



RAFFLES GIRLS' PRIMARY SCHOOL

SEMESTRAL ASSESSMENT (2)

2018

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

25 October 2018

SCIENCE

Attn: 1 h 30 min

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

SECTION A (24 x 2 marks)

For each question from 1 to 28, 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 statement(s) about birds is/are correct?

- A All birds can fly.
- B All birds have two legs.
- C All birds give birth to their young alive.
- D All birds have fur to keep themselves warm.

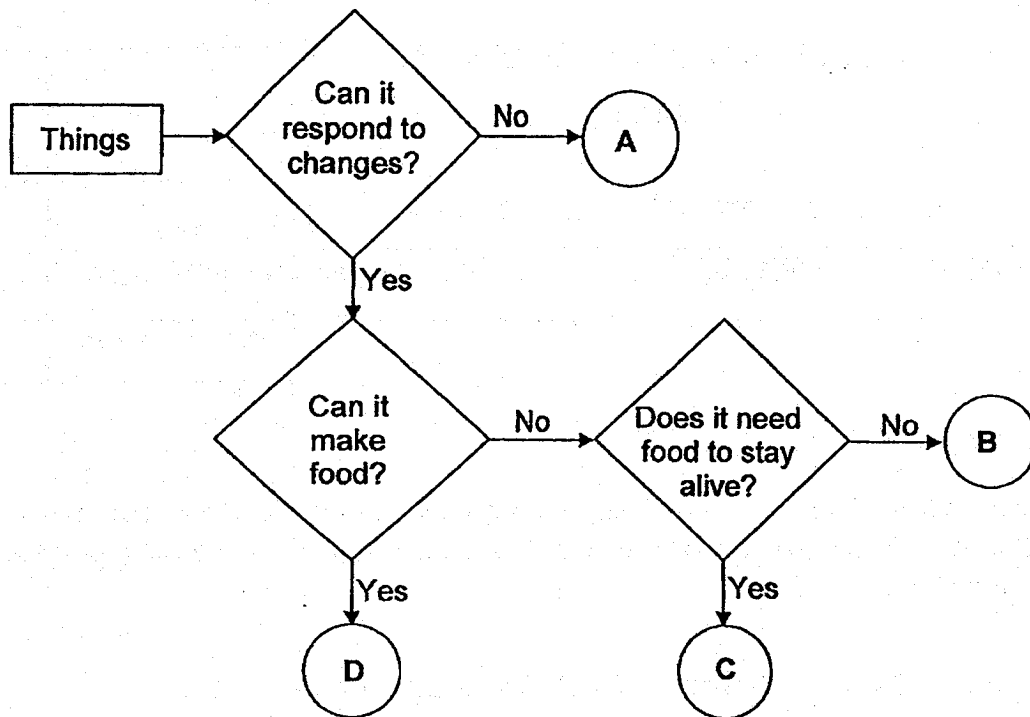
(1) B only

(2) C only

(3) B and D only

(4) A, C and D only

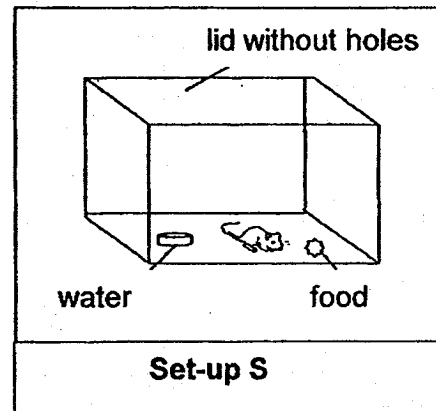
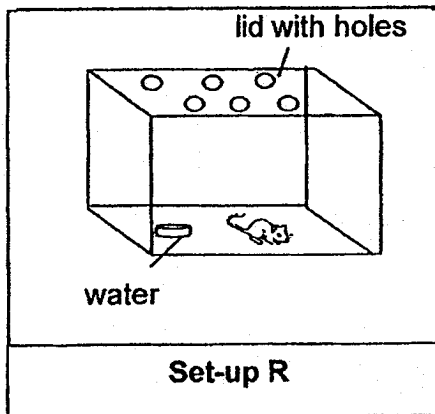
2. The flow chart below shows how some things are being classified.



Based on the information above, which of the following best represent living and non-living things?

	Living Things	Non-living Things
(1)	B, C and D	A
(2)	C	A, B and D
(3)	C and D	A and B
(4)	A and C	B and D

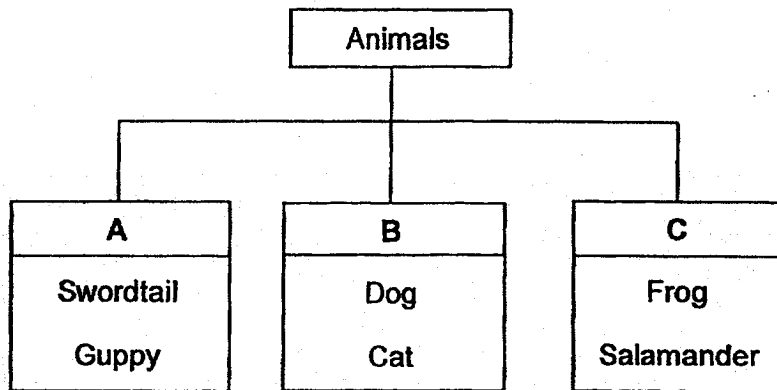
3. Fiona wanted to conduct an experiment to find out if air is needed for the mouse to survive.



Based on the above set-ups, which of the following change(s) should be made to ensure a fair test?

	Set-up R	Set-up S
(1)	remove water	remove food
(2)	no change	make holes on the lid
(3)	add food	no change
(4)	remove water	no change

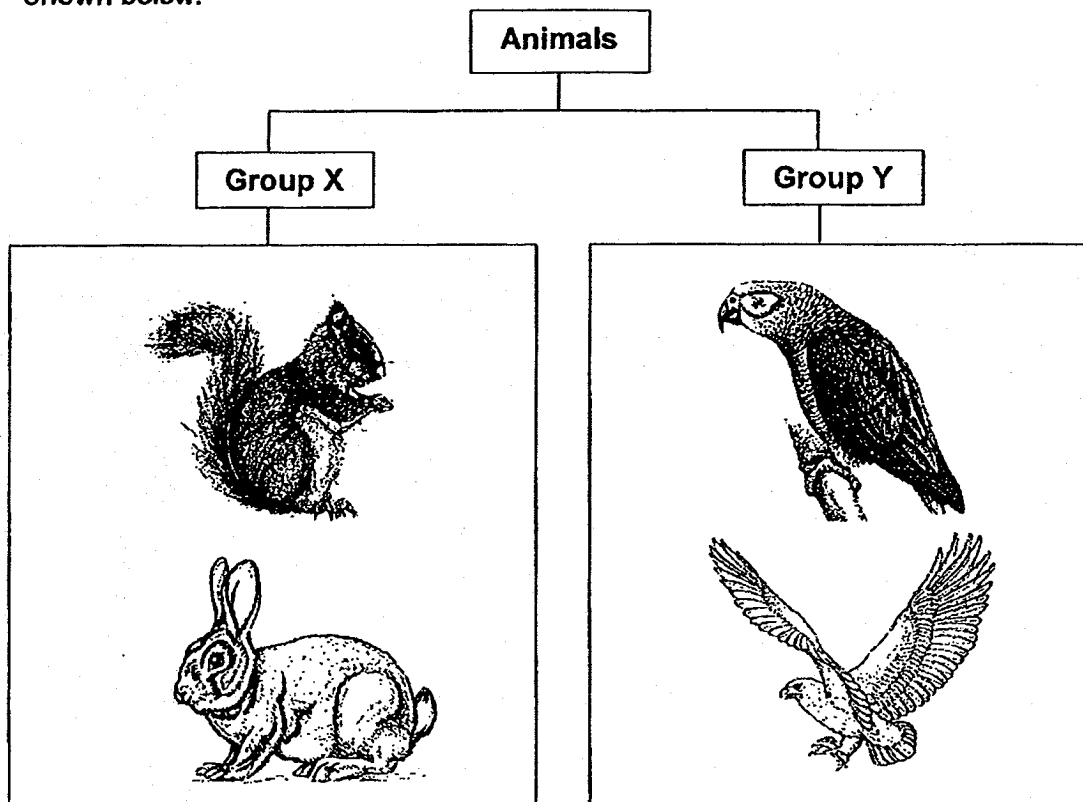
4. The animals below are grouped according to the way they breathe.



Which of the following is the correct sub-heading for A, B and C in the classification table?

