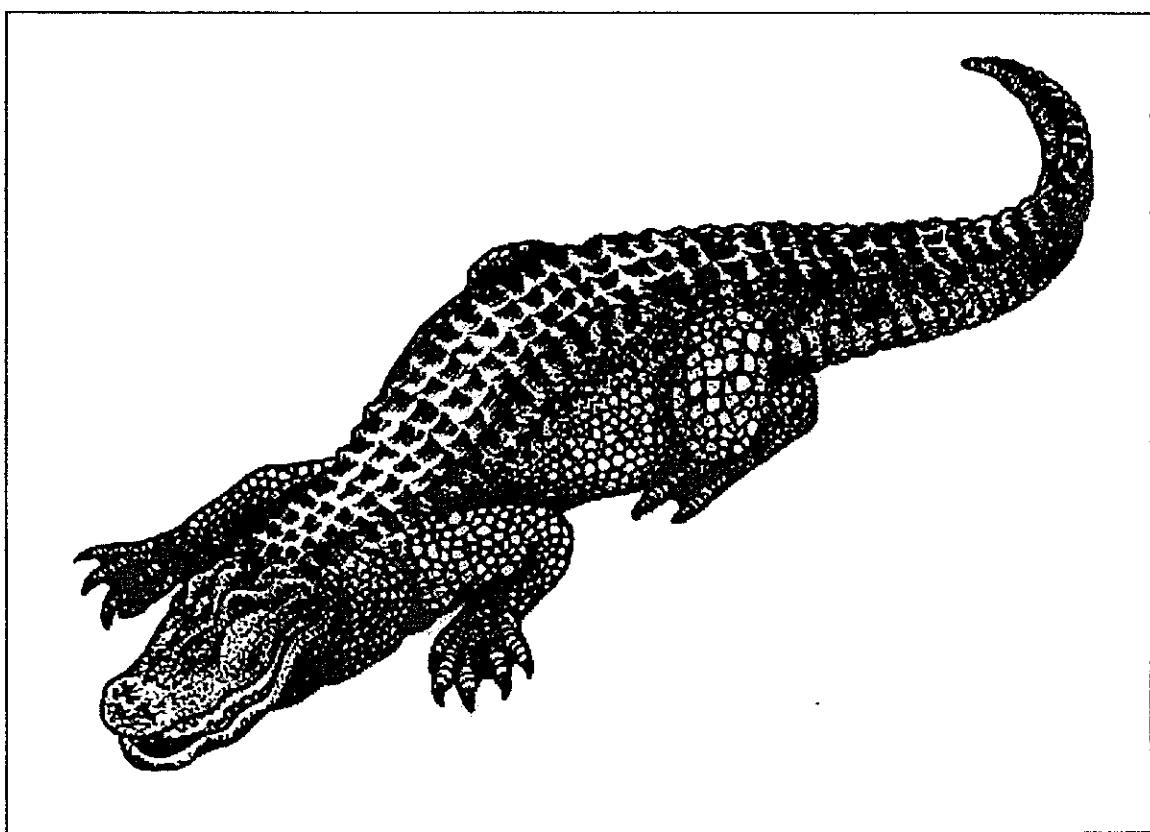


Continue on Pg. 5

7. What is a suitable sub-heading for Group C?

- (1) Have gills
- (2) Have wings
- (3) Have scales
- (4) Have six legs

8. Study the animal shown below carefully.

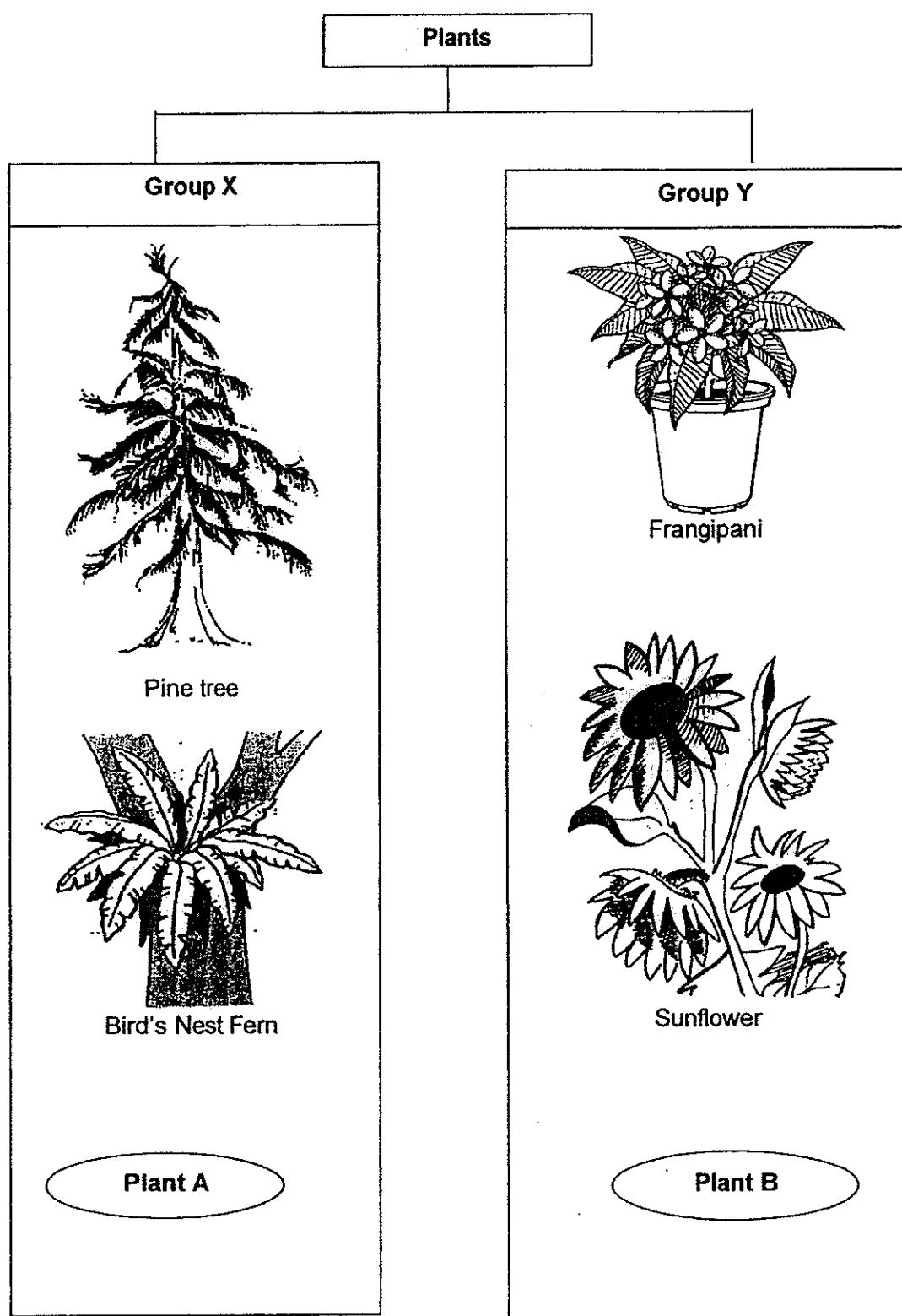


In which group, A, B, C or D, in the classification table would you place the animal shown above?

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

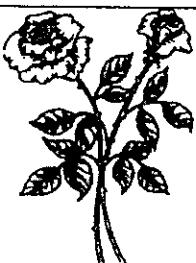
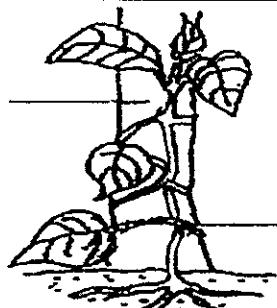
9. Study the classification chart below.

(Note: The plants are not drawn to scale)

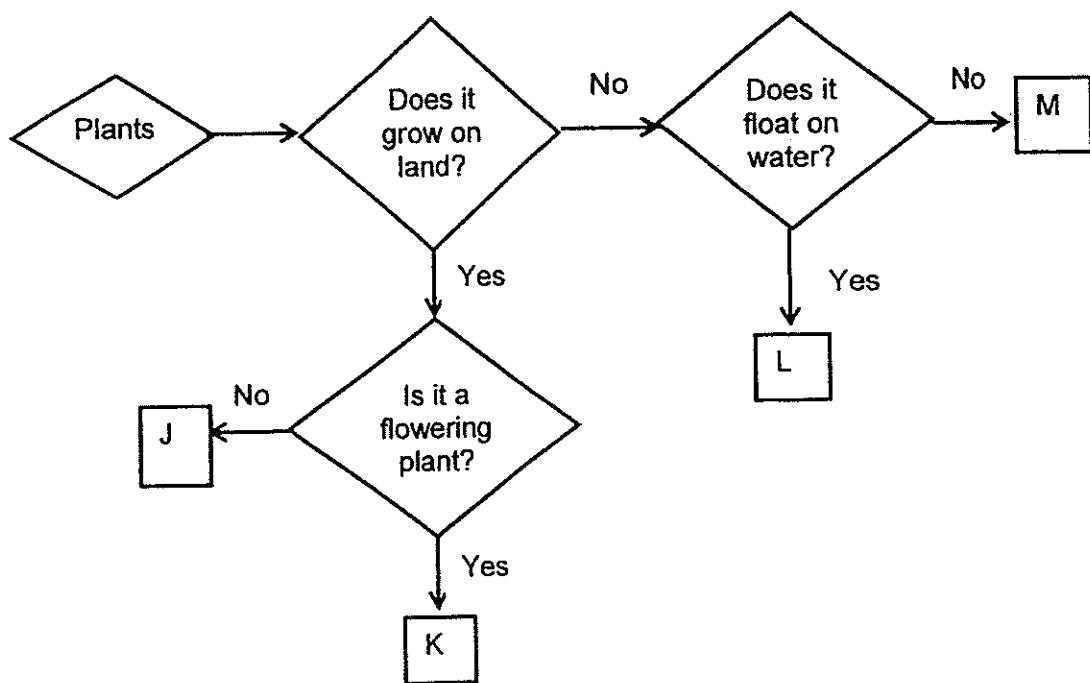


Continue on Pg 7

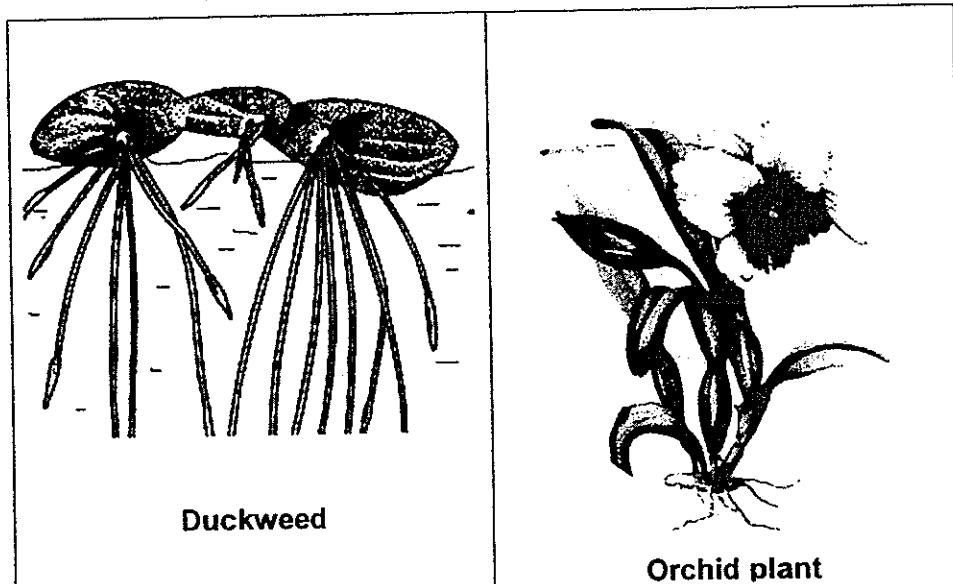
Based on the information provided in the classification chart,
Which one of the following best represents plant A and B respectively?

	A	B
(1)	 Rose	 Mushroom
(2)	 Grass	 Carnation
(3)	 Staghorn fern	 Hibiscus
(4)	 Money Plant	 Sword fern

10. The flow chart below shows how 4 plants, J, K, L and M, are being grouped.



Based on the information above, which one of the following best represent duckweed and orchid plant?



(1)	L	K
(2)	L	J
(3)	K	J
(4)	M	K

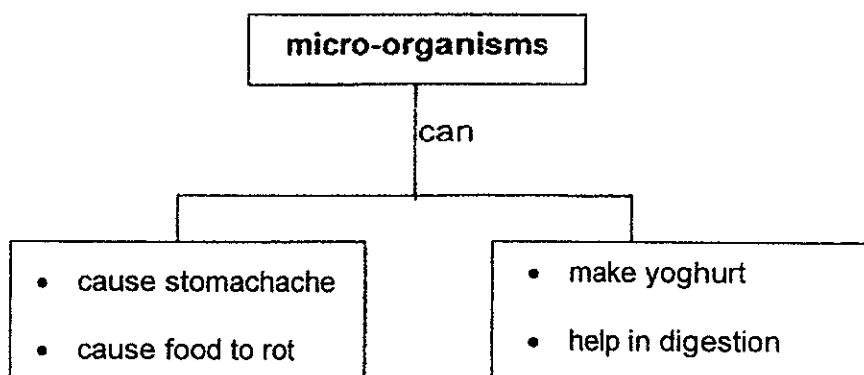
11. In the table below, which of the following show the similarities and differences between a non-flowering plant and fungi correctly?

	Similarities	Differences
(1)	Both cannot make their own food.	Non-flowering plants reproduce by spores but fungi reproduce by seeds.
(2)	Both can make their own food.	Non-flowering plants do not bear fruits but fungi bear fruits.
(3)	Both reproduce by spores.	Fungi cannot make its own food but the non-flowering plant can make its own food.
(4)	Both bear flowers.	Non-flowering plants have leaves but fungi do not have leaves.

12. Which of the following statements are true about all kinds of bacteria?

- A Bacteria are harmful.
 - B Bacteria can reproduce.
 - C Bacteria is a group of living things.
 - D Bacteria can be seen using magnifying glass.
-
- (1) A and C only
 - (2) A and D only
 - (3) B and C only
 - (4) B and D only

13. The chart below shows how we can group micro-organisms.

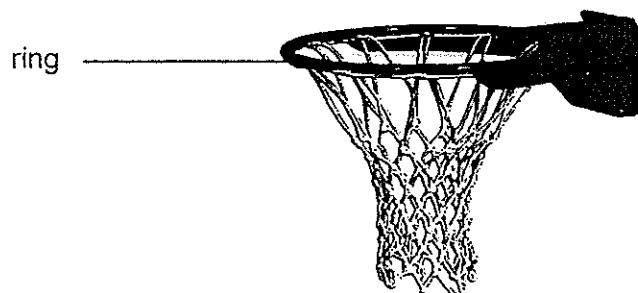


Based on the information above, how are the micro-organisms grouped?

The micro-organisms are grouped according to _____.

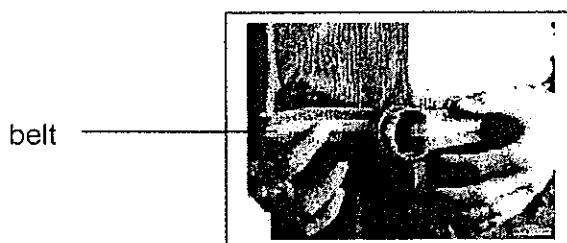
- (1) their size
- (2) whether they are useful to man
- (3) whether they reproduce from spores
- (4) whether they need food to grow well

14. Which one of the following materials is most suitable for making the ring of a basketball hoop found in a basketball court?



- (1) Glass
- (2) Metal
- (3) Fabric
- (4) Cardboard

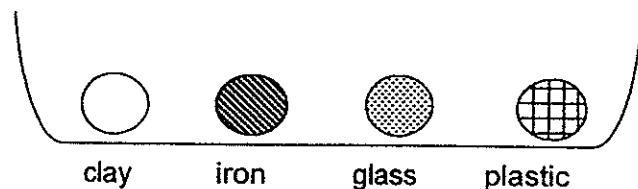
15. Sam needs a belt to hold his pants up.



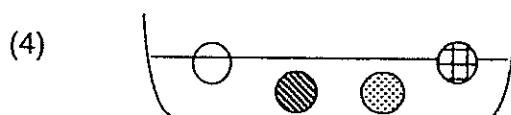
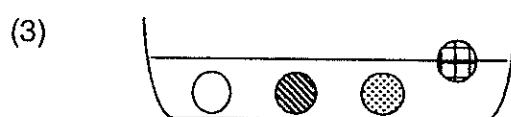
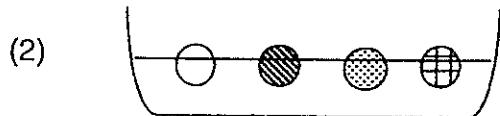
Which one of the following properties of the material is most important to be taken into consideration for it to be chosen to make a belt?

- (1) flexible
- (2) waterproof
- (3) breaks easily
- (4) allow light to pass through

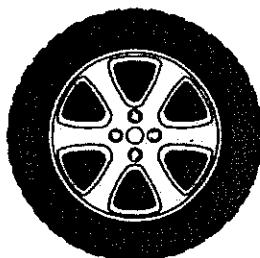
16. 4 solid balls of identical size made of different materials were left in a container as shown below.



Which one of the following correctly shows the position of the balls when the container is half filled with water?



17. The pictures show 3 objects that are made of rubber.



tyre



glove



elastic band

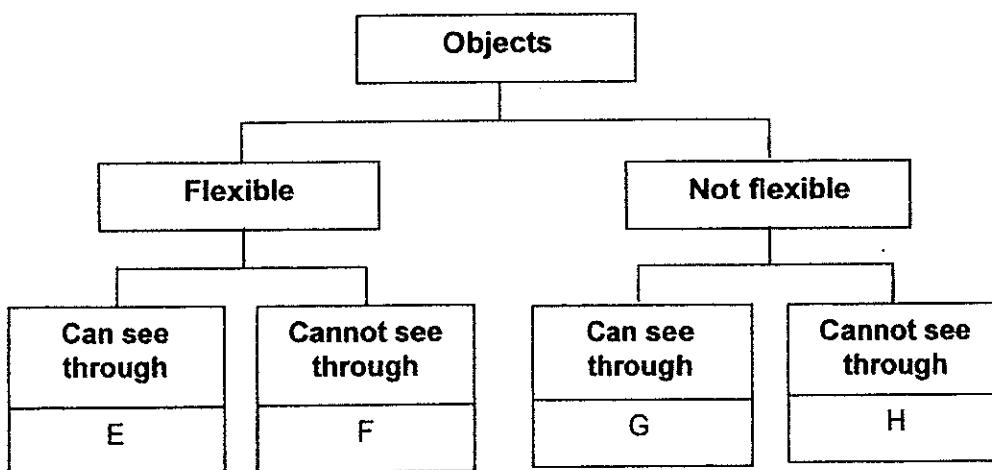
Which of the following are most likely to be the reasons for using rubber to make the above objects?

They are made of rubber because it _____.

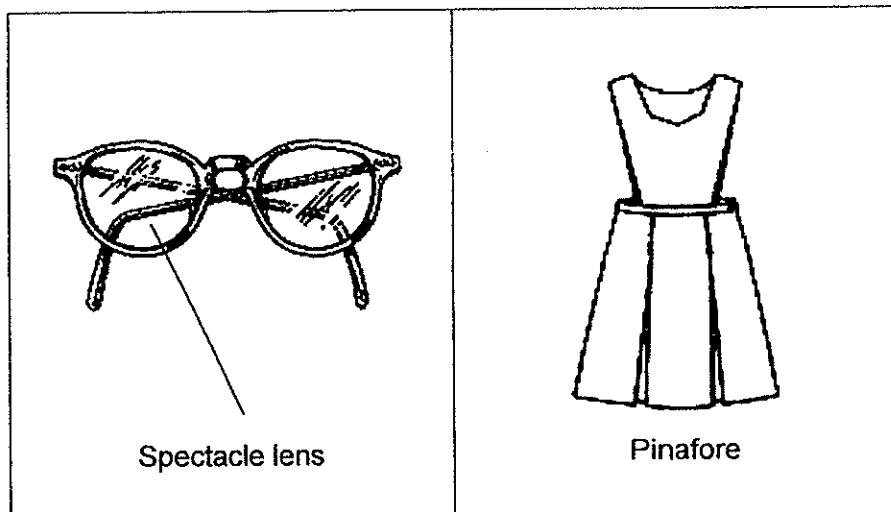
- A is flexible
- B is waterproof
- C breaks easily

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

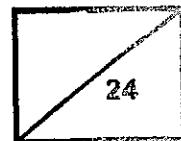
18. Study the classification chart below carefully.



In which groups, E, F, G or H, should the spectacle lens and pinafore be placed?



Spectacle lens	Pinafore
G	H
G	F
E	F
E	G

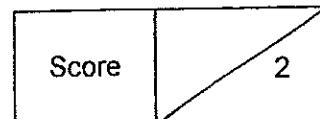
**SECTION B (24 marks)**

For questions 19 to 30, write your answers clearly in the spaces provided.

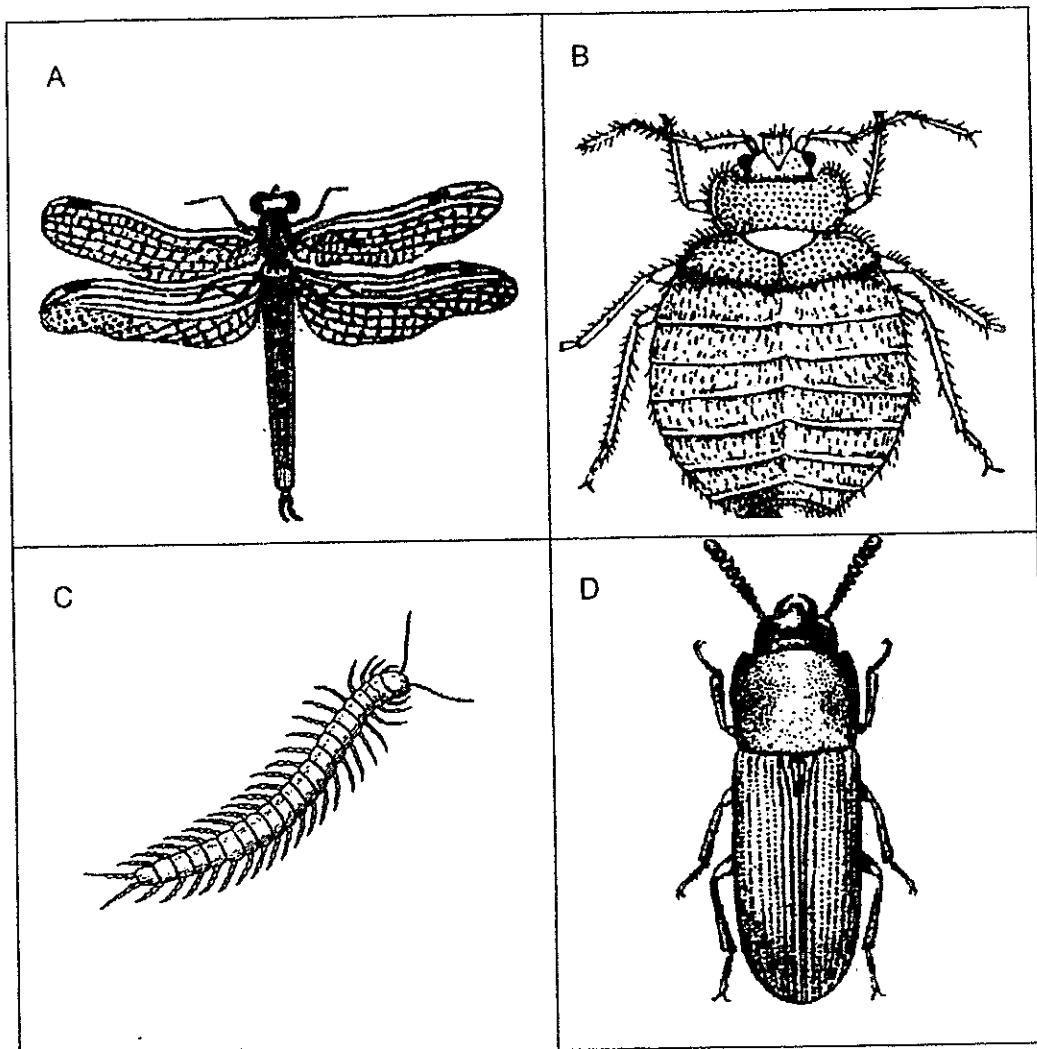
The number of marks available is shown in brackets [] at the end of each question or part question.

