



**HENRY PARK PRIMARY SCHOOL**  
**SECOND SEMESTRAL ASSESSMENT 2019**

**PRIMARY 3**

**SCIENCE**

**SECTION A (40 MARKS)**

**INSTRUCTIONS TO CANDIDATES**

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Shade your answers on the Optical Answer Sheet (OAS) provided.

Name: \_\_\_\_\_ (    )

Class: Primary 3 (    )

Date: 22 October 2019

Total Time: 1 h 30 min

<b>Section</b>	<b>Marks</b>
<b>A</b>	/ 40
<b>B</b>	/ 16
<b>C</b>	/ 24
<b>Total (A+B+C)</b>	/ 80

Parent's Signature: \_\_\_\_\_



**Section A: 40 marks**

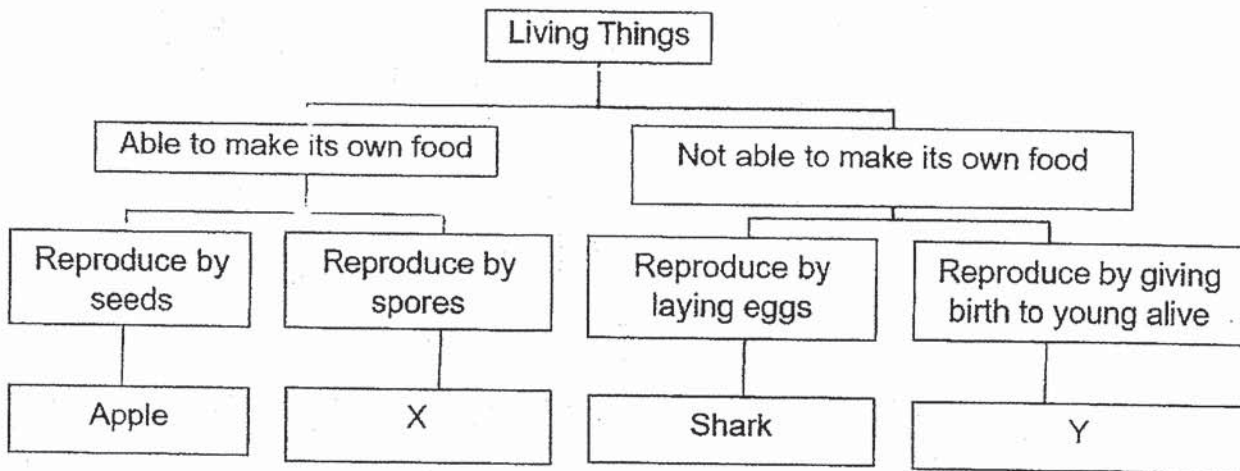
For each question from 1 to 20, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet.

1. Which of the following observations is correctly matched to the characteristics of living things?

	Observation	Characteristic
(1)	A cockroach moves away from light.	Living things respond to changes.
(2)	A frog feeds on insects.	Living things can grow.
(3)	A bird has a beak.	Living things need air, food and water.
(4)	A monkey has hair on its body.	Living things can reproduce.

( )

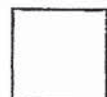
2. Study the classification chart shown below.



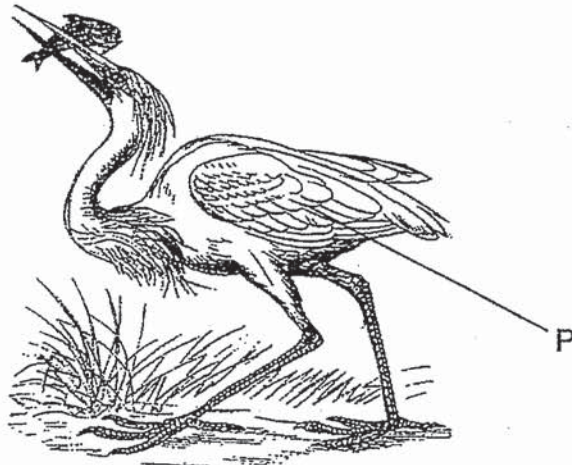
Which of the following best represents X and Y?

	X	Y
(1)	Rose	Penguin
(2)	Moss	Goldfish
(3)	Fern	Elephant
(4)	Mould	Dolphin

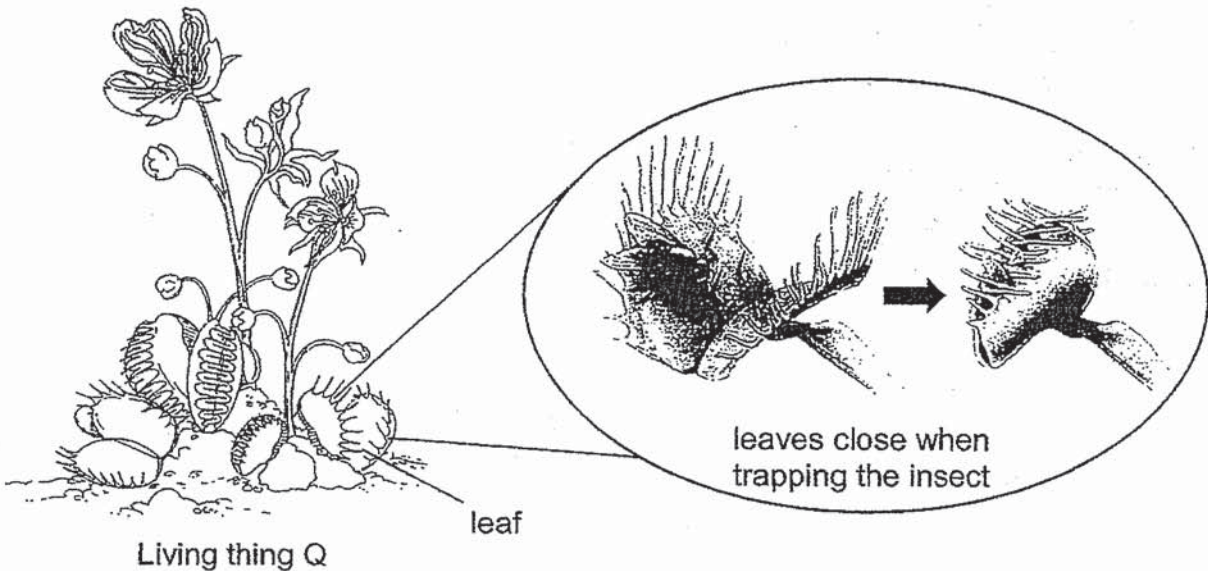
( )



3. Jeffrey observed living things P and Q.



**Living thing P catches and eats fish**



**Living thing Q uses its leaves to trap insects**



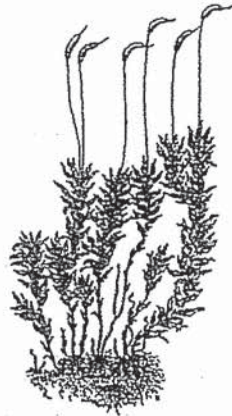

Based on the information given, which of the following characteristics **cannot** be observed?