	A	B	C
(1)	gills	moist skin	lungs
(2)	gills	lungs	moist skin
(3)	lungs	gills	moist skin
(4)	moist skin	lungs	gills

5. Leela grouped some animals based on their common physical characteristics as shown below.

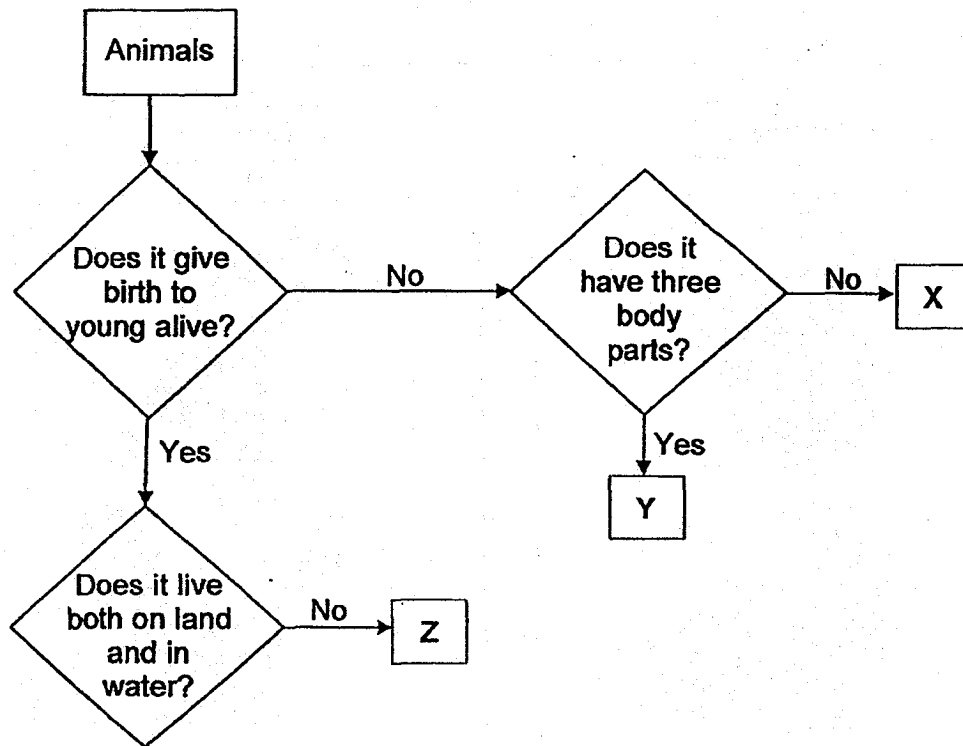


Based on your observations, which of the following shows the possible sub-headings for group X and Y?

	Group X	Group Y
A	lays eggs	gives birth to young alive
B	has fur	has feathers
C	has no wings	has wings
D	has a tail	has no tail

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

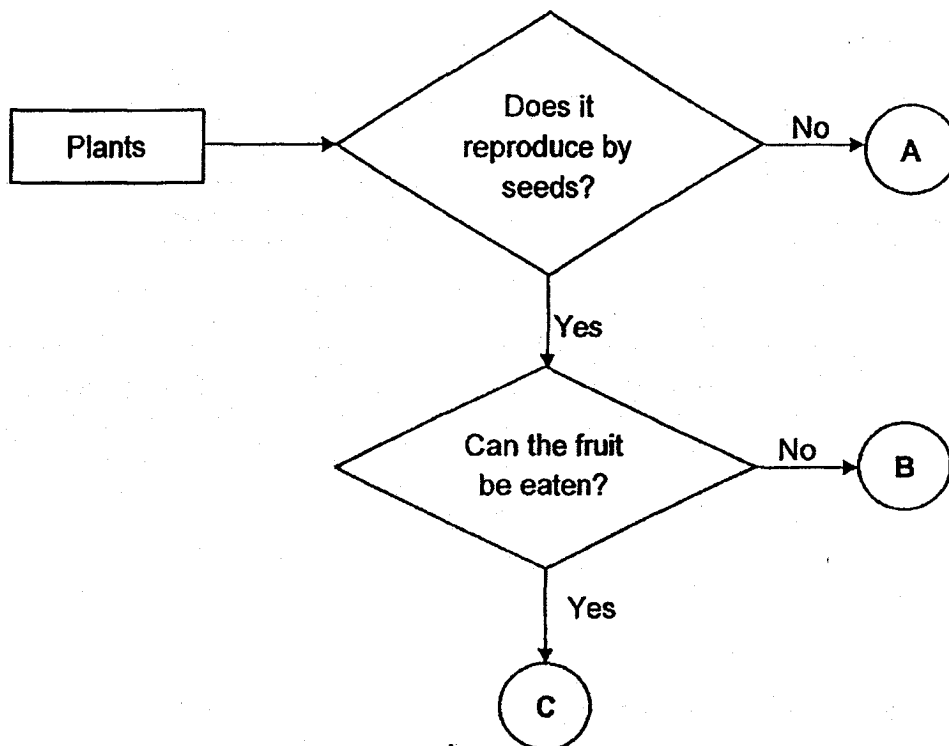
6. Study the flow chart below carefully.



Which of the following groups of animals best represent X, Y and Z?

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

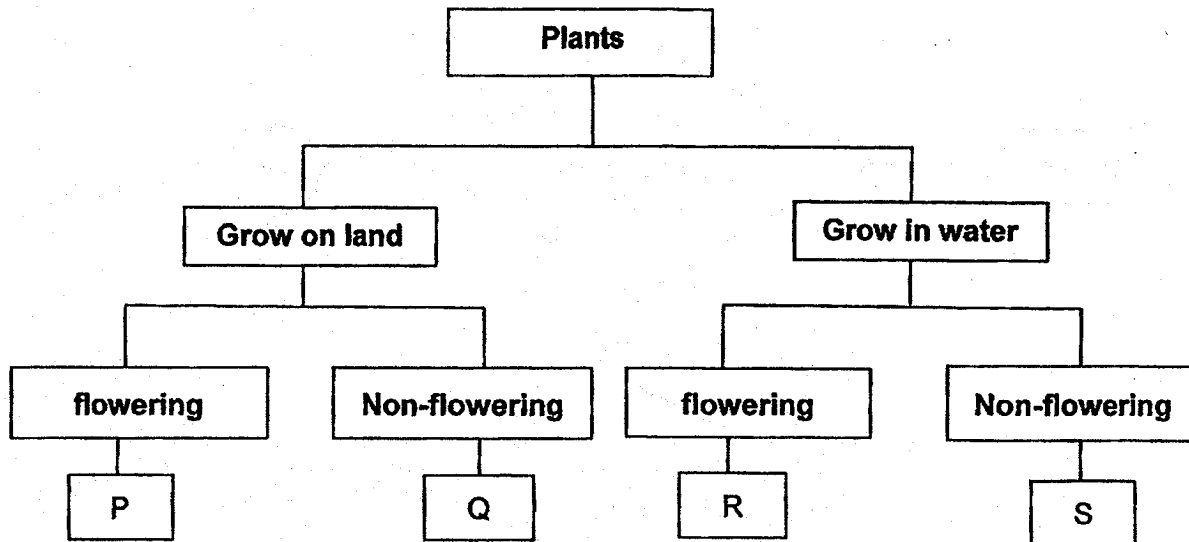
7. Study the flow chart below.



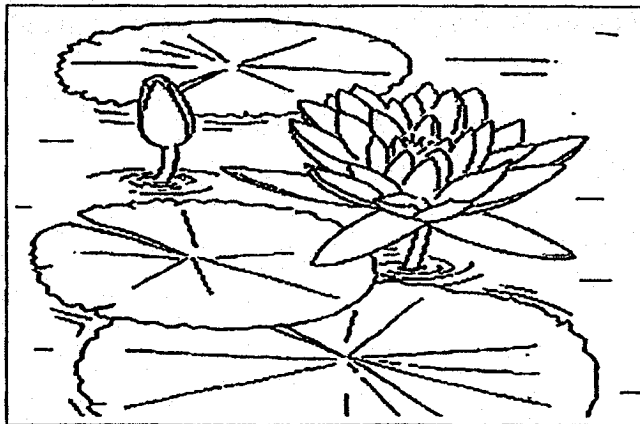
Based on the flow chart above, which plant(s) is/are flowering plant(s)?

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

8. The classification chart below shows how plants are classified.



Observe the plant in the diagram below.



Continue on next page

Continued from previous page

Where do you classify the plant in the flow chart?

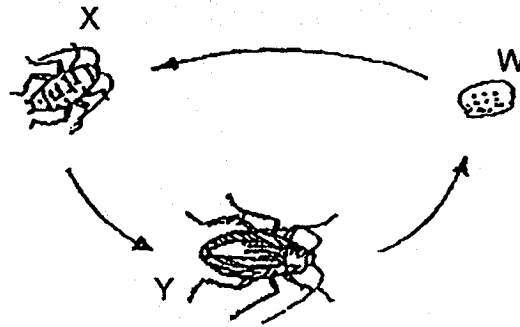
- (1) P
- (2) Q
- (3) R
- (4) S

9. Which of the following statements about fungi are correct?

- A It responds to changes.
- B It is a non-flowering plant.
- C It reproduces by spores.
- D It feeds on other living things which may be dead or alive.

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

10. The diagram below shows the life cycle of a cockroach with the different stages labeled W, X and Y.

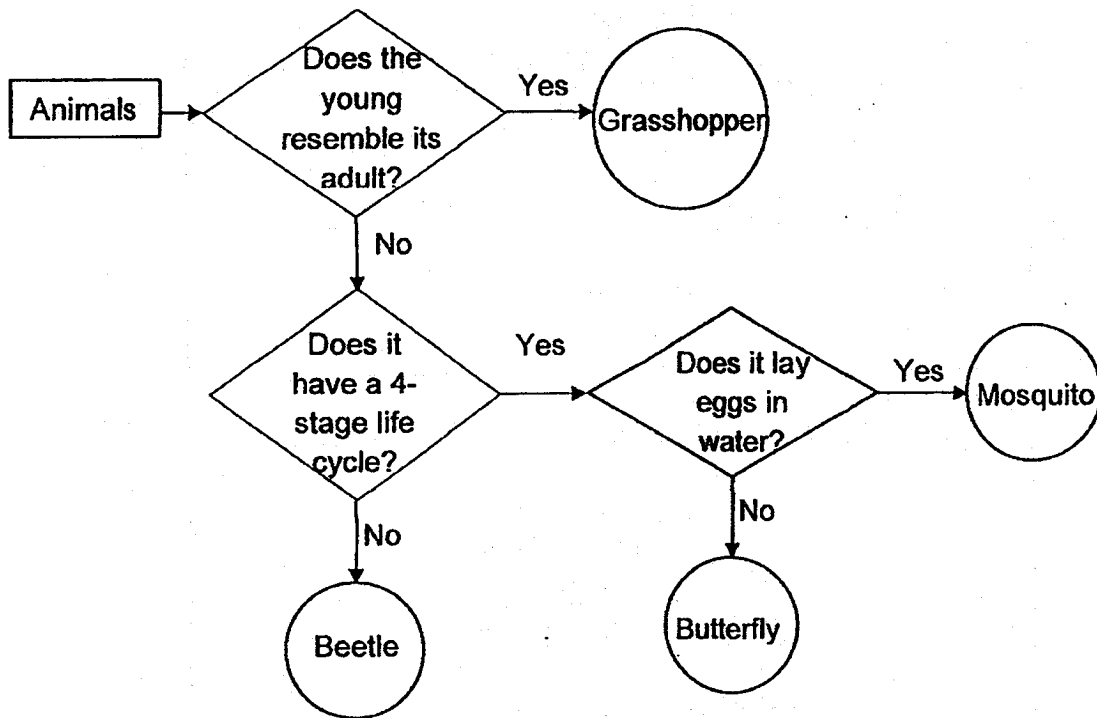


Which of the following statement(s) is/are correct?

