RAFFLES GIRLS' PRIMARY SCHOOL

SEMESTRAL ASSESSMENT (2)

2014

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

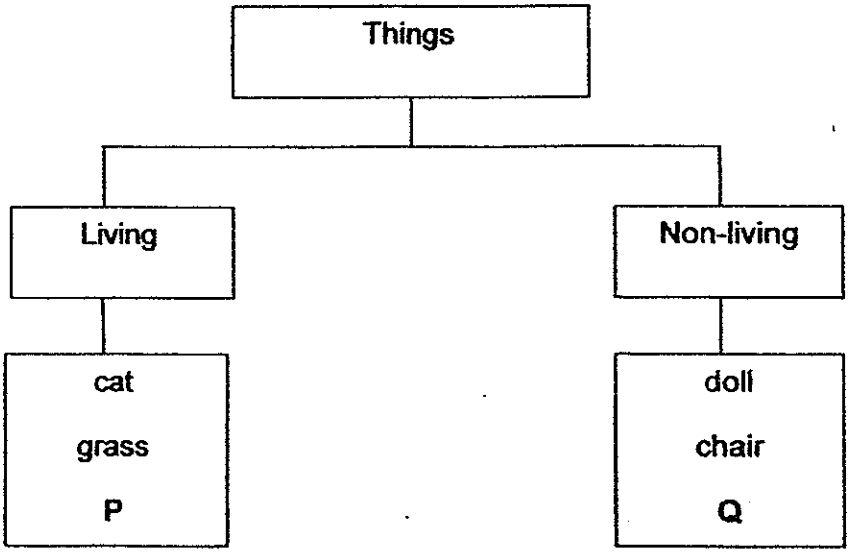
Name : _____ **Index No:**____ **Class: P 3** ____

20 October 2014 **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.

1. Study the classification table below carefully.



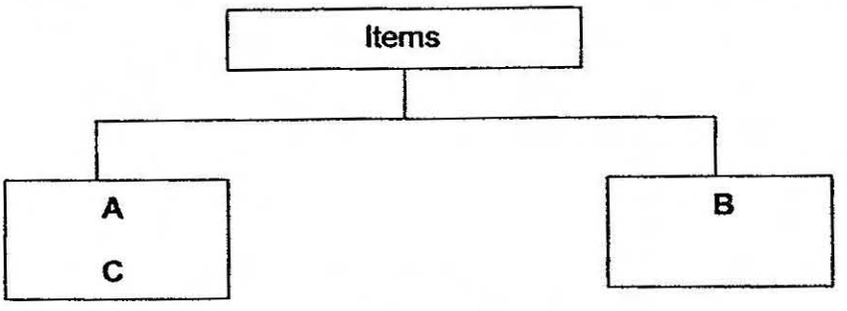
Which one of the following best represents P and Q?

	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.

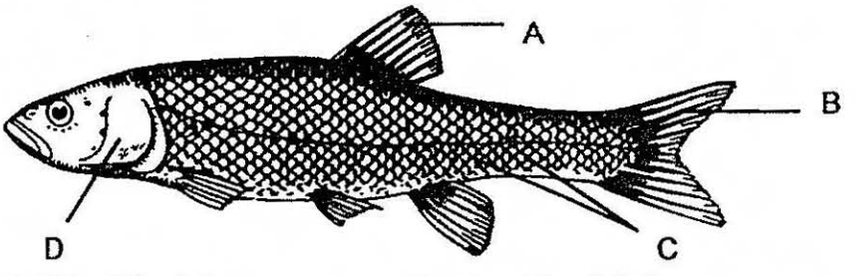
Items	It can make its own food.	It needs air to survive.	It responds to touch.
A		✓	✓
B			✓
C	✓	✓	✓



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?