- |   |  |
|---|--|
| A Both living things grow.              | B Both living things reproduce.          |
| C Both living things move on their own. | D Both living things respond to changes. |

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

( )

4. Study the following plants.

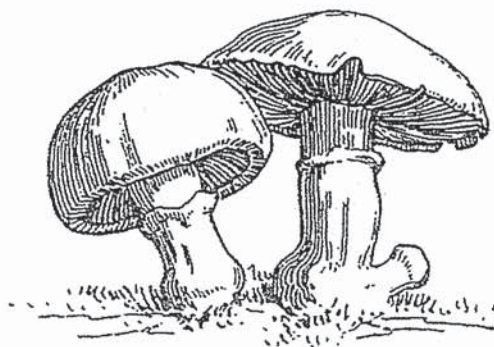
Group A		Group B	
			
orchid plant	strawberry plant	moss	fern

Which of the following is correct?

	Group A	Group B
(1)	Land plants	Water plants
(2)	Flowering plants	Non-flowering plants
(3)	Can make food	Cannot make food
(4)	Reproduce by spores	Reproduce by seeds

( )

5. The diagram shows some mushrooms.



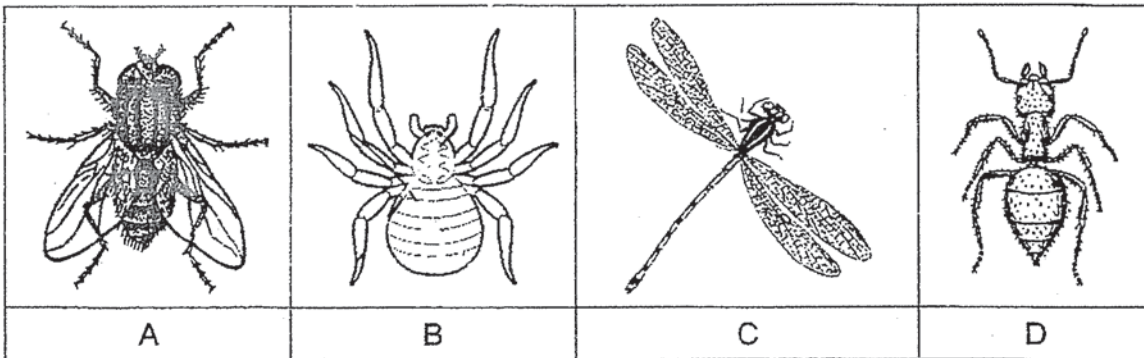
Which of the following is **not** a characteristic of a mushroom?

- (1) Makes its own food.
- (2) Responds to changes.
- (3) Reproduces by spores.
- (4) It needs air and water.

( )



6. Study the animals below.

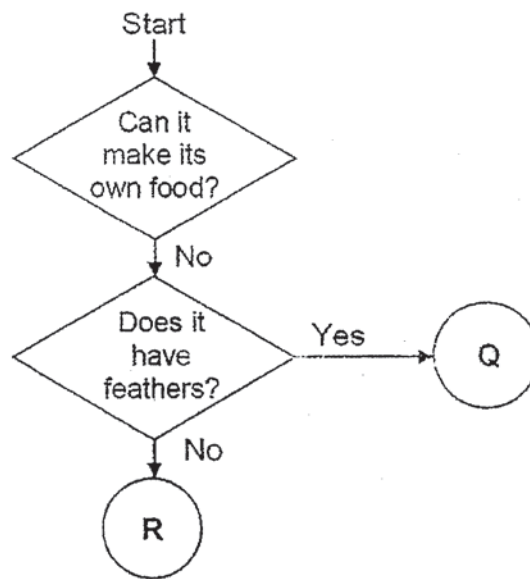


Which of the following are insects?

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

( )

7. Study the flowchart below.



Which of the following is correct?

- (1) R is a fern.
- (2) Q is a chicken.
- (3) R is a penguin.
- (4) Q is a snake.

( )



8. Which of the following statements about bacteria is / are correct?

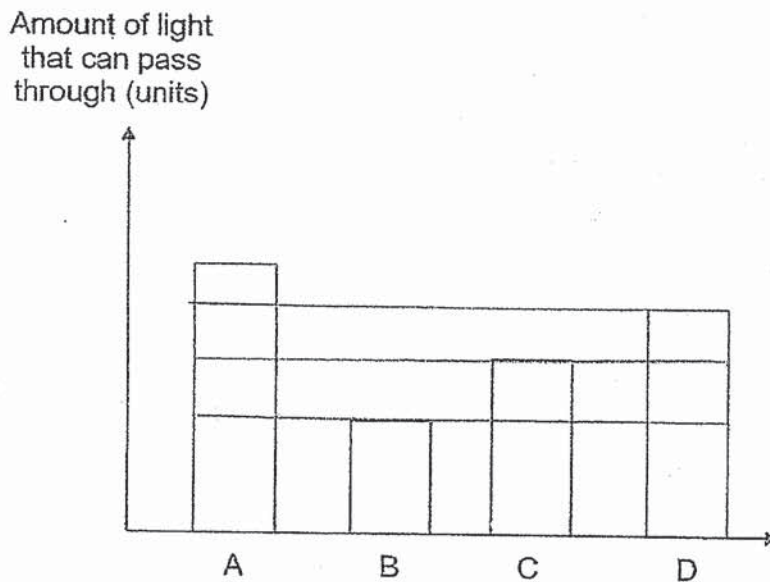
- A All bacteria are harmful.
- B Bacteria is a living thing.
- C Bacteria is a microorganism.

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

( )

9. Mrs Tan wants to sew a set of curtains for her bedroom.

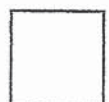
The graph below shows the amount of light that can pass through materials A, B, C and D.



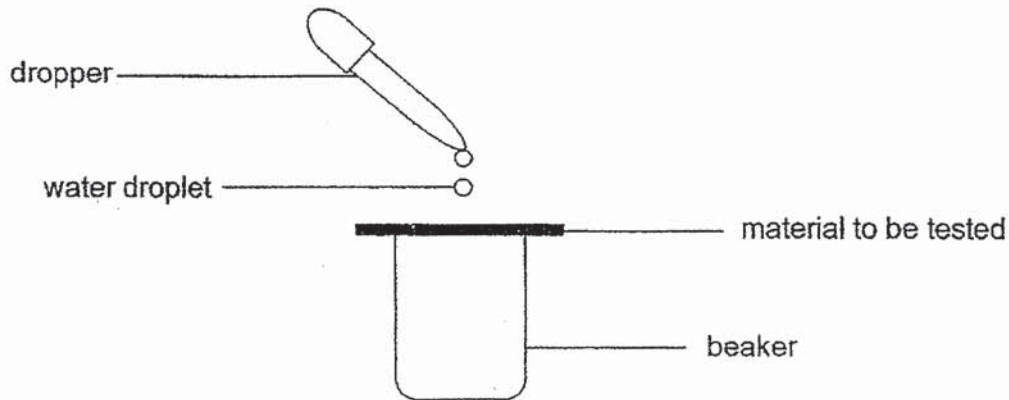
Which material should she choose for making the curtains to make her room the darkest?

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

( )



10. John carried out an experiment on materials X and Y. He placed five drops of water on each material and recorded his observations below.



Material	Observation
X	There were a few drops of water in the beaker.
Y	There was one drop of water in the beaker.

Based on the information above, what property of the materials, is John testing?

