RAFFLES GIRLS' PRIMARY SCHOOL

SEMESTRAL ASSESSMENT 2

2009

Name :_____ Index No: ___Class: P3__

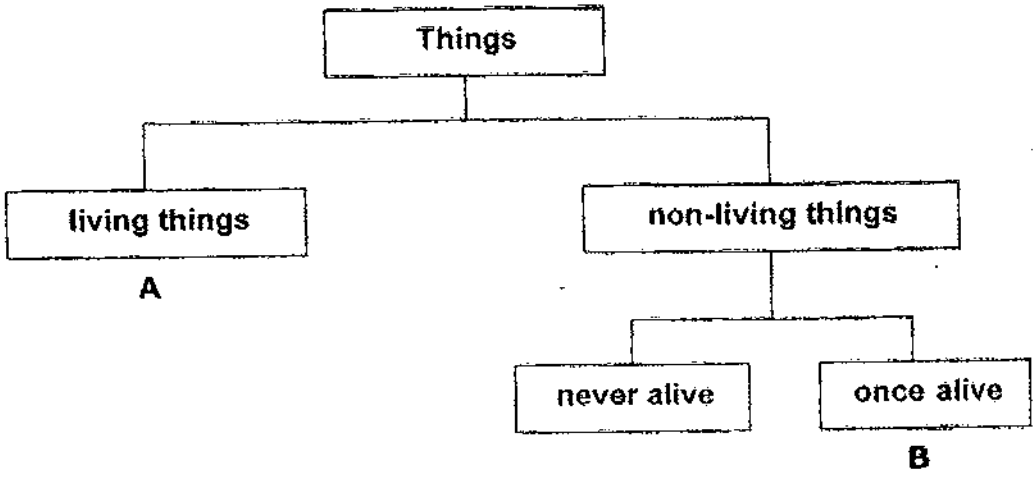
30th October 2009 **SCIENCE** Att: 1 h15 min

Section A		48
Section B		32
Your score out of ~~80~~ 78 marks		
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.

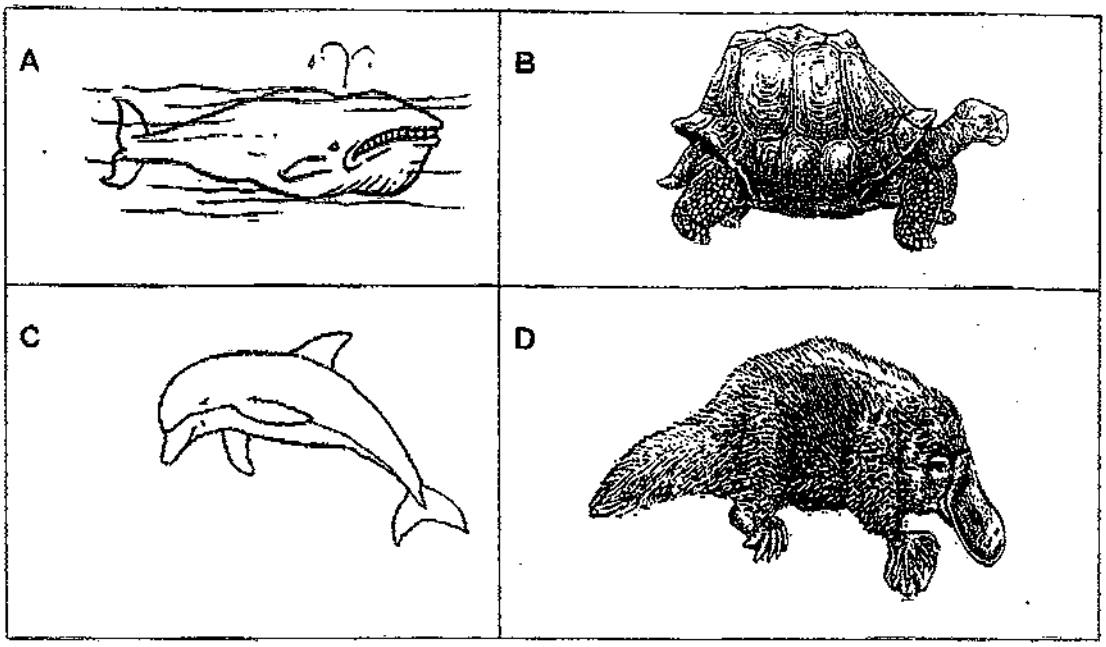
1. The classification chart below shows how some things are classified.



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

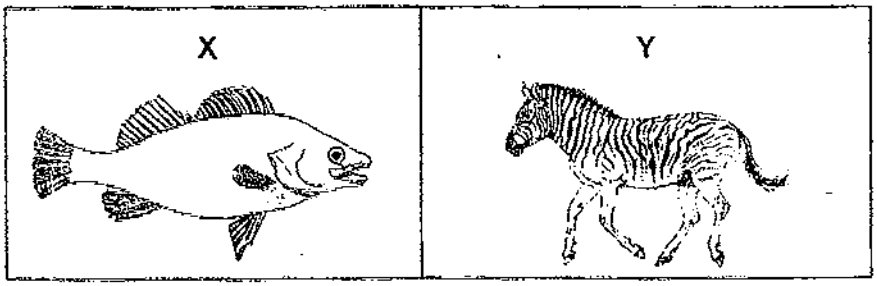
	A	B
(1)	a gorilla	a penguin
(2)	a dolphin	a plastic chair
(3)	a rose plant	a metal can
(4)	bread mould	a story book

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



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

3. The diagrams below show organisms X and Y.



How are both X and Y similar?

A Both need water to survive.
B Both reproduce by laying eggs.
C Both move around to look for food.
D Both have the same outer covering.

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

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.

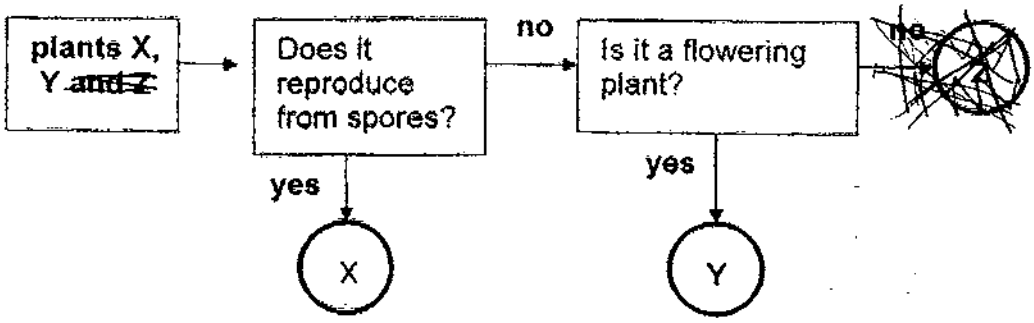
A tick (√) shows the presence of the condition.