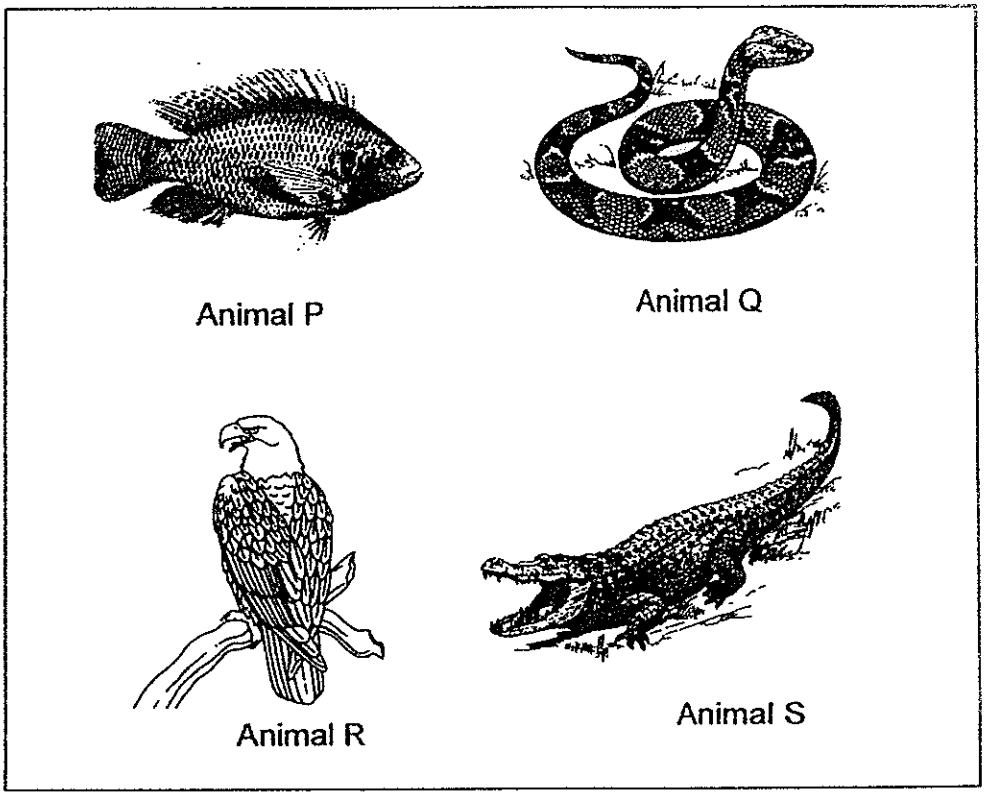
(1) A

(2) B

(3) C

(4) D

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



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

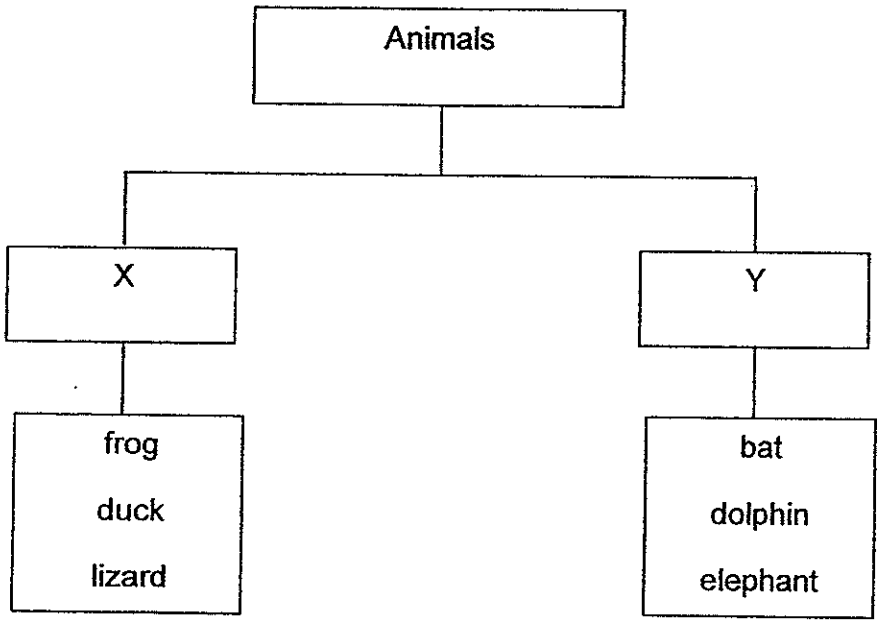
(1) Animal P

(2) Animal Q

(3) Animal R

(4) Animal S

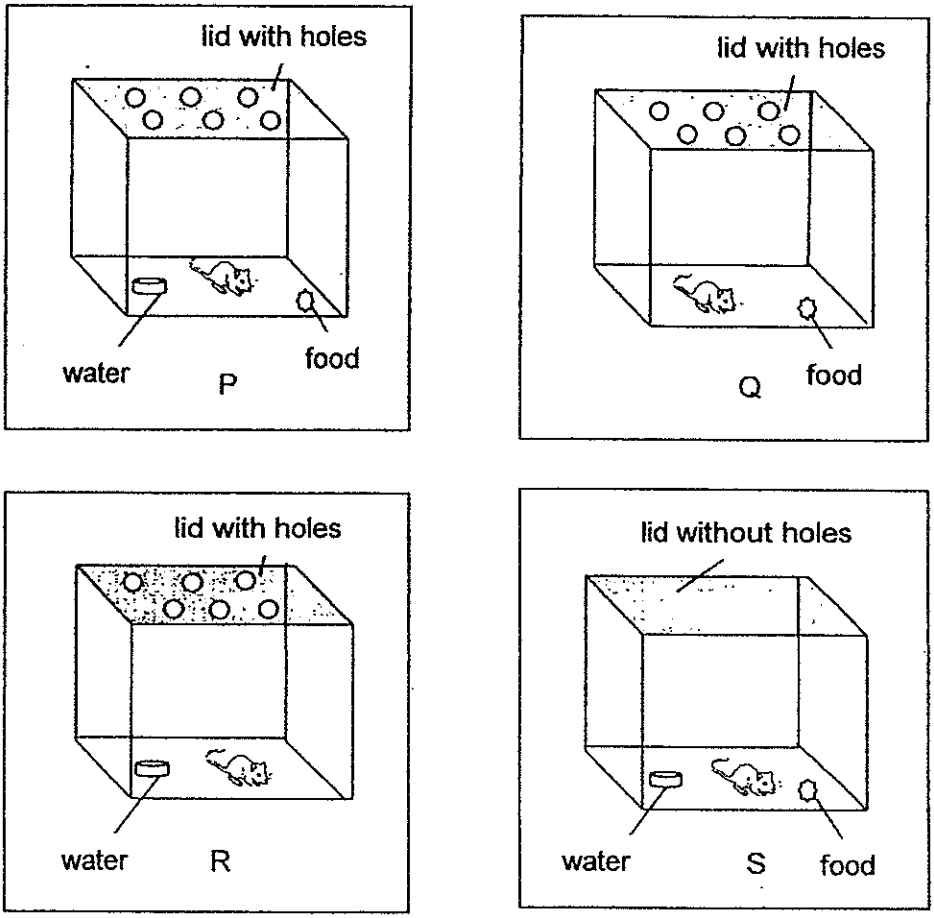
5. Some animals are classified as shown below.



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			✓

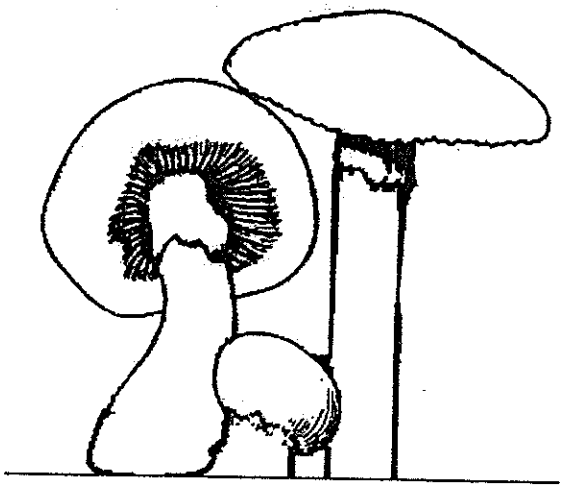
Jacob found the following plant in his school garden.

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

(1) A (2) B

(3) C (4) D

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?