- (1) Strength
- (2) Flexibility
- (3) Waterproof
- (4) Ability to float or sink

( )

11. The table describes some materials based on the different properties observed.

	Material E	Material F	Material G	Material H
Waterproof	✓	✓	✓	
Strong	✓			✓
Floats on water			✓	
Light	✓	✓		✓

A tick (✓) indicates that the property is observed.

Which of the materials, E, F, G or H, is **most** suitable for making a grocery bag?

- (1) Material E
- (2) Material F
- (3) Material G
- (4) Material H

( )





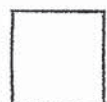
12. Study the classification table.

Group X	Group Y	Group Z
Towel	Textbook	Nail
T-shirt	Newspaper	Stapler


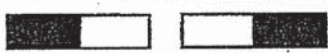


Which of the following objects can be classified under group Z?

- (1) key
- (2) string
- (3) socks
- (4) handkerchief

( - )



13. Four pairs of similar bar magnets were arranged in the following ways.

Set-up A	
Set-up B	
Set-up C	
Set-up D	

Which one of the following shows the correct results?

(1)

Set-up	Attracted	Repelled
A	✓	
B		✓
C		✓
D	✓	

(2)

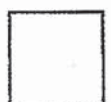
Set-up	Attracted	Repelled
A		✓
B	✓	
C	✓	
D		✓

(3)

Set-up	Attracted	Repelled
A	✓	
B		✓
C	✓	
D		✓

(4)

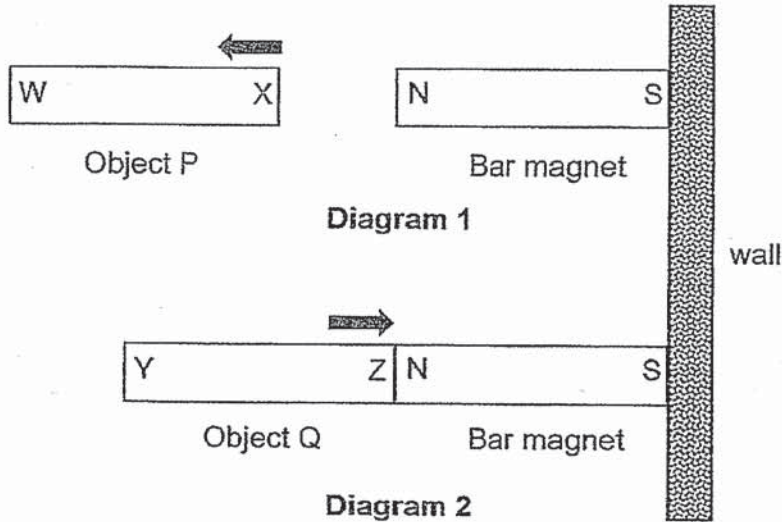
Set-up	Attracted	Repelled
A		✓
B	✓	
C		✓
D	✓	



14. A bar magnet is fixed to a wall.

When object P was placed near the bar magnet, it moved away as shown in diagram 1.

When object Q was placed near the bar magnet, it moved towards the magnet, as shown in diagram 2.



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

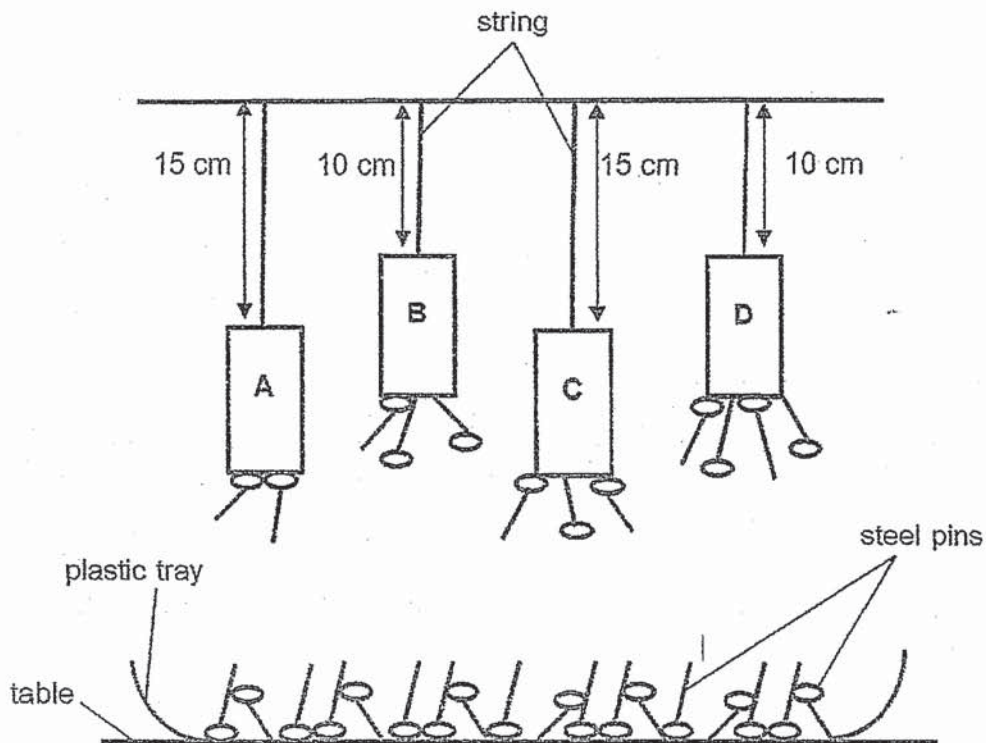
- A Object P is a magnet.
- B Object Q is a magnet.
- C Object P is made of a non-magnetic material.
- D Object Q is made of a magnetic material.

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

( )



15. Annette hung four magnets, A, B, C and D, above tray of identical steel pins. Her observation is shown in the diagram below.



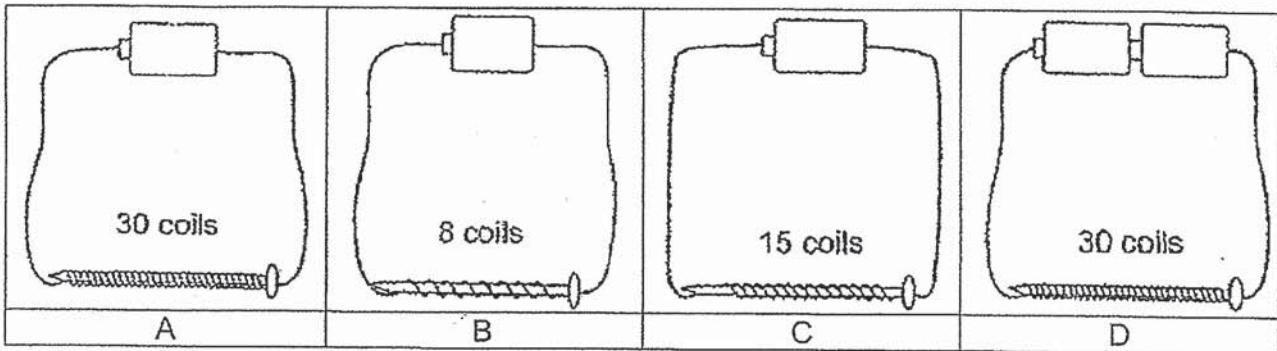
Based on the diagram given, which one of the following is correct?