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?

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

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

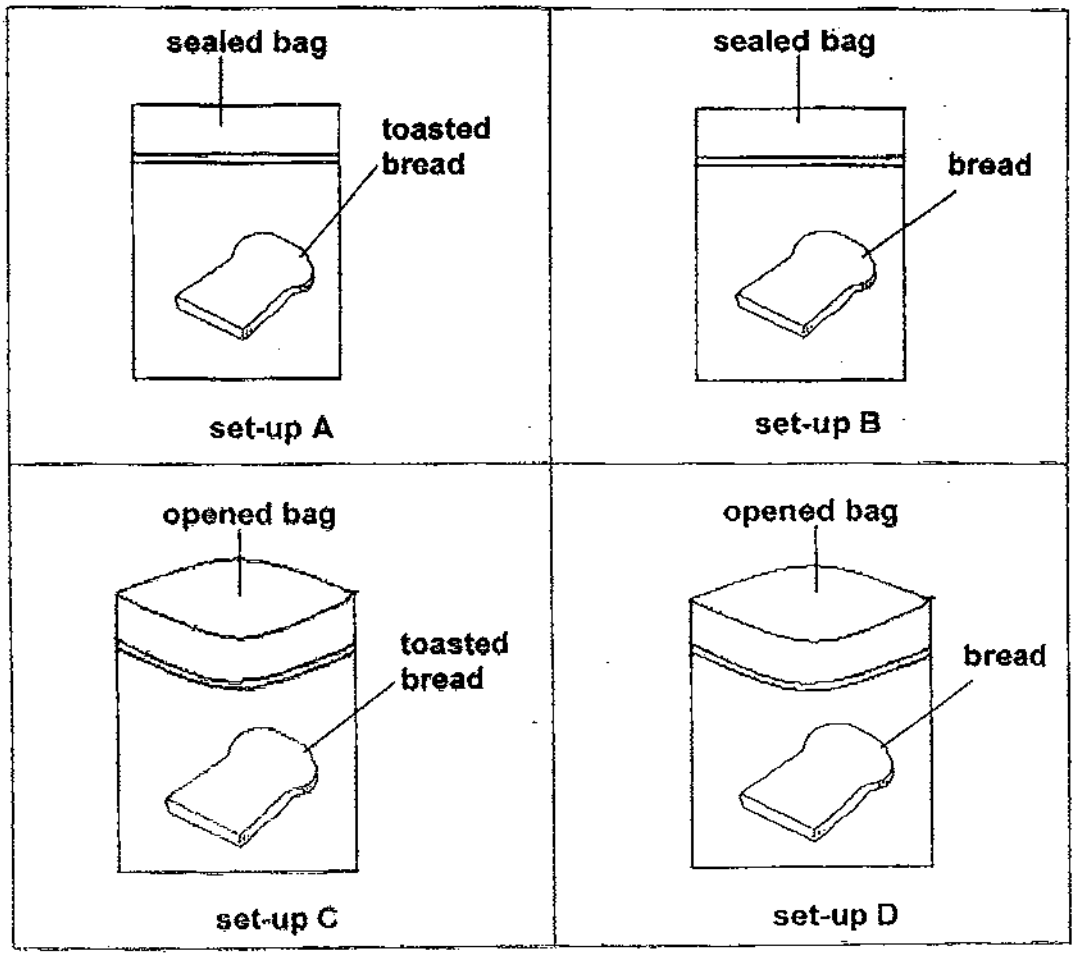


Which one of the following best represents X and Y and Z?

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

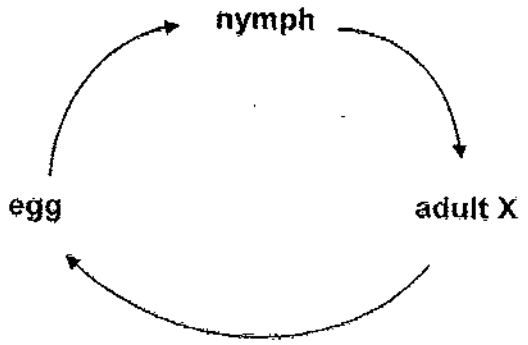
7. Sumei grouped some animals as shown in the classification table below.

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.



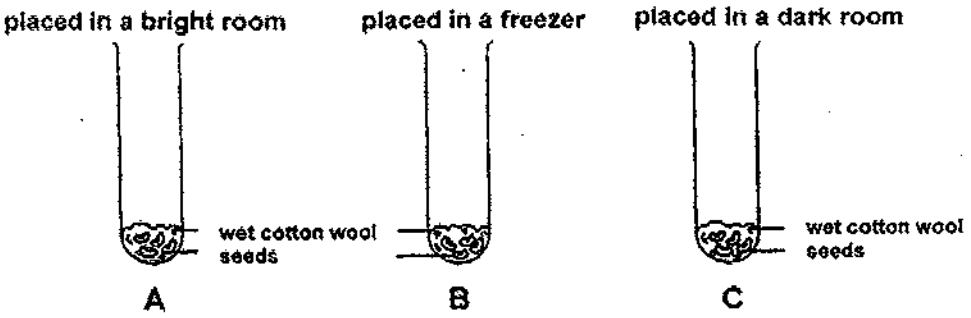
Based on the diagram above, which of the following statements about animal X are correct?

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.

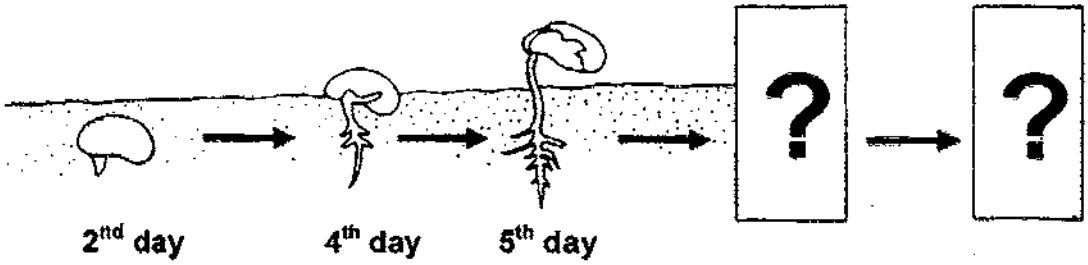
Sumi added an equal amount of water to all the test tubes each day.