19. Study the following statements. Write 'True' or 'False' against each statement in the boxes below. [2]

	Statements	True/False
(a)	Some living things can reproduce.	
(b)	Living things need air, food and water.	
(c)	All living things respond to changes around them quickly.	
(d)	All living things can move by themselves from place to place.	



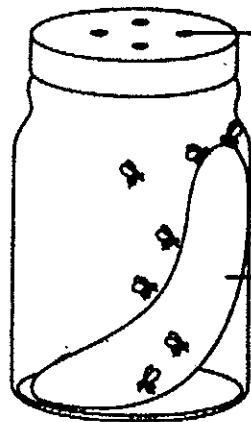
20. Study the organisms (*not drawn to scale*) shown below carefully.



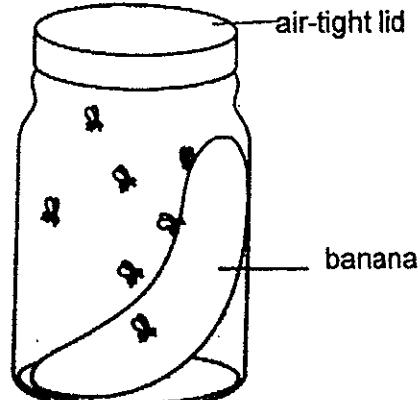
- (a) Based on the diagrams above, which one of the animals, A, B, C or D, is not an insect? Give two reasons for your answer. [2]

Score	2
-------	---

21. Sara prepared 2 similar containers, X and Y. She put a banana and 7 flies in each container as shown in the diagrams below. Container X has a lid with holes while Container Y has an air-tight lid. She placed both containers by an open window for 2 days.



Container X



Container Y

At the end of 2 days, she observed that all the flies in one container had died while all the flies in the other container were still alive.

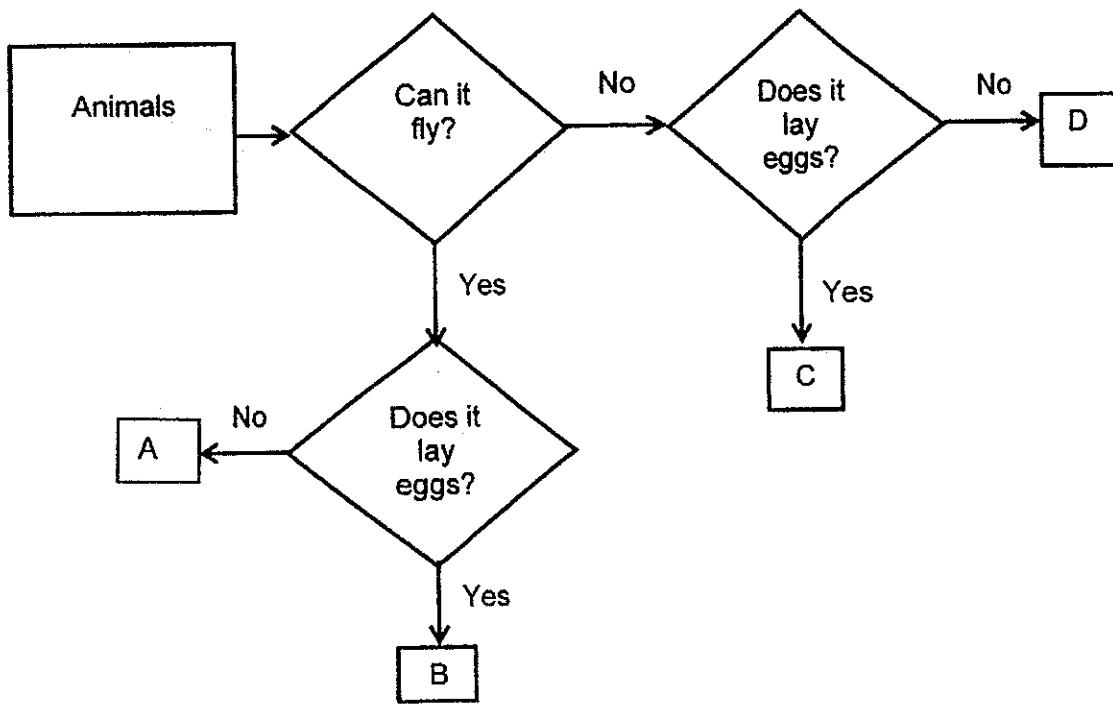
In which of the containers, X or Y, did the flies die?

Explain your answer clearly.

[2]

Score	2
-------	---

22. Study the classification chart below carefully.

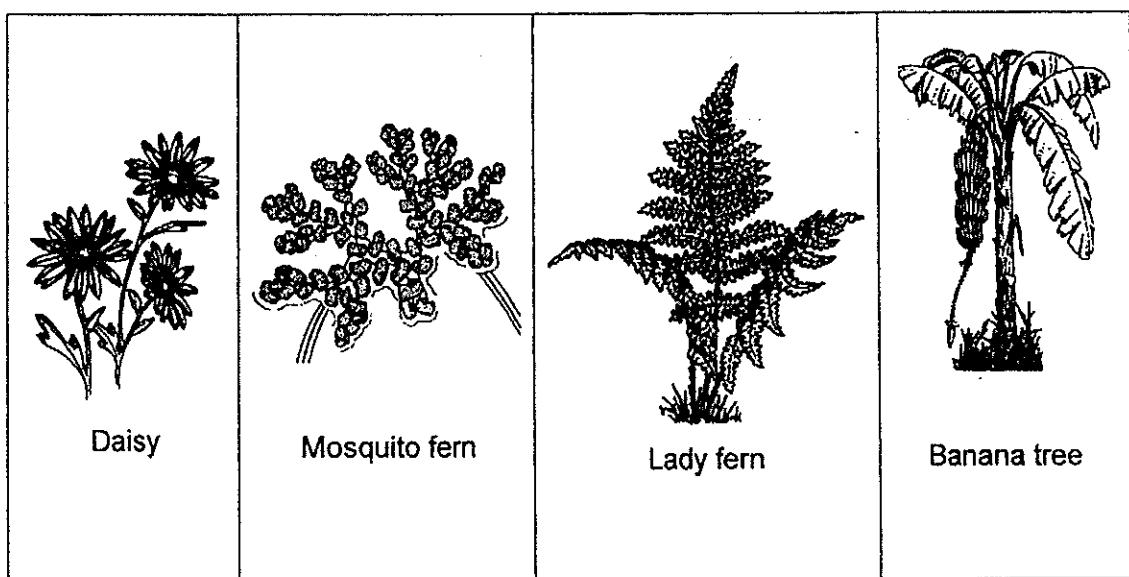


Based on the classification chart above, name two characteristics of Animal A. [2]

Characteristic 1	
Characteristic 2	

Score	2
-------	---

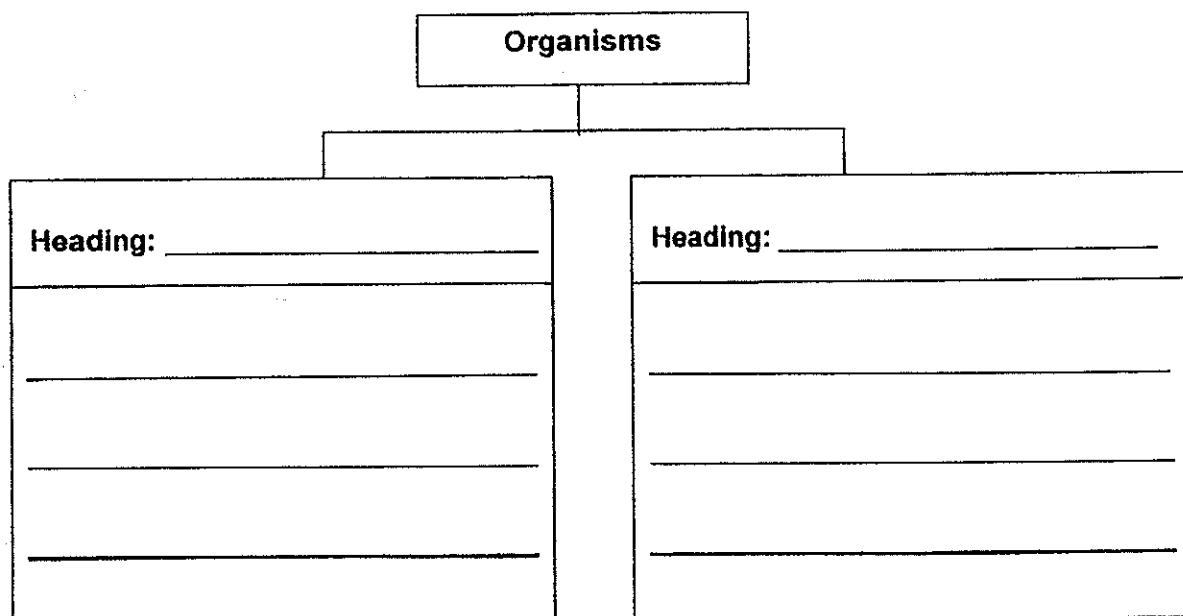
23. The diagram below shows 4 organisms. (not drawn to scale)



In the classification table below:

- (a) classify the 4 organisms correctly into 2 groups and
(b) write suitable headings for each group.

[2]

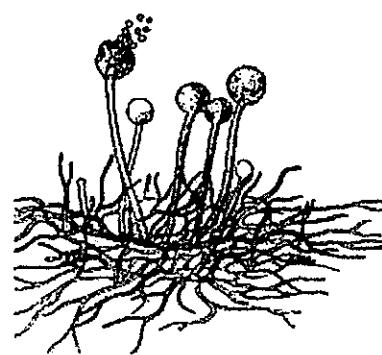


Score	2
-------	---

24. The pictures below show a bird's nest fern and bread mould. (not drawn to scale)



Bird's nest fern



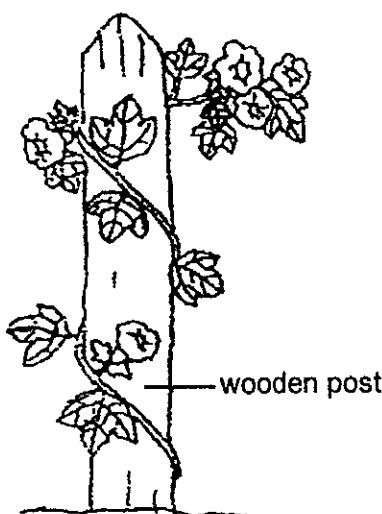
Bread mould

- (a) State one similarity between the characteristics of the bird's nest fern and the bread mould. [1]

- (b) How are they different in the way they obtain their food? [1]

Score	2
-------	---

25. The diagrams below show Plant G and Plant H.



Plant G



Plant H

Based on the information shown in the diagrams above, state one similarity and one difference between Plant G and Plant H.

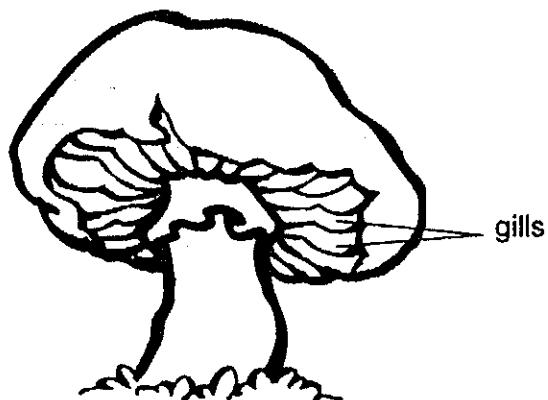
(Do not compare their shape, size or colour)

[2]

Similarity	<hr/> <hr/>
Difference	<hr/> <hr/>

Score	2
-------	---

26. The diagram below shows Organism P.



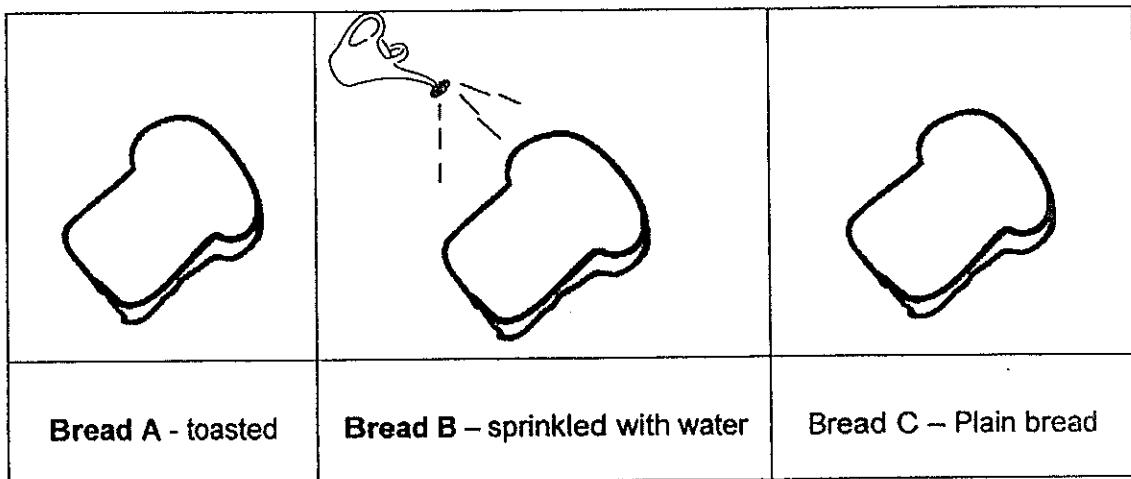
- (a) Name the substance that can be found in between the gills of Organism P. [1]

When the substance identified in your answer in (a) were scattered on the ground, it was observed that many of organisms P were found growing on the ground after one week.

- (b) Give a reason for the observation made above. [1]

Score	2
-------	---

27. Jenny had three identical slices of bread, A, B and C. She toasted Bread A, sprinkled water on Bread B and left Bread C in the original state. Then she put Bread A, B and C, in a warm, dark corner for 5 days.



She recorded her observations in the table below.

Day	Bread A	Bread B	Bread C
1	No change	No change	No change
3	No change	No change	No change
4	No change	A few dark spots on the bread	No change
5	No change	More dark spots on the bread	A few dark spots on the bread

- (a) These dark spots belong to a group of organisms called fungi.

Name these dark spots.

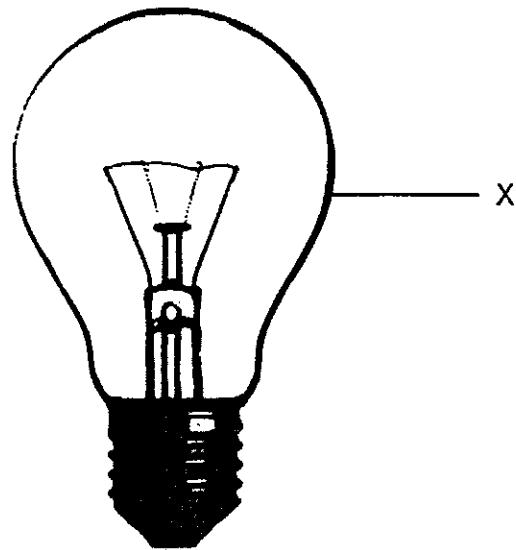
[1]

-
- (b) Based on the Jenny's observations, what condition would help to increase the growth of the dark spots?

[1]

Score	2
-------	---

28. The diagram below shows a bulb.



(a) Suggest a material that is most suitable to make part X of the bulb. [1]

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

Score	2
-------	---

29. The table below shows properties of materials P, Q, R and S.

Materials Properties	Material P	Material Q	Material R	Material S
Breaks easily			✓	
Flexible		✓		✓
Able to see through			✓	
Waterproof	✓	✓	✓	

Based on the information in the table above, which material is most suitable to be chosen to make a raincoat?

Give a reason for your answer.

[2]

Material	_____
Reason	_____ _____ _____ _____

Score	2
-------	---

30. Danny used three different materials, X, Y and Z, to make into 3 bags of the same size. In each bag, he added identical cans of drinks one at a time until the bag started to break.

He then recorded the minimum number of cans needed to break each bag in the table as shown below.

Material	Minimum number of cans added until the bag started to break
X	10
Y	25
Z	17

- (a) Arrange the materials, X, Y, Z, in descending order starting with the strongest material. [1]

strongest → weakest

- (b) Which material, X, Y, Z, is most suitable for making a shopping bag.

Give a reason for your answer.

[1]

Year: 2014

Level: Primary 3

School: Raffles Girls' Primary School

Subject: SCIENCE

Semester: SA1

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

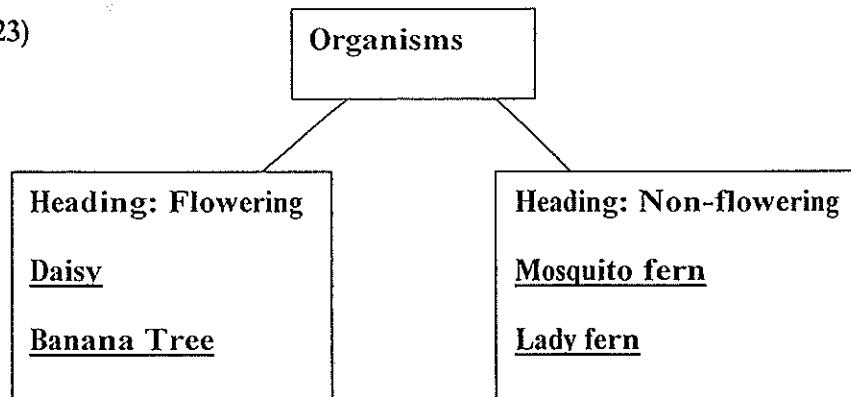
Q19) False, True, False, False

Q20) a) Animal C is not an insect as it does not have three body parts and six legs.

Q21) Container Y. The flies in container A do not have air.

Q22) characteristic 1: can fly characteristic 2: does not lay eggs

Q23)



Q24) a) Bird's nest and bread mould reproduce by spores.

b) Bird's nest fern makes its own food while bread mould gets its food from the bread that it's growing on.

Q25) Similarity: Both grow on land.

Difference: Plant G needs support to grow on but plant H does not need support to grow on.

Q26) a) The substance is spores.

b) Organism P reproduces by spores so when the spores were scattered on the ground, many of organism P was growing after one week.

Q27) a) These dark spots are bread mould.

b) The bread needs to be put in a warm place and water has to be put on the bread.

Q28) a) The material most suitable to make part X is glass.

b) Glass is hard and transparent.

Q29) Material: Material Q Reason: Material Q is flexible and waterproof.

Q30) a) Y, Z, X

b) Material Y. It can hold the most number of cans before it starts to break so it is the strongest material.



RAFFLES GIRLS' PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 2

Name : _____ Index No: _____ Class: P3

22 October 2012 SCIENCE Attn: 1 h 15 min

SECTION A (24 x 2 marks)

For each question from 1 to 24, four options are given.

One of them is the correct answer. Make your choice (1, 2, 3 or 4).

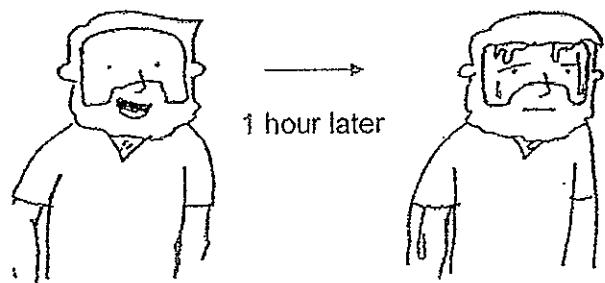
Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet (OAS) provided.

Section A	48	
Section B	32	
Your score out of 80 marks		
	Class	Level
Highest score		
Average score		
Parent's signature		

1. Which one of the following is a living thing?

- (1) Fire
- (2) Cloud
- (3) Mushroom
- (4) Horseshoe magnet

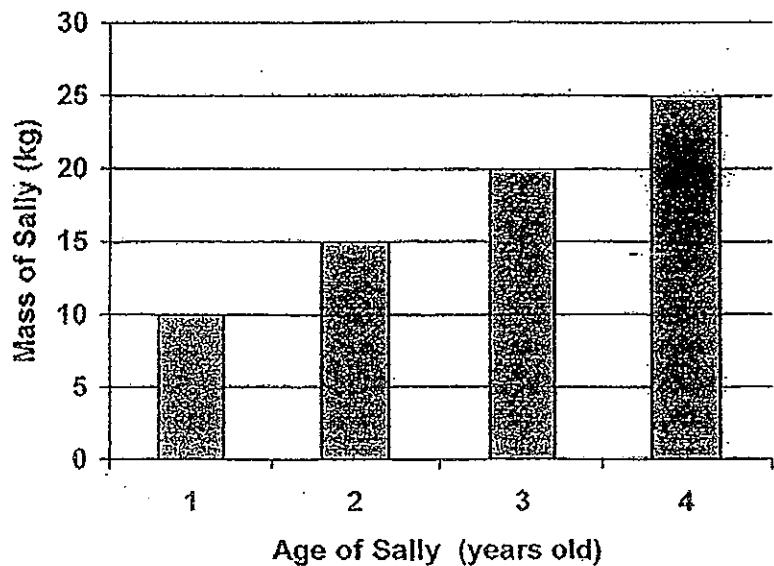
2. The picture below shows a man perspiring after spending 1 hour under the hot sun.



We can conclude that living things _____.

- (1) can die
- (2) can grow
- (3) need air, food and water
- (4) respond to changes in their environment

3. The graph below shows the mass of Sally over a period of 4 years.



Based on the graph above, which of the following statements is most likely to be true?

- (1) Sally's mass increased as she grew.
- (2) Sally had a mass of 25 kg when she was 3 years old.
- (3) Sally had a lesser mass at 3 years old than at 2 years old.
- (4) Sally's mass remained constant between 1 and 3 years old.

4. Study the classification table below.

A	B
Eagle Spiny anteater	Man Dolphin

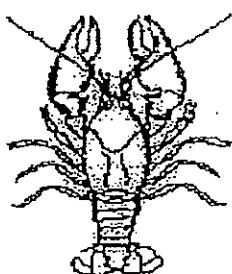
The animals are grouped according to _____.

- (1) how they take in air
- (2) how they reproduce
- (3) their body movement
- (4) their outer body covering

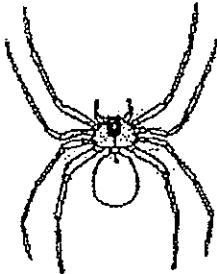
5. Study the animals A, B, C and D, as shown below.