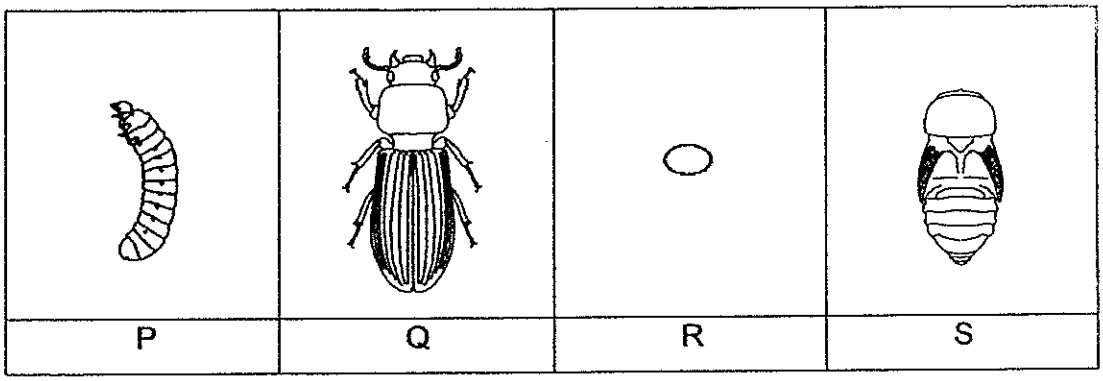
(1) Alice only

(2) Alice and Ben only

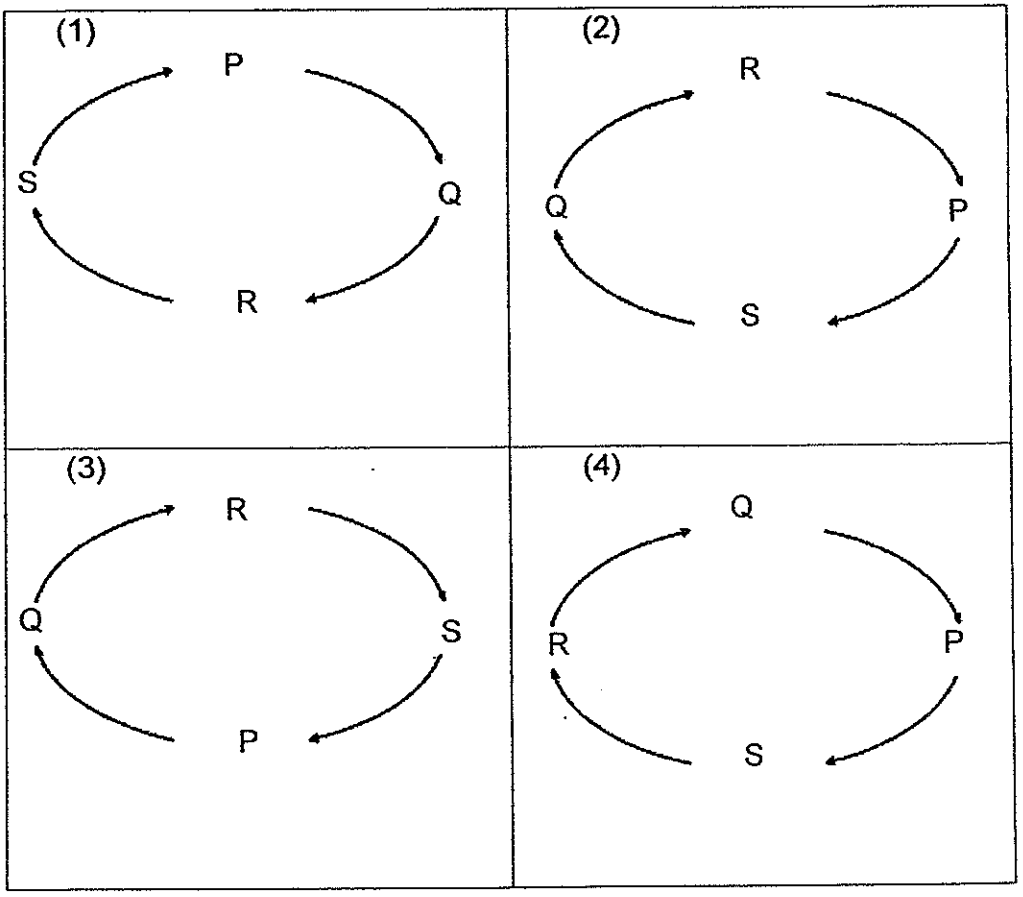
(3) Ben and Danny only

(4) Clara and Danny only

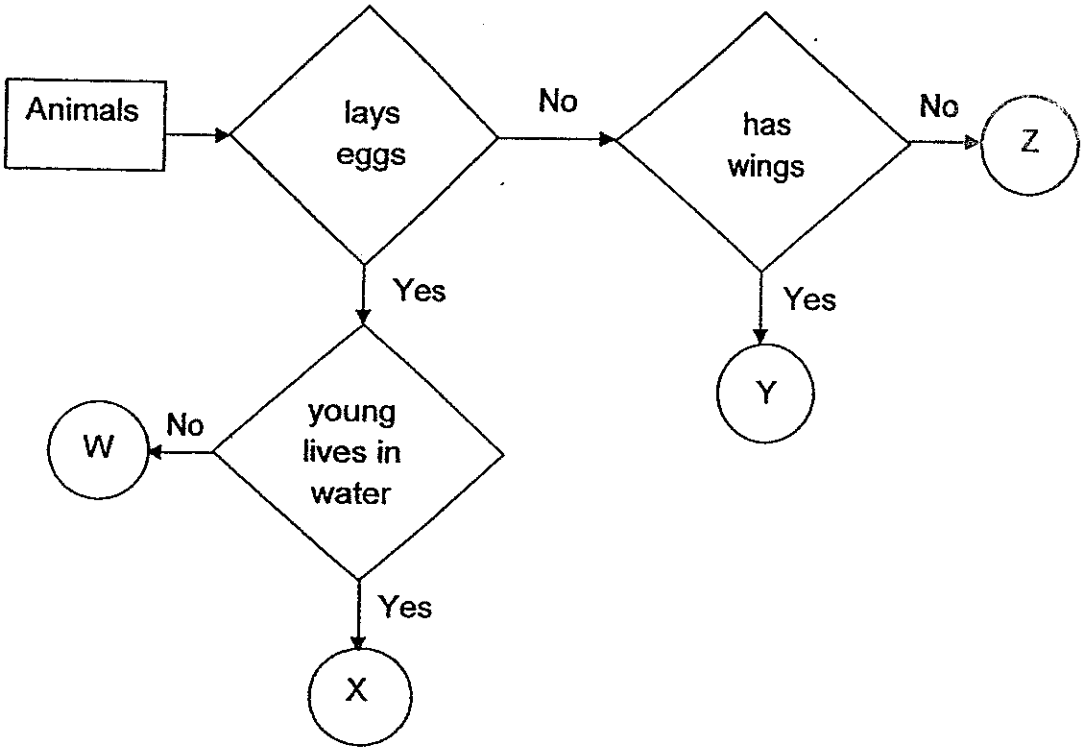
10. The following pictures show the different stages of the life cycle of a mealworm beetle.



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



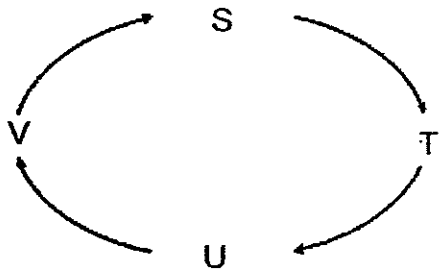
11. The flow chart shows how animals W, X, Y and Z are being grouped.



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.

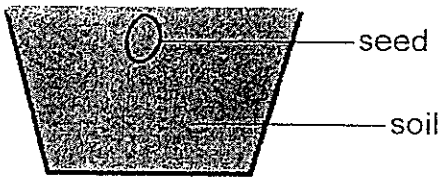


U represents the adult stage of the animal.

At which of the following stages does the animal moult?

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

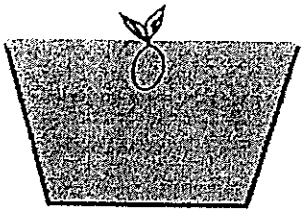
13. Daniel planted a seed in a pot as shown below.



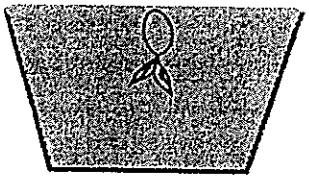
He placed the pot on a table in the kitchen. He pours an equal amount of water into the pot every day.

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

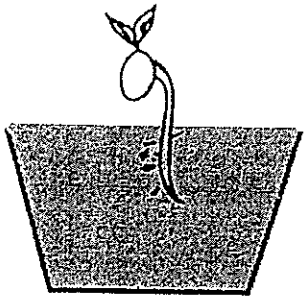
(1)



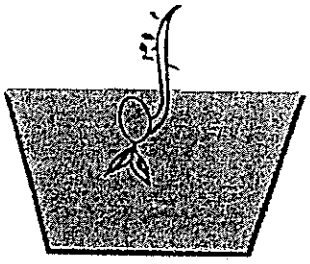
(2)



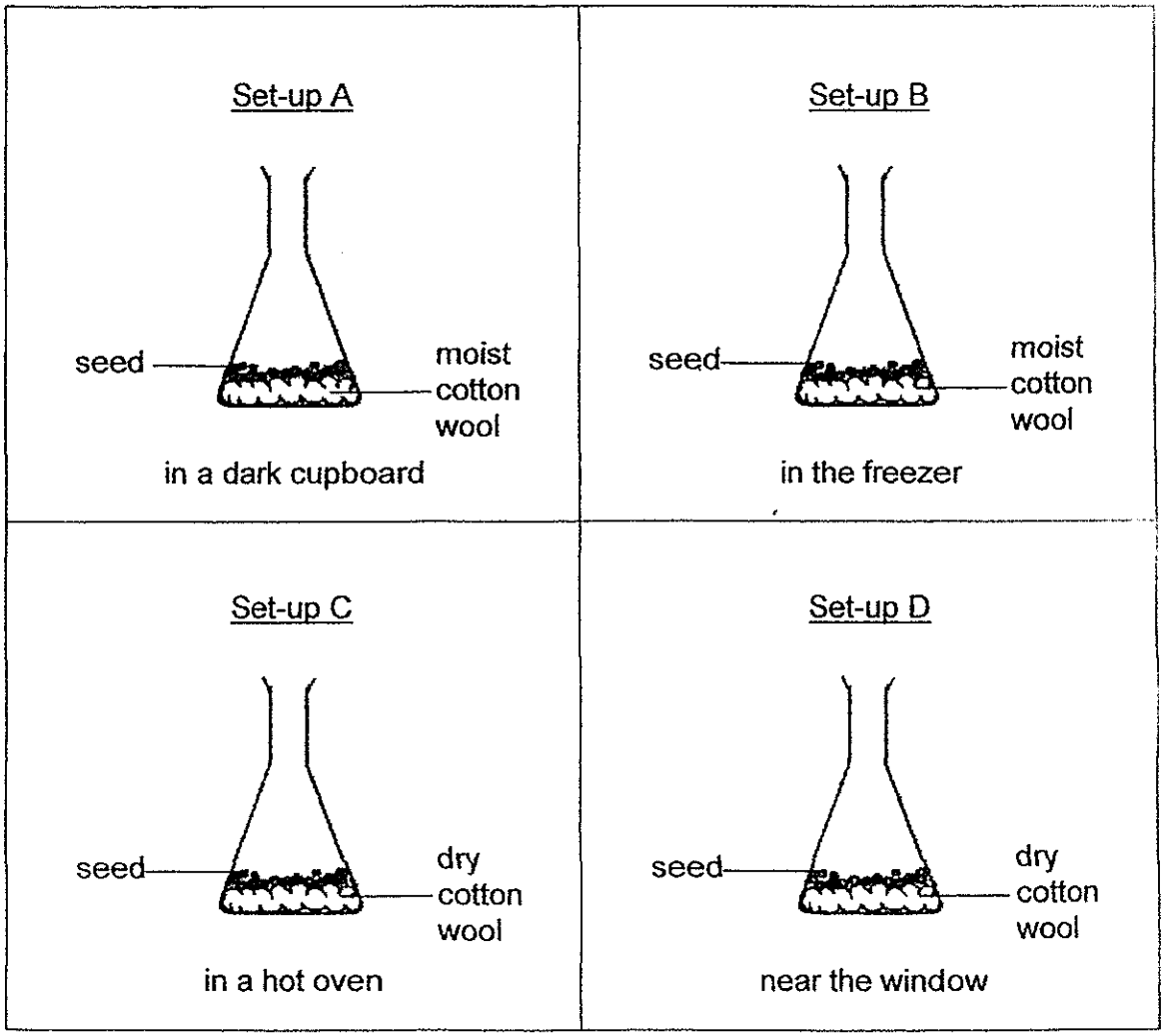
(3)