	Strongest magnet	Weakest Magnet
(1)	B	A
(2)	B	C
(3)	D	A
(4)	D	C

( )



16. Mike had four sets of electromagnets, A, B, C and D, as shown below. Similar batteries, nails and wires were used in all the set-ups.



Which of the following electromagnets would attract the **most** number of steel paper clips?

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

( )

17. Insects **M**, **N**, **O** and **P** can be found on plant **H**. The table below shows the duration of each stage in the life cycle of the four insects.

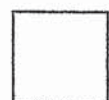
Insect	Egg	Larva	Pupa	Adult
M	6 days	25 days	17 days	At least 4 days
N	8 days	15 days	11 days	At least 1 week
O	6 days	21 days	12 days	At least 3 days
P	8 days	12 days	14 days	At least 5 days

The insects feed on the leaves of plant **H** during the larva stage.

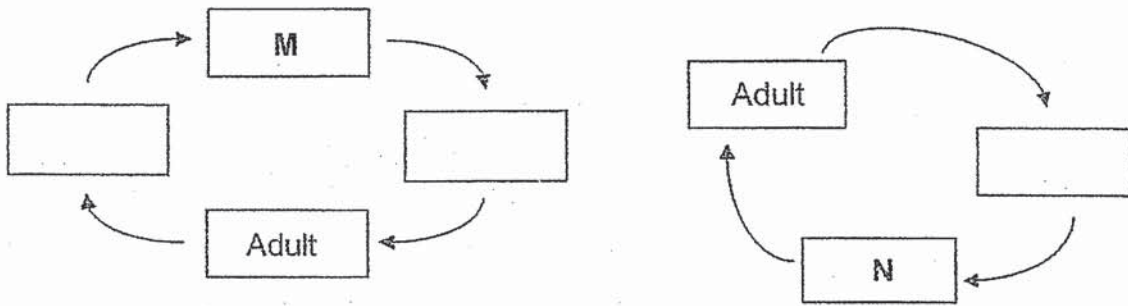
Based on the information given, which insect would cause the **most** damage to plant **H** during the larva stage?

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

( )



18. The diagrams show the life cycles of a frog and a beetle.

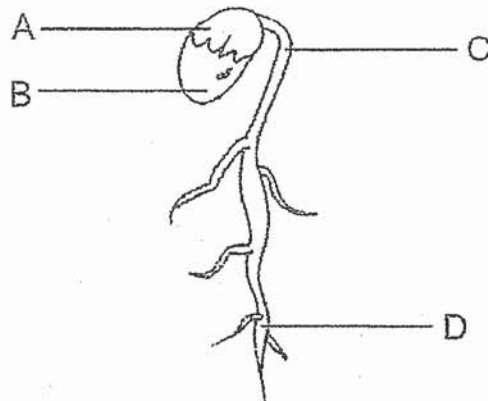


Both life cycles are **not** complete. Which of the following is correct?

	M	N
(1)	Tadpole	Egg
(2)	Larva	Nymph
(3)	Pupa	Tadpole
(4)	Larva	Young

( )

19. The diagram shows a young plant.



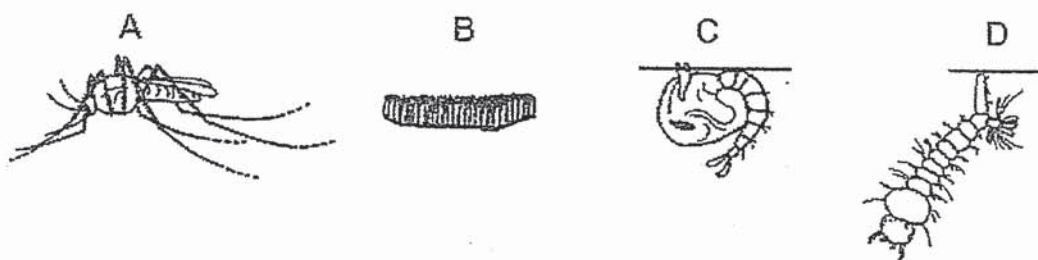
From which part, A, B, C or D, does the young plant get water from?

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

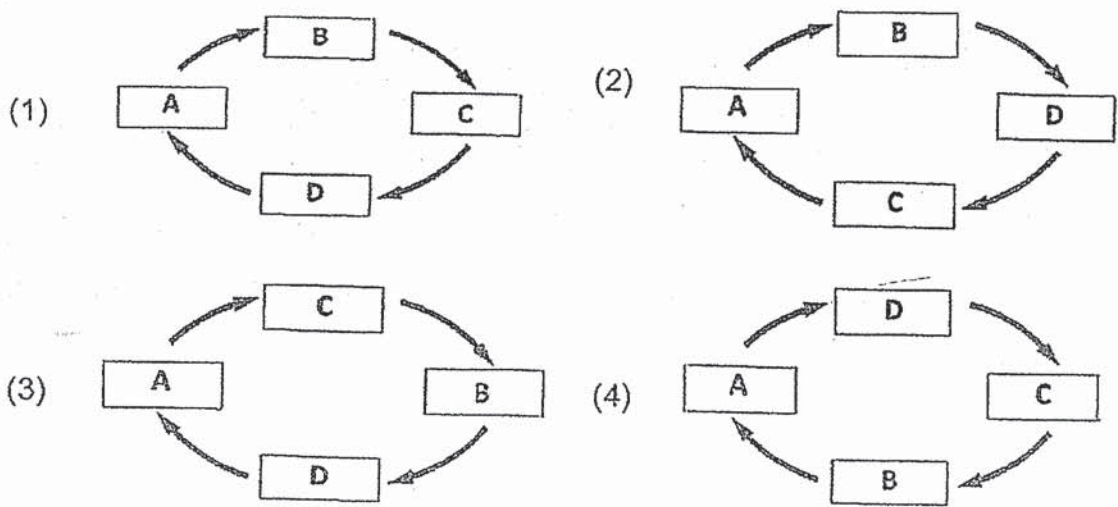
( )



20. A, B, C and D are the various stages in the life cycle of a mosquito.

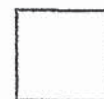


Which of the following correctly shows the life cycle of a mosquito?



( )

End of Section A





**HENRY PARK PRIMARY SCHOOL**  
**SECOND SEMESTRAL ASSESSMENT 2019**

**PRIMARY 3**

**SCIENCE**

**SECTION B & C (40 MARKS)**

**INSTRUCTIONS TO CANDIDATES**

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.

Name: \_\_\_\_\_ (    )

Class: Primary 3 (    )

Date: 2019

Total Time: 1 h 30 min

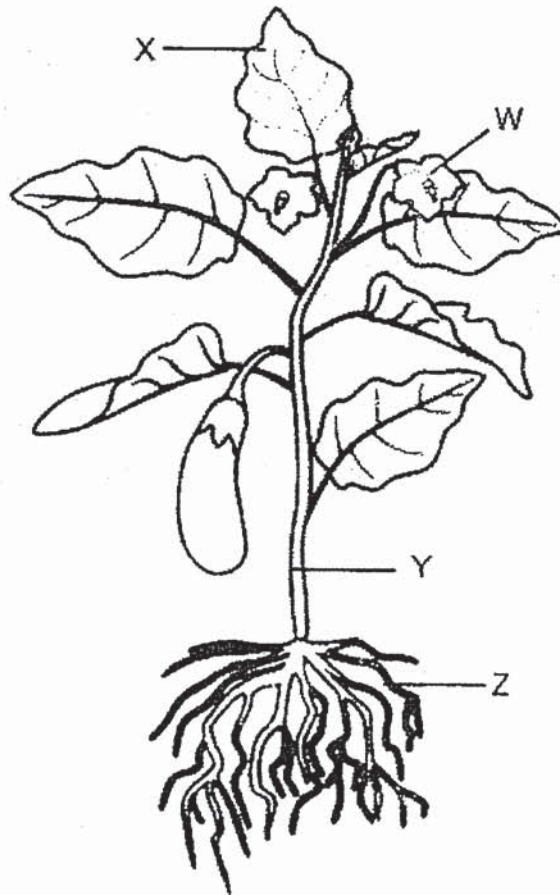
Marks for Sections B & C: \_\_\_\_\_



**Section B: (16 marks)**

Write your answers to questions 21 to 28 in the spaces given. Each question carries 2 marks.