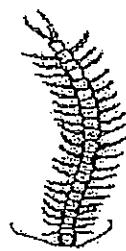
Animal A



Animal B



Animal C

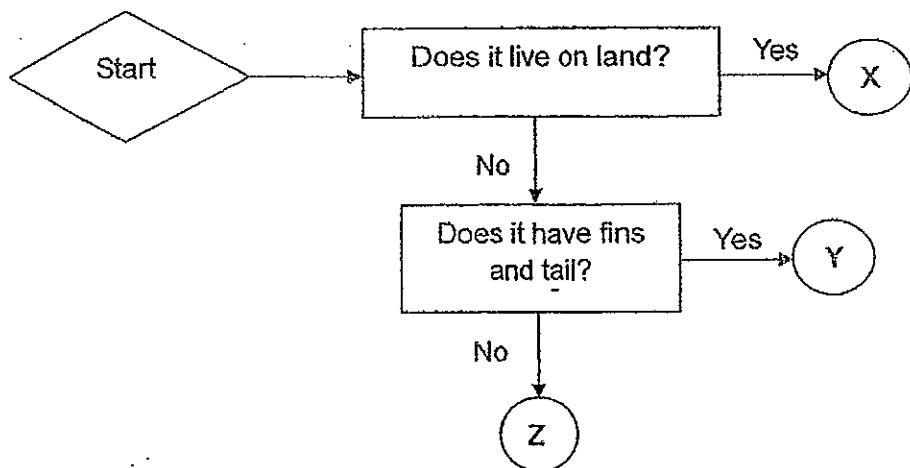


Animal D

Which animal is an insect?

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

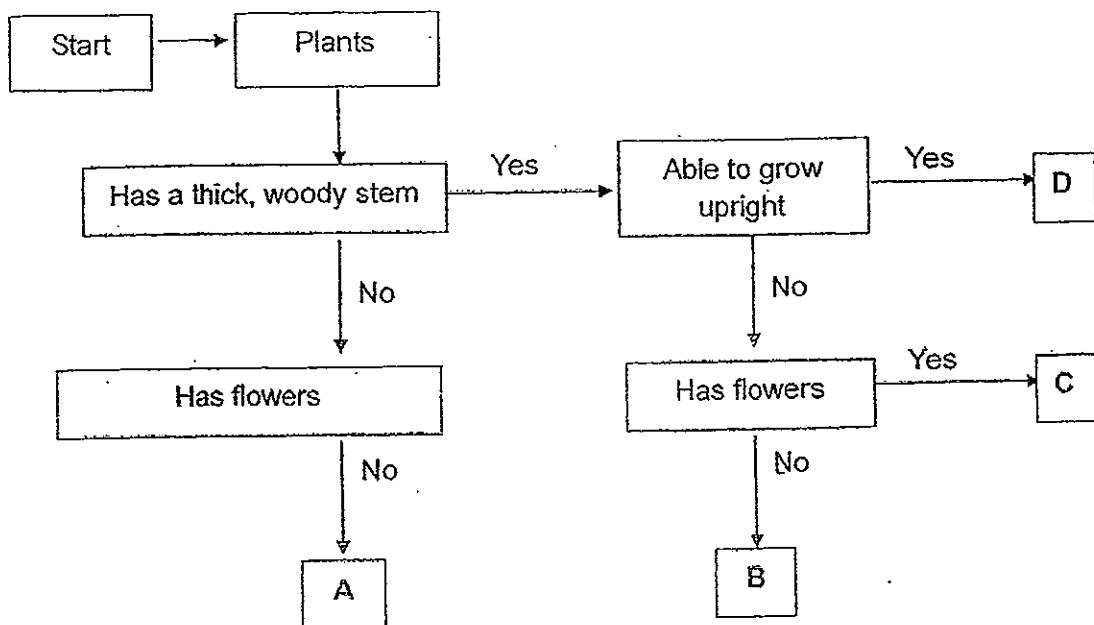
6. Study the flow chart of three animals, X, Y and Z, below.



Which of the following best represents X, Y and Z respectively?

	X	Y	Z
(1)	Giraffe	Eel	Squid
(2)	Bear	Shark	Octopus
(3)	Tiger	Platypus	Goldfish
(4)	Dolphin	Zebra	Platypus

7. The flow chart below shows the characteristics of plants A, B, C and D.



Study the plant below carefully.



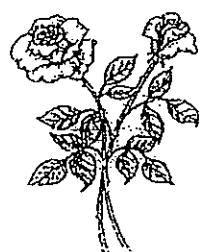
Based on your observation and information on the flow chart, which of the following plants, A, B, C or D, best represents the plant shown in the diagram above?

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

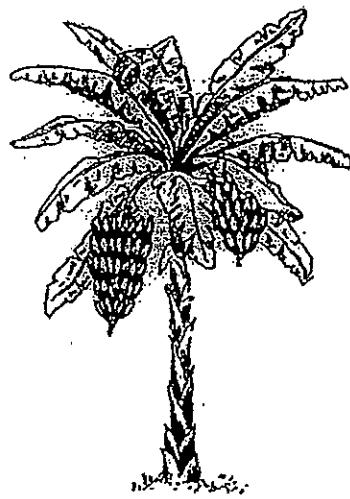
8. Study the pictures shown below.



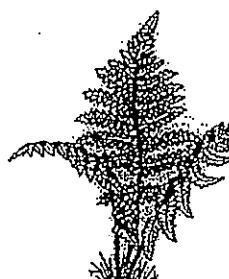
Grape vine



Rose plant



Banana tree



Fern

Which one of the above plants does not belong to the same group as the rest?

- | | |
|----------------------|---------------------|
| (1) Grape vine | (2) Rose plant |
| (3) Banana tree | (4) Fern |

9. Which of the following is not one of the uses of good bacteria?

- (1) Bacteria help in the digestion of food.
- (2) Bacteria can be used to get rid of dust.
- (3) Bacteria can be used to make medicines.
- (4) Bacteria can be used to make food such as yogurt.

10. Which of the following best represents a particular stage in a life cycle?

- (1) A seed sprouting.
- (2) A fish breathing in water.
- (3) A cockroach nymph crawling.
- (4) A plant growing towards the light.

11. Study the table below.

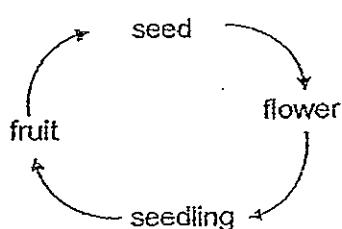
	Looks after its young	Has 3-stage life cycle
Animal A	✓	✓
Animal B		✓

Based on the information above, which of the following most likely represents animal A and B respectively?

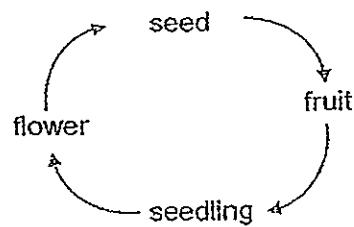
	Animal A	Animal B
(1)	Mealworm beetle	bee
(2)	Goldfish	Mealworm beetle
(3)	Duck	dragonfly
(4)	Chicken	housefly

12. Which one of the following shows the life cycle of a flowering plant correctly?

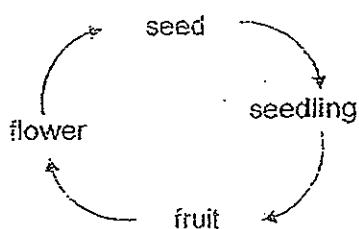
(1)



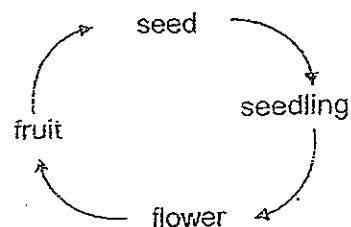
(2)



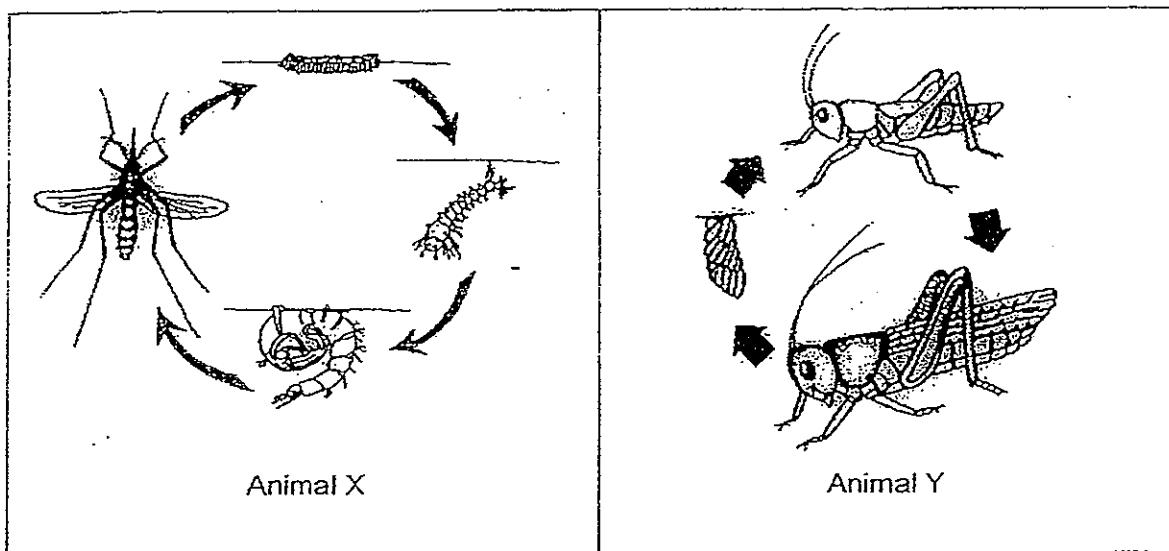
(3)



(4)



13. Study the life cycles of animal X and Y below.

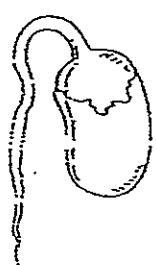


Which of the following statements about animals X and Y is/are true?

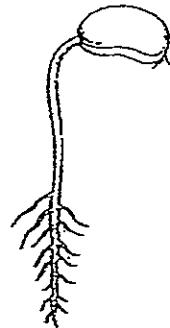
- A. Both their young live in water.
 - B. Both animals do not have wings at adult stage.
 - C. Both adults do not give birth to their young alive.
 - D. Both animals are pests in at least one stage of their cycles.
- (1) D only
(2) A and B only
(3) B and C only
(4) C and D only

14. Study the diagrams below carefully.

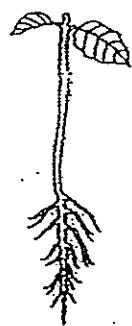
(A)



(B)



(C)



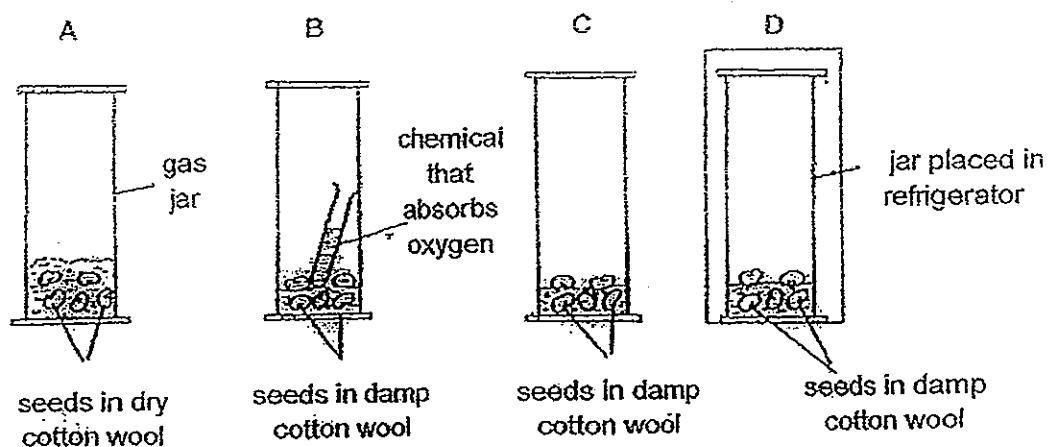
(D)



Which of the seedlings above can make their own food?

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

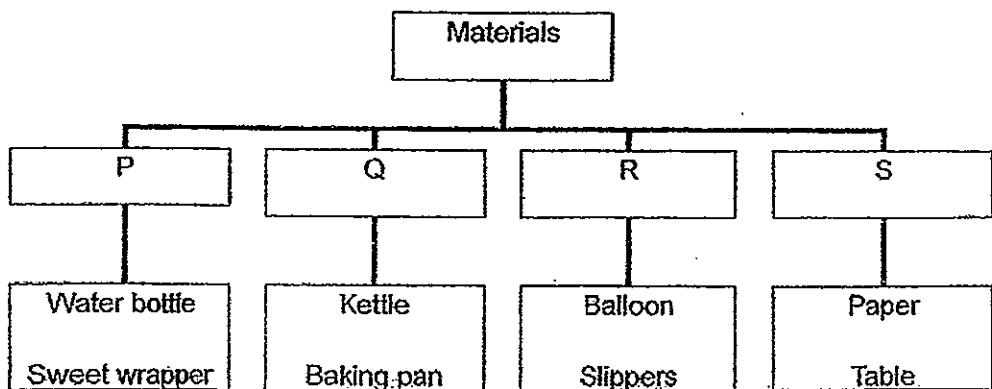
16. Sally set up 4 set ups as shown below. She placed the set ups , A, B and C, in her room and left jar D in the refrigerator.



In which of the following set-ups will the seeds germinate after a few days?

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

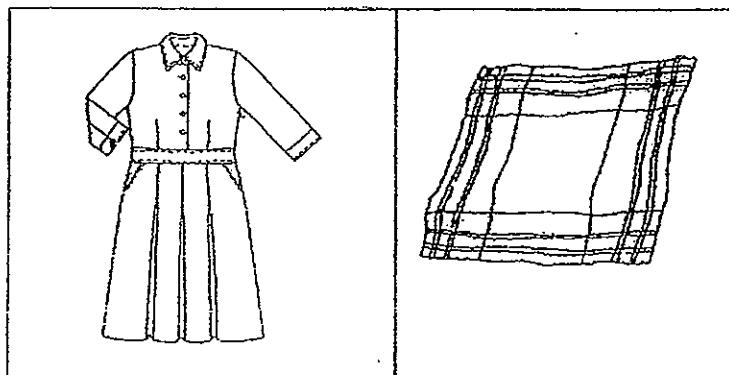
16. Study the classification chart below.



Which of the following best represents P, Q, R and S respectively?

	P	Q	R	S
(1)	Plastics	Wood	Rubber	Metal
(2)	Glass	Plastics	Wood	Rubber
(3)	Plastics	Metal	Rubber	Wood
(4)	Glass	Rubber	Plastics	Metal

17. The dress and handkerchief shown below are made of cotton.

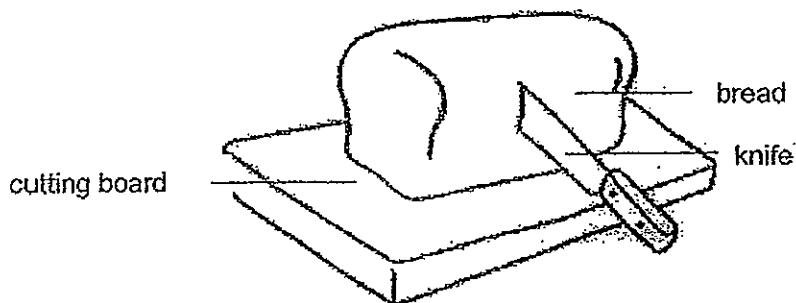


Why is cotton suitable for making the dress and the handkerchief?

- A Cotton is waterproof.
- B Cotton is a flexible material.
- C Cotton absorbs water easily.

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

18. Mrs Zhou sliced some bread with a knife on a cutting board. After that, she observed that there were scratches on the cutting board.



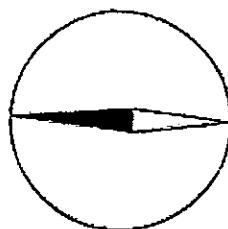
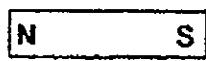
Which one of the following most likely explains Mrs Zhou's observation?

- (1) The cutting board is harder than the knife.
- (2) The cutting board is stronger than the knife.
- (3) The knife is harder than the cutting board.
- (4) The knife is stronger than the cutting board.

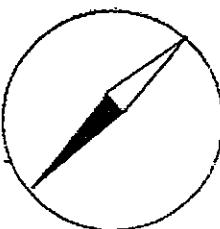
19. A compass was placed near a bar magnet.

Which of the following diagram shows the correct positioning of the compass needle?

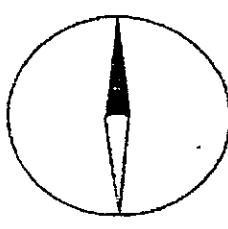
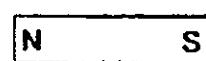
(1)



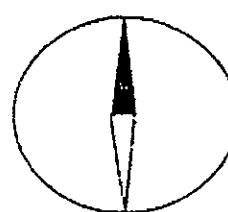
(2)



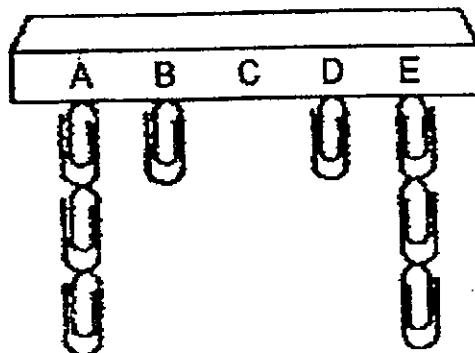
(3)



(4)



20. Jane conducted an experiment with a bar magnet as shown below.



What conclusion can Jane make from her observation above?

- (1) Magnets are weakest at its poles.
- (2) Magnets are strongest at its poles.
- (3) The paper clips are made of non-magnetic materials.
- (4) Only the poles of the magnets attract the paper clips.

21. Jane, Ann, Tim and William each made a statement about magnet as follow:

William : "There are two poles on a magnet."

Tim : "Magnetism can act at a distance"

Jane : "Magnets are made of magnetic materials."

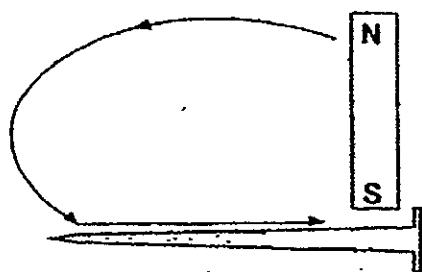
Ann : "Magnets with like poles facing each other will attract."

Whose statement about the magnet is incorrect?

- (1) Jane
- (3) Tim

- (2) Ann
- (4) William

22. A magnet was made using the stroking method as shown below.

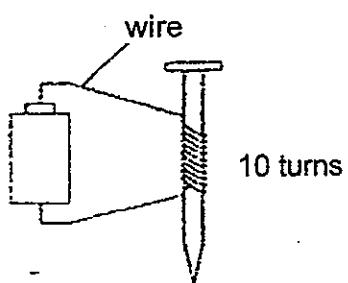


Which of the follow diagrams shows how the magnetized nail will interact with the magnet which is brought near it?

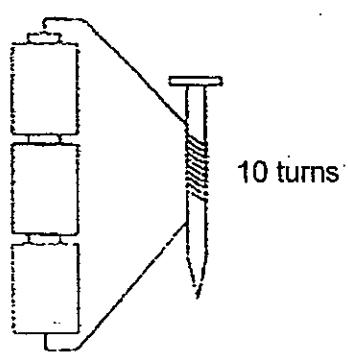
- (1) A nail with its tip pointing right and its head pointing left. To its right is a bar magnet labeled S (South) and N (North). Below the nail is a double-headed arrow indicating repulsion, and below the magnet is a double-headed arrow indicating attraction.
- (2) A nail with its tip pointing right and its head pointing left. To its right is a bar magnet labeled S (South) and N (North). Below the nail is a single-headed arrow pointing right, and below the magnet is a double-headed arrow indicating attraction.
- (3) A nail with its tip pointing right and its head pointing left. To its right is a bar magnet labeled S (South) and N (North). Below the nail is a double-headed arrow indicating repulsion, and below the magnet is a single-headed arrow pointing right.
- (4) A nail with its tip pointing right and its head pointing left. To its right is a bar magnet labeled N (North) and S (South). Below the nail is a single-headed arrow pointing right, and below the magnet is a single-headed arrow pointing left.

23. Which of the following set-ups will produce the strongest temporary magnet?

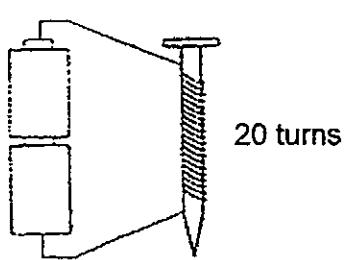
(1)



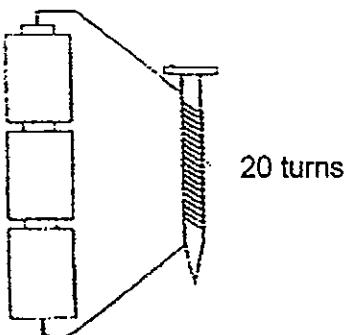
(2)



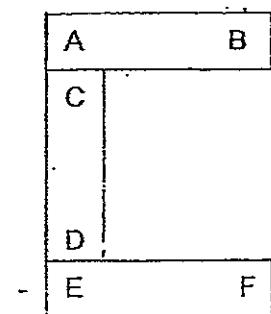
(3)



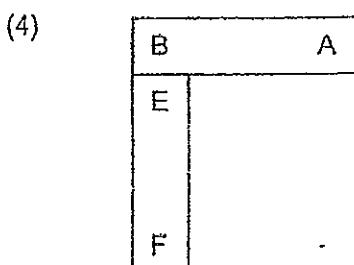
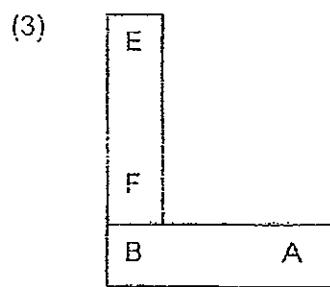
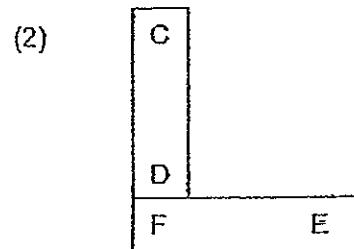
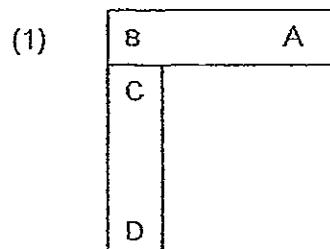
(4)



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



Which one of the following diagrams shows a possible arrangement of two of the above magnets?



Marks

32

Name: _____ Index No: _____ Class: Primary 3 _____

SECTION B (32 marks)

For questions 25 to 39, write your answers clearly in the spaces provided.
The number of marks available is shown in the brackets [] at the end of each question or part question.

25. Peter placed four things into four separate tanks, A, B, C and D. He placed 100g of food and 100ml of water into each tank.

At the end of two days, he recorded the amount of food and water left in each tank.