(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

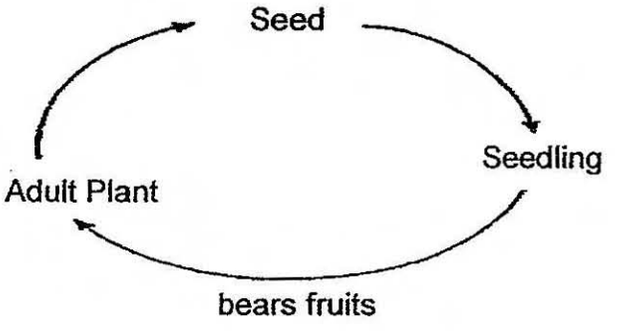
(2) D only

(3) A and D only

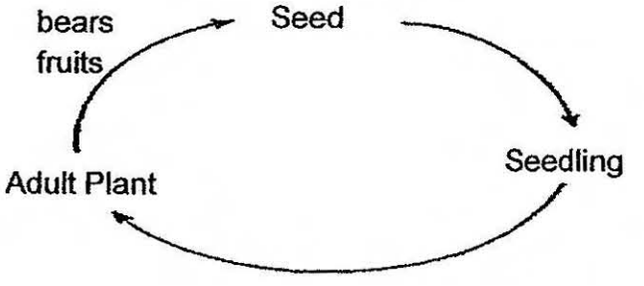
(4) B and C only

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

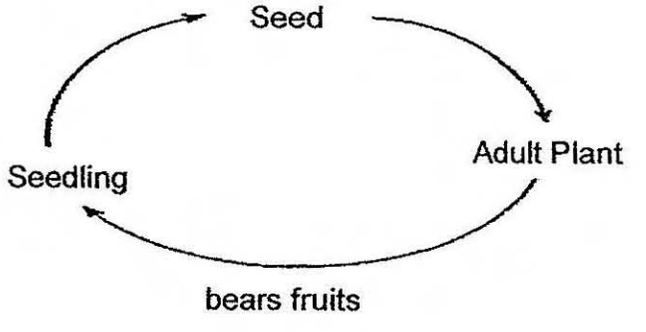
(1)



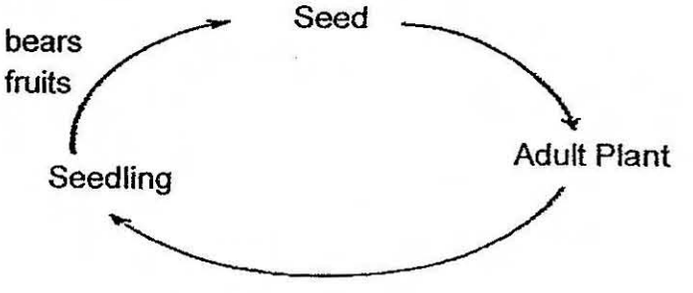
(2)



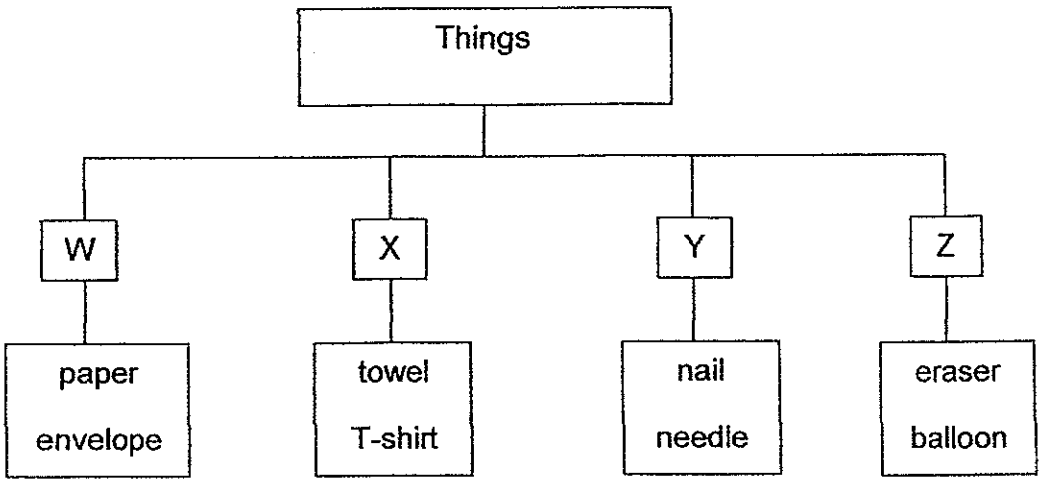
(3)



(4)



16. Some things are classified in the table below.

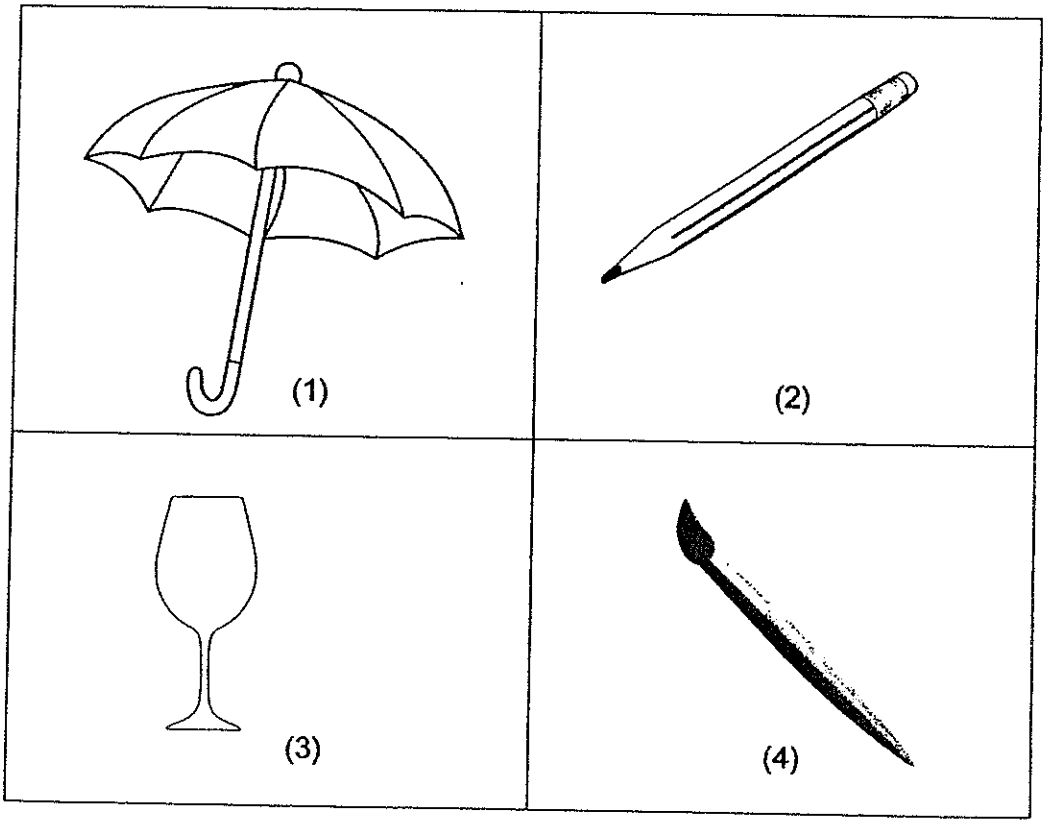


In which of the following groups should a key be placed?

(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?

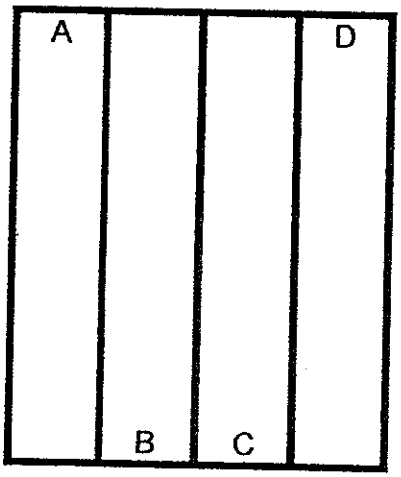
(1) Magnets have two opposite poles.

(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.

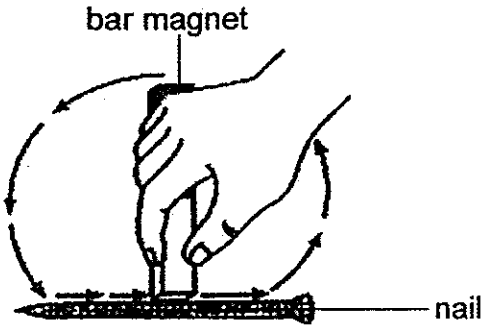
20. Jane put 4 identical magnets side by side as shown below.



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 _____.