21. The diagram below shows a plant.



Fill in the blanks using the correct words in the box.

stem	fruit	root
leaf	flower	soil

Name the following parts of the plant correctly.

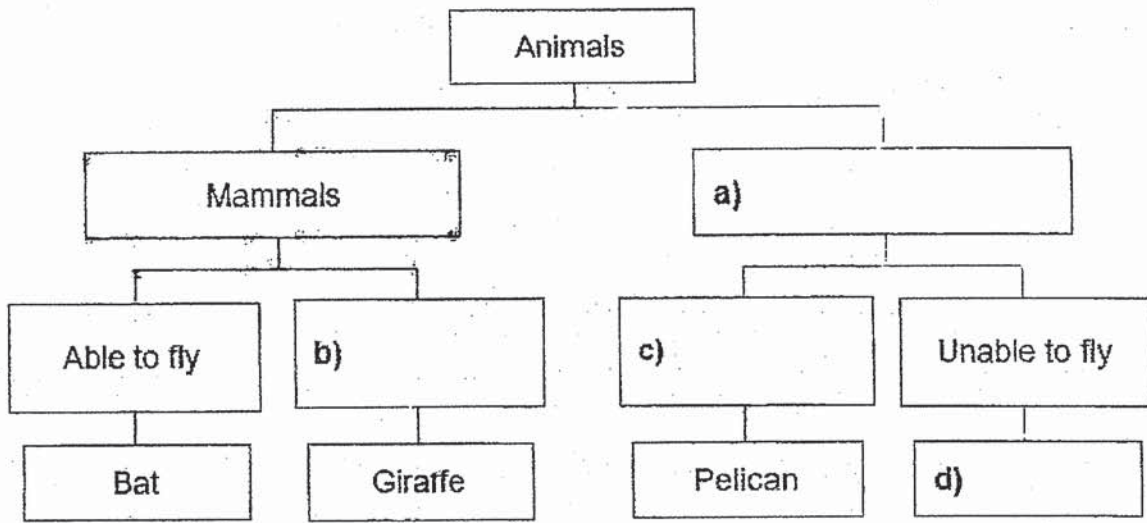
[2]

W: \_\_\_\_\_ Y: \_\_\_\_\_

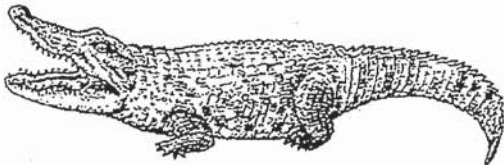
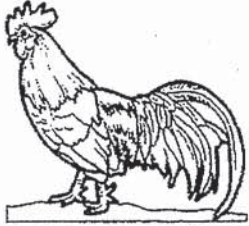
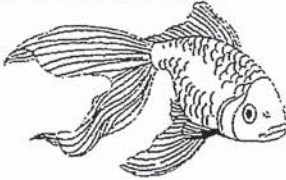

X: \_\_\_\_\_ Z: \_\_\_\_\_



22. The classification table below shows how some animals are classified. Fill in the boxes below with suitable headings for (a), (b), (c) and a suitable example for (d). [2]



23. Write the animal group that each animal belongs to. [2]

	Animal	Animal Group
a)		
b)		
c)		
d)		



24. Read the following statements. Write (T) if the statement is true and (F) if the statement is false in the boxes provided.

[2]

	Statements	T or F
a)	Yeast is a type of fungi.	
b)	All types of fungi are poisonous.	
c)	Fungi are non-flowering plants.	
d)	All types of fungi are microorganisms.	

25. Mei places a magnet near object U. She observed that object U does not move when the magnet is brought near it.



Choose the correct word from the box to answer the questions below.

[2]

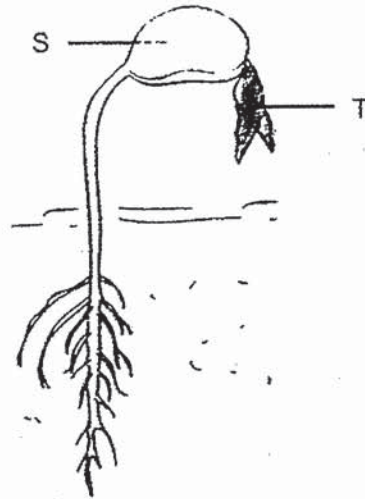
magnetic	steel	round	non-magnetic
----------	-------	-------	--------------

- a) Magnets are made of \_\_\_\_\_ material.
- b) Mei's observation shows that object U is made of \_\_\_\_\_ material.



26. The diagram below shows a young plant.

[2]

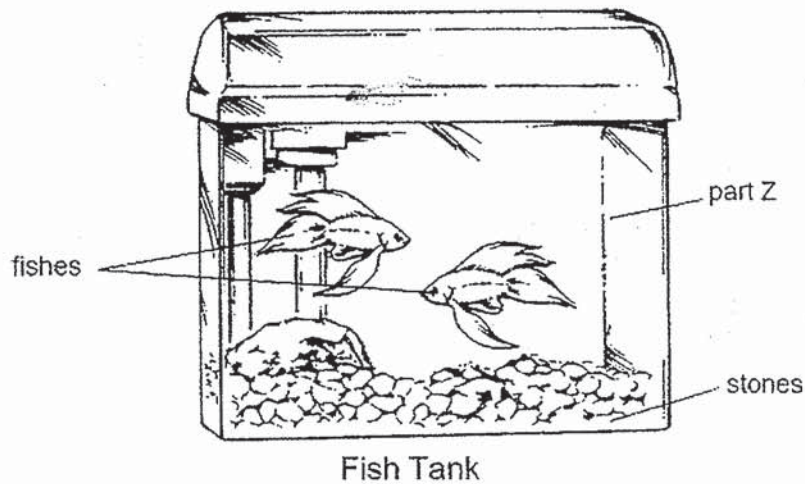


Fill in the blanks with the correct parts **S** or **T**.

a) Provides the young plant with food while it is growing.

b) Makes food for the plant when the plant grows bigger.