Tank	Amount of food left (g)	Amount of water left (ml)
A	70	20
B	20	30
C	100	100
D	0	0

Which tank most likely contained a non-living thing? Explain your answer clearly. [1]

Score

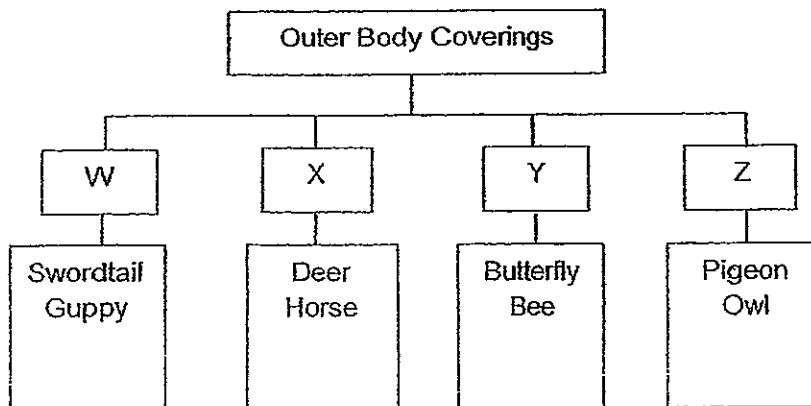
1

26. Sarah grew and observed a bean plant for 4 weeks. She record its height and mass in the table below.

Week	1	2	3	4
Height (cm)	2	5	?	11
Mass (g)	3	7	10	16

- (a) Sarah forgot to measure the bean plant's height at the third week. [1]
What could be the possible height of the plant at the third week?

27. The classification chart below shows how some animals are grouped.



- (a) Name the body coverings of animals in group W and Z respectively. [1]

W: _____

Z: _____

- (b) Which group, W, X, Y or Z, does a bat belong to? [1]

Score	
	4

28. A scientist discovered an animal Y in a jungle. He made two observations of the animal as listed below.

- Has hair on its body
- Feeds its young with milk

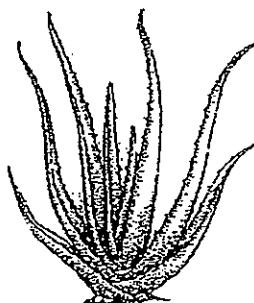
- (a) Which group of animal does animal Y belong to? [1]

- (b) Write down another unique characteristic of animal Y. [1]

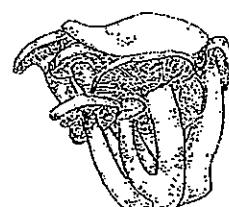
29. The diagram below shows three living things.



Bamboo



Aloe Vera



Toadstools

- (a) Which of the above living things can make food? [1]

- (b) Name the group of living things that the toadstools belong to. [1]

Score	
	4

30. Study the diagram below carefully.



pine tree



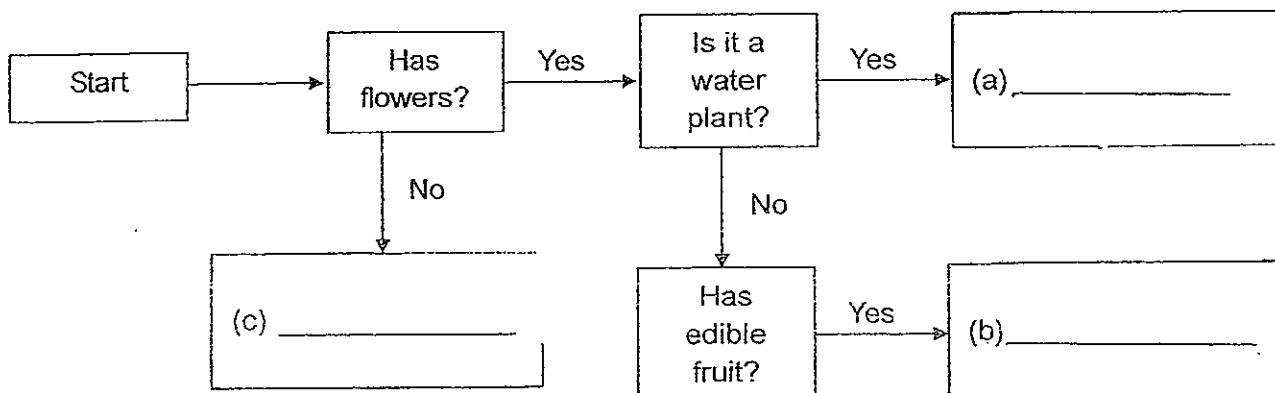
water lily



rambutan tree

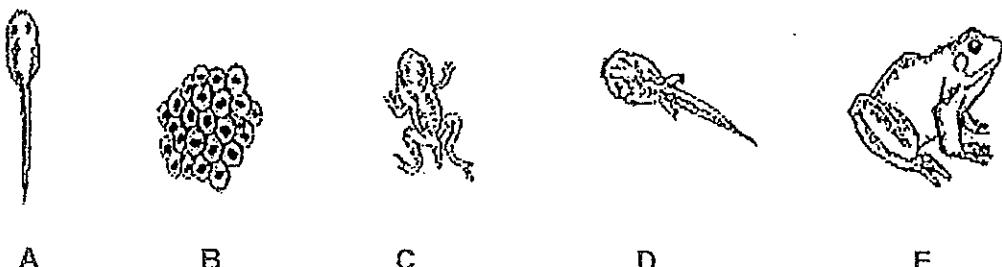
Write down the names of the above organisms in the correct box below.

[3]

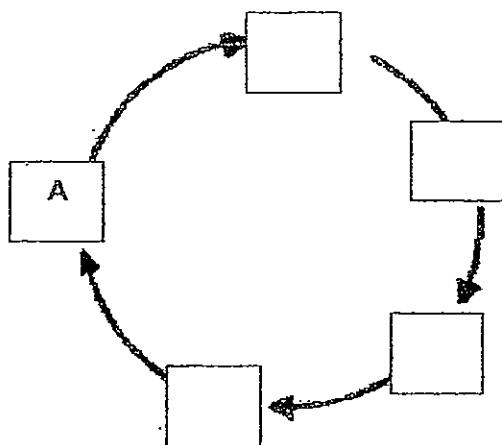


Score	
	3

31. The pictures below show the different development stages in the life cycle of a frog.

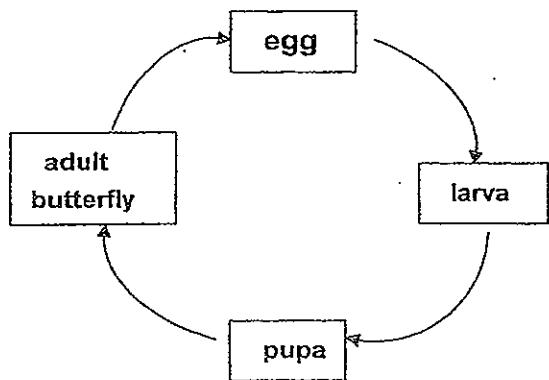


- (a) Arrange the above pictures in the correct order of development of the frog. [1]
Write the letters represent each stage in the boxes provided below.

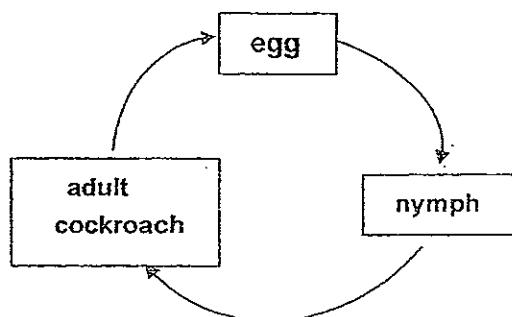


- (b) Based on the life cycle above, state one difference between the animal at [1] stage A and E.

32. Study the life cycles of the butterfly and cockroach shown below.



Life cycle of a butterfly



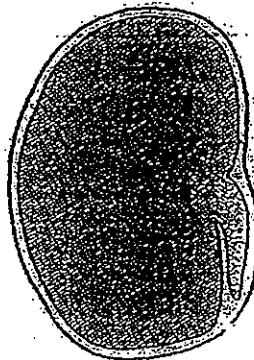
Life cycle of a cockroach

Answer the following questions based on the life cycles above.

- (a) State one similarity between the life cycle of the butterfly and cockroach. [1]

- (b) State one difference between the life cycle of the butterfly and cockroach. [1]

33. The diagram below shows a germinating seed.



- (a) Name and label the part that provides food for the germinating seed [1] in the diagram above.
- (b) What is the function of the seed coat? [1]

Score	
	2

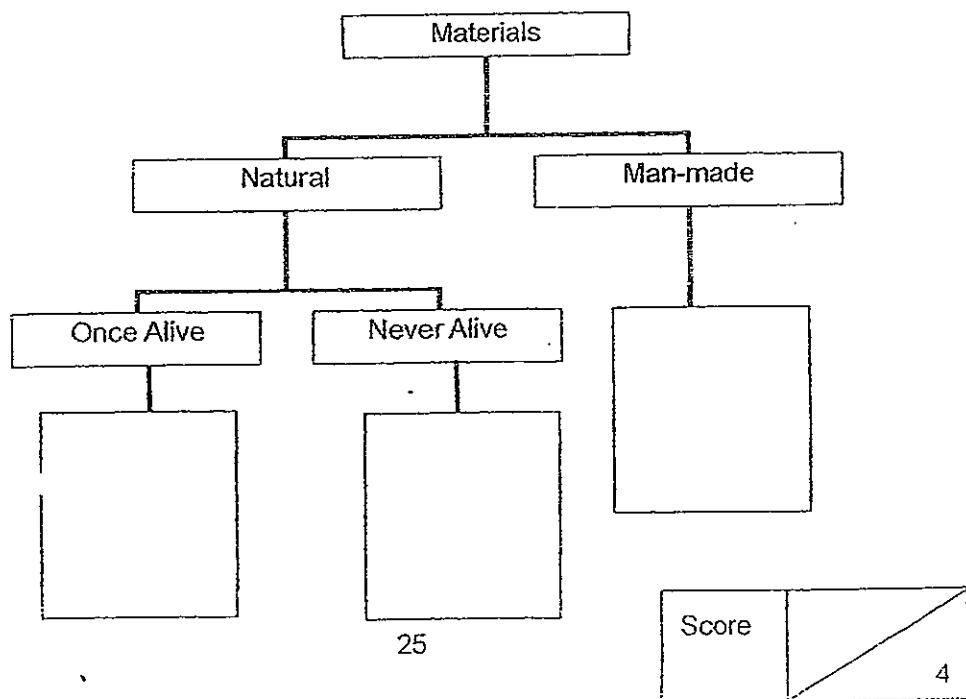
34. Alisha aimed to observe a seed grow into a seedling. She placed the seed in a room and recorded the mass of the seed leaf and the shoot during the growth over 6 days. She recorded the results as shown in the table below.

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
P	1 g	0.9 g	0.7 g	0.4 g	0.2 g	0.1 g
Q	0g	0.2 g	0.4 g	0.7 g	0.8 g	1 g

- (a) Which measurement, P or Q, most likely represents the mass of the seed leaf? Explain your answer clearly. [2]

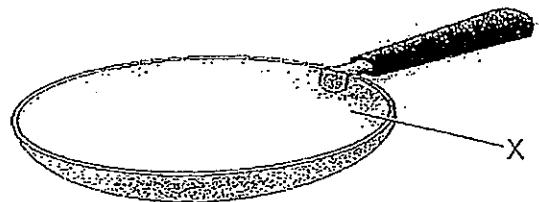
- 35 Complete the classification chart using ALL the materials given in the box below. [2]

Wool	Clay	Cotton	Plastics
------	------	--------	----------



36. Study the table below.

Material	Flexible	Hard	Strong
R	✓	✓	
S	✓		
T		✓	✓

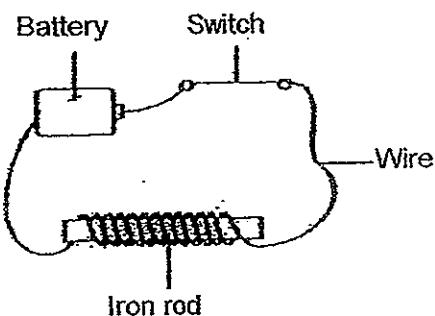


- (a) Which material, R, S or T, is most suitable to make part X of the [1] frying pan? Give a reason for your answer.

- (b) Based on the information in the table above, which two materials [2] which are hard? Describe an appropriate test to determine which material is harder.

Score	
	3

37. John created an electromagnet as shown in the diagram below. He wanted to find out the relationship between the number of coils of wire round the iron rod and the number of jump rings attracted by it.



After each test, John increased the number of coils of wire around the iron rod. He then tested his electromagnet and recorded his observations as shown in the table below.

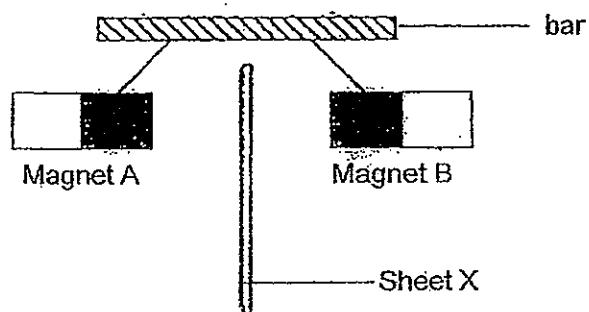
Number of coils	Number of jump rings attracted
5	2
10	5
20	9
30	14

- (a) Based on the results above, what is the relationship between the number of coils round the iron rod and the number of jump rings the magnetized iron rod attracted? [1]

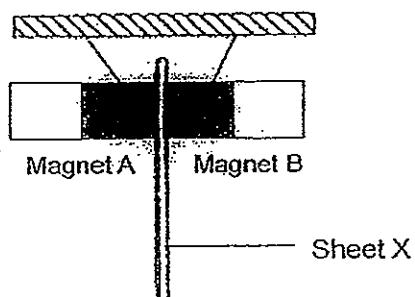
- (b) In order for John to carry out a fair test, which of the following variables should he keep the same? Place a tick () beside the variables that should be kept the same. [1]

Variables	Tick if needed
Type of wire	
Number of coils	
Number of batteries	
Length of iron rod	

38. Raju prepared an experiment set-up as shown in the diagram below. Two magnets, A and B, with like poles facing each other were suspended from a bar. They were pulled away from the same distance from sheet X.



When Raju let go of the two magnets, he observed the results as shown below.



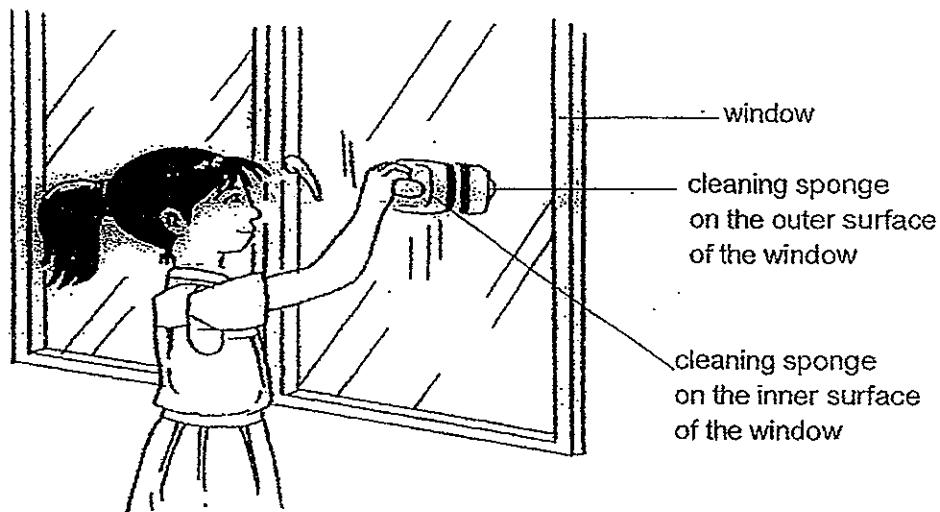
- (a) What material was sheet X most likely be made of? [1]

- (b) Explain your answer in (a) [1]

- (c) What would Raju observe if the sheet X in the above set-up was replaced with a plastic sheet ? [1]

39. Sofea bought new cleaning sponges to clean the outer surface of the window from inside the room as shown in the diagram below.

She has to hold the handle of the cleaning sponge which is on the inner surface of the window and slide it up and down in order to use the cleaning sponges. The two cleaning sponges will move together.



Explain clearly why the two cleaning sponges were able to move at the same time helping Sofea clean the outer surface of the window. [2]

score	
2	

END OF PAPRR



Answer Ke

EXAM PAPER 2012

SCHOOL : RAFFLES GIRLS'
SUBJECT : PRIMARY 3 SCIENCE

TERM : SA2

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

Q18	Q19	Q20	Q21	Q22	Q23	Q24
3	1	2	2	2	4	3

25) Tank C. It did not take in any food and water like all living things.

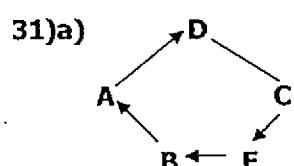
26)a)8cm.
b)Living things grow.

27)a)W: Scales Z: Feathers
b)Group X.

28)a)Mammals.
b)Animal Y gives birth to young alive.

29)a)Bamboo and aloe Vera.
b)Fungi.

30)a)Water Lily b)Rambutan tree c)Pine tree

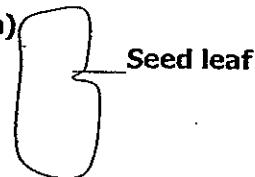


31)b) Stage E has legs but stage A does not have legs.

32)a) They go through an egg stage.

b) A butterfly has 4 stages in its life cycle but a cockroach has 3 stages in its life cycle.

33)a)



b) It protects the baby plant.

34)a) The mass of the seed leaf will decrease overtime as the germinating seed has been using the food provided in the seed leaf.

35) Wool Clay Plastic
 Cotton

36)a) Material T. It is hard and strong.

b) Scratch material R and T with each other. The harder material will not have any scratch mark.

37)a) The more the number of coils around the iron rod, the more the magnetised iron rod can attract the jump rings.

b) Type of wire
Number of batteries
Length of iron rod

38)a) Iron.

b) Material X should be made of a magnetic material because magnetic force cannot pass through a magnetic material.

c) Magnet A and B would repel each other.

39) Both the cleaning sponges contained magnets. The unlike poles of the magnet in the sponges are facing each other (thus) attracted to each other through the glass as the magnetisms can pass through the non-magnetic glass.

SUBJECT : PRIMARY 3 - SCIENCE
TERM : SA 2

43. i) Difference: The life cycle of a mosquito has 4 stages while the life cycle of the hen has three stages.

ii) Similarity: Both lay eggs

44. a) 4 staged life cycle

b) 3 staged life cycle

c) Insects

d) Amphibians



RAFFLES GIRLS' PRIMARY SCHOOL

SEMESTRAL ASSESSMENT 1 2010

Name : _____ Index No: ___ Class: P3 ___

7th May 2010 SCIENCE Att: 1 h

Section A	36	
Section B	24	
Your score out of 60 marks		
Highest score	Class	Level
Average score		
Parent's signature		

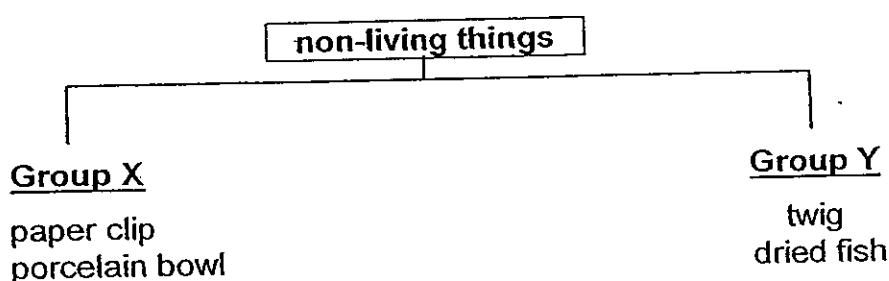
SECTION A (18 x 2 marks)

For each question from 1 to 18, four options are given.

For each question from 1 to 10, read options A, B, C and D. 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 (OAS) provided.

- 1 The diagram below shows how some non-living things are classified.



Which one of the following things can be classified under Group Y?

- | | |
|-----------------|----------------------|
| (1) glass jar | (2) marble chair |
| (3) metal spoon | (4) Science textbook |

2. A toy can bark, walk and wag its tail when you insert a battery in the compartment found on its belly and then press a button on it.

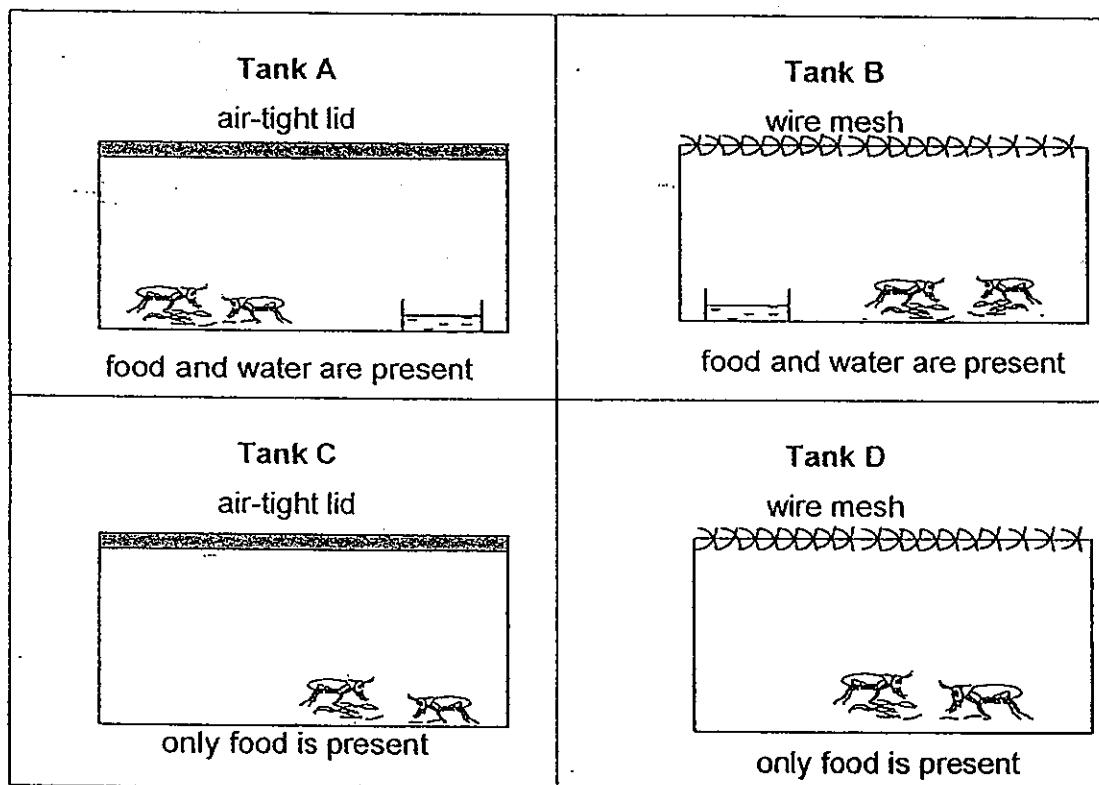
In what way(s) is it similar to a living thing?

- A It can reproduce.
 - B It can move by itself.
 - C It can respond to its surroundings.