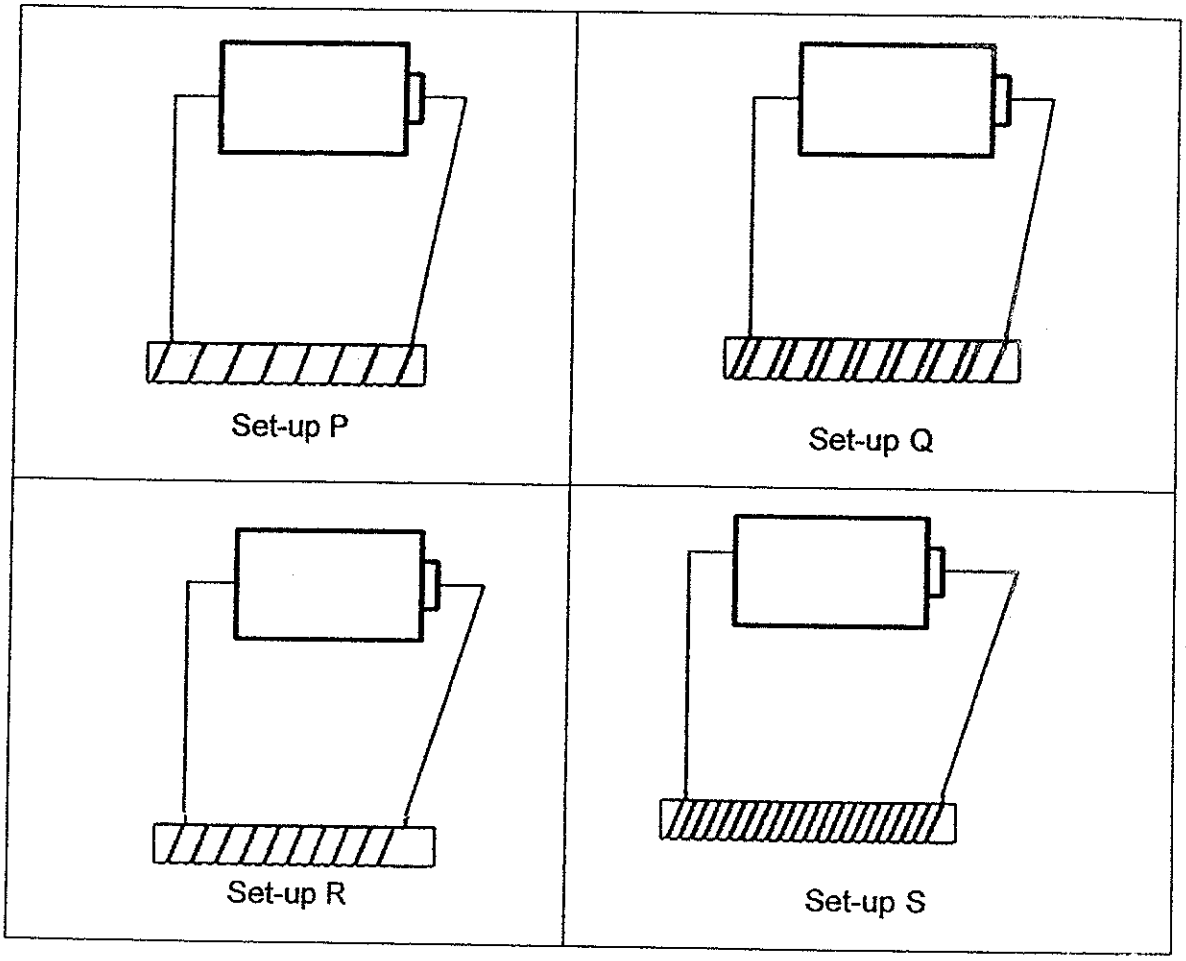
(1) not attract any paper clips

(2) move towards the paper clips

(3) move away from the paper clips

(4) attract the same number of paper clips as the nail

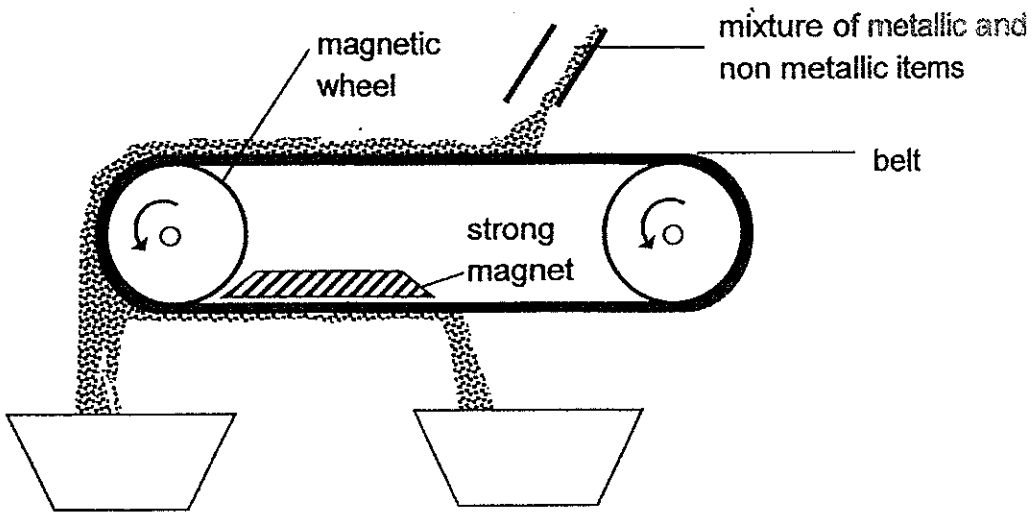
23. Minnet wanted to find out if the number of coils around a magnetic rod affects its magnetic strength. She used identical rods, batteries and wires in her set-ups as shown below.



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 ( )

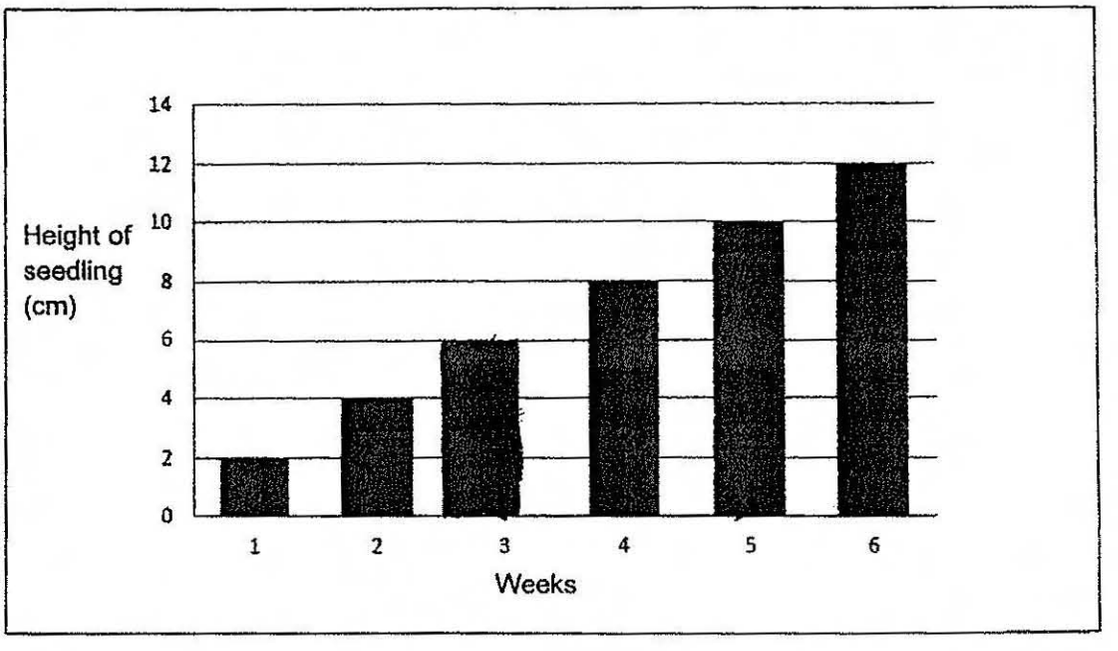
32

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]

_____

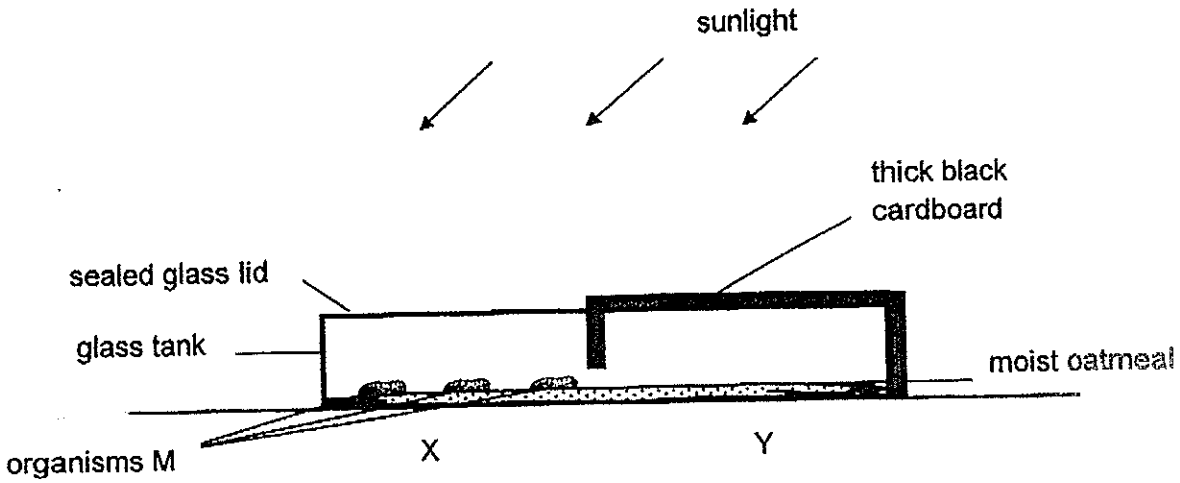
_____

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 paper. 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]