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.



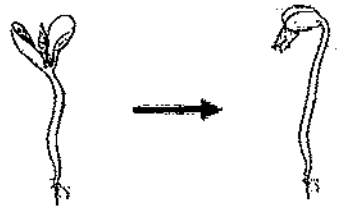
Two stages of the development of the seed are missing.

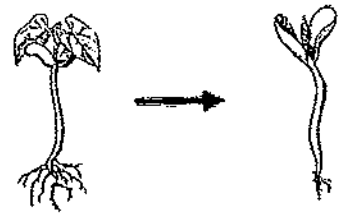
Based on the information above, answer **questions 10 and 11**.

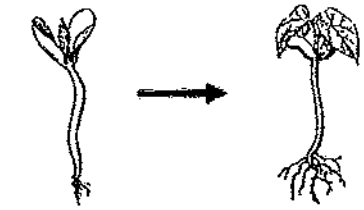
10. When will the seed be able to make its own food?

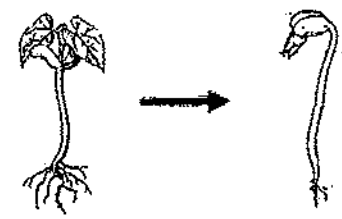
(1) 2nd day
(2) 4th day
(3) 5th day
(4) after the 5th day

11. Which one of the following sets shows the correct missing stages of development of the seed?

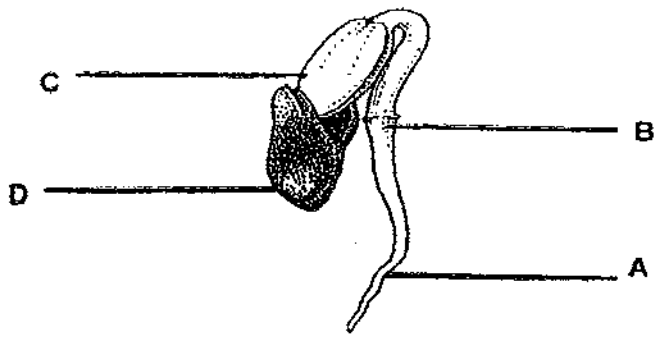
(1) 

(2) 

(3) 

(4) 

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**?

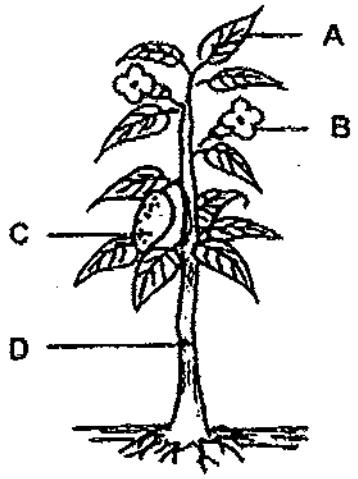
(1) Part B grows after part A.

(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.

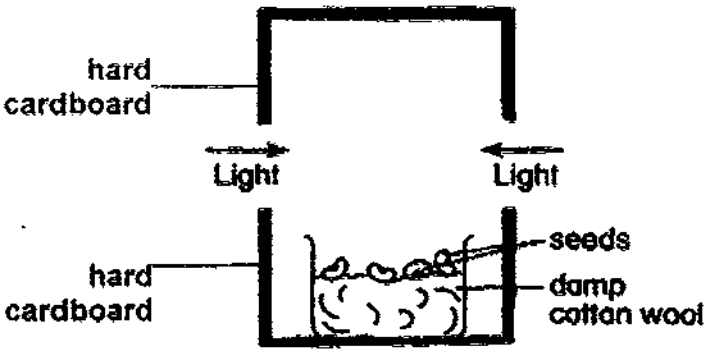
C It carries water from the roots to other parts of the plant.

D It carries food from other parts of the plant to the leaves.

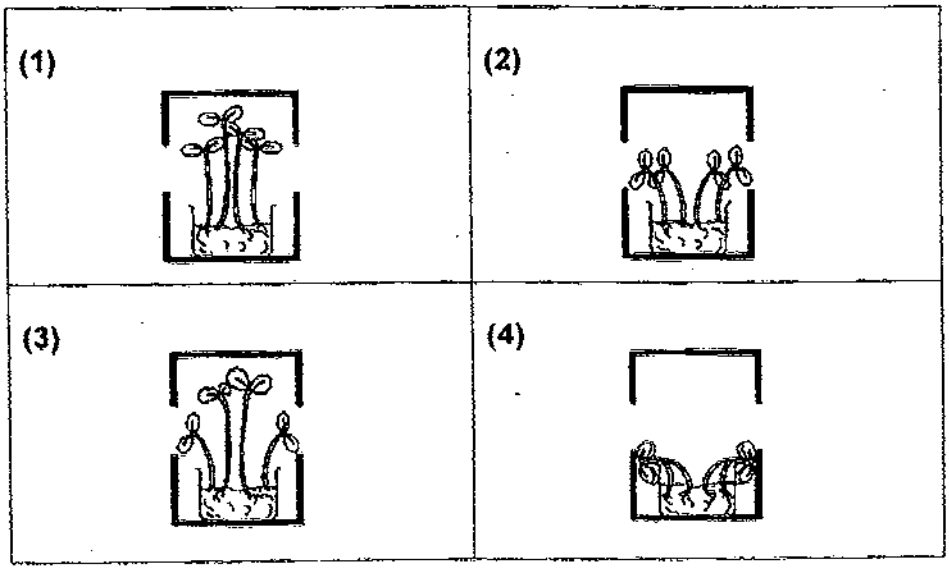
(1) C only (2) B and C only

(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
(1)	glass	It breaks easily.
(2)	plastics	It can bend.
(3)	glass	It allows light to pass through.
(4)	plastics	It absorbs water.