3. Which of the following statements is/are correct?

- A All living things need water.
 - B Only animals that swim need water.
 - C Non-living things can move by themselves at night.
 - D Mammals are the only kind of living things that reproduce.
-
- (1) A only
 - (2) A and C only
 - (3) A and D only
 - (4) C and D only

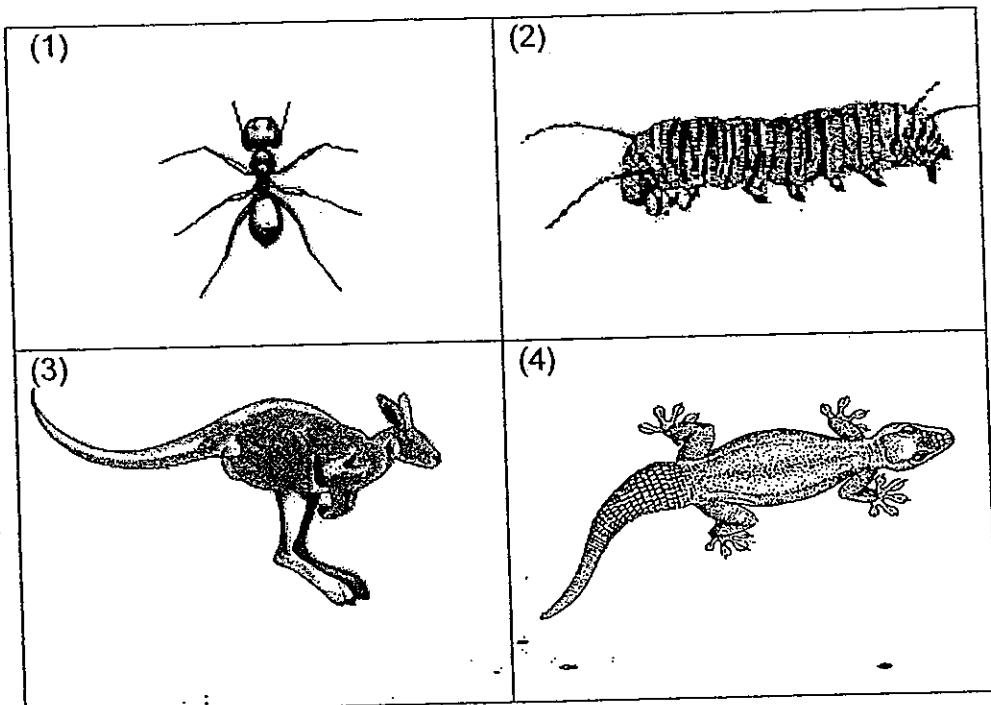
4. Grasshoppers of a similar size were kept in identical glass tanks as shown below.



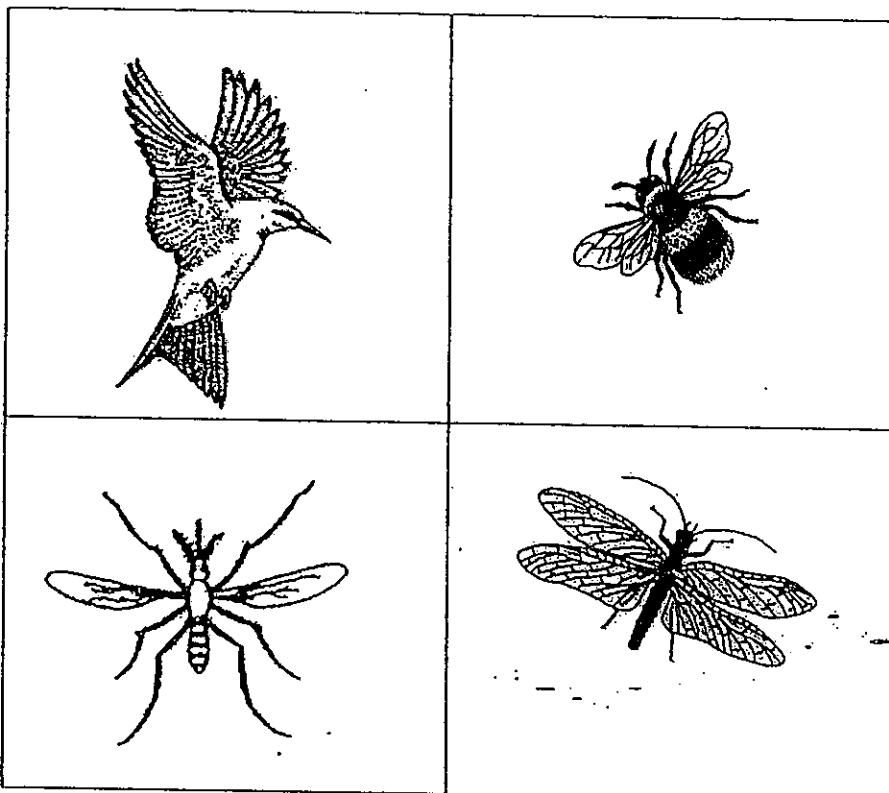
In which one of these tanks would the grasshoppers be most likely to survive for the longest period of time?

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

5. Which one of the following animals does NOT move in the same way as the others?



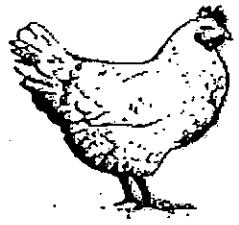
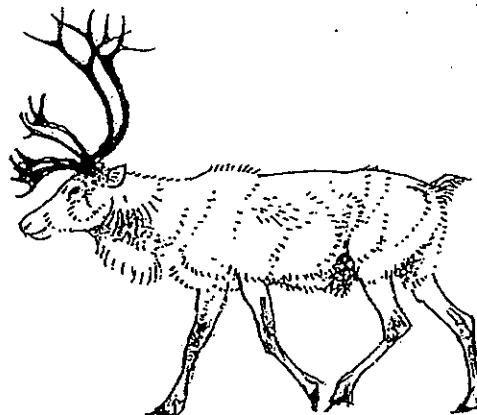
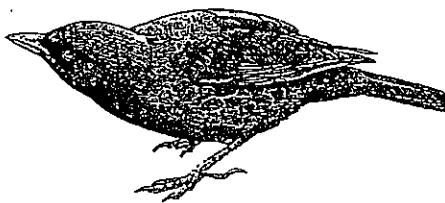
6. The following animals are grouped together according to a common characteristic.



Based on your observations, how are the animals grouped?

- (1) All have wings.
- (2) All have feelers.
- (3) All have six legs.
- (4) All have feathers.

7. The animals are grouped as follows:

animals	
group X	group Y
	
	

How are these animals grouped?

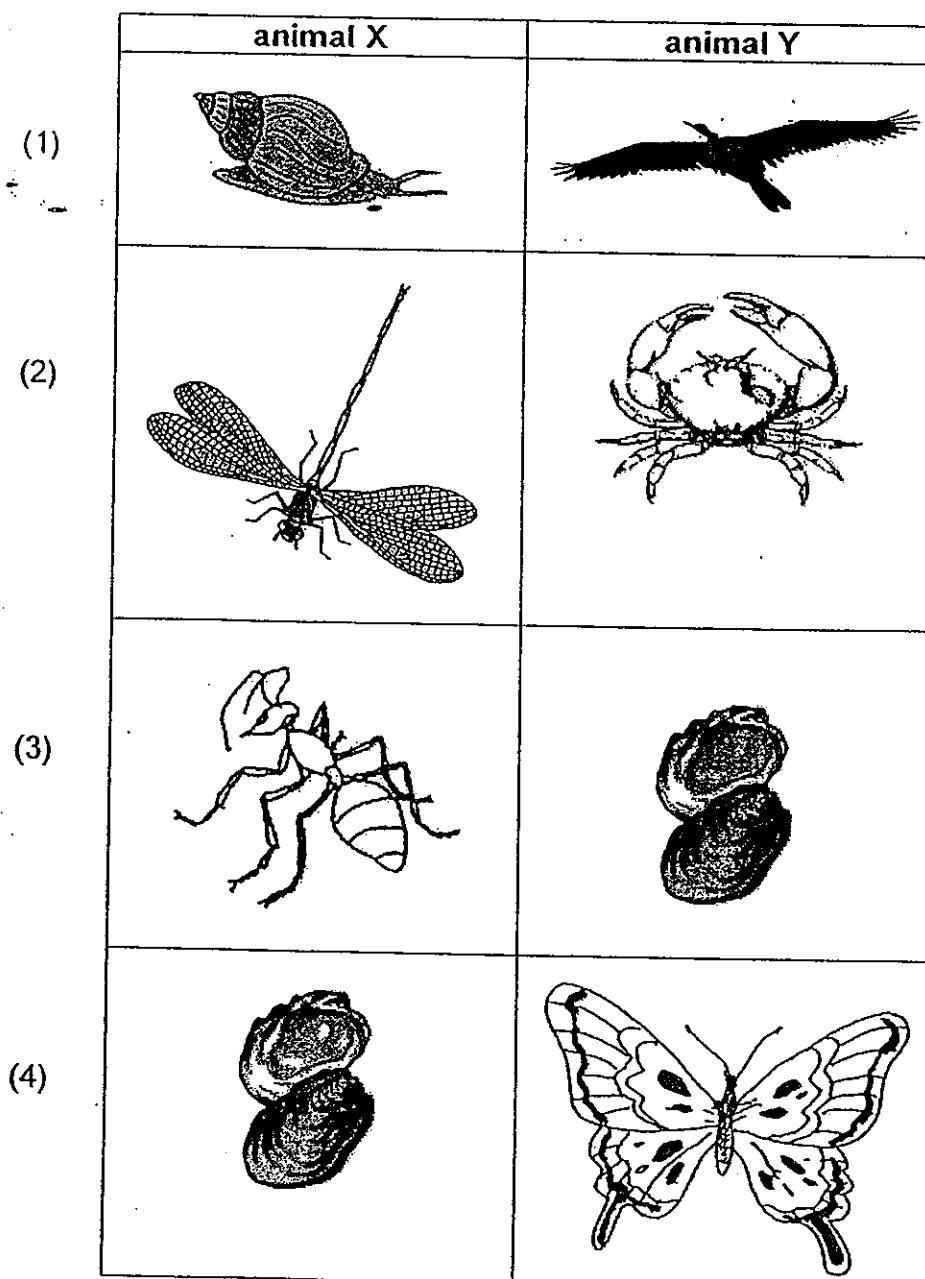
	group X	group Y
A	live on land	live in the water
B	mammals	birds
C	give birth to live young	lay eggs
D	have scales on their bodies	have feathers on their bodies

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

8. Yasmin recorded the physical characteristics of 2 animals in the table below.
A tick (✓) shows the characteristic which the animal possesses.

characteristic	animal X	animal Y
has wings	✓	
has antenna	✓	✓
has a shell		✓

Which one of the following identifies animal X and animal Y correctly?

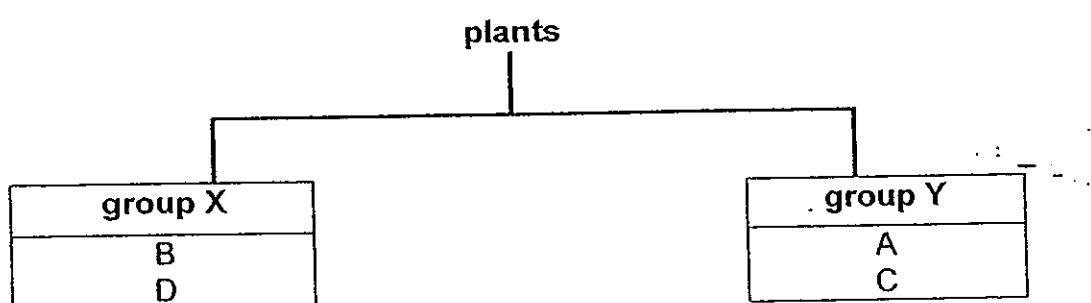


9. Some plants, A, B, C and D, have common characteristics as shown in the table below.

A tick (✓) in the box indicates the presence of such characteristic.

characteristic	plant			
	A	B	C	D
bears flowers	✓		✓	
reproduces by spores		✓		✓
is a land plant	✓	✓		

Using the information above, Salina drew the following diagram to classify them.



What are the suitable sub-headings for group X and group Y?

	group X	group Y
(1)	ferns	fungi
(2)	fungi	flowering plants
(3)	land plants	water plants
(4)	non-flowering plants	flowering plants

10. Three children reported what they had found out about spores.

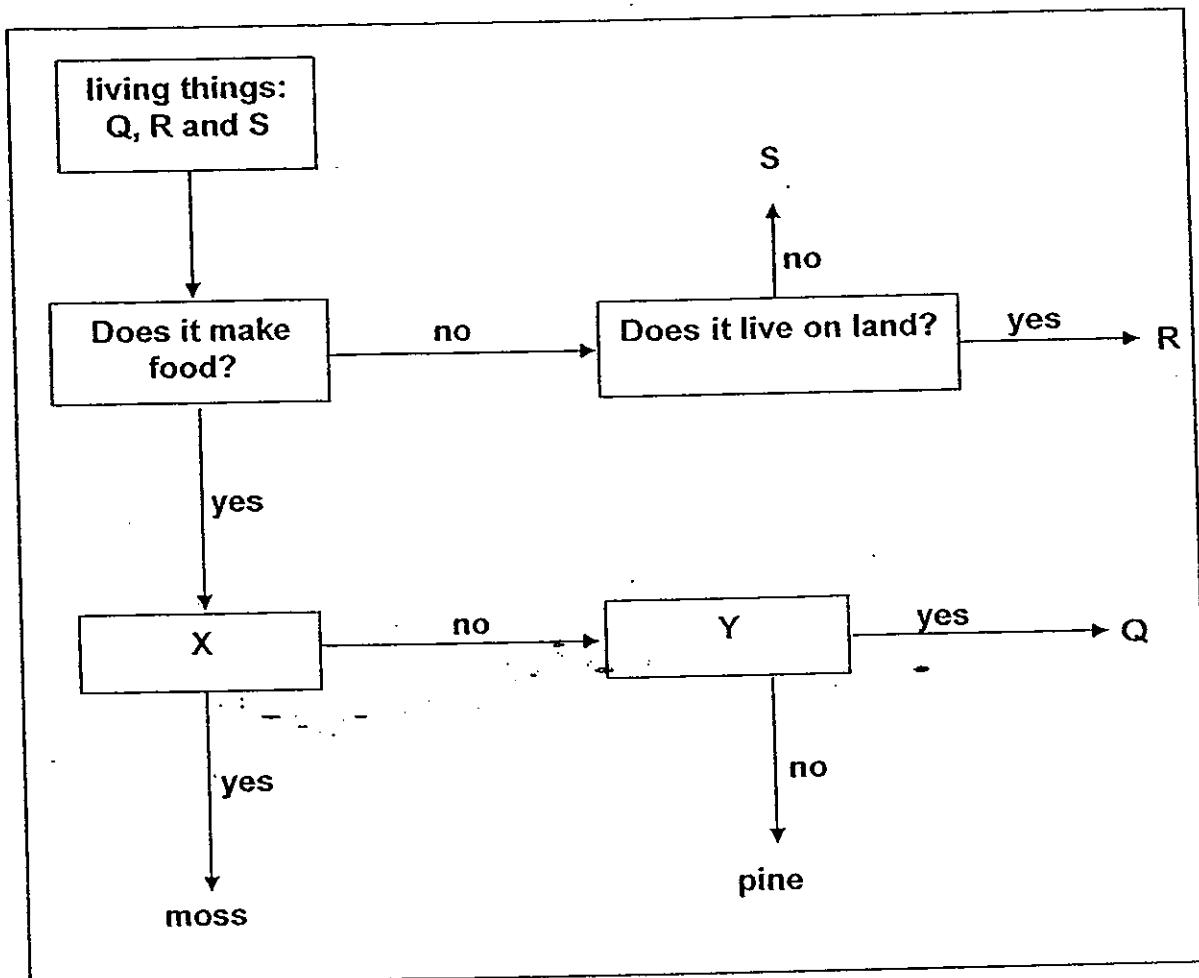
Each of these children made the following statements:

- Ariel : They are light and small.
Beatrice : They are only produced by fungi.
Constance : They are found only in non-flowering plants.

Which of these children made the correct statement(s)?

- (1) Ariel only
- (2) Constance only
- (3) Ariel and Constance only
- (4) Beatrice and Constance only

Living things, Q, R and S, are differentiated as shown below.



Based on the diagram above, answer questions 11 and 12.

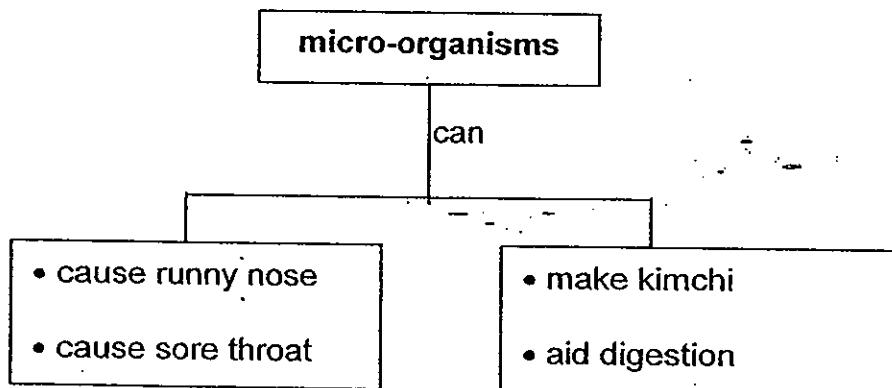
11. Which one of the following pairs of questions is suitable for boxes X and Y?

	X	Y
(1)	Is it a plant?	Is it an animal?
(2)	Does it live on land?	Does it reproduce by seeds?
(3)	Does it bear flowers?	Does it reproduce by spores?
(4)	Does it reproduce by spores?	Does it bear flowers?

12. Which one set of the following is the correct example of each of the living things, Q, R and S?

	Q	R	S
(1)	mushroom	hibiscus	dolphin
(2)	maidenhair fern	mushroom	elephant
(3)	water lily	lion	whale
(4)	toadstool	shark	tiger

13. The chart below shows how we can group micro-organisms.

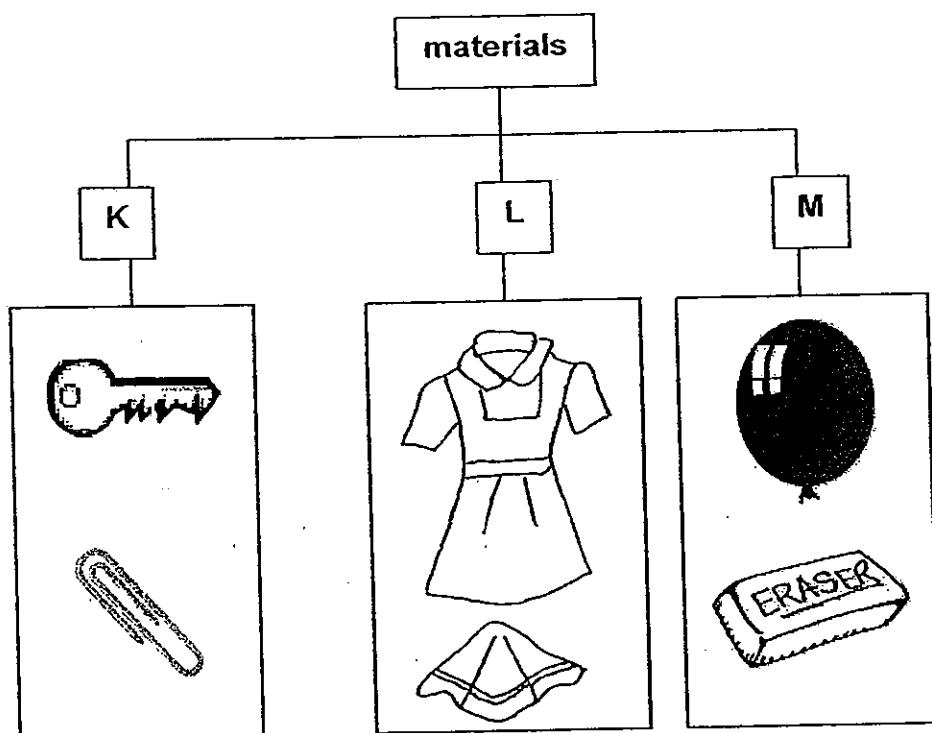


Based on the information above, how are the micro-organisms grouped?

- A according to their size
- B whether they are useful to man
- C whether they reproduce from spores

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

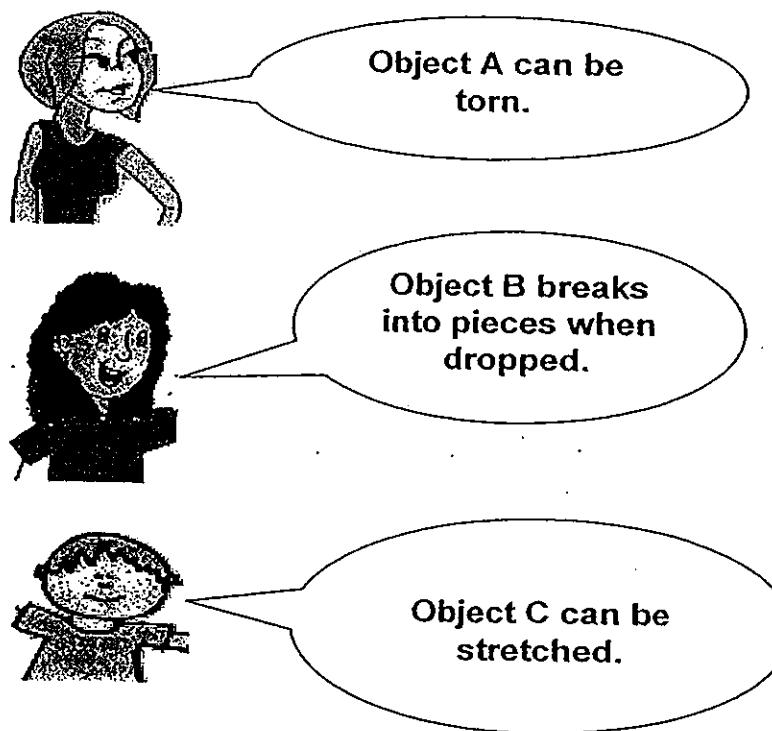
14. The classification chart below shows how some materials which the objects are made of are grouped.



Which are the possible sub-headings for the classification chart above?

	K	L	M
(1)	plastics	rubber	rubber
(2)	metal	cotton	rubber
(3)	metal	cotton	plastics
(4)	rubber	clay	plastics

15. Three people carried out an experiment on 3 objects which can be scratched by a metal ruler. They reported their additional findings as follows:

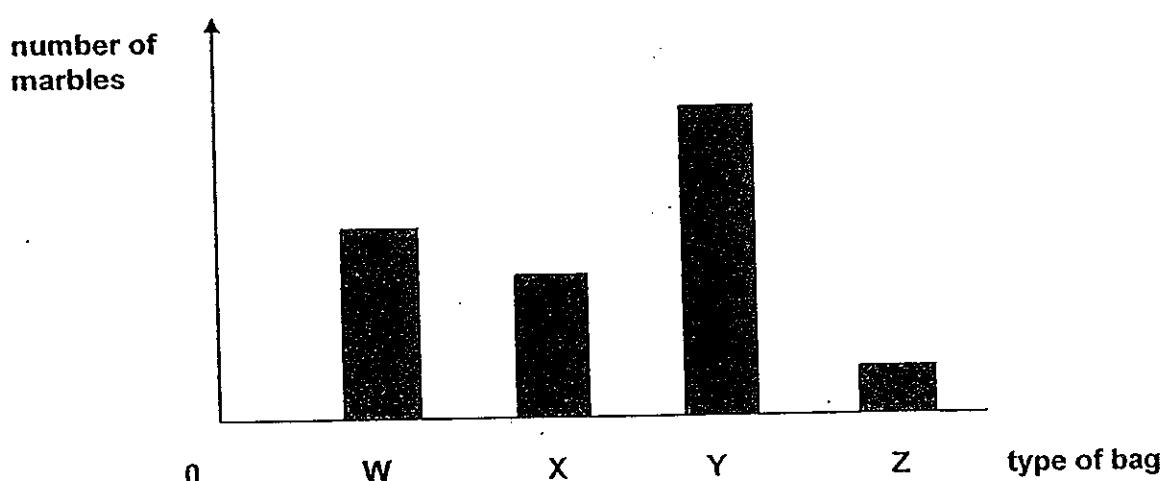


Which one of the following sets can these three objects possibly be?