_____

_____

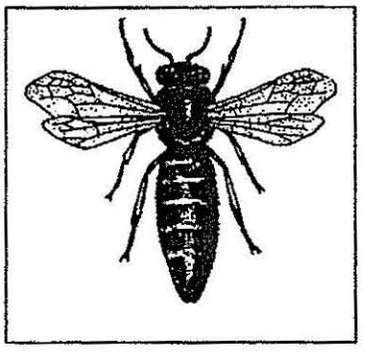
(b) A week later, Min Min found that the all the organisms M were dead. Explain clearly why that happened. [1]

_____

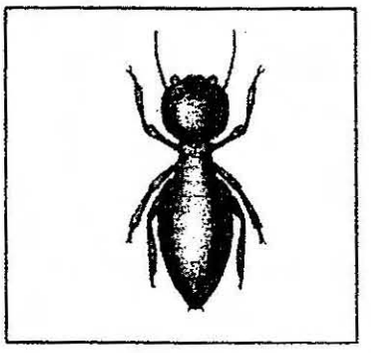
_____

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.

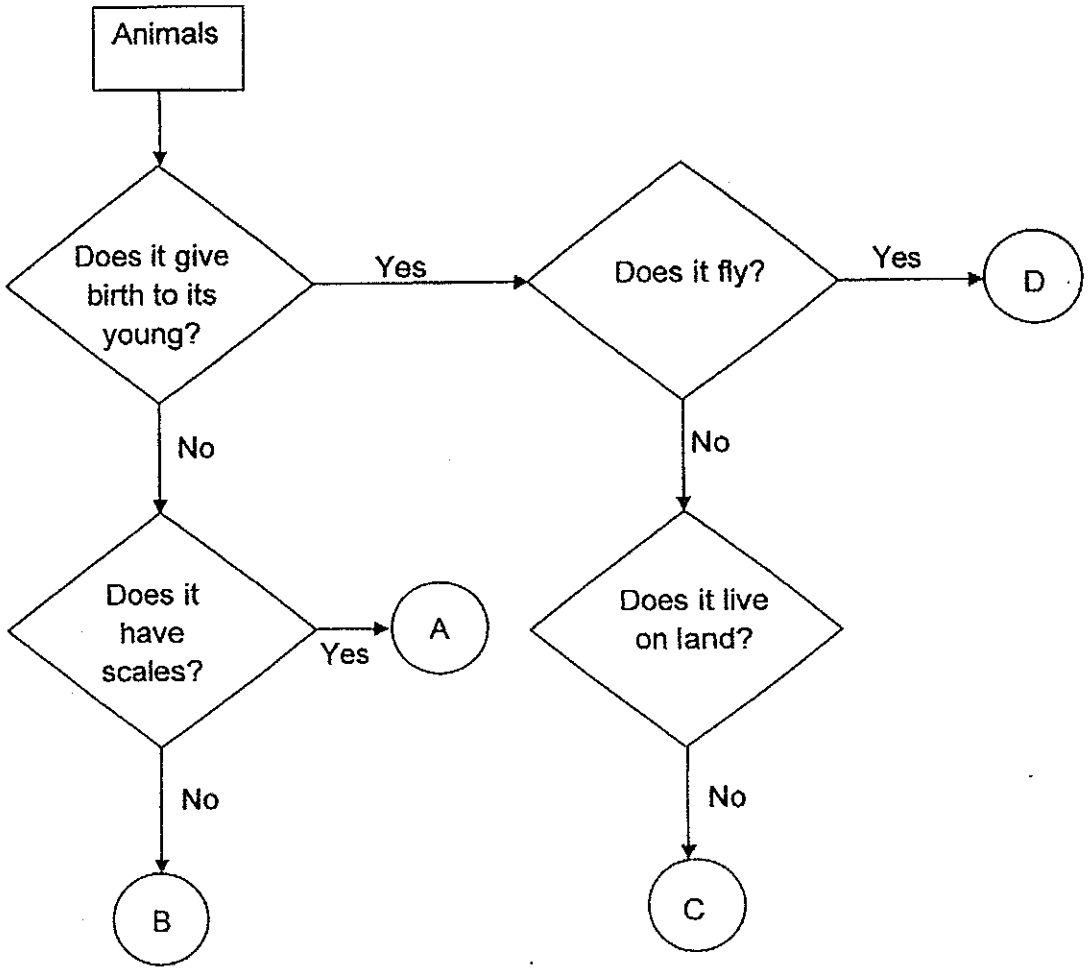
[Do **NOT** compare body shapes, sizes and colours.]

[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: [2]
State two characteristics of animal C.

Characteristic 1	_____ _____
Characteristic 2	_____ _____

Score	2

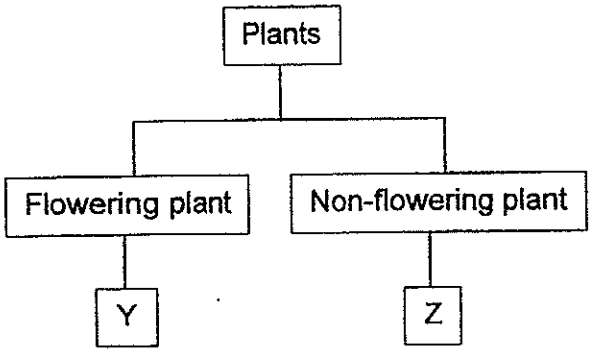
(b) Based on the information shown in the flow chart, which animals, A, B, C or D, best represent bat and hen respectively? [1]

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

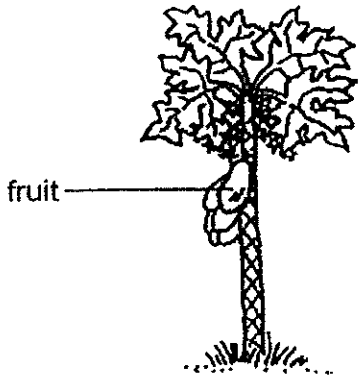
bat	
hen	

Score	
	1

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]