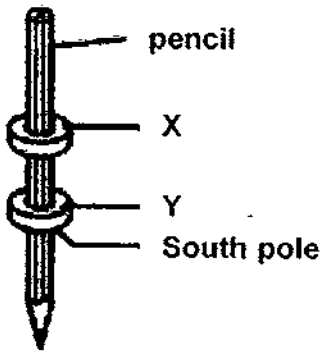
19. Madam Tan wants to buy a foldable chair that she can bring home by herself. The foldable chair needs to have the following properties:

- 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

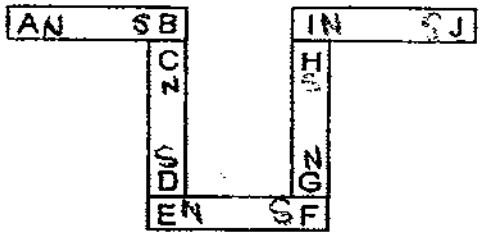
20. Chloe placed two ring magnets, with each of their poles marked X and Y, through a pencil as shown in the diagram below.



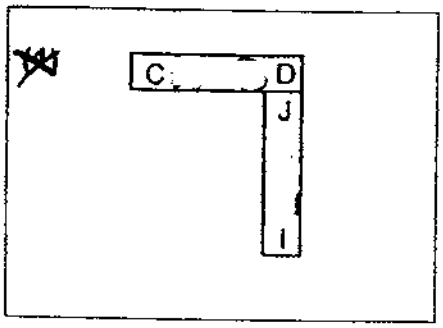
Which one of the following identifies the poles of X and Y correctly?

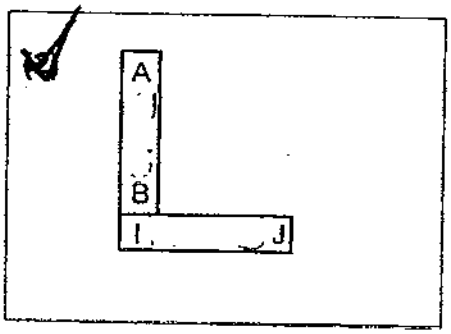
	X	Y
(1)	North	South
(2)	South	South
(3)	South	North
(4)	North	North

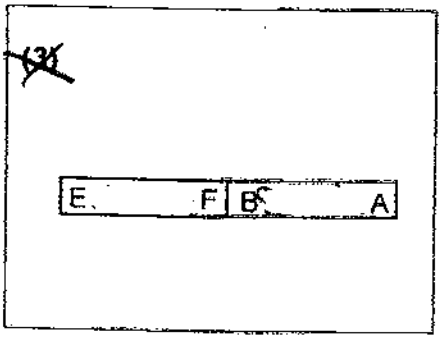
21. Bernice labeled the poles of five bar magnets A to J and arranged them as shown below.

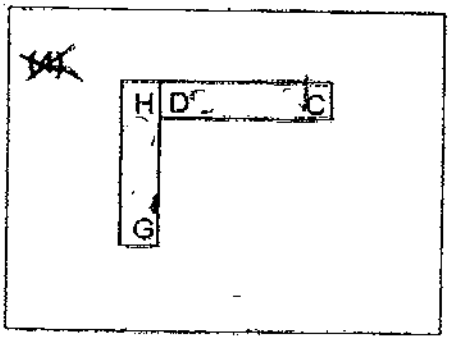


Which one of the following diagrams shows a possible arrangement of two of these magnets?

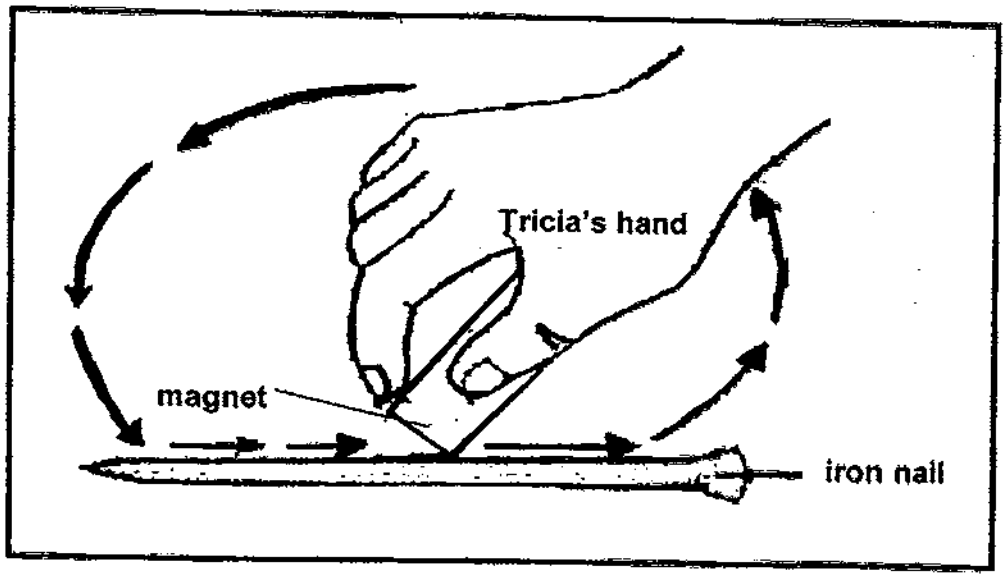
(1) 

(2) 

(3) 

(4) 