	Object A	Object B	Object C
(1)	glass mirror	rubber band	plastic cup
(2)	glass mirror	plastic cup	rubber band
(3)	paper cup	glass mirror	rubber band
(4)	plastic cup	rubber band	glass mirror

16. There were four shopping bags of the same size and shape but each was made of a different material.

The bar graph below shows the maximum number of marbles that each bag could hold just before it tore.



Which one of the following conclusions can be drawn from the graph above?

- (1) Bag W was made of the strongest material.
- (2) Bag Z was made of the strongest material.
- (3) Material of bag X was stronger than material of bag Y.
- (4) Material of bag W was stronger than material of bag Z.

17. The table below shows the properties of four materials: E, F, G and H.

A tick (✓) in the box indicates the property the material possesses.

material	flexible	lightweight	waterproof
E	✓	✓	
F		✓	✓
G			✓
H	✓	✓	✓

Among the four materials, which material is most suitable to make a picture book for toddlers?

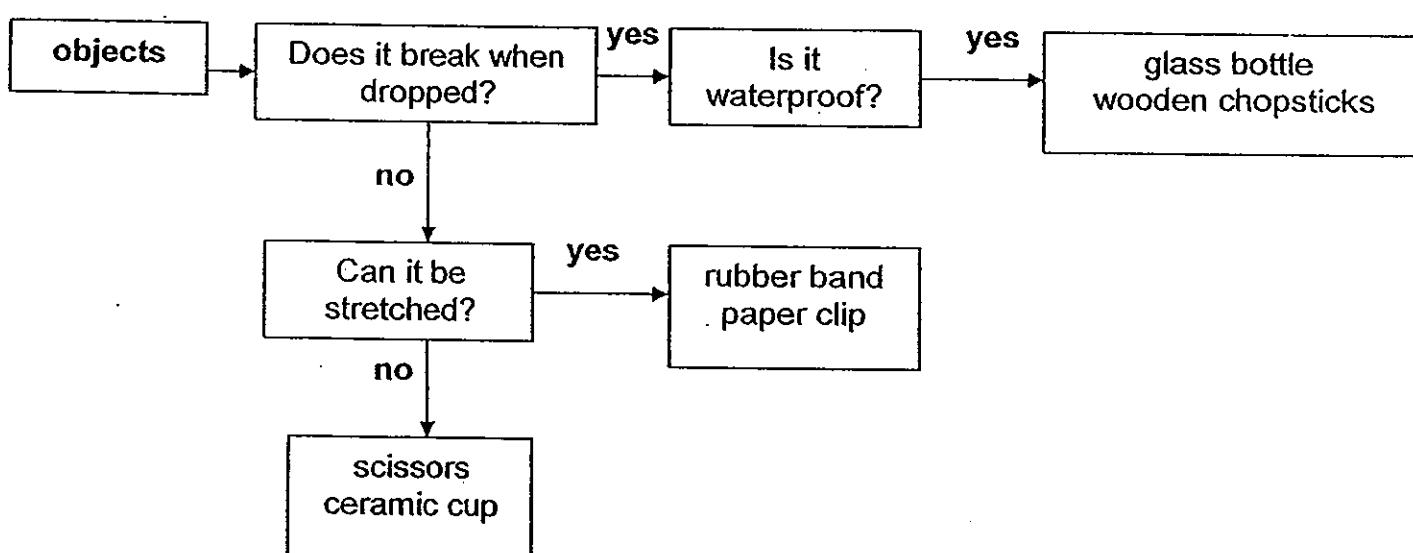
(1) E

(2) F

(3) G

(4) H

18. The diagram below differentiates the objects based on their properties.



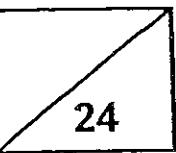
Based on the information above, which of these objects is/ are wrongly classified?

(1) scissors, glass bottle

(2) glass bottle, paper clip

(3) ceramic cup, wooden chopsticks

(4) ceramic cup, paper clip, wooden chopsticks



SECTION B (24 marks)

For questions 19 to 29, write your answers clearly in the spaces provided.

The number of marks available is shown in brackets [] at the end of each question or part question.

19. Which of the following statements show(s) that a living thing responds to changes in its environment?

Put a tick (✓) in the appropriate box(es).

[2]

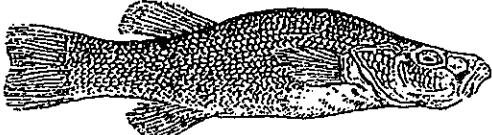
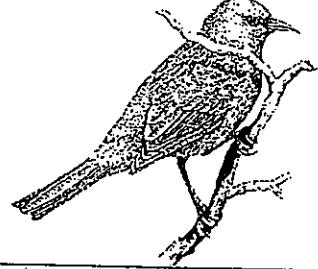
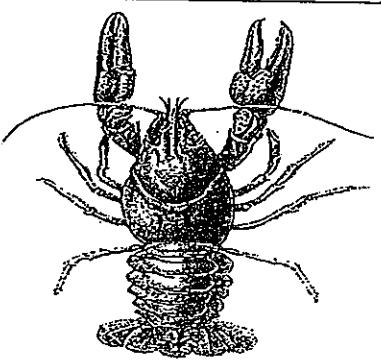
(a) A mouse runs away from a snake.

(b) The leaves of the rain tree opens during the day.

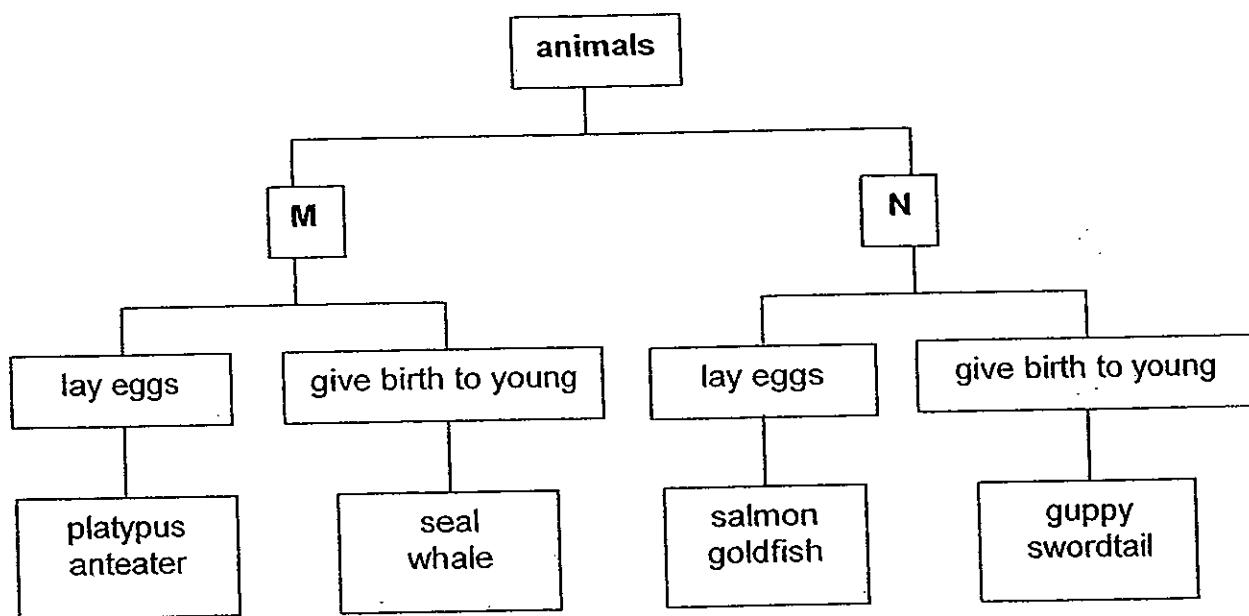
(c) The sound of traffic gets louder as you walk nearer to the road.

(d) A millipede curls into a ball when touched.

20. Based on your observations of each of the following animals,
- state its outer covering
 - ONE OTHER physical feature that the animal possesses. [3]
- (Do NOT mention the number of eyes and legs of each animal.)
The first has been done for you.

animal	outer - covering	physical feature
Example 	hair	It has a pair of tusks.
(a) 		
(b) 		
(c) 		

21. The chart below shows how some animals are grouped.



Based on the information above, answer the following questions:

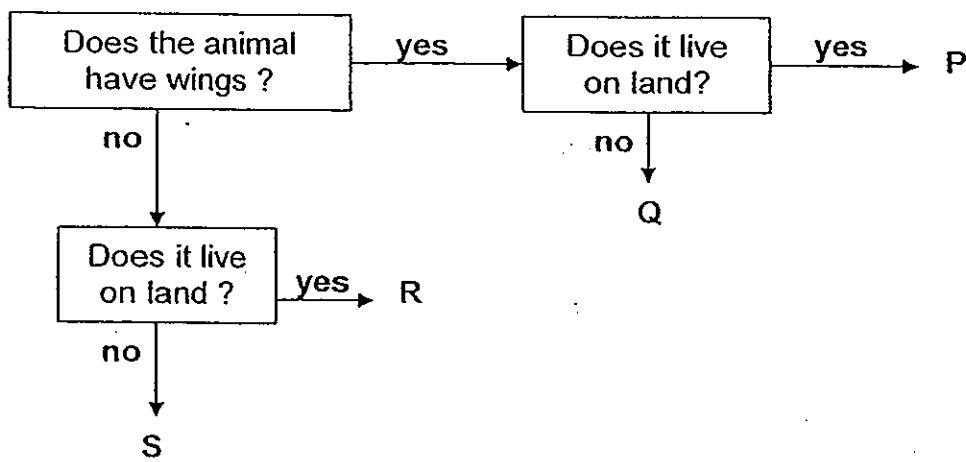
- (a) Suggest a suitable sub-heading for each of these groups, M and N: [1]

M _____

N _____

- (b) State a similarity between the seal and guppy. [1]

22. Nancy put some animals into groups, P, Q, R and S, based on their common characteristics as shown in the flow chart below:



Based on the information above, answer the following questions:

- (a) State ONE DIFFERENCE between animals in groups P and S.
[1]

An animal, X, is described as follows:

It is a land animal with a pair of wings.

- (b) Which one of these groups, P, Q, R or S, does animal X belong to?
[1]

23. Julia took a walk around the eco-garden in her school. She noticed that there were many plants **WITHOUT** flowers.

Based on her observations, Julia made the following conclusion:

All the plants that do **NOT** have flowers are non-flowering plants.

- (a) Did Julia make a correct conclusion?

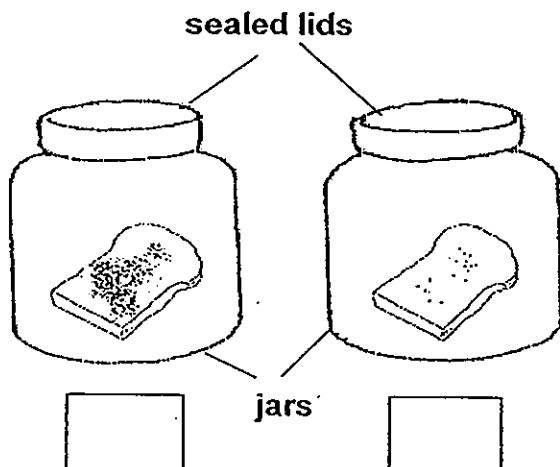
Explain your answer.

[1]

- (b) Why are mushrooms considered as fungi and **NOT** as non-flowering plants? [1]

24. Carina took two identical pieces of bread from a loaf of bread. She toasted one piece and then left both pieces in identical sealed glass jars in a warm place.

After a week, she found more mould growing on one piece of bread than the other.

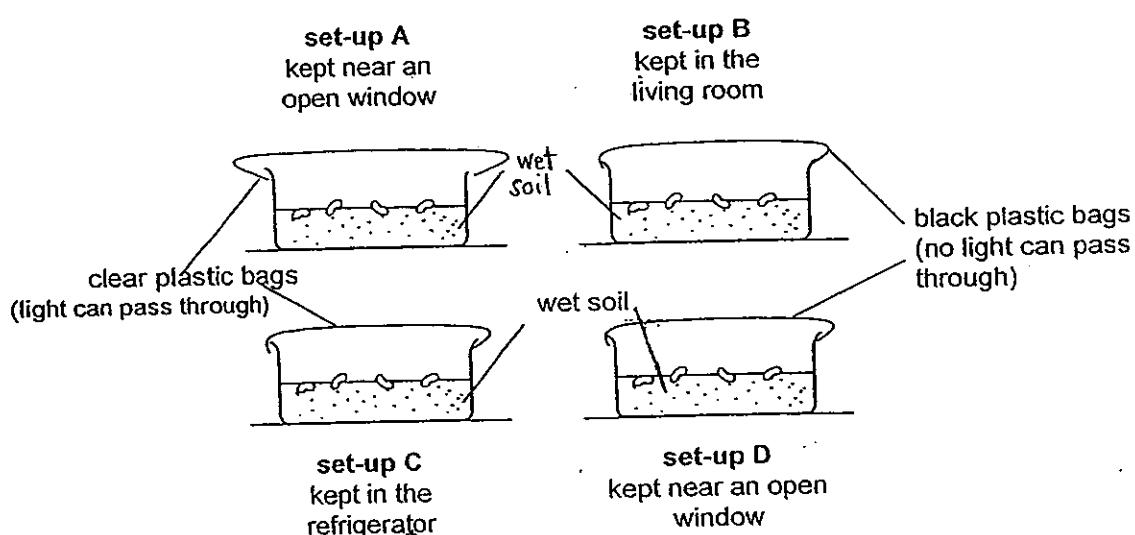


- (a) Based on the information above, identify the toasted bread.
Put a tick (✓) in the correct box above. [1]
-
- (b) How does bread mould reproduce? [1]
-
- (c) Carina said that the mould on the bread was a plant.
Was she correct?

Give a reason for your answer. [1]
-
-

25. Tom wanted to find out if light is necessary for seeds to develop into seedlings.

Using four identical containers, Tom put four seeds into each of the following set-ups as shown in the diagrams below.



Based on the information above, answer the following questions:

- (a) To conduct a fair test for his experiment, which two of these set-ups, A, B, C and/ or D, should Tom use? [1]
-

Three of Tom's classmates suggested the following to conduct a fair test for his experiment mentioned above:

Alvin : One of the set-ups must contain a different type of seeds from the rest.

Ben : Give each set-up the same amount of water.

Clara : The type and amount of soil used in each container must be the same.

- (b) Which of these Tom's classmates gave the wrong suggestion(s)? [1]
-

26. In an experiment, June grew some seeds of types X and Y in identical pots with the same amount of garden soil.

An equal number of seeds of types X and Y were put in each pot. June watered the seeds with an equal amount of water everyday and recorded what she had done in the table below.

pot	type of seed	fertiliser added	place where the pot was placed
P	X	yes	near an open window
Q	X	no	in the shade
R	Y	yes	near an open window
S	Y	no	in the shade

June used pots P and S to find out which type of seeds grow into seedlings more quickly.

Her father commented that she had NOT conducted a fair test.

Give two suggestions that June could do to conduct a fair test for her experiment.

[2]

SUGGESTION 1	
SUGGESTION 2	

27. Material K is described as follows:

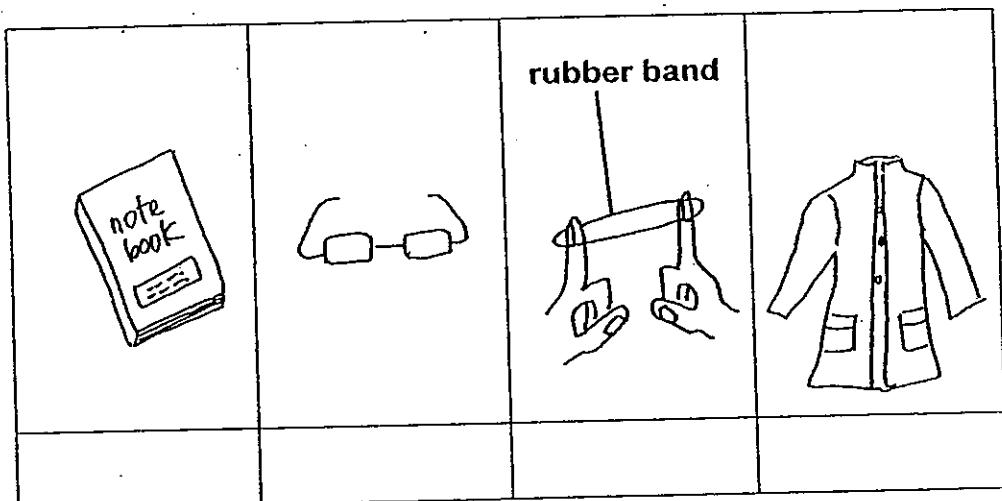
- It is
- flexible
 - waterproof
 - lightweight
 - can float on water

Based on the information above, answer the following questions:

- (a) Which one of the following objects can possibly be made from material K ?

Put a tick (✓) in the correct box below.

[1]

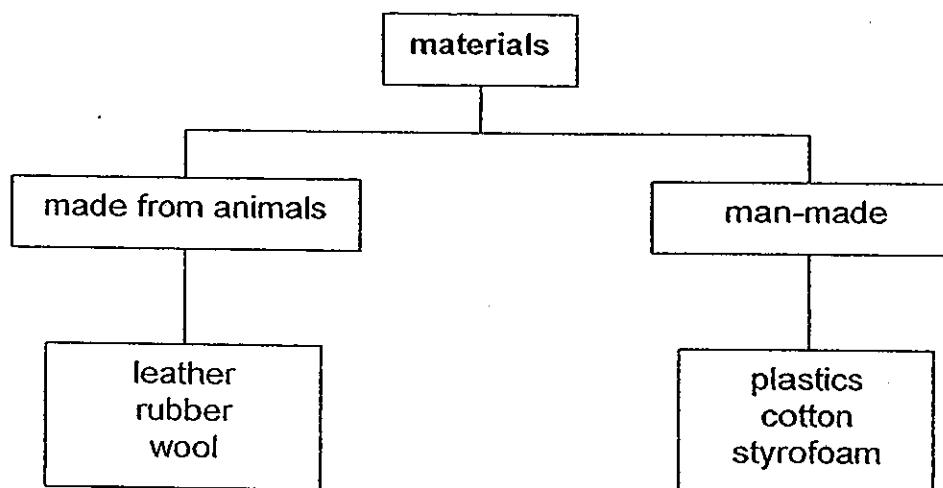


- (b) Which one of the above objects breaks into pieces when it is hit repeatedly with a hammer ?

Put a cross (X) in the correct box above.

[1]

28. Some materials are classified according to their properties as shown below.

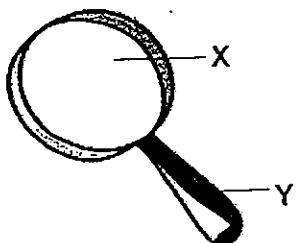


Based on the information above, answer the following questions:

List the material(s) which has / have been **WRONGLY** classified. [2]

Explain your answer.

29. The object as shown below is made up of two different parts. Each part is made of a different material.

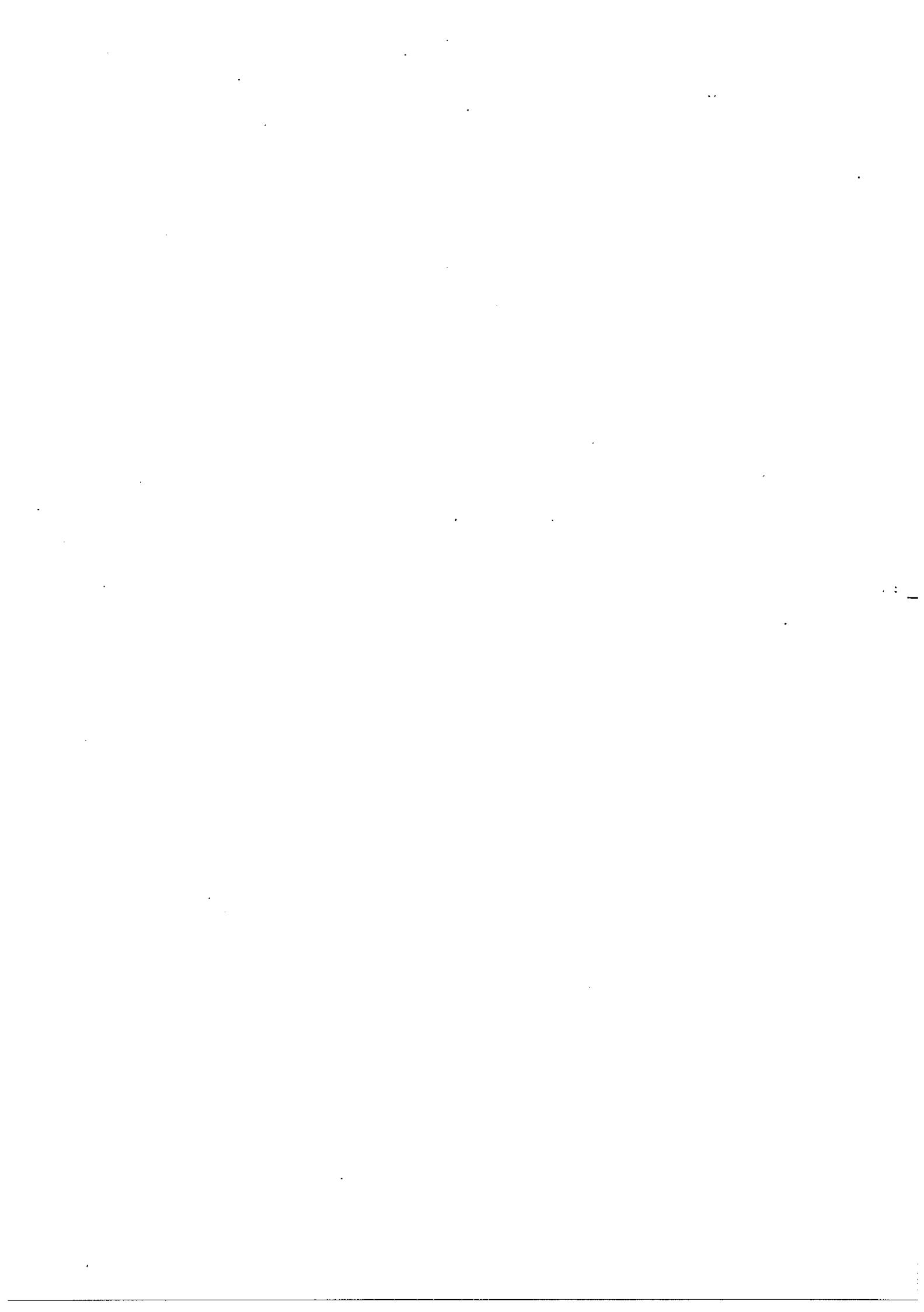


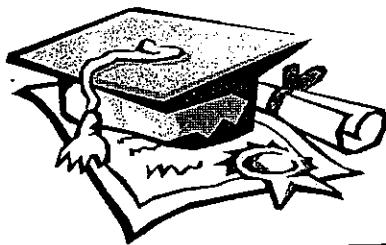
Name the material used to make each of these parts of the object and give a reason why such a material is used to make the part. [2]

part	material used	reason
X		
Y		

- END OF PAPER -

Setters: H. H. & Y. M.



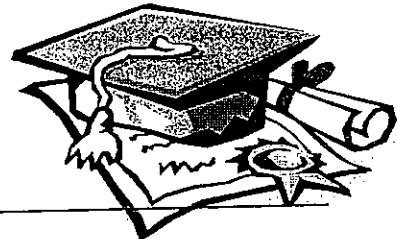


ANSWER SHEET

EXAM PAPER 2010

**SCHOOL : RAFFLES GIRLS' PRIMARY
SUBJECT : PRIMARY 3 SCIENCE**

TERM : SA1



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

Q18
3

19)a) ✓ b) ✓ c) ✓ d) ✓

- 20)a) Scales / It has fins
b) feathers / It has a beak
c) shell / It has clippers

21)a) M: Mammals N: Fish
b) Both give birth to young.