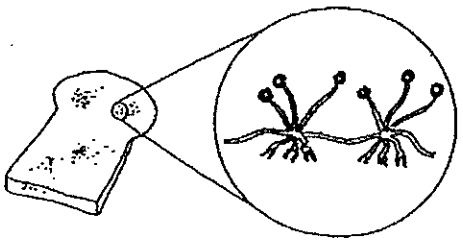
_____

_____

Score 2

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

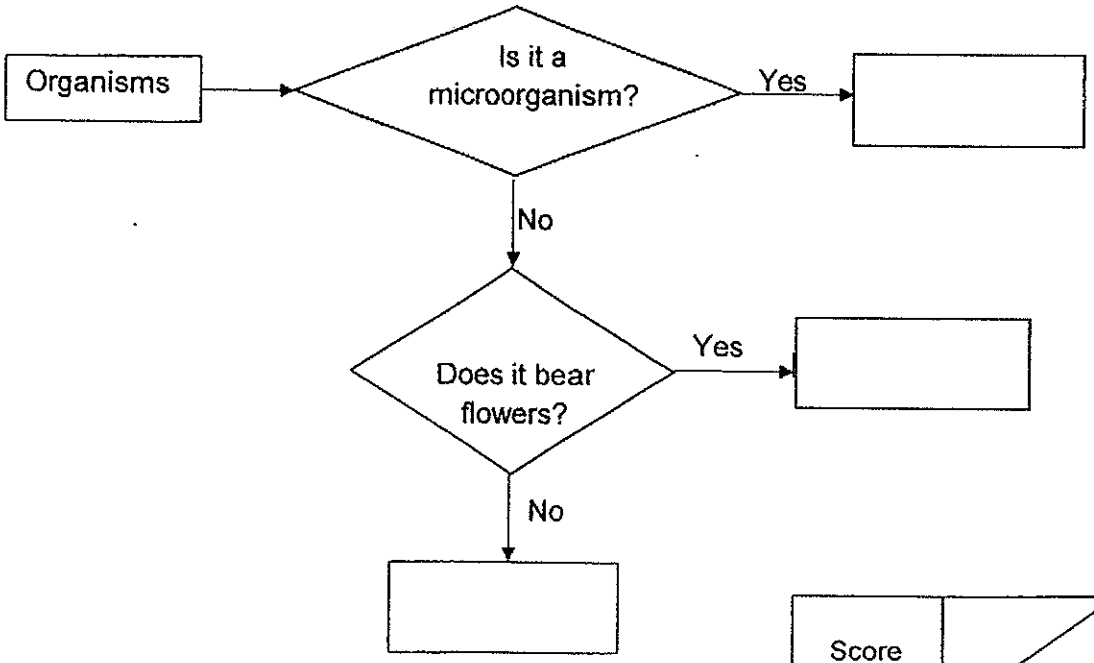
P



Q

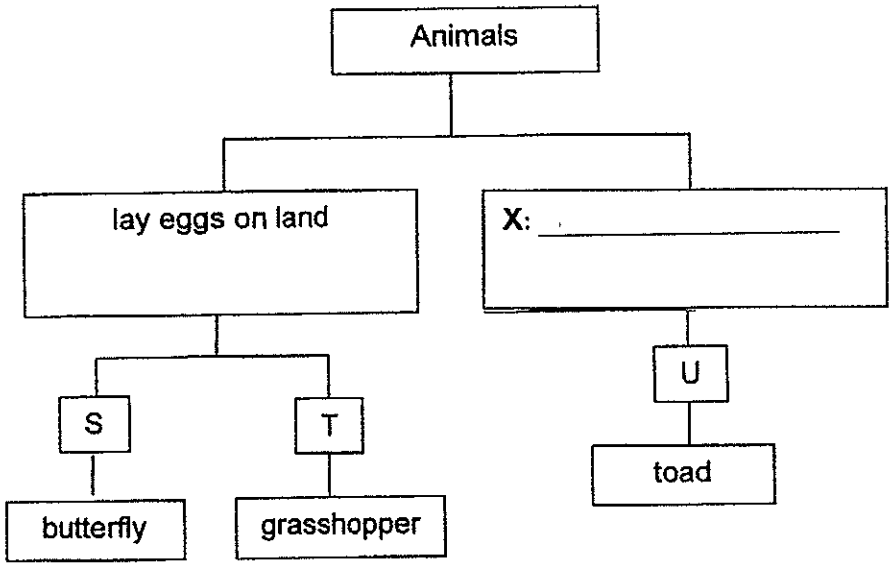
Use the flow chart below to group organisms P and Q. [2]

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



Score 2

31. Some animals are classified as shown below.



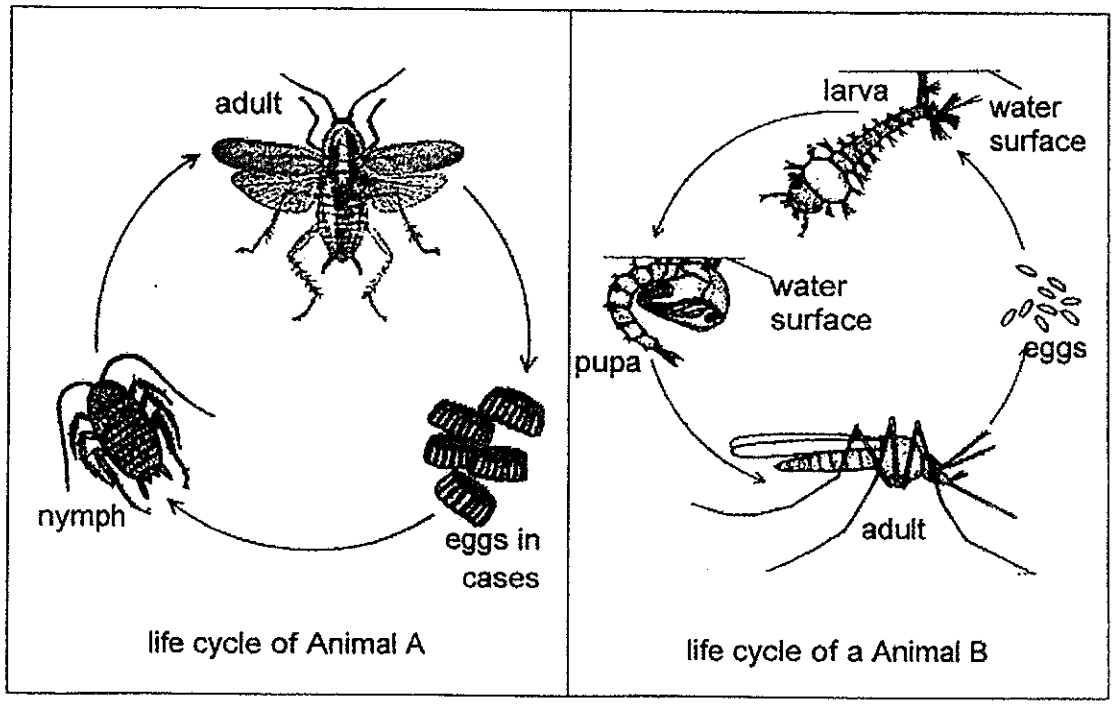
(a) In the diagram above, write a suitable sub-heading in the box marked **X**. [1]

(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]

_____

_____

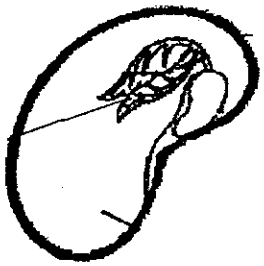
(b) State one difference between the nymph and adult of Animal A. [1]
[Do **NOT** compare the size or shape.]

_____

_____

Score	
	2

33. The diagram below shows a developing seed.



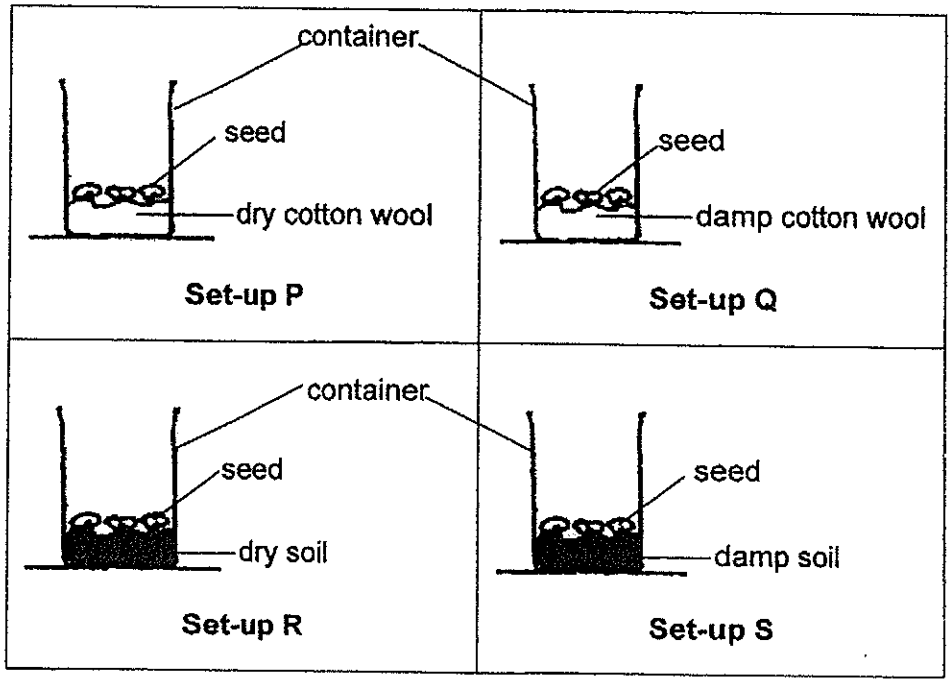
In the diagram above, label [2]

(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.

_____

_____

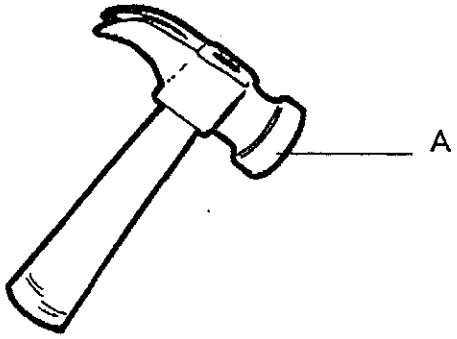
(b) Name the conditions needed for seeds to germinate. [1]

_____

_____

Score	/ 2

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



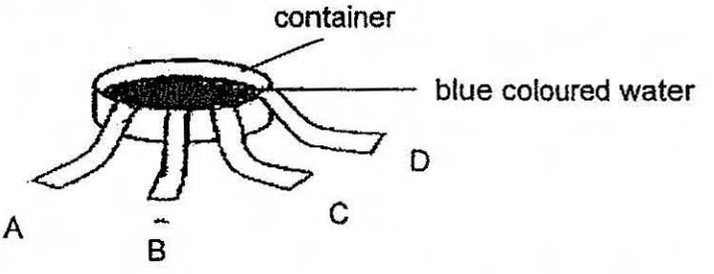
Name a suitable material to make part A such that it will not break when it hit the nail into the wall. [1]

Give a reason for your answer.