- A It does not feed at stage Y.
- B It reproduces by laying eggs.
- C It has fully developed wings at stage X.

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

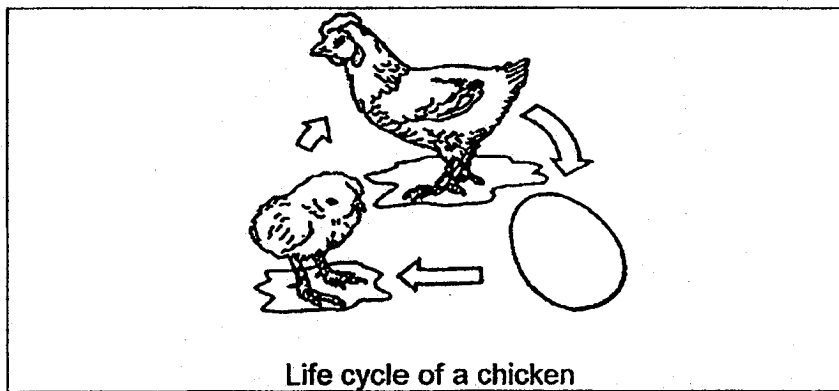
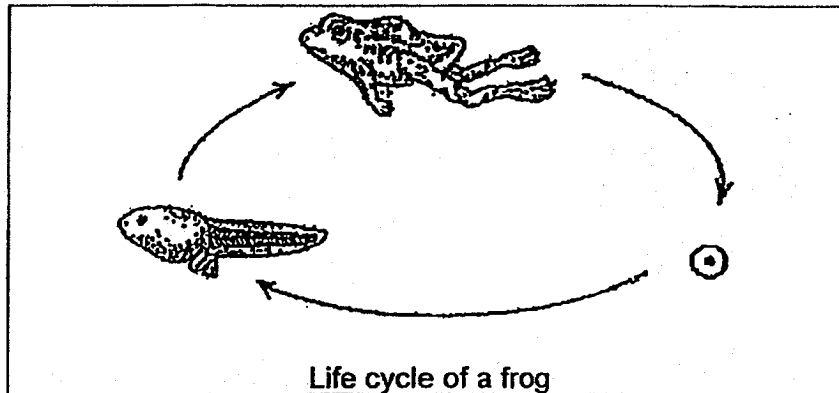
11. The classification chart below shows how four animals were classified.



Which one of the animals above was classified **incorrectly**?

- (1) Beetle
- (2) Butterfly
- (3) Mosquito
- (4) Grasshopper

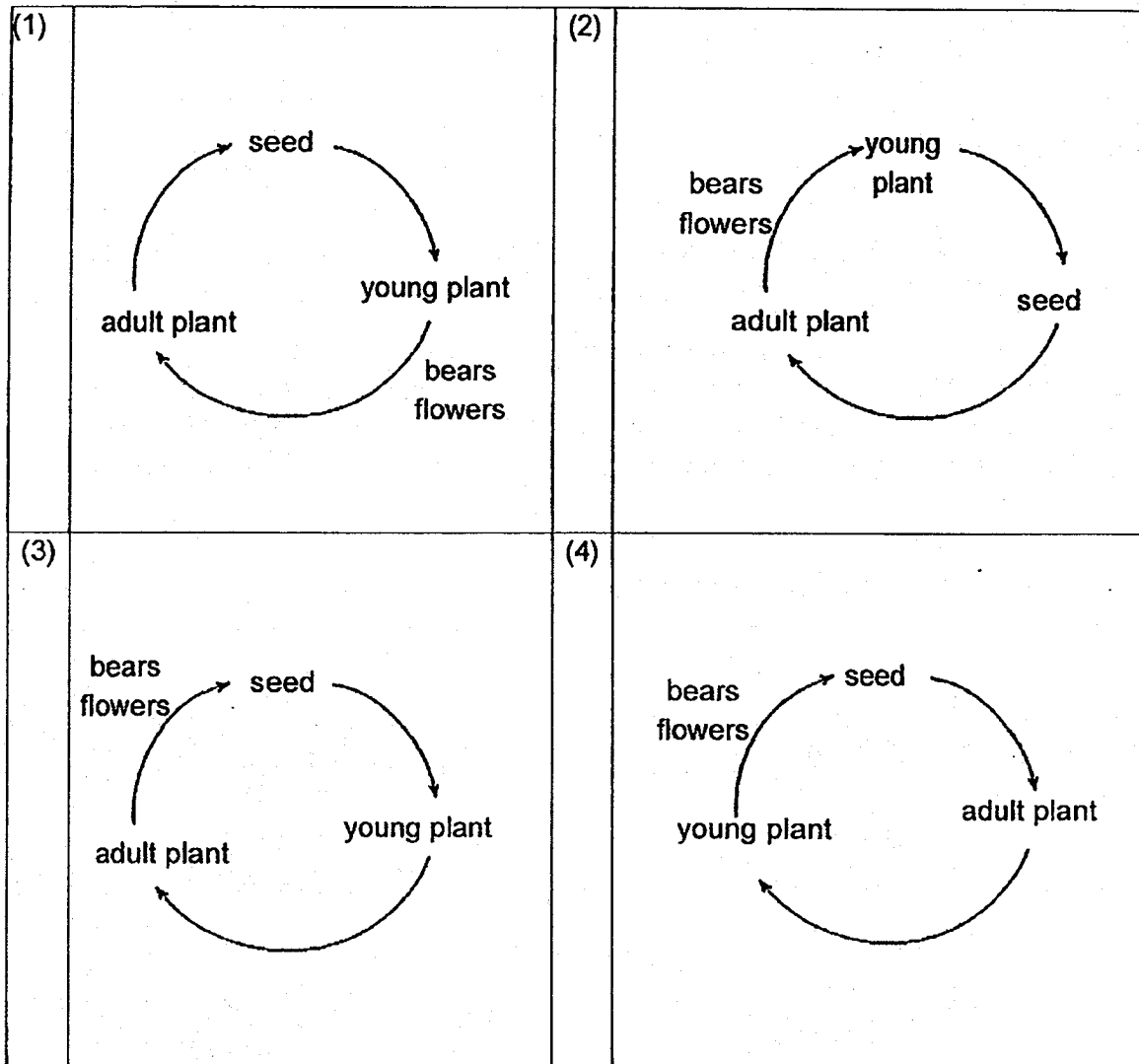
12. The diagram below shows the life cycle of a frog and a chicken.



Based on the diagrams above, which one of the following is **correct** about the two life cycles?

	Similarity	Difference
(1)	Their youngs resemble the adults.	The young of the chicken lives on land but the young of the frog lives in water.
(2)	The youngs of both animals swim.	The adult of the chicken lays eggs but the frog gives birth to live young.
(3)	They both have a 3-stage life cycle.	The young of the chicken lives on land but the young of the frog lives in water.
(4)	They both reproduce by giving birth to young alive.	The young of the chicken resemble the adult but the young of the frog does not resemble the adult.

13. Which one of the following shows the stages in the life cycle of a plant correctly?



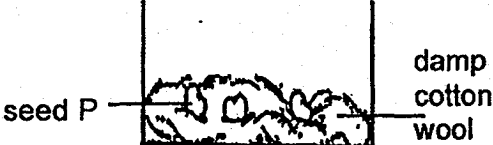
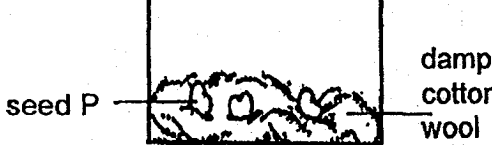
14. The table below shows how the height of the plant and the mass of the seed leaf of a seedling change over 14 days.

Day	1	3	5	7
Mass of seed leaf (g)	5	4	2	1
Height of seedling (cm)	0	2	5	8

Based on the table above, which one of the following shows the relationship between the mass of the seed leaf and the height of the seedling?

- (1) The height of the seedling does not affect the mass of the seed leaf.
- (2) The height of the seedling increases as the mass of the seed leaf increases.
- (3) The mass of the seed leaf decreases as the height of the seedling increases.
- (4) The mass of the seed leaf decreases as the height of the seedling decreases

15. The table below shows four set-ups placed in different locations.

 Set-up A (Placed in the garden)	 Set-up B (Placed near a window)
 Set-up C (Placed in the freezer)	 Set-up D (Placed in a dark cupboard)

Which of the following set-up(s) will the seeds germinate?

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

16. The picture below shows a pair of Mei Mei's shoes. Material used to make part X allows Mei Mei to walk safely in both dry and wet weathers.