22)a) Groups P have wings while Group S have no wings.
b) It should belong to Group P.

23)a) No. This is because some plants take a long time for it to blossom and some plants flowers are too small to see.
b) This is because mushrooms don't have stems, leaves and chlorophyll which are the characteristics of a plant.

- 24)a)

b) They reproduce by spores.
c) No, she is not correct. It is because mould does not make its own food.

25)a) He should use set-up A and set-up D.
b) Alvin gave the wrong suggestions.

26) 1) Both plants should have fertiliser.
2) Both plants should be near an open window

27)a)b)

	X	✓	

28)1)Rubber is made from the Rubber tree.

2)Cotton is made from plants.

29)X: Glass/ plastic / It is transparent

Y: Plastic / If it is dropped it will not break.



RAFFLES GIRLS' PRIMARY SCHOOL

SEMESTRAL ASSESSMENT (1)

2011

Name : _____ Index No: _____ Class: P 3 _____

6 May 2011

SCIENCE

Attn: 1 h

SECTION A (18 X 2 marks)

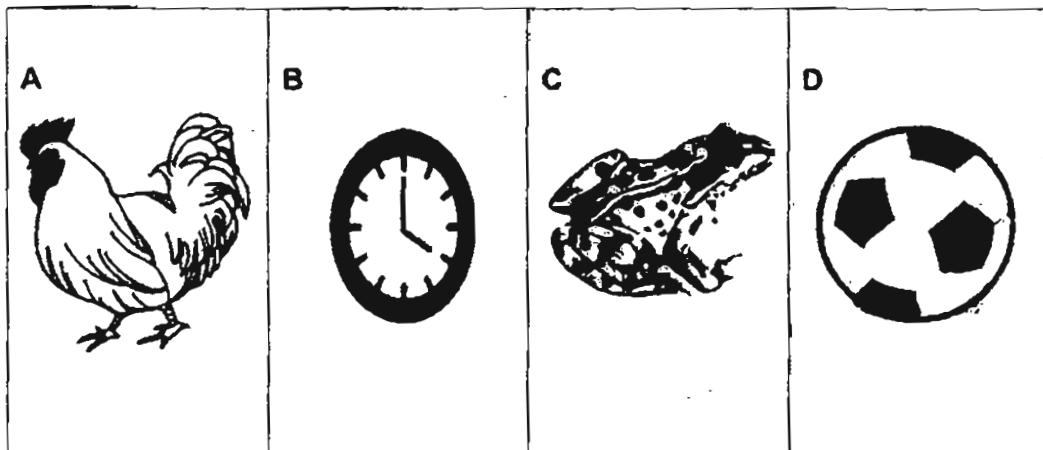
For each question from 1 to 18, four options are given.

One of them is the correct answer. Make your choice (1, 2, 3 or 4).

Shade the correct oval on the Optical Answer Sheet.

Section A	36	
Section B	24	
Your score out of 60 marks		
Highest score	Class	Level
Average score		
Parent's signature		

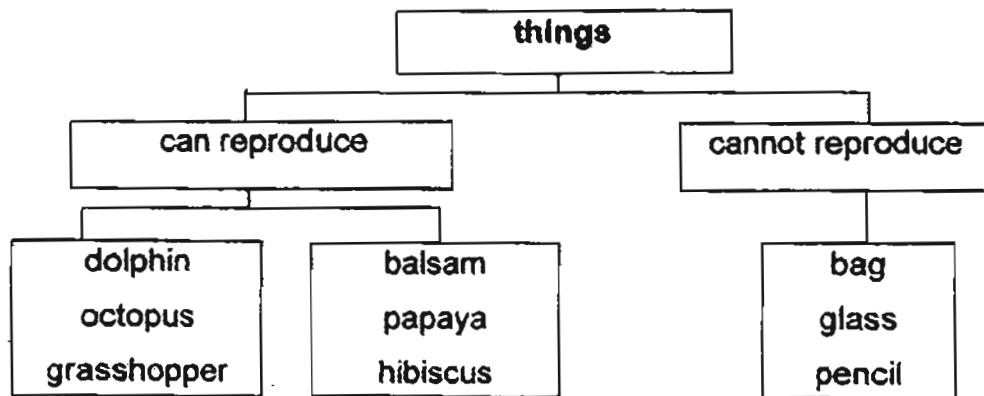
1. Some things are given as follows:



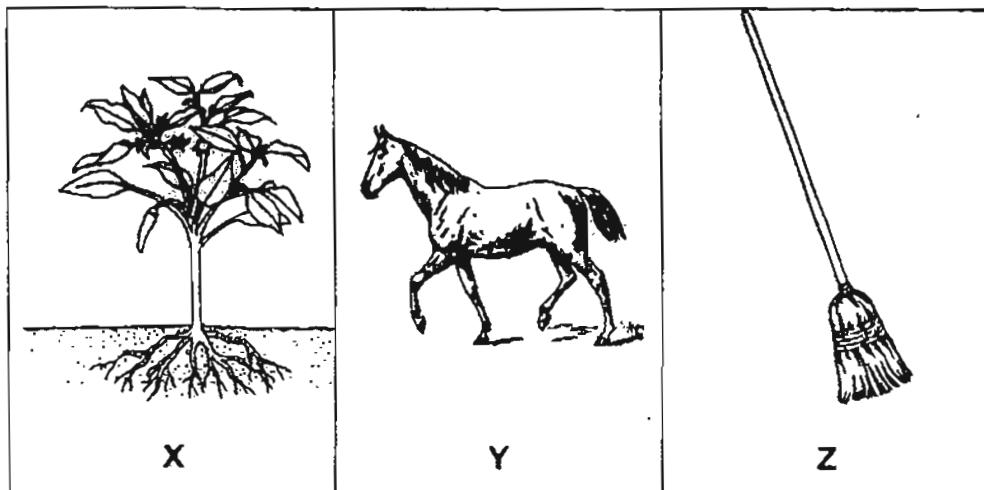
Which one of these following sets of things needs air, food and water?

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

4. The classification chart below shows how some things are classified.

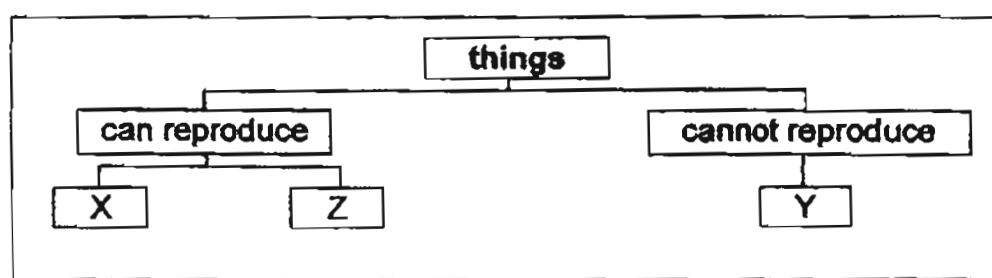


John was given the following set of things:

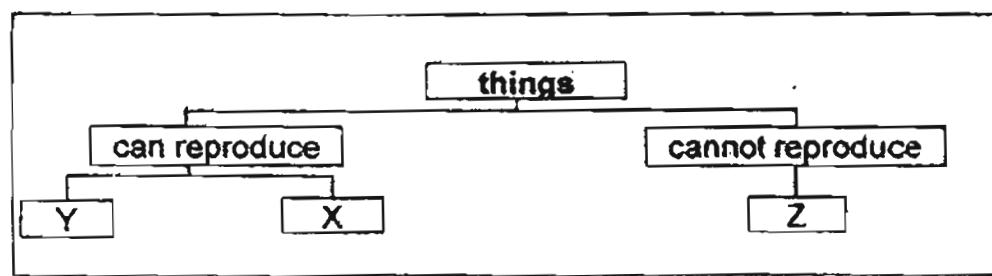


4. Which one of the following diagrams shows the correct classification of X, Y and Z using the chart on page 3?

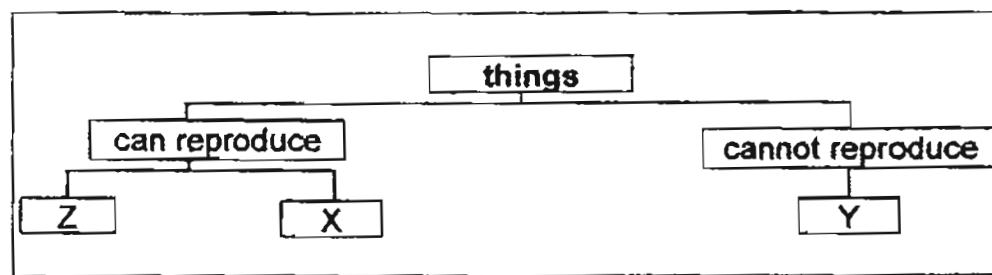
(1)



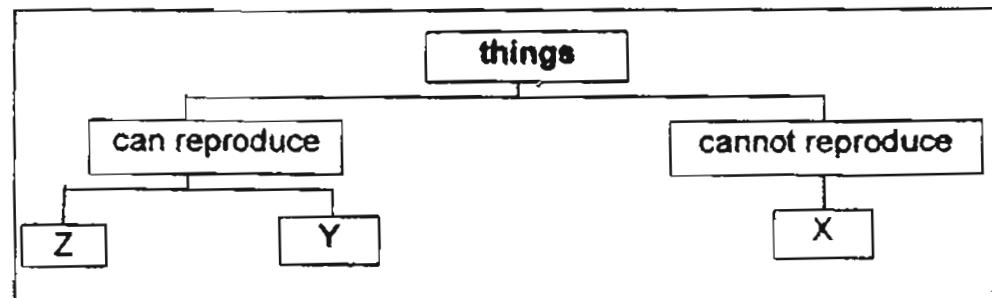
(2)



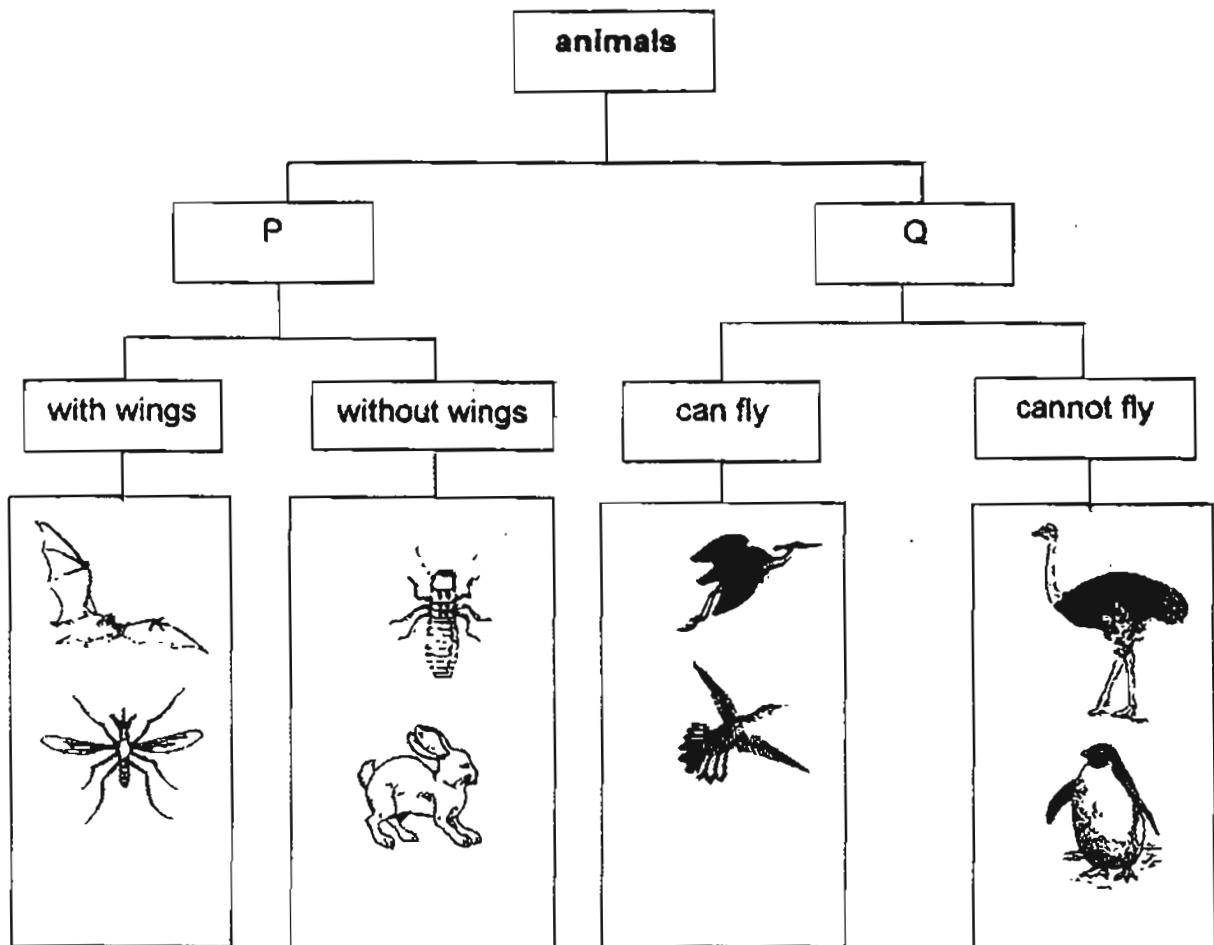
(3)



(4)



Some animals are classified into 2 main groups, P and Q, as shown below.

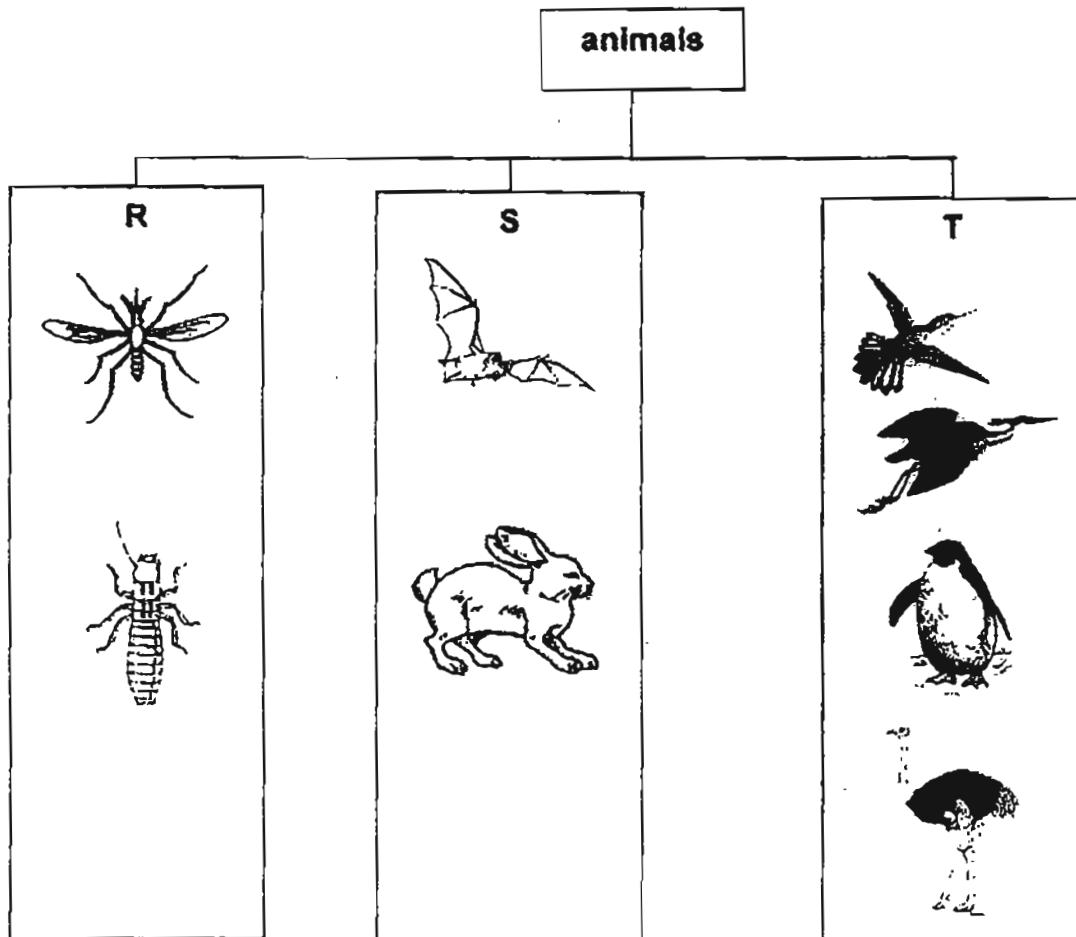


Based on the information above, answer **questions 5 and 6**.

5. Which one of the following sets gives the appropriate sub-headings of P and Q?

	P	Q
(1)	lay eggs	give birth to young alive
(2)	live on land	live in water
(3)	has two legs	has more than two legs
(4)	without feathers	with feathers

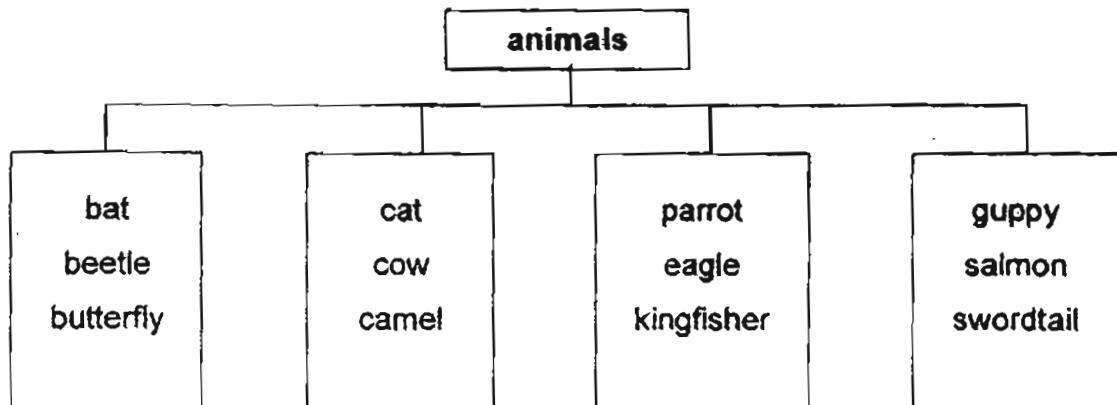
6. The animals (NOT drawn to scale) can be regrouped in ANOTHER way as shown below.



Which one of the following gives the correct sub-headings of R, S and T?

R	S	T
(1) without wings	with wings	with wings
(2) without feelers	with feelers	with feelers
(3) animals which fly	animals which walk	animals which swim
(4) with hard body covering	with hair	with feathers

7. The animals below are grouped according to their similarities.



Which one of these animals is classified wrongly?

- | | |
|----------------|-----------|
| (1) bat | (2) camel |
| (3) Kingfisher | (4) guppy |

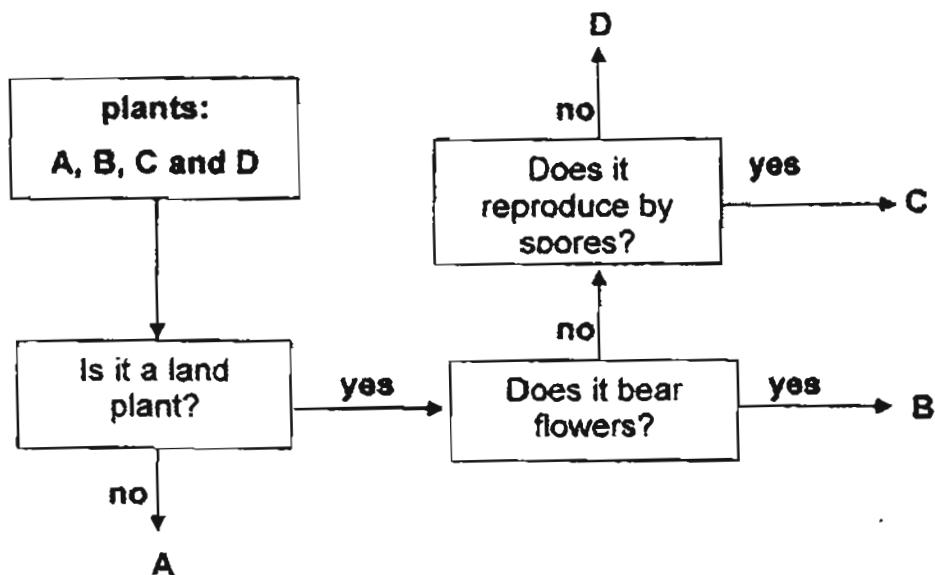
8. Four pupils made the following statements about animals:

- Adrian : All mammals have fur or hair.
Bernita : All birds have a beak, feathers and wings.
Congming : Some animals lay eggs while others give birth to live young.
Diviya : Outer coverings such as feathers and scales protect animals from injuries.

Which of these pupils were correct?

- | | |
|-----|--------------------------------------|
| (1) | Adrian and Bernita only |
| (2) | Adrian and Diviya only |
| (3) | Adrian, Congming and Diviya only |
| (4) | Adrian, Bernita, Congming and Diviya |

9. Plants A, B, C and D are differentiated using the chart below.



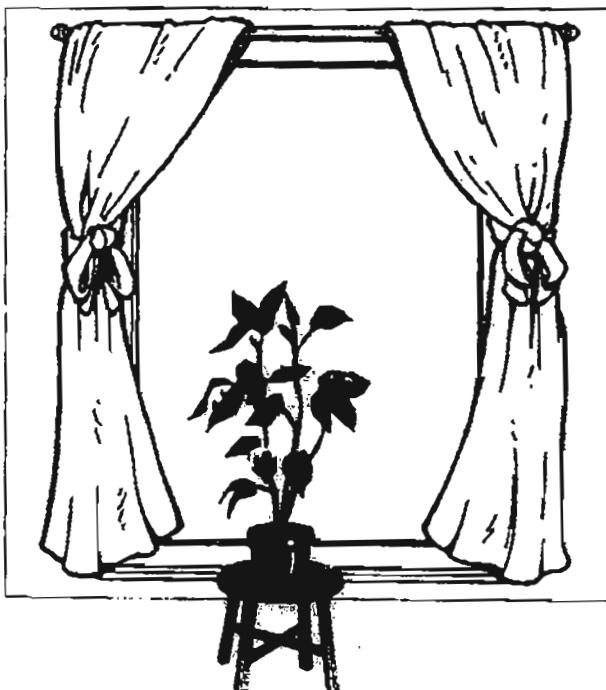
Based on the information above, which one of the following identifies plants B and C correctly?

	plant B	plant C
(1)	moss	mushroom
(2)	mimosa	toadstool
(3)	sunflower	bird's nest fern
(4)	morning glory	ixora

10. Which one the following statements about ferns and mosses is correct?

- (1) They do not bear flowers.
- (2) They are found only in water.
- (3) They do not need air, food and water.
- (4) They feed on dead plants and animals.