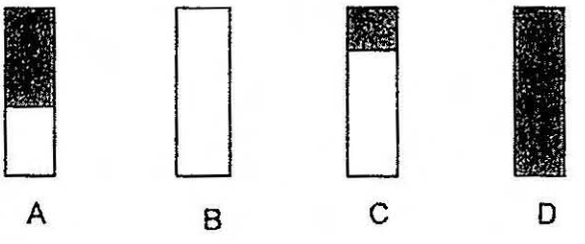
Material	Reason

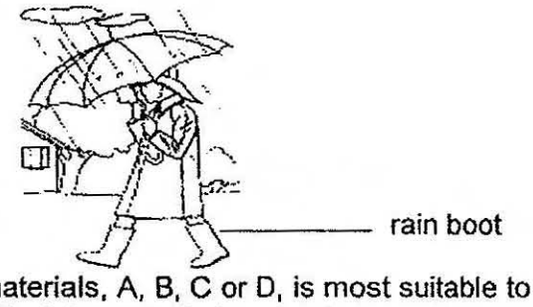
Score	/ 1

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]

_____

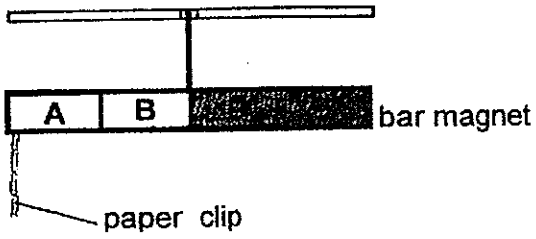
_____

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

_____

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]

_____

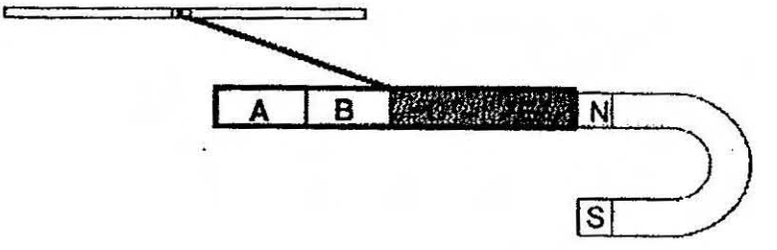
_____

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.

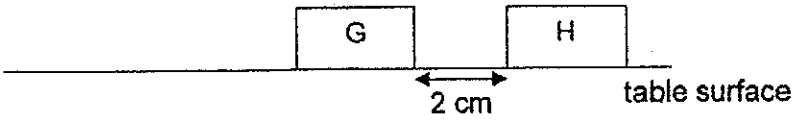


(b) State the pole of part E of the bar magnet and the property of magnets that is demonstrated in Peter's observation? [1]

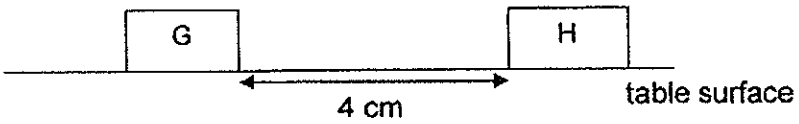
Pole of part E	Property of magnet
_____- pole	_____ _____

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]

_____

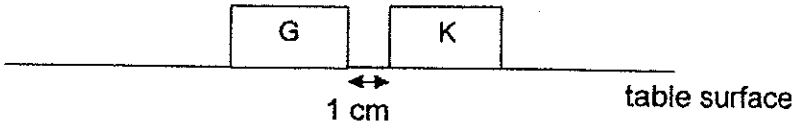
_____

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 of. Give a reason for your answer. [1]

_____

_____

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 find her way. [1]

_____

_____

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

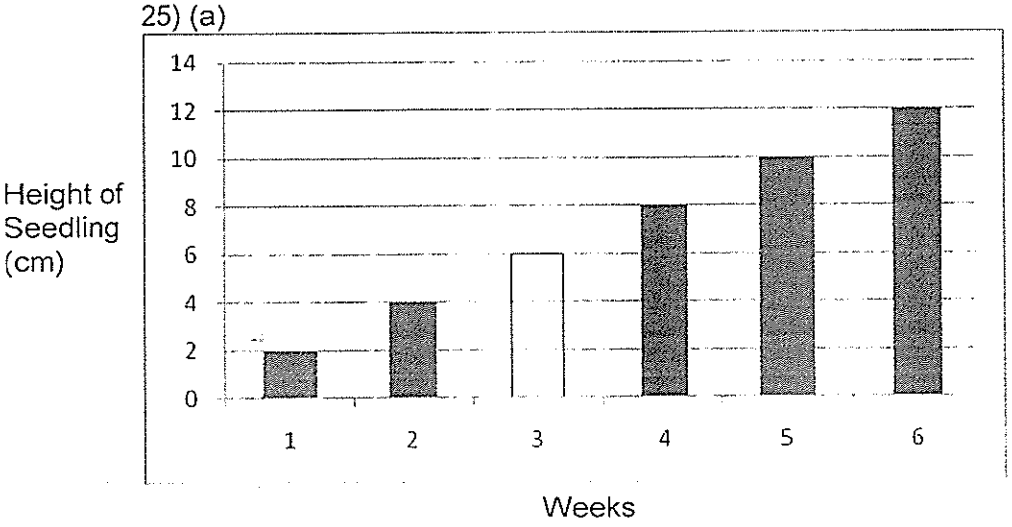
Raffles Girls' Primary School
Science SA2 2014

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)

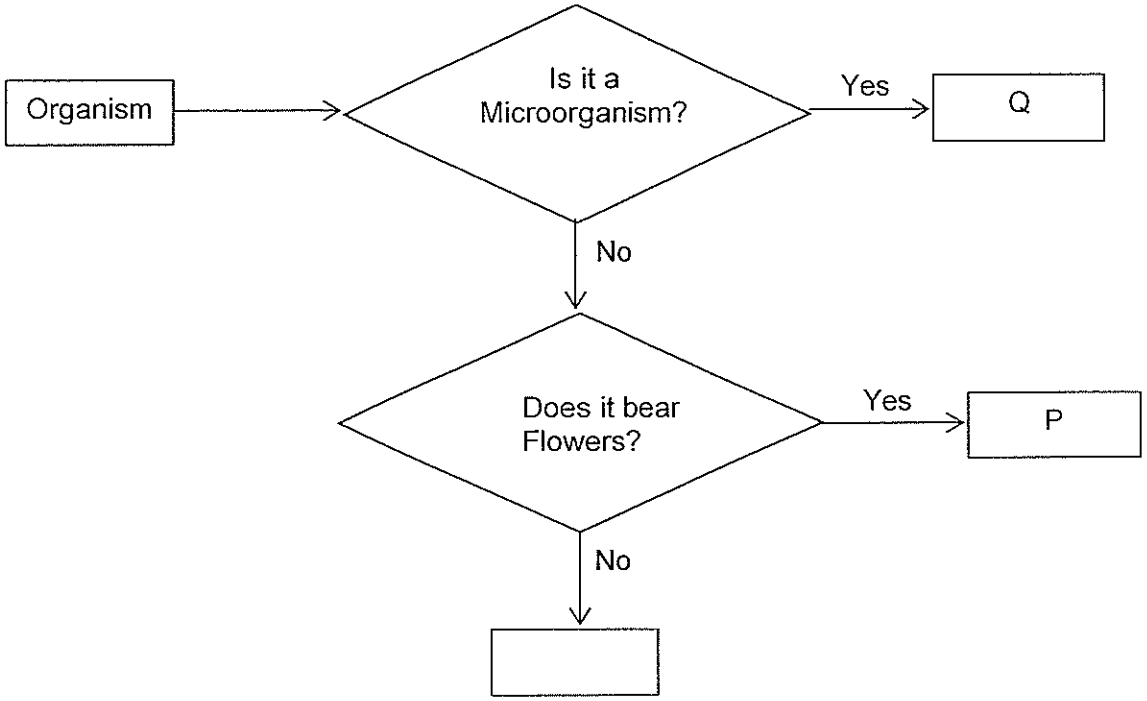
Characteristic 1	Gives birth to young
Characteristic 2	Does not fly

(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)

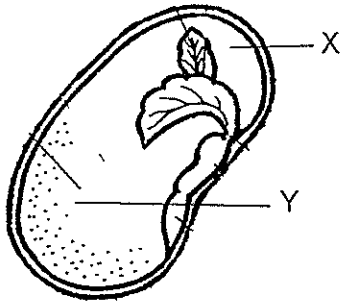


31) (a) X: Lay eggs in water
(b)

(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