27. Study the diagram shown below.

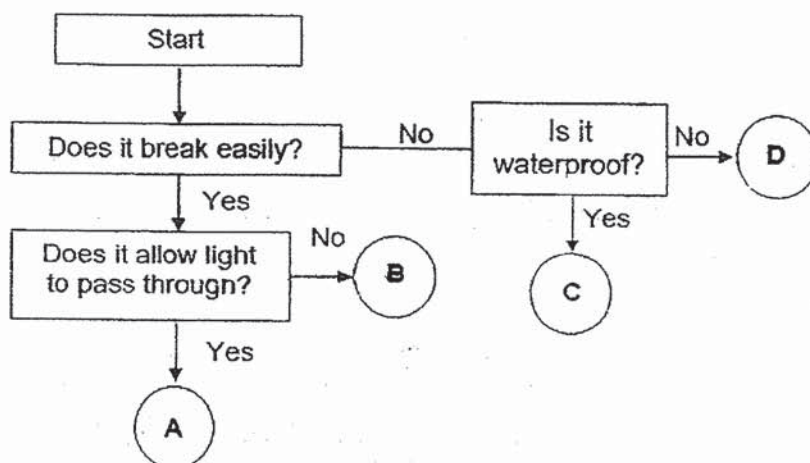


a) Name the material that part Z is made of. \_\_\_\_\_ [1]

b) Write down one useful property of the material used to make part Z of the fish tank. [1]

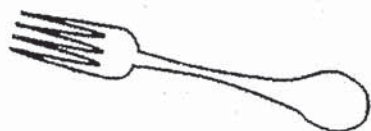
\_\_\_\_\_

28. Study the flow chart shown below.



Classify the two objects given below into groups A, B, C or D correctly.

[2]

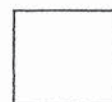


steel fork



glass

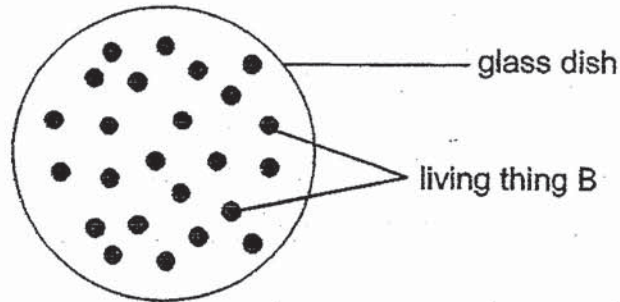
**End of Section B**



**Section C: 24 marks**

Write your answers to questions 29 to 35 in the spaces given. Each question carries 2 to 4 marks.

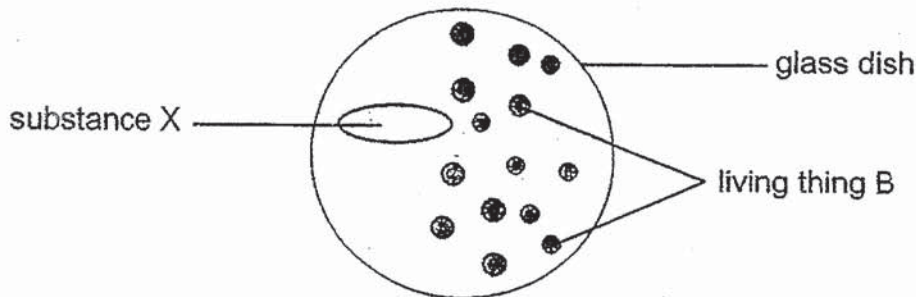
29. Dr Carl was carrying out a research on living thing B. He placed living thing B on a glass dish, as shown below.



**Day 1**

Dr Carl placed the glass dish in a closed cupboard and observed living thing B for 6 days. He added **substance X** to the glass dish on Day 5.

The diagram below shows what Dr Carl observed on Day 6.



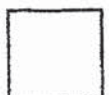
**Day 6**

Based on the diagrams given, state two characteristics of living things that could be observed in living thing B over the 6 days.

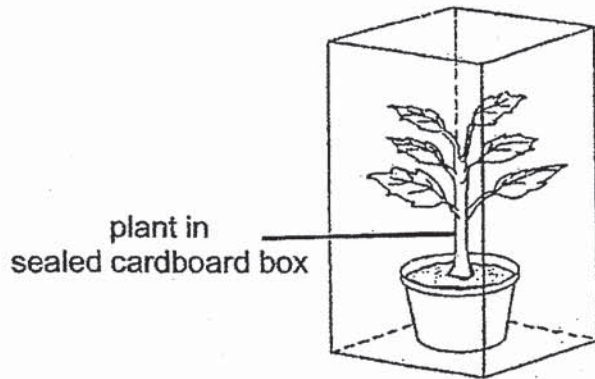
[2]

Characteristic 1 - \_\_\_\_\_

Characteristic 2 - \_\_\_\_\_

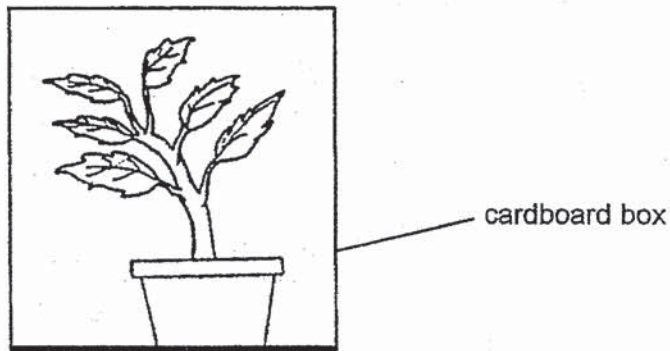


30. Ravi carried out an experiment to see how plants respond to light. He watered a potted plant before leaving it a sealed cardboard box as shown in the diagram below.

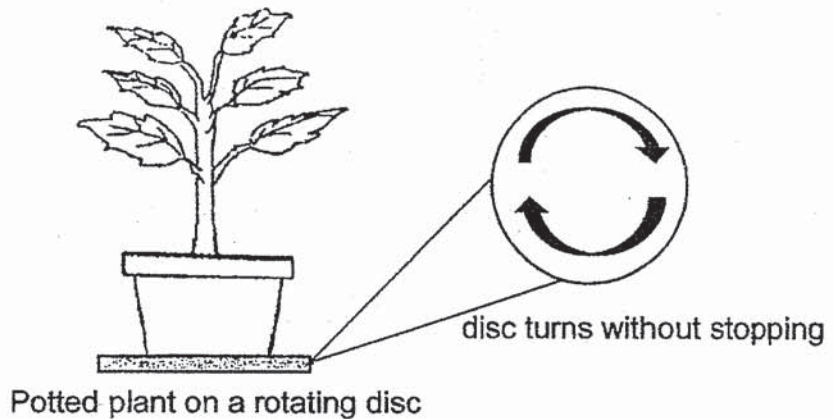


Ravi then made a hole in the cardboard box and placed it near the window. After a few days, he observed that the plant grew towards one side of the box.

- a) On the diagram below, draw a 'X' to show the position of the hole made by Ravi. [1]

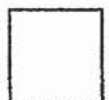


Ravi conducted another experiment using a similar plant and a cardboard box with a hole. He placed the potted plant on a rotating disc as shown in the diagram below.

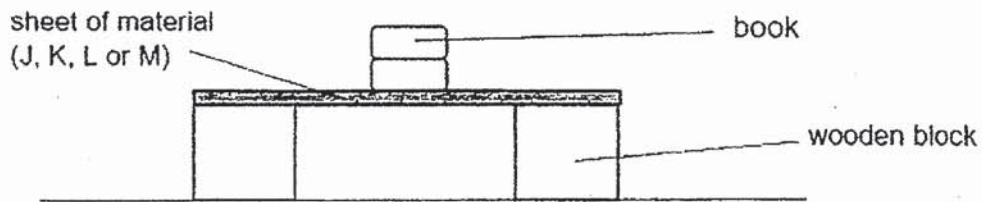


He placed the plant with the rotating disc inside the cardboard box with the hole. The disc turns without stopping.