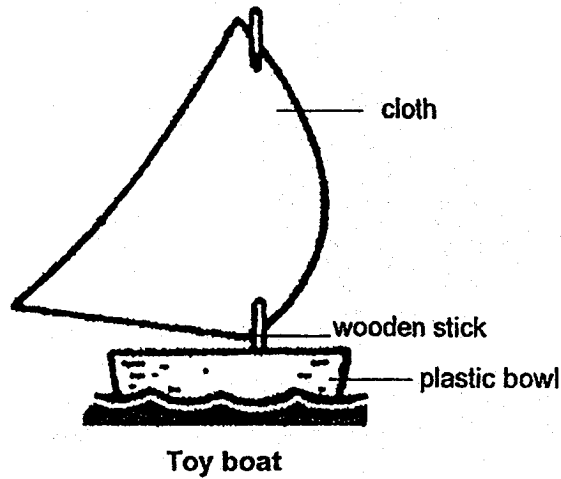


A tick (✓) shows the presence of the property.

What properties of material are most suitable to make part X of the shoes?

	Strong	Flexible	Waterproof
(1)	✓	✓	✓
(2)		✓	
(3)	✓		✓
(4)		✓	✓

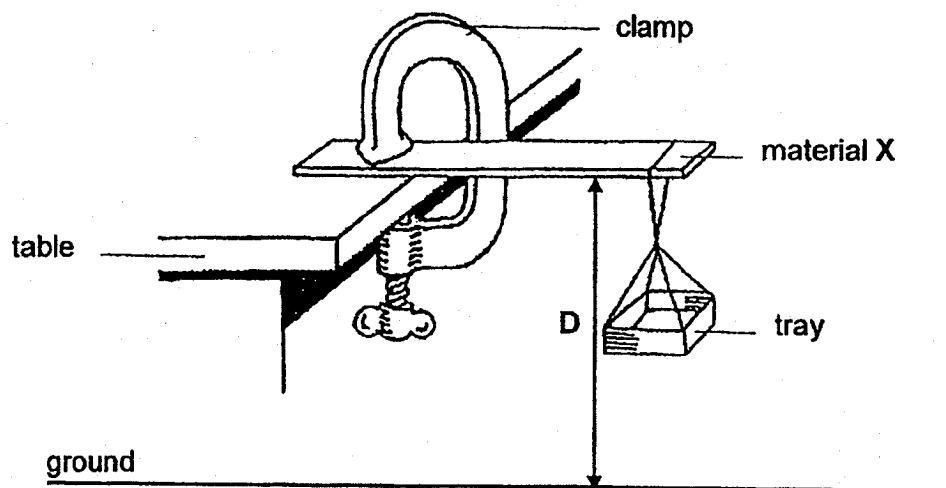
17. Jim made a toy boat using a piece of cloth, a wooden stick and a plastic bowl as shown below. He placed the toy in a pond and the toy boat moved when the wind blew.



What properties of plastic bowl and wooden stick make them suitable for making the different parts of the toy boat above?

	Plastic bowl	Wooden stick
(1)	Strong	flexible
(2)	ability to float	stiff
(3)	Flexible	waterproof
(4)	Ability to sink	stiff

18. Mandy used the following set-up to find out which type of materials, X, Y or Z, was the most flexible. The materials were of the same thickness and length. She clamped one end of material X on a table, 100cm above the ground, and hung a tray on its other end as shown in the diagram below.



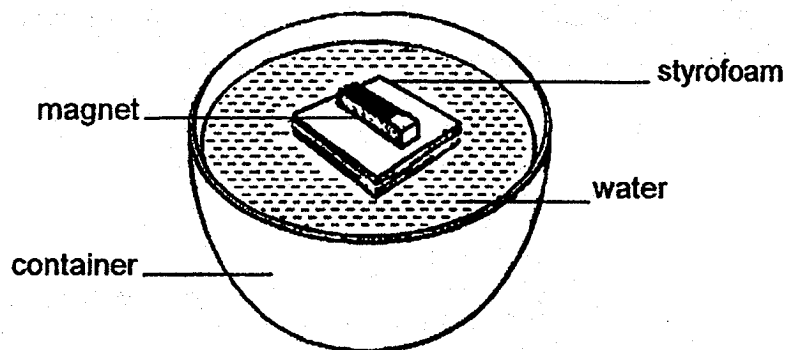
Mandy put a 50g weight on the tray then she measured the distance, D, as shown in the diagram above. She repeated the same experiment by replacing material X with Y and Z respectively.

At the end of her experiment, Mandy concluded that X was the most flexible and Z was more flexible than Y.

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

	Distance (D) in cm		
	X	Y	Z
(1)	100	95	97
(2)	97	95	100
(3)	93	100	95
(4)	93	95	97

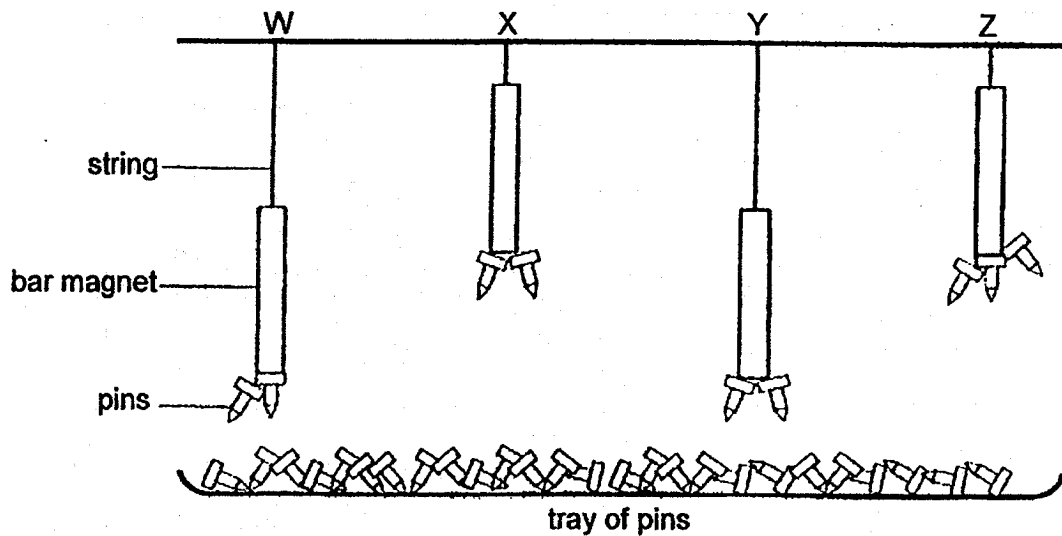
19. A magnet is attached to a piece of styrofoam and placed in a container of water to allow it to move freely as shown in the diagram below.



After some time, the magnet came to rest in the _____ position.

- (1) East-West
- (2) North-East
- (3) South-West
- (4) North-South

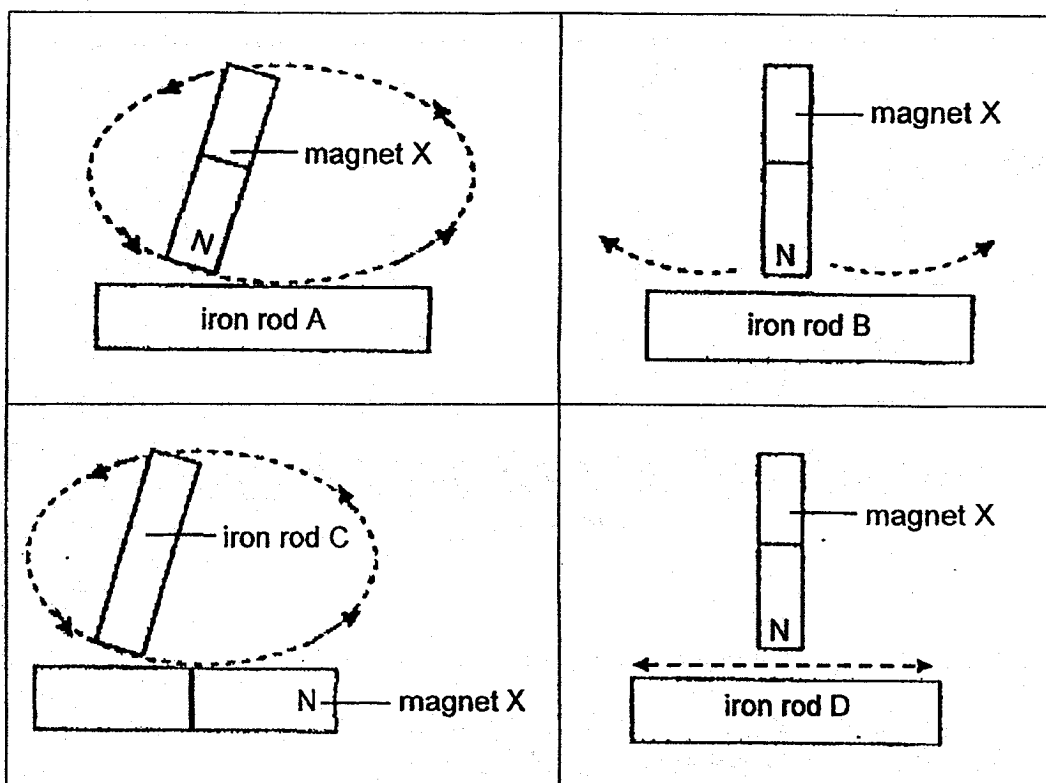
20. Four identical bar magnets, W, X, Y and Z, were hung from a bar using strings of different lengths as shown in the diagram below. A tray of pins was then placed under the magnets.



Which of the following statement(s) is/are true about the four bar magnets?