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

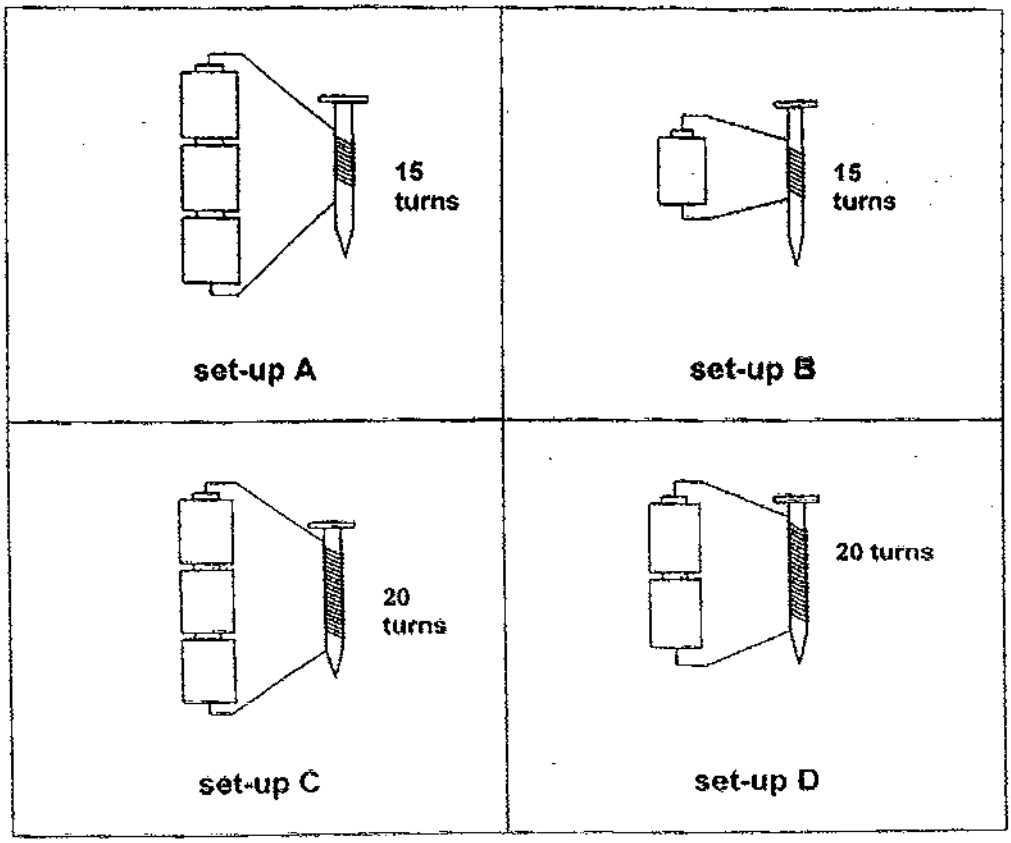
(2) C only

(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.

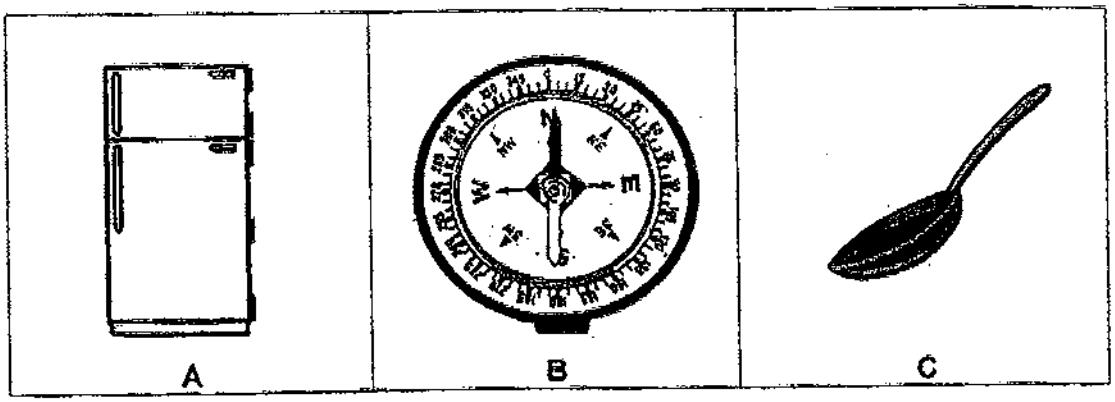
(Note: All the batteries, wires and iron nails used were the same.)



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

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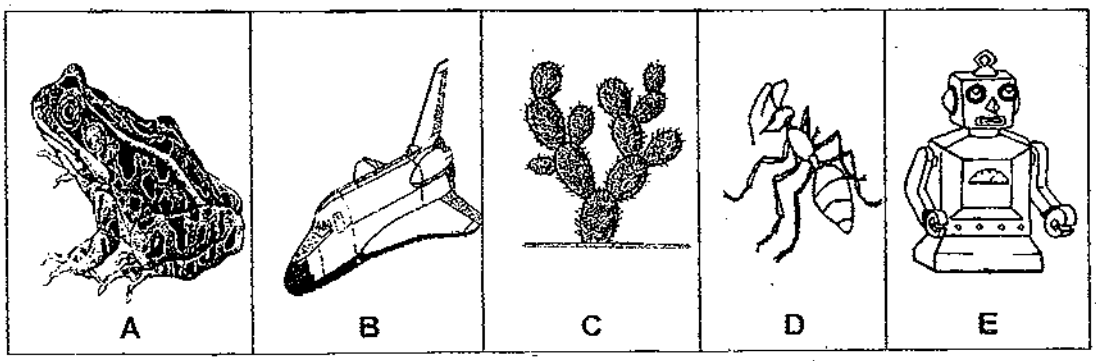
SECTION B (32 marks)
For questions 25 to 37, write your answers clearly in the spaces provided.

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 and 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]