- b) After a few days, he observed that the plant grew upright. Explain why. [2]



31. Jean wanted to carry out an experiment using different types of material, J, K, L and M. She placed some books on each material to see how many books it can hold before breaking.



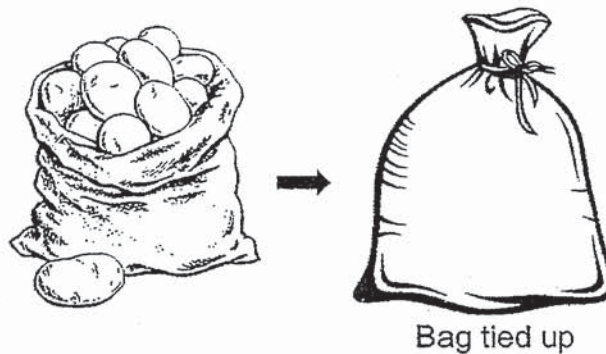
The table below shows the results of her experiment.

Material	Number of books it can hold before breaking
J	20
K	8
L	26
M	14

- a) What property was Jean testing the materials for?

[1]

Jean used one of the materials to make a bag to carry potatoes and onions. Each bag would be used to carry 10 kg of potatoes or onions.



- b) Which material, J, K, L or M did Jean use? Explain your answer.

[2]

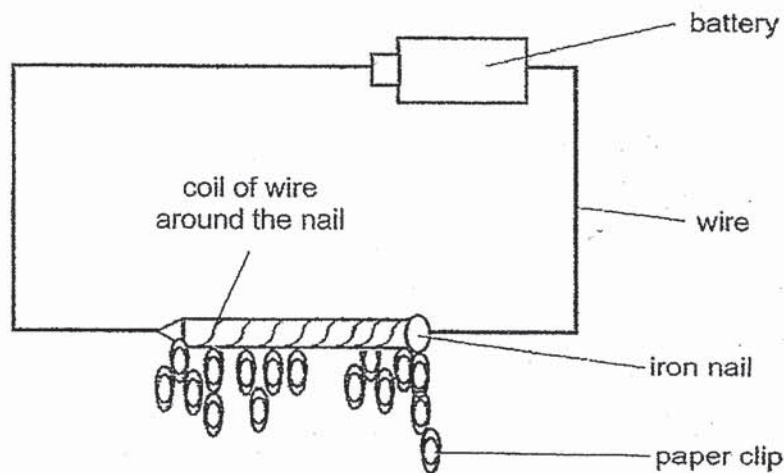
- c) Jean noticed that after the bags were tied up, she could not identify what was in each bag. Explain why.

[1]





32. Ray set up the following experiment to see how the number of coils affect the number of paper clips the iron nail can attract.



He recorded the results in the table below.

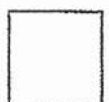
Number of coils around the iron nail	Number of paper clips attracted
8	4
10	5
14	8
18	12

- a) Based on the experiment, what happened to the number of paper clips attracted when the number of coils around the iron nail increased? [1]

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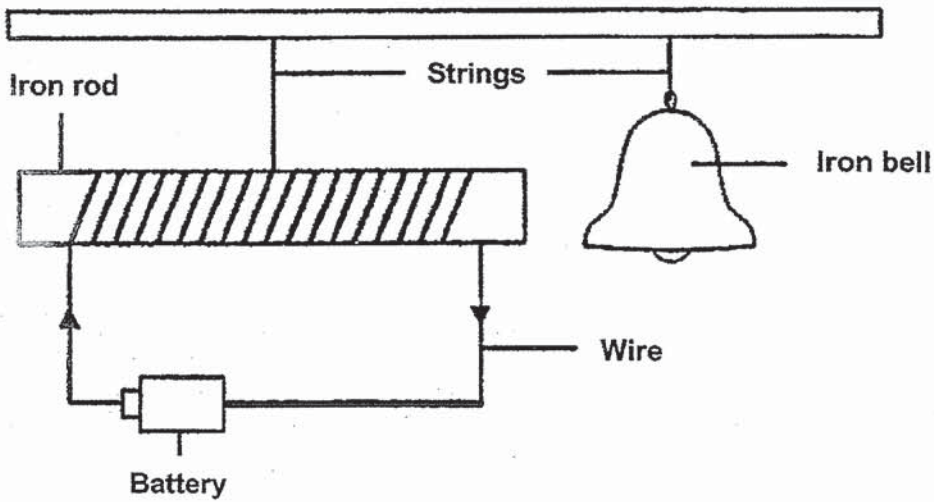
- b) Other than increasing the number of coils around the iron nail, state **another** way to increase the number of paper clips attracted. [1]

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**Question 32 continued**

Ray set up another experiment as shown below.



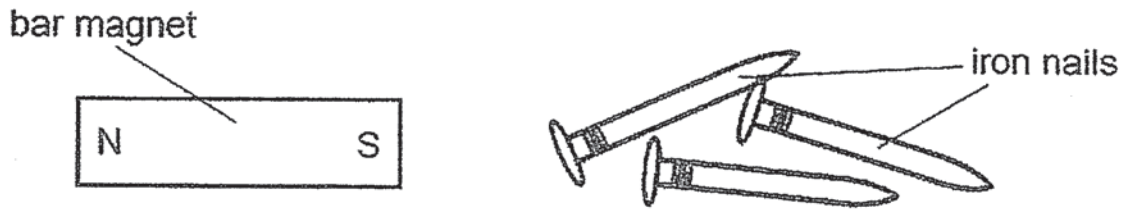
- c) Describe what happens to the following objects in this set-up when the battery is connected to the wire. [2]

Iron rod - \_\_\_\_\_  
\_\_\_\_\_

Iron bell - \_\_\_\_\_  
\_\_\_\_\_



33. Devi has a bar magnet and some iron nails. She wanted to make some temporary magnets out of the iron nail using the stroking method.



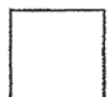
- a) Put a tick (✓) in the box that shows the correct way of stroking the iron nail. [1]

Method 1	Method 2	Method 3
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

After stroking, Devi brought the iron nail near a box of different type of pins. She observed and recorded number of pins in the box that were attracted to different parts of the iron nail.

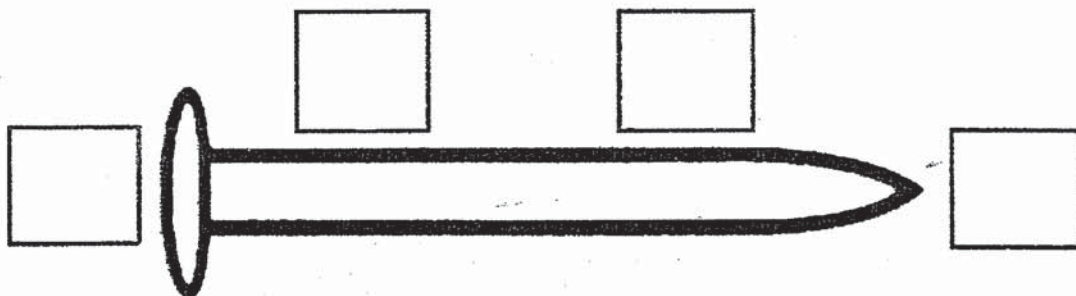
The table below shows her observations.