- A Magnet Z has the greatest magnetic strength.
 - B Magnet W has the greatest magnetic strength.
 - C Magnets X and Y have the same magnetic strength.
 - D Magnet W has greater magnetic strength than magnet Y.
- (1) A only
 (2) A and C only
 (3) B and D only
 (4) C and D only

21. Anne tried to magnetise rods A, B, C and D using the stroking method as shown in the diagrams below.



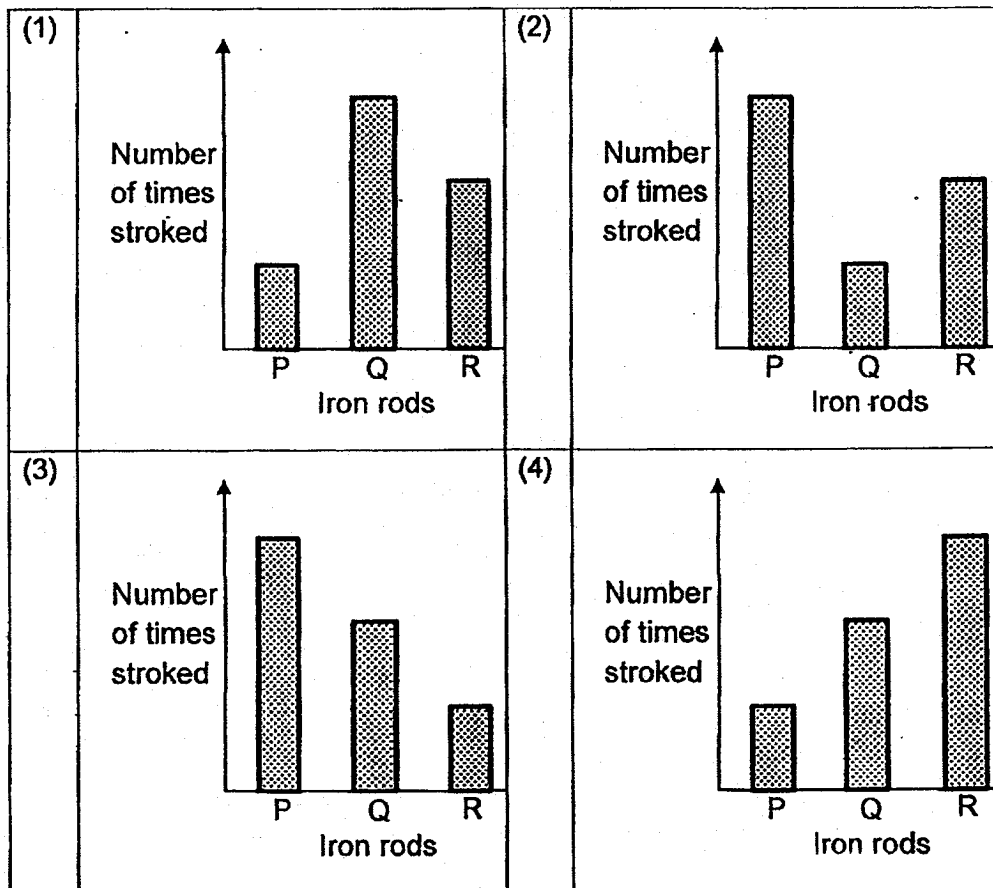
Which one of the iron rods will be magnetised?

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

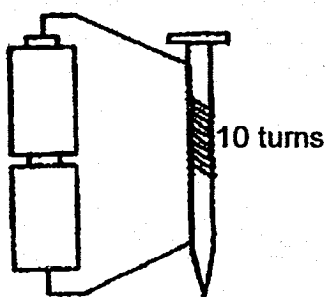
22. Amy made three magnets using the stroking method. She used the same bar magnet to stroke iron rods P, Q and R, for different number of times in the same direction. She then placed each iron rod into a tray of paperclips and counted the number of paperclips each rod attracted and recorded her observation in the table below.

Iron rod	Number of paperclips attracted
P	5
Q	3
R	4

Which one of the following graphs correctly shows the number of times each iron rod was stroked with the bar magnet?

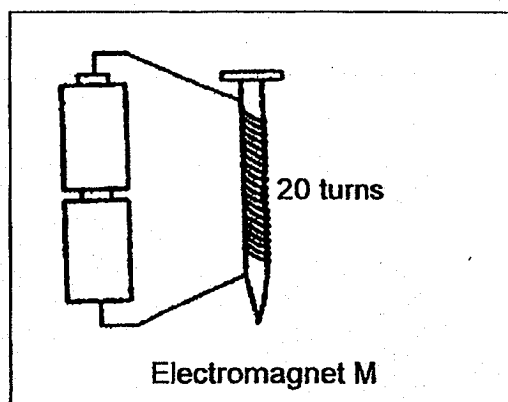


23. The diagram below shows electromagnet L.

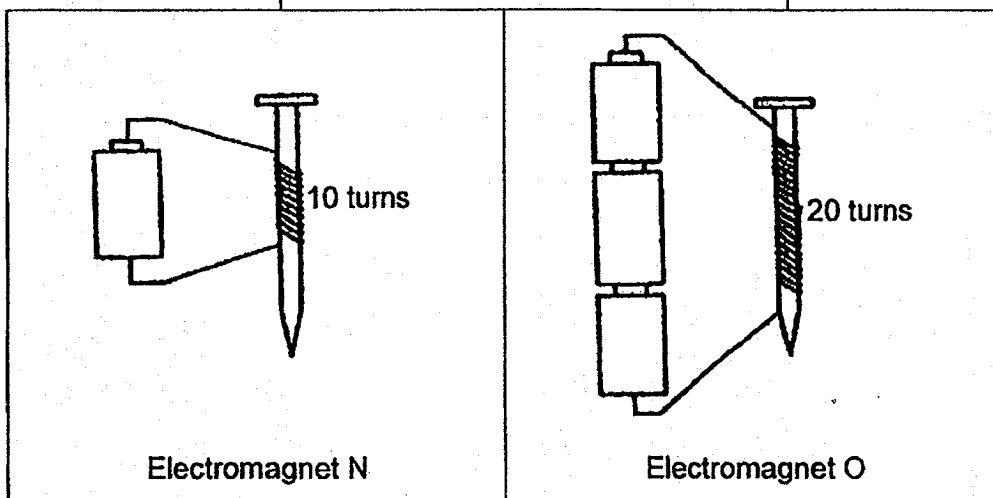


Electromagnet L

Three electromagnets, M, N and O, were made as shown in the diagram below.



Electromagnet M



Electromagnet N

Electromagnet O

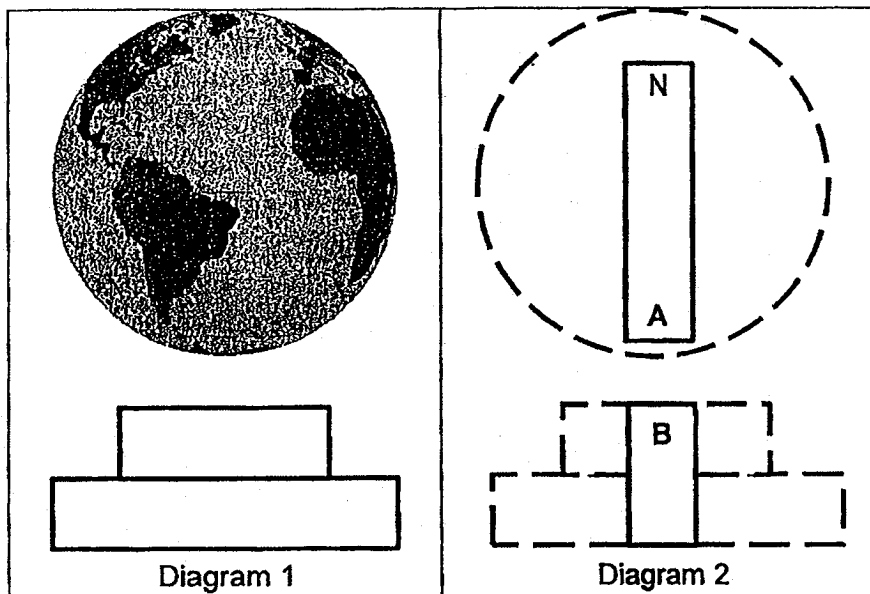
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Which of the following electromagnet(s) is/are stronger than electromagnet L?

- (1) N only
- (2) M and N only
- (3) M and O only
- (4) M, N and O

24. The diagram 1 below shows a magnetic floating globe. Diagram 2 shows the magnets in the magnetic floating globe with the N pole on one of the magnets and 2 unknown poles, A and B.

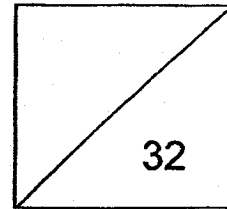


Which one of the following identifies poles A and B correctly?

	Pole A	Pole B
(1)	N Pole	S Pole
(2)	N Pole	N Pole
(3)	S Pole	N Pole
(4)	S Pole	S pole

Name: _____ ()

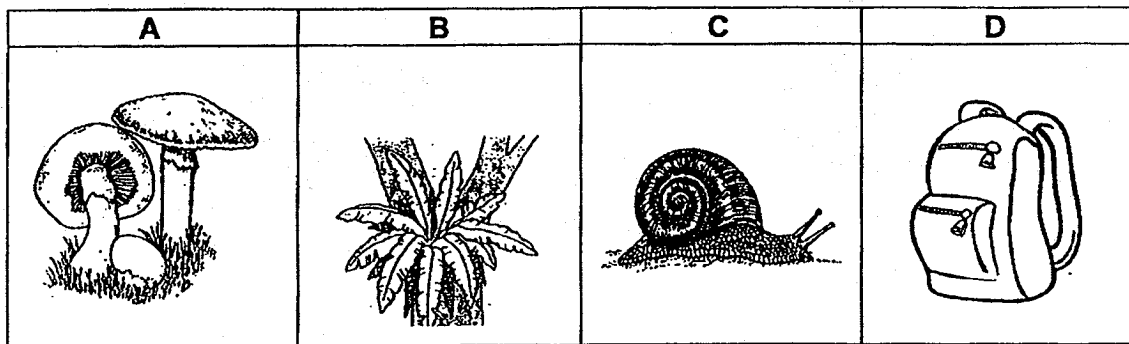
Class: P 3 ()