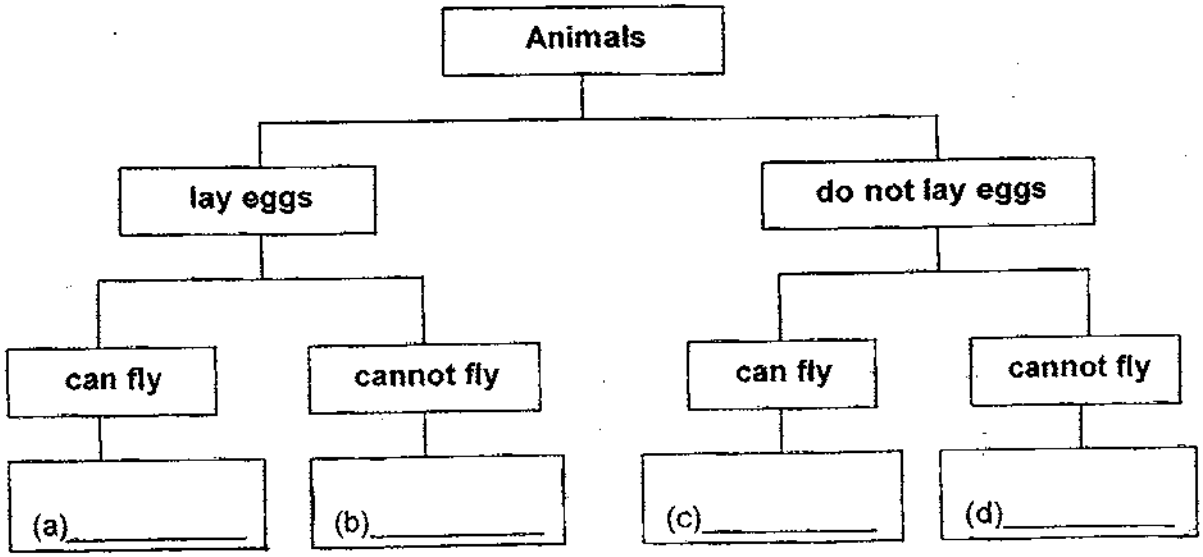
_____

_____

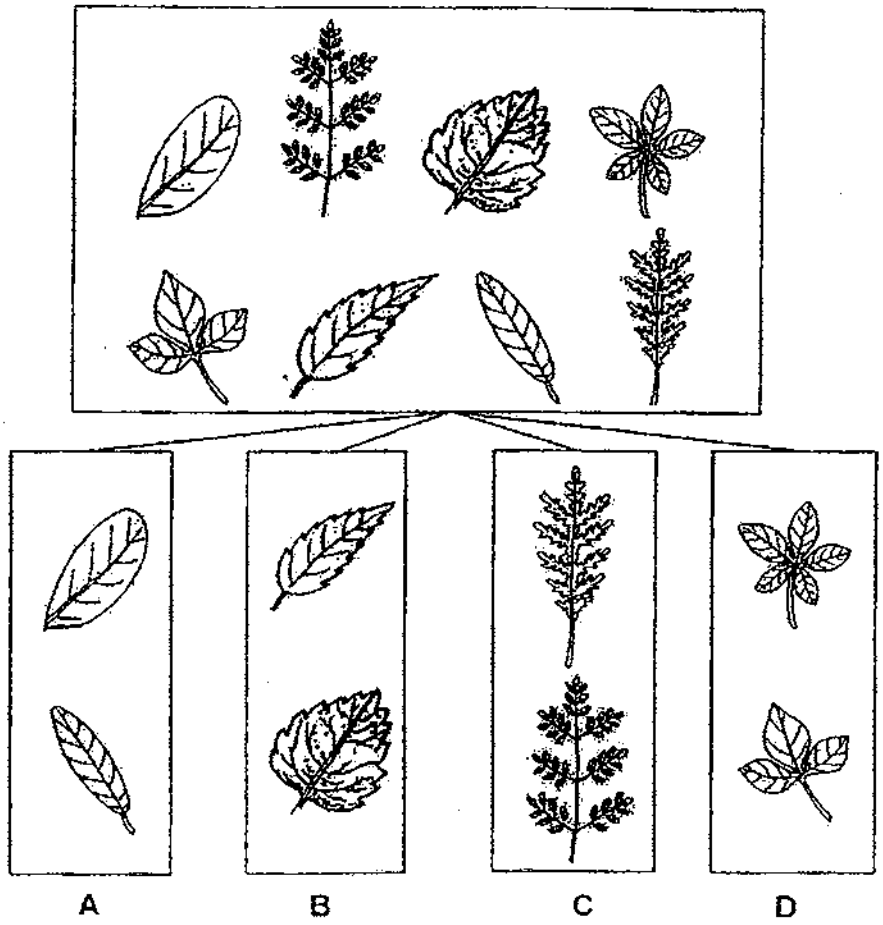
26. The classification table below shows how some animals are grouped.

Complete the classification table with words given in the box below.
Use each word **ONCE** only. [2]

bat	pigeon	penguin	seal

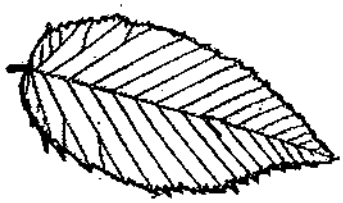


27. The diagrams below show how 8 different types of leaves are grouped according to their physical characteristics.



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 _____

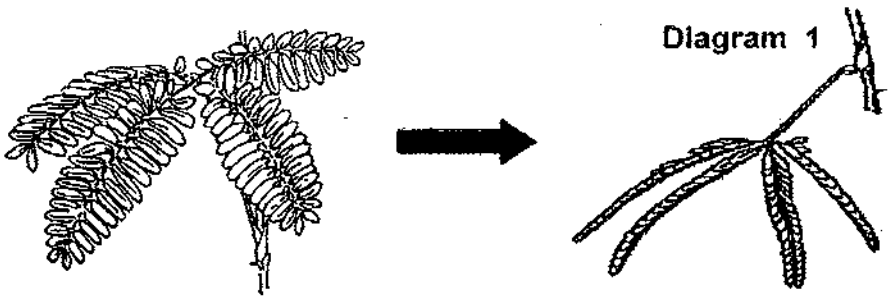
(b) State **ONE** function of leaves. [1]

_____

_____

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

Diagram 1



before touching **after touching**

(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]