Part	Number of pins attracted to the iron nail
D	17
E	2
F	17
G	4



**Question 33 continued**

- b) Based on the results given in the table, label the different parts of the iron nail with **D**, **E**, **F** and **G**. [2]



- c) Devi also noticed that **some** pins in the box were **not** attracted to the iron nail.

Give a reason for Devi's observation.

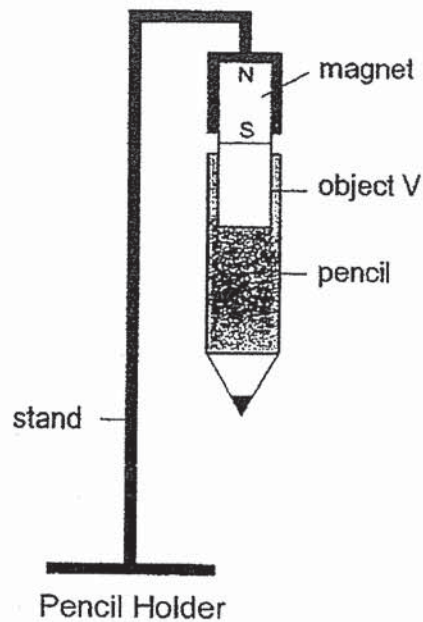
[1]

---

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34. Lily bought a pencil holder, as shown below. The pencil is kept hanging from the stand by a magnet.



- a) What could object V most likely be made of? Give a reason for your answer. [2]

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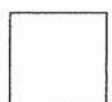
Lily bought another pencil holder. However, the pencil kept falling off after a short time.

She compared and observed that both pencil holders were similar, so she concluded that the magnet in the new pencil holder is weak.

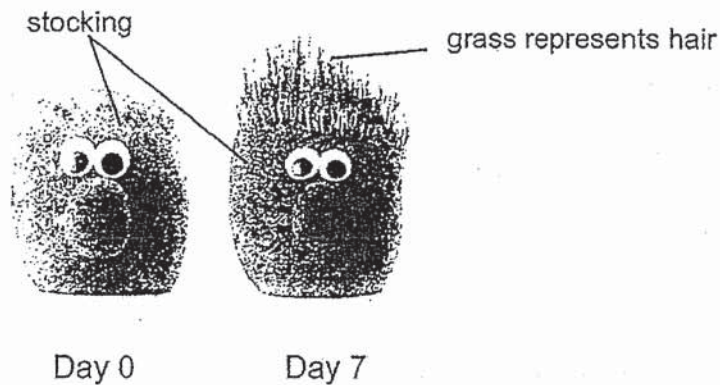
- b) Do you agree with Lily? Explain your answer. [1]

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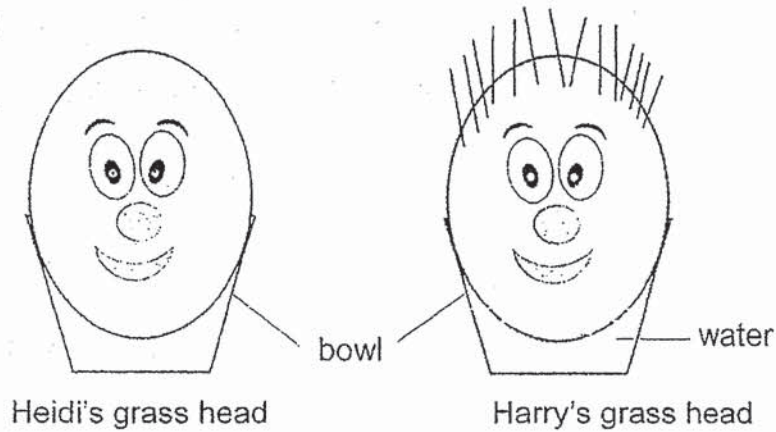
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35. Grass heads, shown below, are a form of gardening project. Each head comprises of soil and seeds inside a piece of stocking. After some time, the grass will start growing out of the stocking representing hair.



Heidi and Harry were each given a grass head as presents. After a week, Heidi's grass head did not grow any "hair" while Harry's grass head did as shown below.



- a) Based on the diagram above, what could be a possible reason why Heidi's grass head did **not** grow any hair? [1]
- 
- 
- b) Why is your answer in (a) important for Heidi's grass head to grow hair? [1]
- 
- c) Explain why the grass hair growing on the head is likely to be a flowering plant. [1]
- 
- d) Which stage of the life cycle of the plant does the grass hair represent? [1]
- 

End of Section C





# ANSWER KEY

YEAR : 2019  
LEVEL : PRIMARY 3  
SCHOOL : HENRY PARK PRIMARY SCHOOL  
SUBJECT : SCIENCE  
TERM : SECOND SEMESTRAL ASSESSMENT

## BOOKLET A

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

## BOOKLET B

Q21 W: Flower

Y: Stem

X: Leaf

Z: Root

Q22 a) Birds

b) Unable to fly

c) Able to fly

d) In

Q23 a) Reptile

b) Bird

c) Fish

d) Mammal

Q24 a) T

b) F



c)F

d)F

Q25 a)magnetic material

b)non-magnetic material

Q26 a)S

b)T

Q27 a)glass

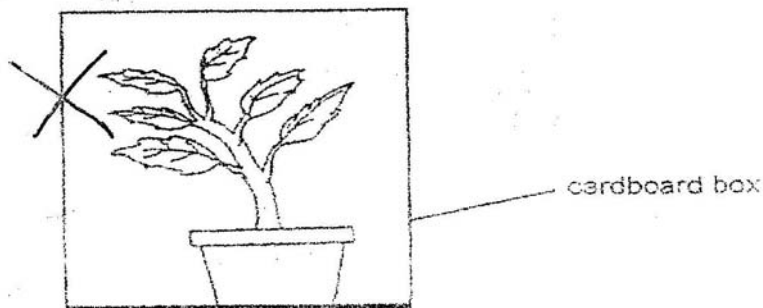
b)waterproof

Q28 C, A

Q29 1-Living things can grow

2-Living things die

Q30 a)



b)The plant is turning and all parts of the plant are receiving sunlight.

Q31 a)strength

b)Lit can hold the most number of of books before. Thus, it is the strongest and ca used to carry 10 kg of poataos or onions

c)The opaque and cannot be seen through.

Q32 a)When Ray coiled more coils ground the iron nail, the strength increased.

*number of paper clips attracted increased.*

b)Increase the number of batteries

c)Iron-rod-It will ~~become more magnetic than usual.~~ magnetise.

Iron bell-The iron bell will be attracted to the iron rod.

Q33 a)Method 3

b)F G E P

c)The pins were made of non-magnetic material.

Q34 a) V could be most likely be made of a magnetic material. All magnetic materials can be attracted.

b) Yes, object V could only attracted and to the magnetic for a short time.

Q35 a) Heidi did not water the grass head

b) All living thing need water to grow.

c) Grass grew from seeds, *and not spores.*

d) Seedling

3  
2/12