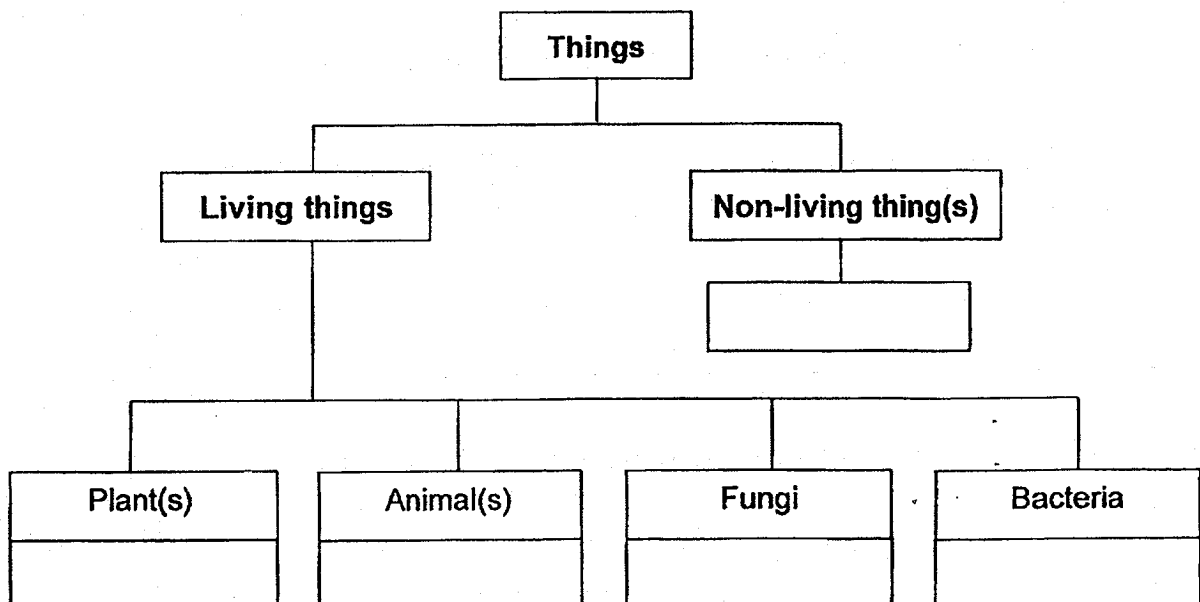
SECTION B (32 marks)

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. The pictures below show different types of things, A, B, C and D.



Based on the pictures above, complete the diagram below. Write letters A, B, C and D **ONCE** only in the appropriate box(es). You need **NOT** fill in all the boxes. [2]

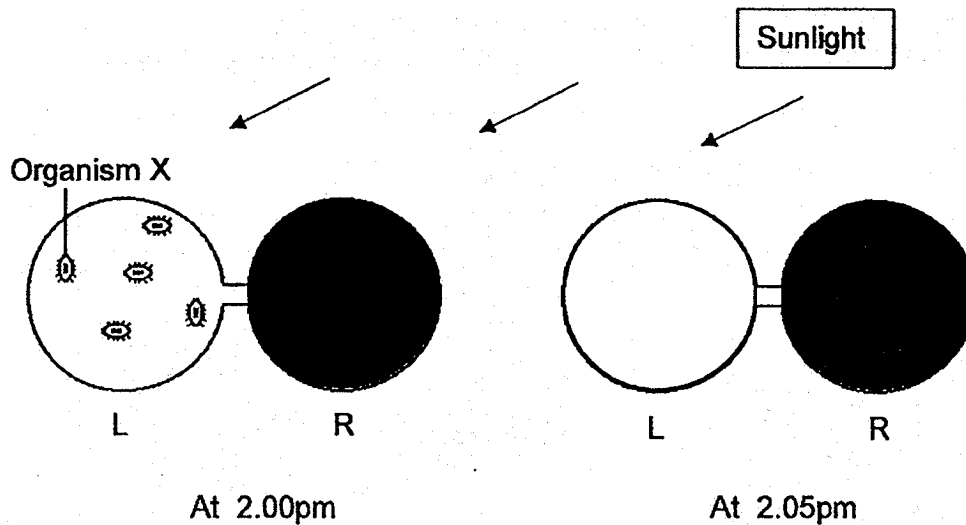


Score	2
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26. Kelly prepared a set-up for an experiment. She divided the sealed glass container into two parts, L and R, as shown in the diagram below.

Part R of the glass tank was covered with a piece of thick black paper. She placed five live organisms X in part L of the glass container and fed them with moist oatmeal.

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



5 minutes later, Kelly observed that the organisms X moved towards Part R 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 Kelly.

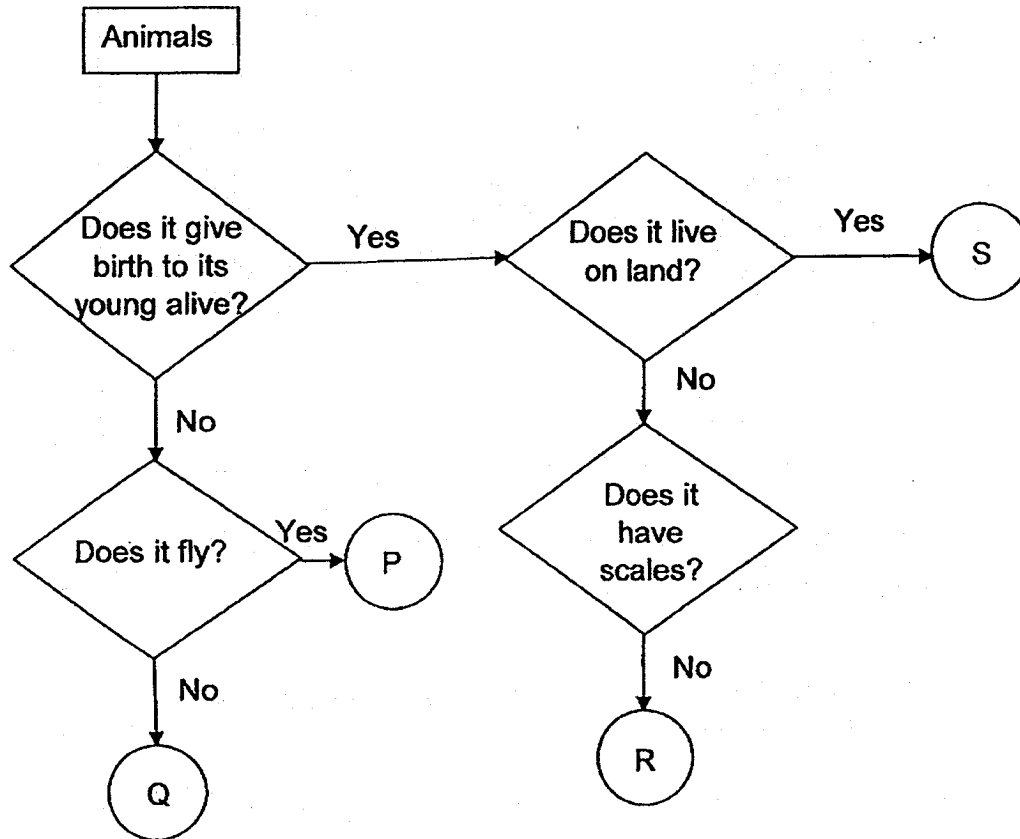
[1]

- (b) A week later, Kelly found that all the organisms X were dead. Explain clearly why.

[1]

Score	2
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27. The flow chart below shows how 4 animals, P, Q, R and S, are being grouped.



Based on the information above, answer the questions below.

- (a) Which animals, P, Q, R or S, best represent a dolphin?

Explain your answer.

[1]

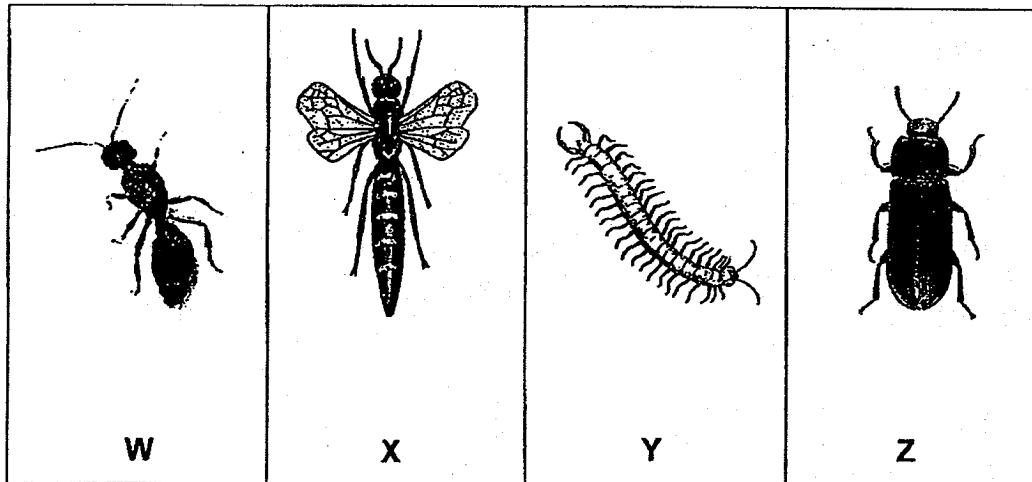
- (b) Which animals, P, Q, R or S, best represent an ostrich?

Explain your answer.

[1]

Score	2
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28. Sally classified the animals W, X, Y and Z together as a group as shown in the diagrams below.



Based on your observations of the physical characteristics of the animals, answer the following questions.