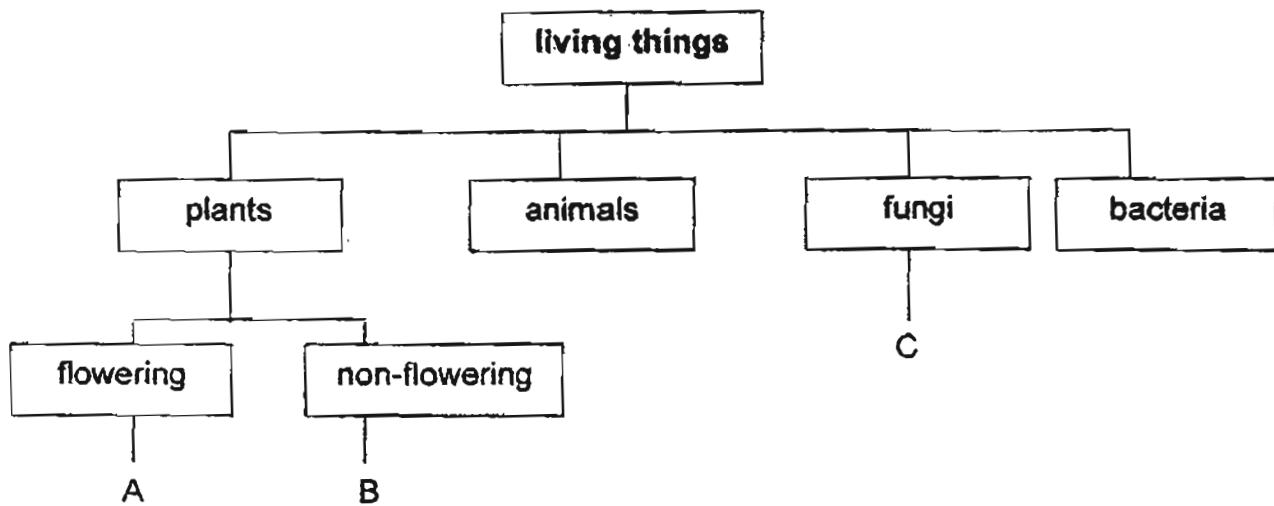
11. Ahmad placed a pot of plant near an open window before he went away for a holiday for 2 weeks. When he returned, the plant had died.



Which of the following could possibly explain why Ahmad's plant died?

- A It did not receive air.
 - B It was not given water.
 - C It was not given fertiliser.
 - D It did not receive sunlight.
-
- | | |
|------------------|---------------------|
| (1) B only | (2) C only |
| (3) A and D only | (4) B, C and D only |

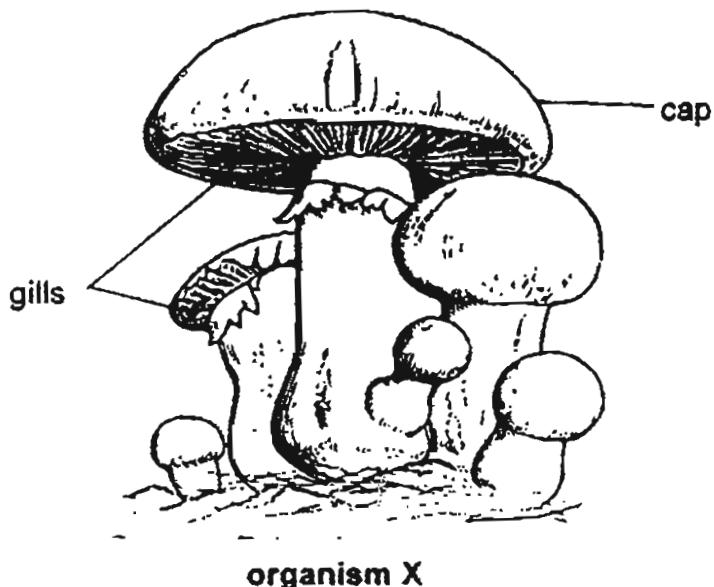
12. The diagram below shows how living things can be grouped.



Based on the information above, which one of the following identifies A, B and C correctly?

	A	B	C
(1)	papaya	mimosa	puff ball
(2)	rain tree	toadstool	yeast
(3)	water lily	staghorn fern	mushroom
(4)	bracket fungus	bread mould	bird's nest fern

13. The diagram below shows a group of organism X.



Z is found on the gills of X.

What is the function of Z?

- (1) It bears flowers.
- (2) It helps X to reproduce.
- (3) It helps X to make its own food.
- (4) It helps X feed on dead plants and animals.

14. Ceramic is usually used for tiling the floor as well as bathroom walls in our houses.

Which one of the following properties best describes the reason for its usage?

- (1) It is flexible.
- (2) It breaks easily.
- (3) It allows light to pass through it easily.
- (4) It is durable and can withstand scratches.

15. Plastics are used to make tanks to keep fish.

Which of the following are possible reasons for using plastics to make such tanks?

- A It is light.
- B It is flexible.
- C It is waterproof.
- D It does not break easily.

(1) A and C only

(2) B and D only

(3) A, B and C only

(4) A, C and D only

16. Dinah made some observations of four materials: A, B, C and D.

She recorded her observations in the table below.

A tick (✓) in the box shows the observation Dinah made of the material.

material	A	B	C	D
It is waterproof.	✓	✓	✓	
It is transparent.	✓			
It can be stretched.			✓	✓
It breaks easily when dropped.	✓			

Which one of these materials is most suitable for making T-shirts?

(1) A

(2) B

(3) C

(4) D

17. Ramesh collected some rock samples, P, Q, R and S, during a hiking trip. Each of these samples was scratched using a toothpick, a plastic fork and a metal ruler, one at a time, to find out how hard each was.

Ramesh's results are shown in the table below.

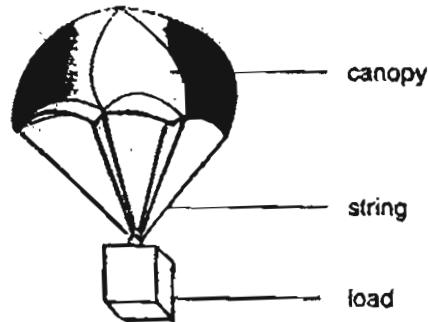
A tick (✓) in the box shows the presence of scratches on the rock sample.

rock sample	can be scratched with a toothpick	can be scratched with a plastic fork	can be scratched with a metal ruler
P		✓	✓
Q			✓
R			
S	✓	✓	✓

Which one of the following shows the correct arrangement of these rock samples in order of their hardness?

- increasing hardness
- | | | | | |
|-----|---|---|---|---|
| (1) | P | Q | R | S |
| (2) | P | S | Q | R |
| (3) | R | Q | P | S |
| (4) | S | P | Q | R |

18. Siew Leng wanted to find out if the size of the canopy of the toy parachute will affect the time taken for the load to fall 10 m to reach the ground.



Which one of the following variables should Siew Leng change during her experiment?

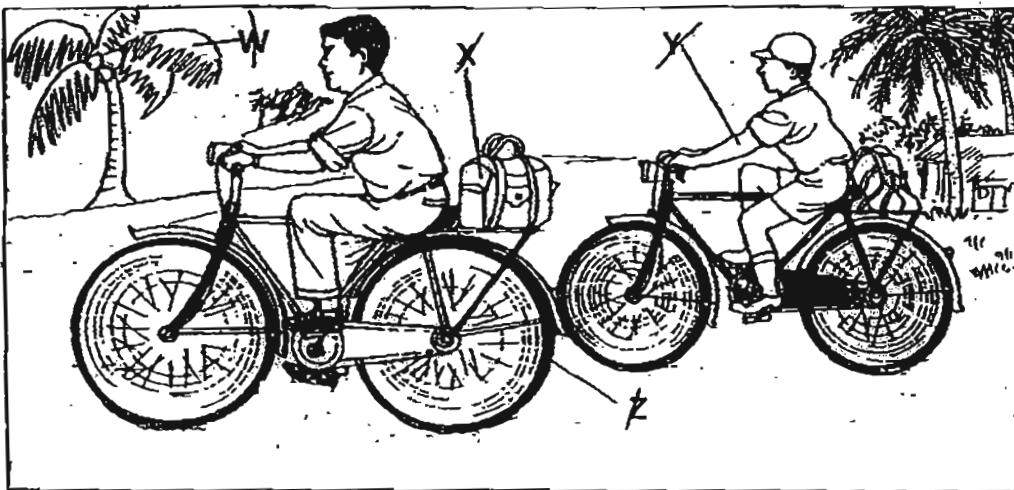
- | | |
|----------------------|------------------------|
| (1) size of canopy | (2) mass of the load |
| (3) length of string | (4) material of canopy |

SECTION B (24 marks)

For questions 19 to 30, write your answers clearly in the spaces provided.

The number of marks available is shown in the brackets [] at the end of each question or part question.

19. The picture below shows some living and non-living things labelled W, X, Y and Z.



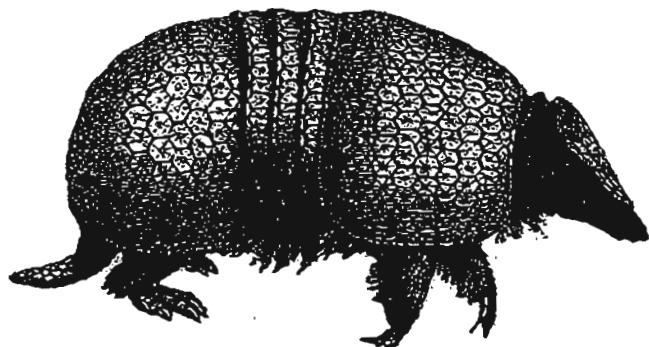
In the table below, classify the things, W, X, Y and Z.

Write letters W, X, Y and Z ONCE only.

[2]

things	
living	non-living

20. The picture below shows a mammal which is able to roll itself into a ball to escape from danger.

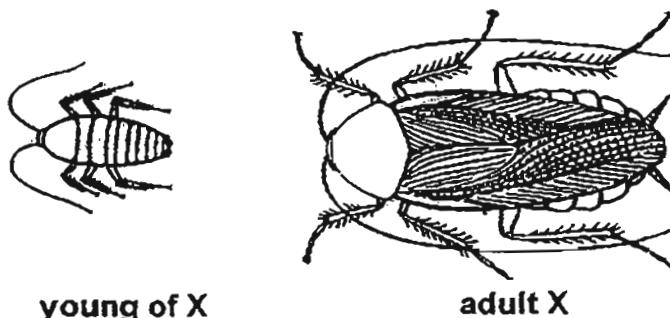


Based on the information above, answer the following questions:

- (a) State the characteristic of living things which is demonstrated when the mammal rolls itself into a ball to escape from danger. [1]

- (b) Besides moving about to escape from danger, state one OTHER reason why it needs to move about. [1]

21. The young and adult of organism X are shown below.



Based on your observations of these organisms above, state two similarities between the young and the adult of X. [2]

SIMILARITY 1	
SIMILARITY 2	

22. Three different types of animals, A, B and C, are shown below.



Based on your observations of these animals, which one of these animals is an insect?

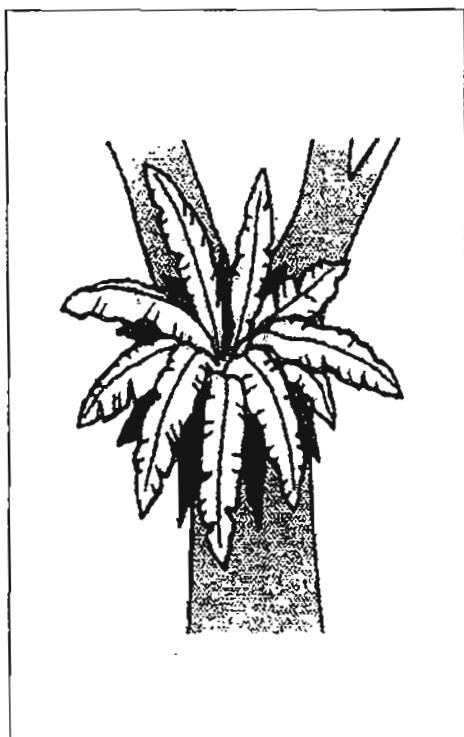
Write letter A, B or C ONLY.

Give a reason for your answer.

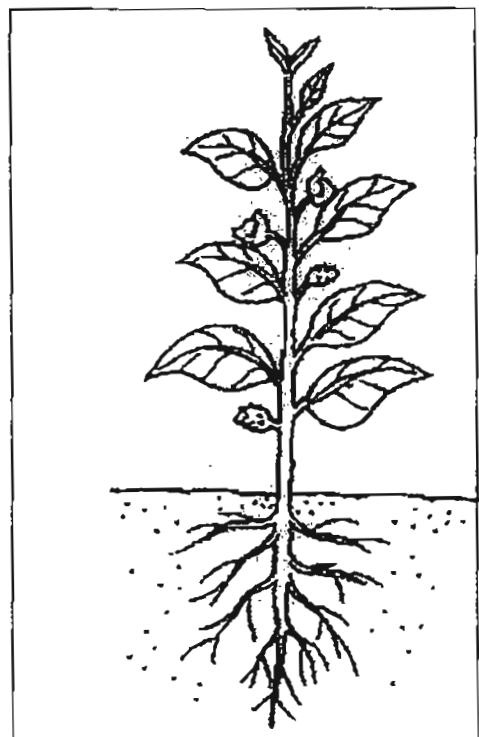
[1]

animal	reason

23. The pictures below show two plants, A and B.



plant A



plant B

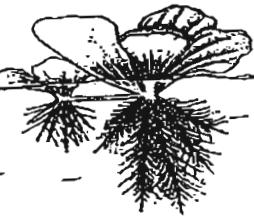
- (a) How does each of these plants reproduce? [2]

A	
B	

- (b) Name ANOTHER plant that reproduces in the same way as B.

[1]

24. The plants below are grouped according to their common characteristics.

plants	
A	B
	
	
	

Based on your observations, answer the following questions:

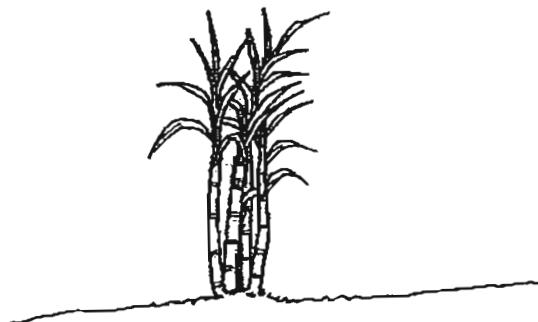
- (a) Write a suitable sub-heading for each of the following groups of plants: [1]

A	B

To be continued on the next page

continued from page 20

Bala spotted the following plant in his garden.



- (b) In which group, A or B, would Bala place the plant? [1]

25. The table below gives information on two different types of organisms, X and Y.

A tick (✓) in each box indicates the characteristic which the organism possesses.

characteristic	organisms	
	X	Y
It grows on land.	✓	✓
It makes its own food.		✓
It reproduces by spores.	✓	✓
It feeds on both dead and living plants and animals.	✓	

Based on the information given above, answer the following questions:

- (a) Which one of these organisms, X or Y, is possibly a fungus?

Give a reason for your answer.

[1]

- (b) State one difference between X and Y.

[1]

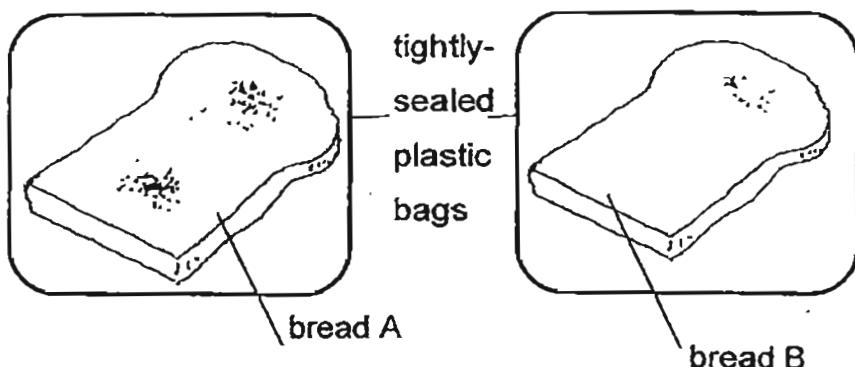
26. The following statements describe the bacteria and yeasts.

Put a cross (X) in the appropriate box(es) which is/ are NOT correct. [2]

	statement	put a cross (X) here
(a)	Yeast are a type of fungi.	
(b)	All bacteria are harmful to man.	
(c)	Bacteria and yeasts are micro-organisms.	
(d)	All bacteria and yeasts are reproduced by seeds.	

27. James put each slice of bread, A and B, taken from the same loaf, in identical tightly-sealed plastic bags. One slice of bread had been sprinkled with water. The plastic bags of bread were placed in the cupboard for a week.

After a week, James observed the slices of bread and drew the diagrams below to show his observations.



Based on the information above, answer the following questions:

- (a) Which slice of bread, A or B, was most likely sprinkled with water?

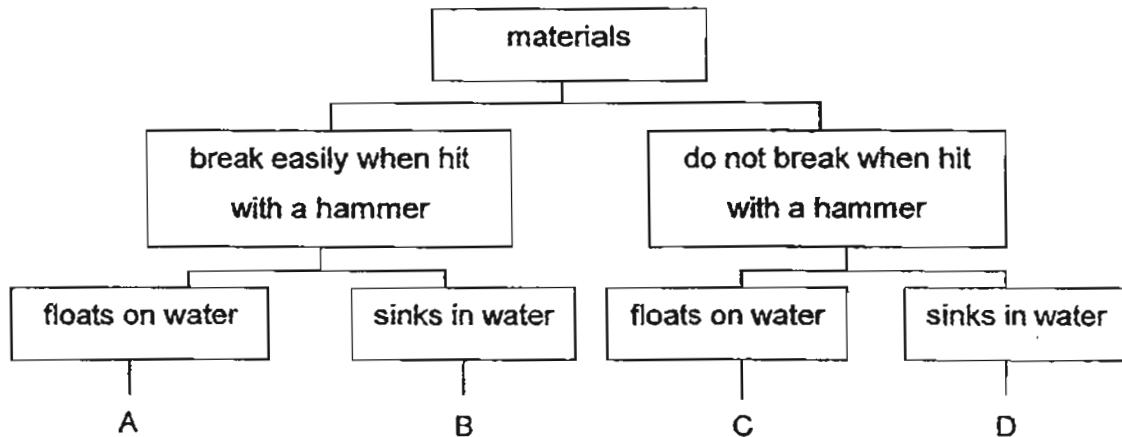
Explain your answer.

[1]

- (b) Besides air and water, name **ANOTHER** condition necessary for bread mould to grow in James' experiment.

[1]

28. The diagram below shows how some materials are classified based on their common properties.



Based on the information above, answer the following questions:

- (a) State the common property of materials B and D. [1]

- (b) Which one of the following materials is likely to be "glass"?

Write letter A, B, C or D ONLY.

- State one property of glass. [1]

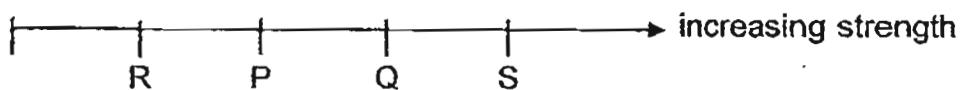
letter	property of glass

29. Farah conducted an experiment to compare the strength of different types of materials.

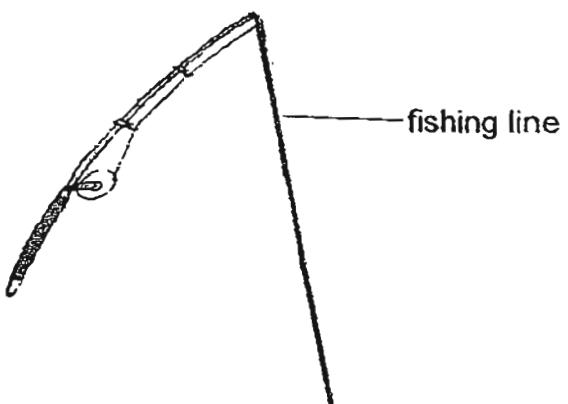
She recorded her findings in the table as shown below.

type of material	flexibility
P	no
Q	yes
R	yes
S	no

Farah arranged the strength of these materials as follows:



Farah wants to make a fishing line as shown below.



Based on the information above, which one of these materials, P, Q, R or S, should Farah use to make a fishing line?

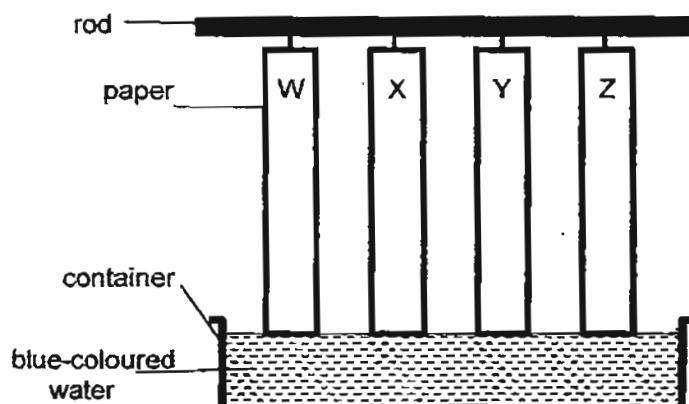
Give a reason for your answer.

[2]

material	reason

30. Thomas weighed 4 different types of paper, W, X, Y and Z, of the same thickness and size, **ONE** at a time.

The pieces of paper, each suspended by a string on a rod, were dipped into a container of blue-coloured water as shown in the diagram below.



After 3 minutes, Thomas removed the pieces of paper and weighed each of them. All the pieces of paper were heavier than before. He recorded the increase in mass of each paper as shown in the table below.

paper	increase in the mass of paper (g)
W	2
X	4
Y	1
Z	3

Based on the information above, which type of paper could possibly be used to absorb the most amount of oil?

Write letter W, X, Y or Z **ONLY**.

Give a reason for your answer.

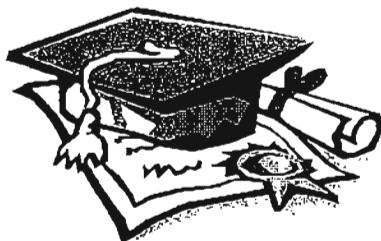
[2]

type of paper	reason

- END OF PAPER -

Setters: Ms. M. Yeo, Mdm Roziyana



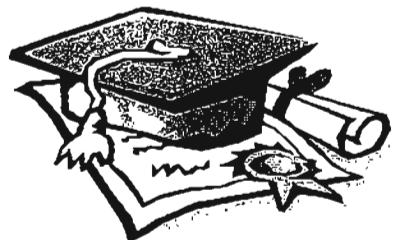


ANSWER SHEET

EXAM PAPER 2011

**SCHOOL : RAFFLES GIRL'S
SUBJECT : PRIMARY 3 SCIENCE**

TERM : SA 1



Section A

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

Q18
1

Section B

Q19)

Things	
Living	Non-living
W	Z
Y	X

**Q20 a) Living things respond to changes.
b) Find food to eat.**

Q21)

SIMILARITY 1	They have six legs
SIMILARITY 2	They have two feelers

Q22) A . It has six legs and three body parts.

**Q23 a) A . Reproduce by spores.
B. reproduce by seeds.**

(b) Sunflower

**Q24 a) A. land plant
B. Water plant**

(b) Group A

Page 2

Q25 a) Organisms X because fungus reproduce by spores and feeds on both dead and living plants

(b) Y makes its own food but X does not makes its own food.

Q26)

	Statement	put a cross (X) here
(a)	Yeast are a type of fungi.	
(b)	All bacteria are harmful to man.	X
(c)	bacteria and yeasts are micro-organisms.	
(d)	All bacteria and yeasts are reproduced by seeds.	X

Q27 a) Bread A because there are more bread mould growing on it.

b) warmth

Q28 a) They sinks in water.

b) B. Glass break easily when hit with a hammer and sinks in water.

Q29) Q . It is longer and has flexibility suitable to use to make a fishing line.

Q30) X. It absorb the most amount of oil because the mass of paper is 4g and is the heaviest among all the papers.

--- end paper ---