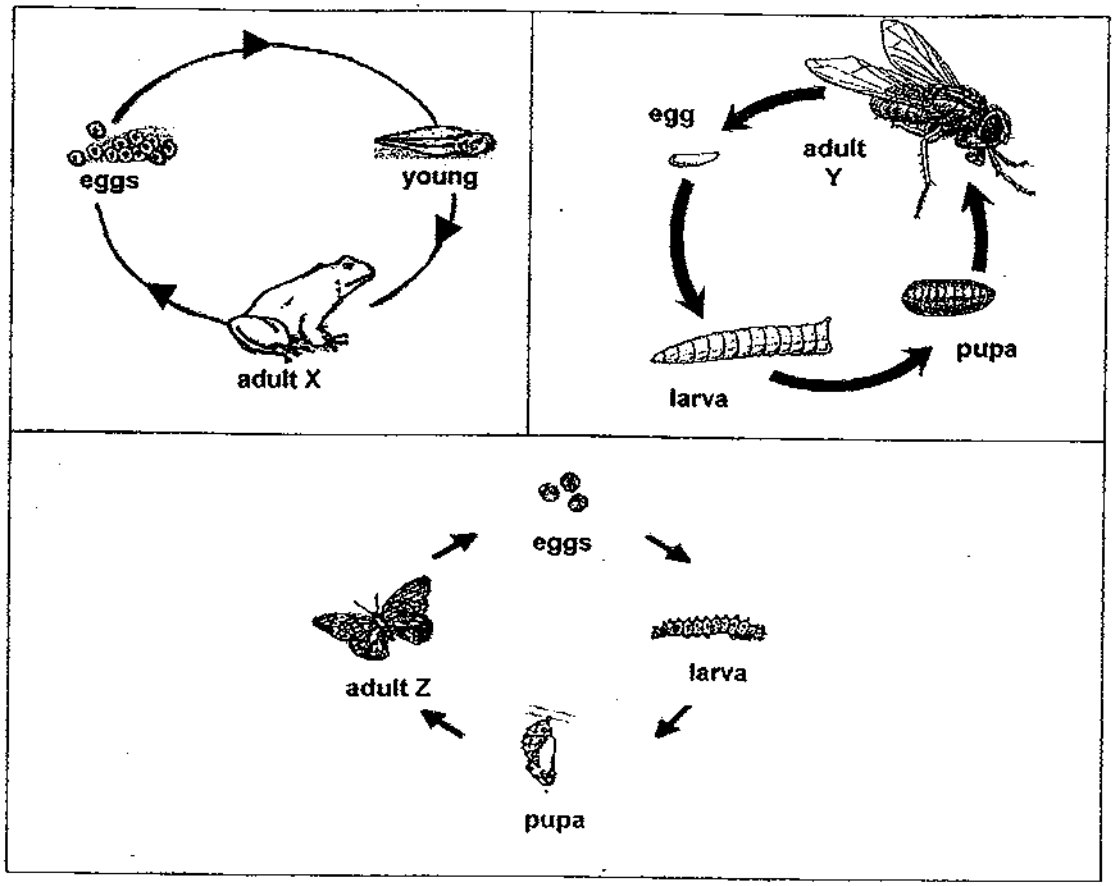
_____

_____

_____

_____

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]

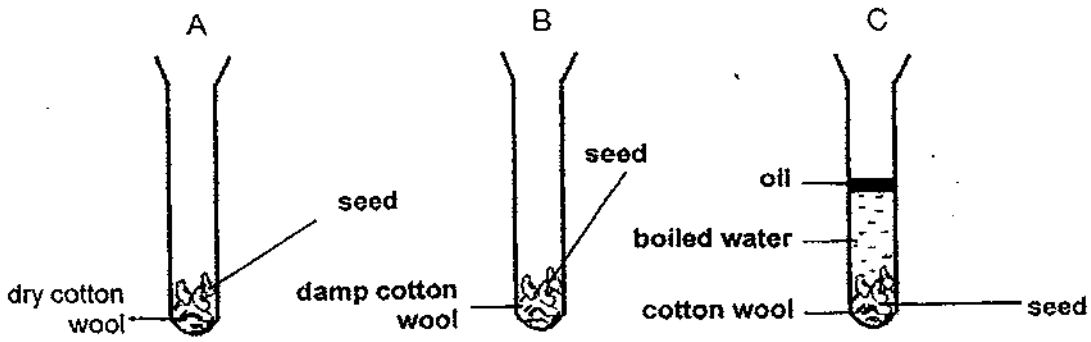
_____

(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.

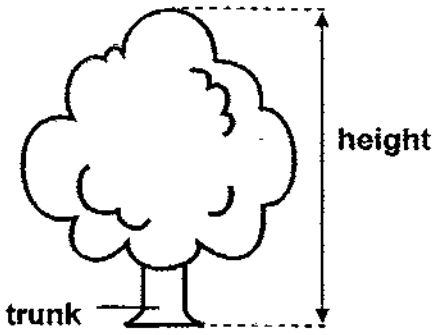


Based on the information above, answer the following questions:

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]

_____

_____

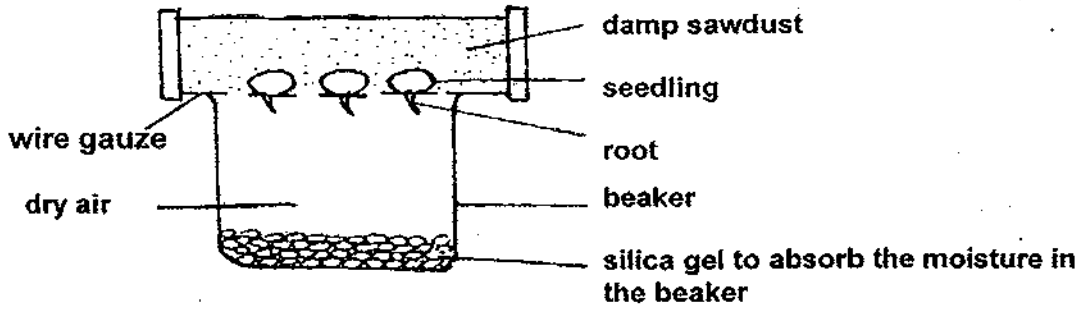
(b) Judy noticed that there was a layer of thick covering known as the bark on each of the tree trunks.

What is the function of the bark? [1]

_____

_____

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

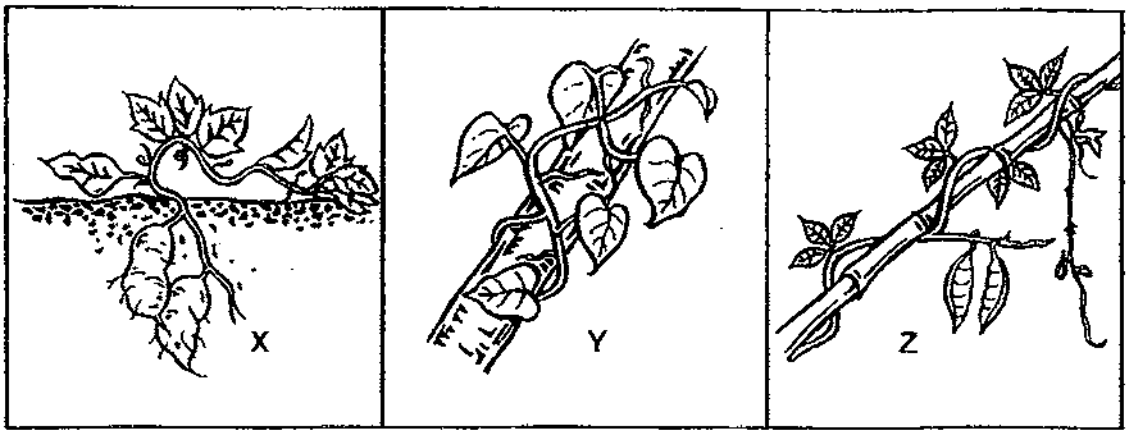


Based on the information above, answer the following questions:

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]

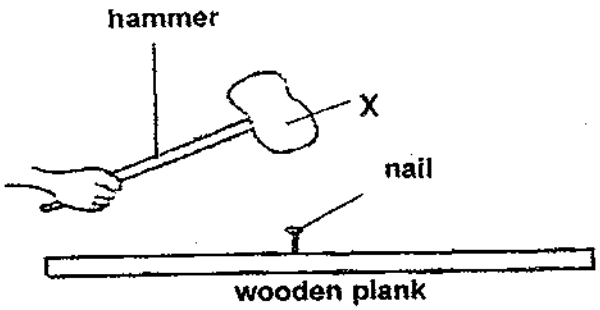
_____

_____

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

_____

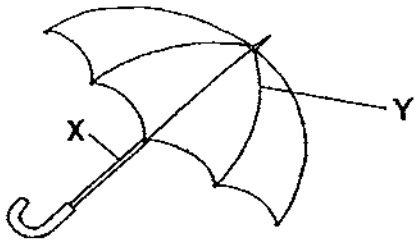
34. A carpenter uses a hammer to hit a nail into a piece of wooden plank.



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.



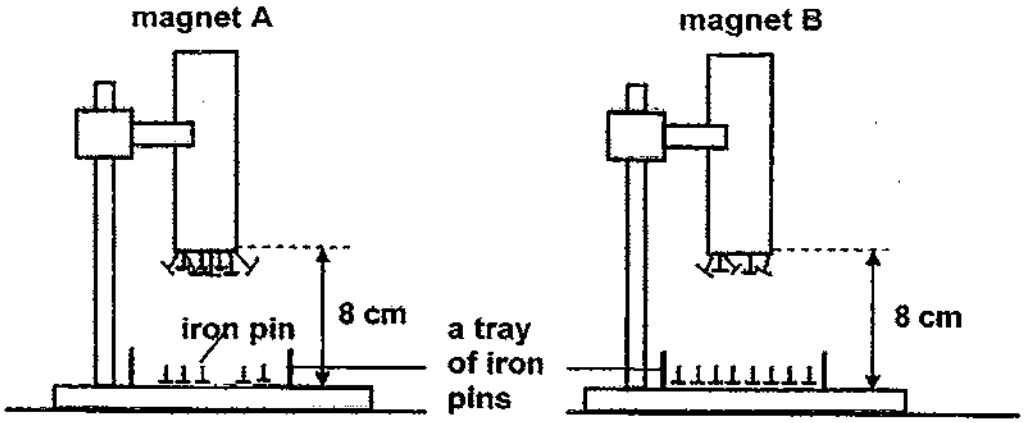
Answer the following questions to complete the table below.

(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		

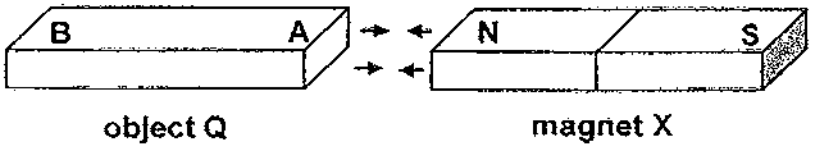
36. Two magnets, A and B, of the same size, were used in the following experimental set-ups. Each of the two trays placed below the magnets contained the same number of iron pins at the start of the experiment.



(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.

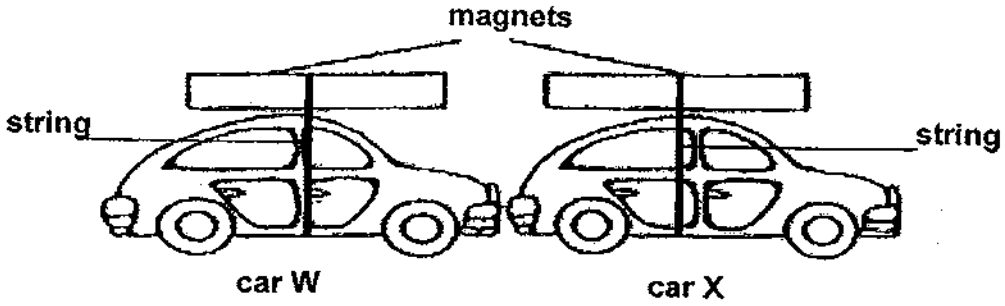


(b) Based on the information above, which of the following statement(s) is / are 'true', 'false' or 'not possible to tell'?

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.



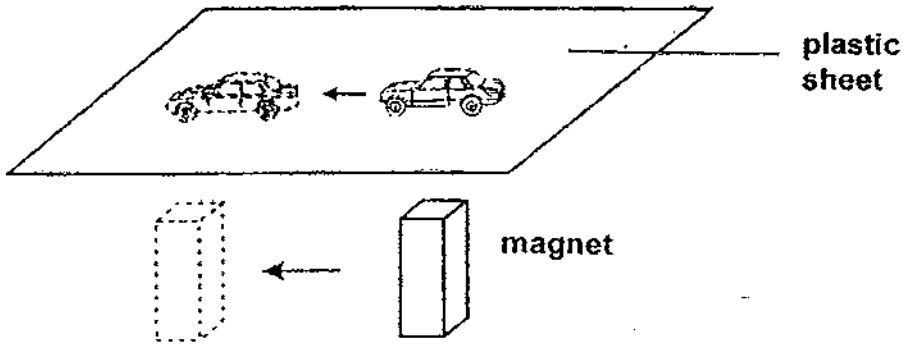
(a) When car W was brought close to car X, car W moved away from car X.

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 -

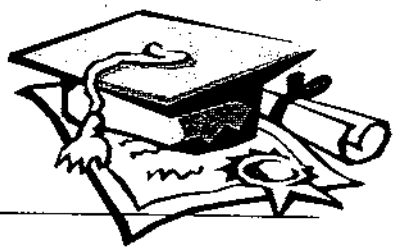
Setters: Mrs Elaine Lim, Ms Chong V, Mr Darren Lau

ANSWER SHEET

EXAM PAPER 2009

SCHOOL : RAFFLES GIRLS' PRIMARY
SUBJECT : PRIMARY 3 SCINECE

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	2

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

25)a)

Living Things	Non-living Things
A	B
C	E
D	

b)They need air, food and water.
c)Yes. D moves about to find food to eat.

26)a)pigeon b)penguin c)bat d)seal

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 parks.

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.