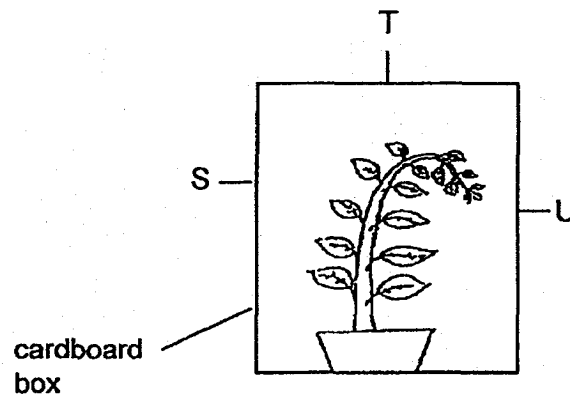
- (a) Which one of the animals, W, X, Y or Z, cannot be grouped together?
Give a reason for your answer. [1]

- (b) Based on their physical characteristics, write down one similarity and one difference between animal X and Y.
[Do **NOT** compare body shapes, sizes and colours.] [2]

Similarity	
Difference	

Score	3
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29. Tom placed a plant in a cardboard box which had a hole in it. After a week, he realised that the plant had grown sideways as shown in the diagram below.

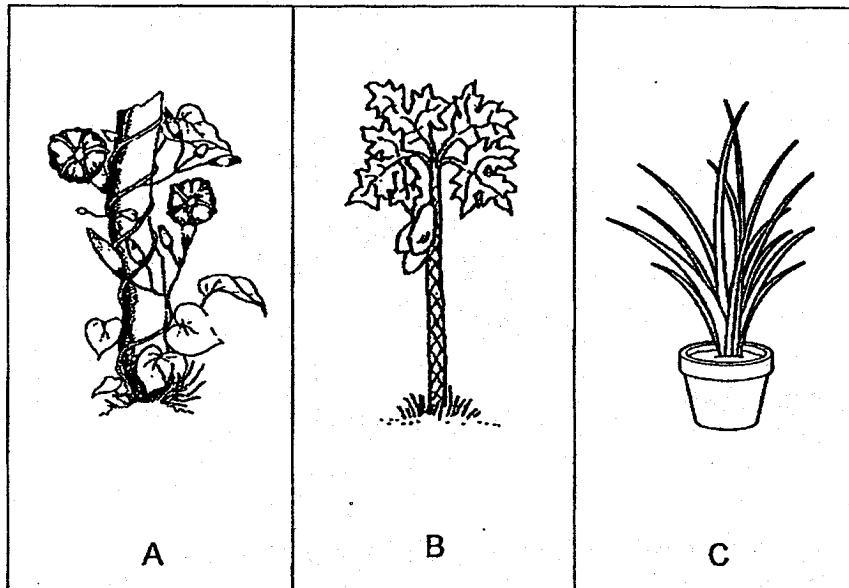


- (a) Based on how the growth of the plant, which part, S, T, or U, could the hole most likely be located? [1]

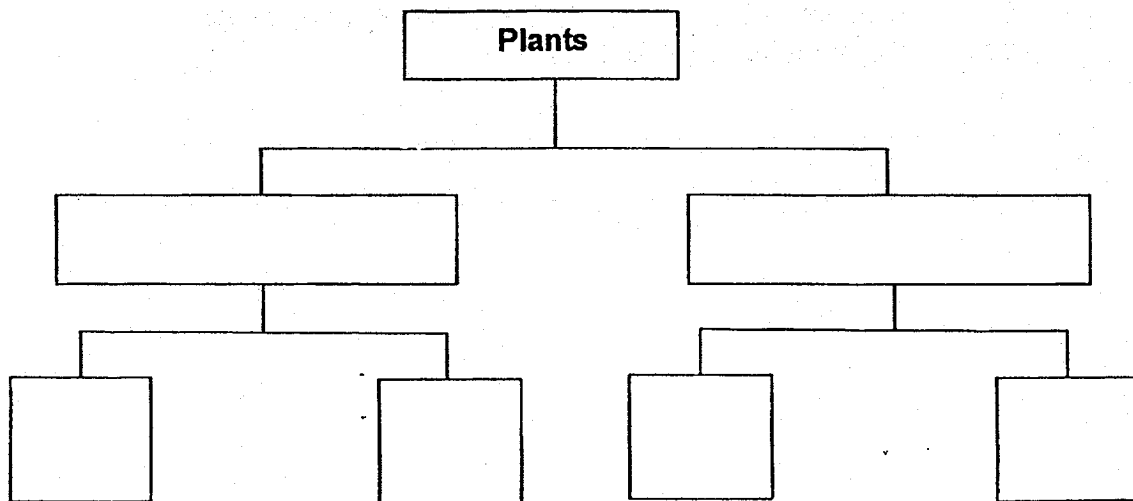
- (b) If the hole was covered up with a black cardboard, what would happen to the plant three weeks later? [1]

Score	2
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30. The diagram below shows three plants, A, B and C.



(a) Complete the classification chart below with the correct sub-headings and classify plants, A, B and C. [2]

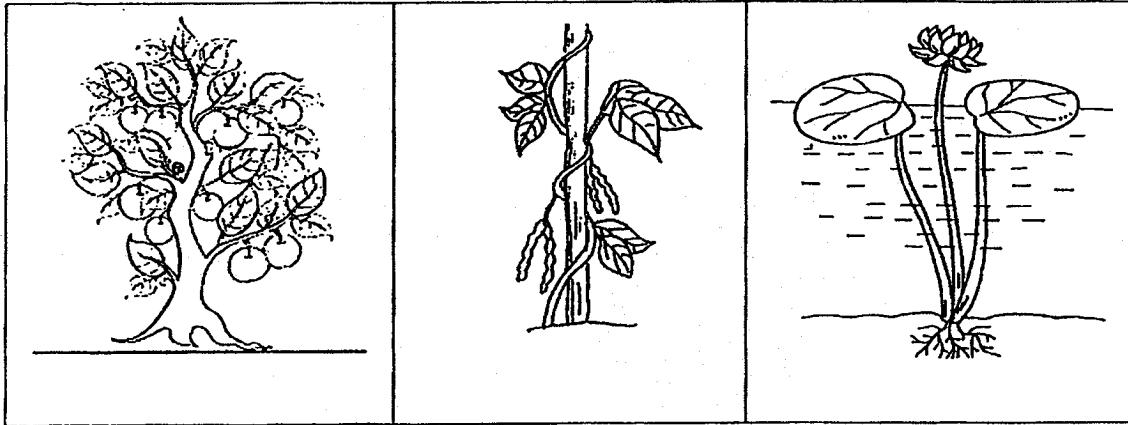


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Score	2
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(b) Observe plants in the diagram below.



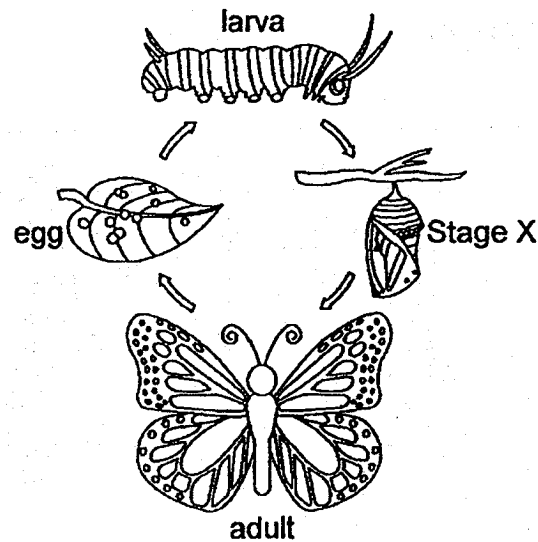
Tick (✓) the correct box(es) to show the similarities of the 3 plants shown above.

[1]

	They are land plants.
	They are flowering plants.
	They reproduce by seeds.

Score	
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31. The diagram below shows the life cycle of a butterfly.

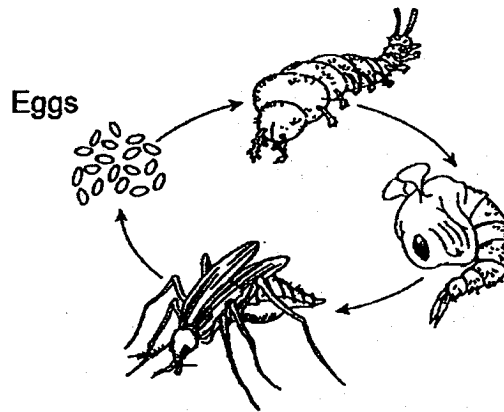


- (a) What is the name of stage X shown in the diagram above. [1]

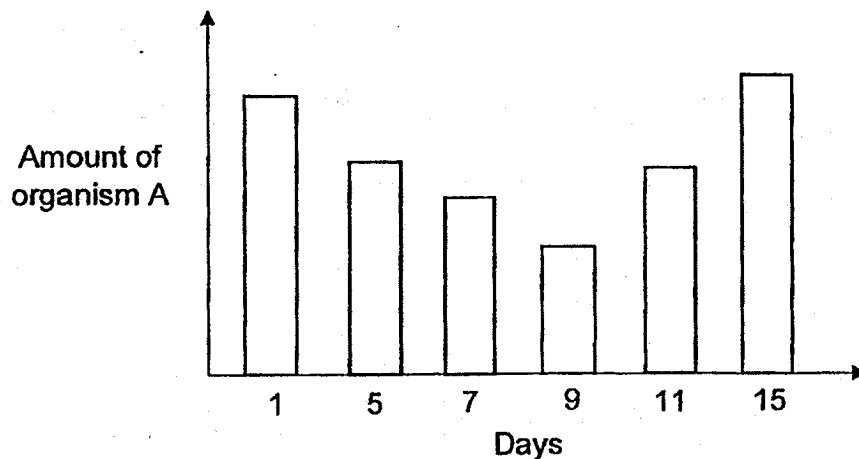
- (b) At which stage of its life cycle would the butterfly be a pest to the gardeners? State a reason for your answer. [1]

Score	2
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32. The diagram below shows the life cycle of a mosquito.



The young of a mosquito feeds on organism A found in the water. A container of water with some mosquito eggs was monitored for the amount of organism A in the water over a period of fifteen days. The graph below shows the amount of organism A found in the container of water.

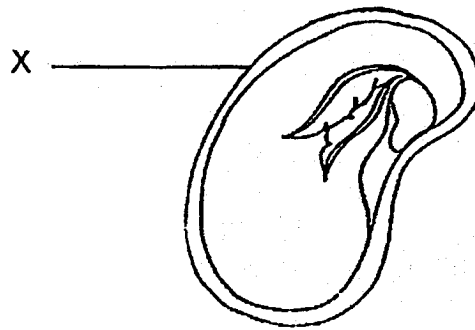


- (a) The graph above shows that the amount of organism A decreased from day one to day nine. State a possible reason for this decrease? Explain your answer. [2]

- (b) The graph shows that the amount of organism A increased after day nine. At what stage of its life cycle will the mosquito be in after nine days? State a reason for your answer. [1]

Score	3
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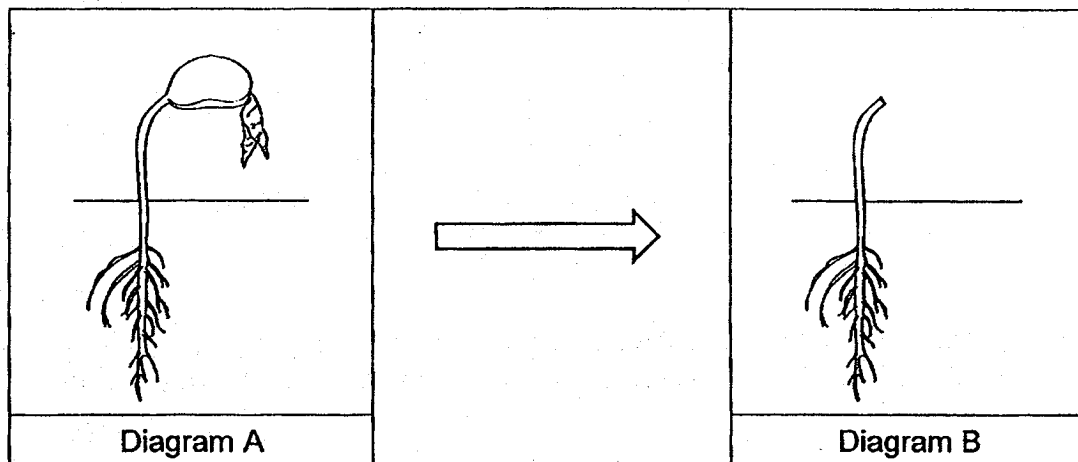
33. The diagram below shows the cross section of a seed with one of its parts marked X.



- (a) Name the part of the seed marked X. [1]

- (b) State the function of part X. [1]

34. Diagram A below shows a seedling. Part of the seedling was cut as shown in diagram B below.



- Based on your observation, state a reason why the seedling withered the following day. [2]

Score	4
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35. Jean conducted an experiment on two materials G and H to find out which material absorbs more water. The steps that Jean carried out in her experiment are shown below.

(a) Arrange the steps in the correct order by writing 2, 3 and, 4 in the boxes provided below. (The first step is written below.) [1]

Step

1

 : Cut materials G and H into strips of equal lengths and thickness.

Step

--

 : Observe materials G and H after 2 minutes.

Step

--

 : Put materials G and H into 2 similar trays.

Step

--

 : Pour equal amounts of water added with blue ink into each tray until the blue coloured water covers materials G and H.

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Score	
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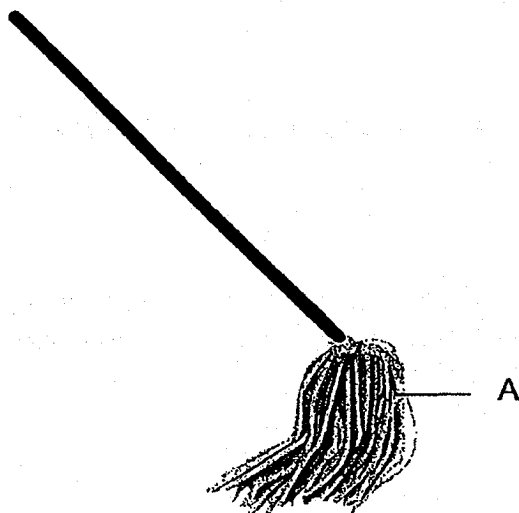
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(b) Jean's observations are shown below.

Material G: It was dry. Only a few droplets of blue coloured water could be seen. Upon shaking, these droplets rolled off.

Material H: It was wet and completely blue.

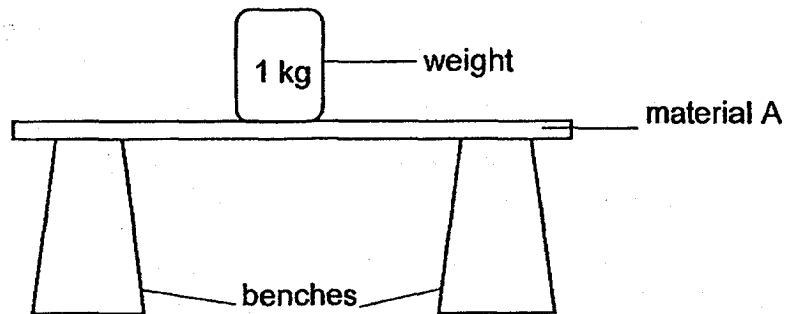
The diagram below shows a mop.



Which material, G or H, do you think is more suitable to make into part A of the mop as shown in the above diagram? Give a reason for your answer. [1]

Score	1
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36. Victor set up an experiment as shown below. He tested three different materials A, B and C. He tested material A by placing it on two benches and added 1kg-weights on it until it broke. He then repeated the same experiment for material B and C.



The table below shows the results of his experiment.

Material	Maximum number of 1kg- weights it could hold before the material broke
A	7
B	2
C	9

- (a) What property of material does the experiment aim to find? [1]

Continue on next page

Score	1
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Continued from previous page

(b) Identify variable(s) that Victor must keep the same in order to conduct a fair test. Tick (✓) the correct box(es).

[1]

Variables	Tick (✓)
Thickness of materials	
Distance between 2 benches	
Types of material	
Length of material	

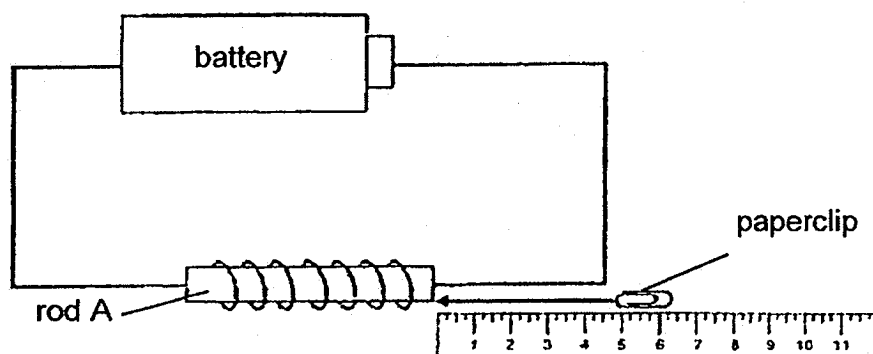
(c) Which material(s) can Victor use to make into a bag to carry a 5-kg object? [1]

Score	2
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37. Jack made three electromagnets using rods A, B and C, of the same length. The table below shows the materials each rod is made of. He ensured that each electromagnet had only one battery.

Rod	Material of rod
A	Iron
B	Steel
C	Wood

He then placed the electromagnet at one end of a ruler and slowly pushed a paperclip towards the electromagnet from the other end of the ruler until the paperclip was attracted to the rod as shown in the diagram below.



The table below shows the result of Jack's experiment.

Rod	Distance at which the paperclip was attracted to the magnet (cm)
A	6
B	8
C	0

- (a) Jack noticed that rod C did not attract the paperclip at all. Explain why there was no interaction between the electromagnet made of rod C and the paperclip. [2]

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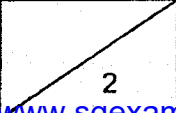
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- (b) Which one of the rods was the strongest electromagnet? State a reason for your answer. [1]

- (c) Without adding or removing any part of the set-up, state one way to increase the strength of the electromagnet. [1]

End of Paper

Score	
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EXAM PAPER 2018 (P3)

SCHOOL : RGS

SUBJECT : SCIENCE

TERM : SA2

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

Q25) Plant(s) – B Animal(s) – C Fungi – A Non-living thing(s) – D

Q26) a) Living things respond to changes in their surrounding.

b) Organisms X does not have enough air.

Q27) a) Animal R. A dolphin gives birth to young alive, does not live on land and does not have scales.

b) Animal Q. An ostrich does not give birth to young alive and does not fly.

Q28) a) Animal Y. Animal W, X and Z have 6 legs but Animal Y does not.

b) Similarity : Both have legs

Difference : Animal X has wings but Animal Y does not.

Q29) a) Part U

b) It will die.

Q30) a) Flowering – A , B Non-flowering – C

b) They are flowering plants , They reproduce by seeds

Q31) a) Pupa

b) Larva. It feeds on the gardeners' plants.

Q32) a) The eggs hatched and the young of a mosquito started feeding on organisms A.

b) Pupa. It does not feed.

Q33) a) Seed coat

b) Protects the developing embryo

Q34) The seed leaf provided food for the seedling was cut, so the seedling no longer has food.

Q35) a) 1 , 4 , 2 , 3

b) Material H. H is absorbent.

Q36) a) Strength

b) Thickness of materials , Distance between 2 benches , Length of material

c) Materials A and C

Q37) a) Rod C is made of a non-magnetic material, a non-magnetic material cannot be made into an electromagnet.

b) Rod B. It attracted the paperclip from the furthest distance.

c) Increasing the number of coils of wire around the electromagnet.