HENRY PARK PRIMARY SCHOOL
2013 SEMESTRAL EXAMINATION 2
SCIENCE
PRIMARY 3

Duration of Paper: 1 h 30 min

80

Name:_____ ( ) Parent's Signature

Class: Primary 3 _____ _____

Section A: Multiple-Choice Questions (20 X 2 = 40marks)

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. Ali quickly pulled his hands away when he touched a hot kettle.
This shows that living things _____.

(1) reproduce
(2) respond to changes
(3) hunt for food to survive
(4) move around by themselves ( )

2. The table below shows the characteristics of organisms A, B, C and D.

Characteristics	Organisms			
	A	B	C	D
Need air, food and water	√	√	√	√
Can move from one place to another place on their own	√	X	X	√
Hunt for food	√	X	√	√

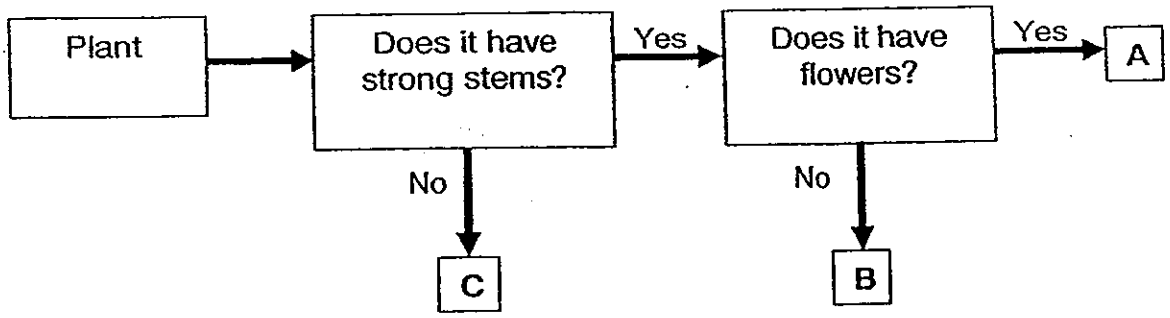
Which one of the following organisms has **similar** characteristics to a plant ?

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

( )

The flow chart below shows the characteristics of plant A, B and C.

Answer **Questions 3** and **4** based on the flow chart below.



3. Which one of the following is **Organism C** most likely to be?

(1)

(2)

(3)

(4)

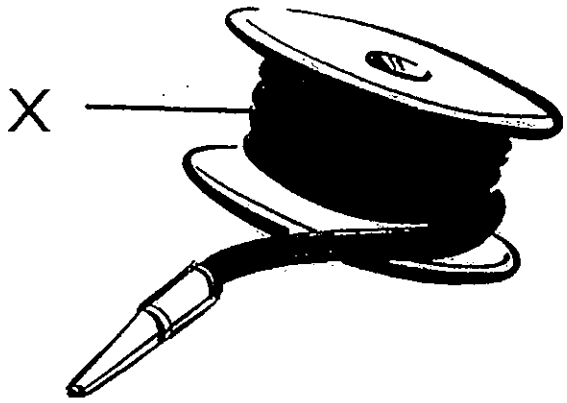
( )

4. Which one of the organisms from the flowchart is likely to be a rose plant?
   (1) A
   (2) B
   (3) C
   (4) None of the above

( )

5. Part X of a garden hose can only work properly if the materials used are _____.

(A) hard
(B) flexible
(C) strong



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

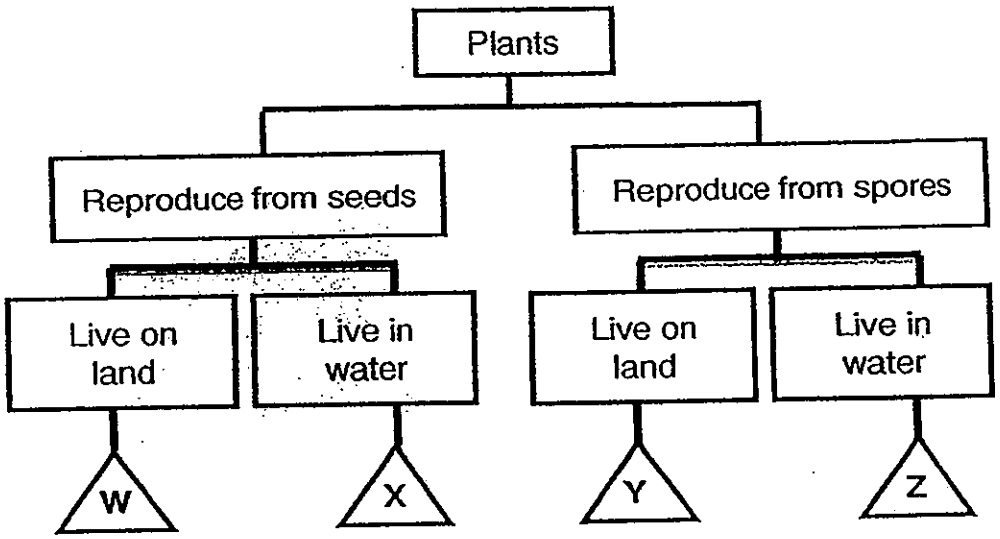
6. Which of the following is true about bread mould?

(A) It makes its own food.
(B) It reproduces by spores.
(C) It can move from place to place.
(D) It needs a lot of moisture to grow.

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

The classification chart below shows the characteristics of Plants W, X, Y and Z.

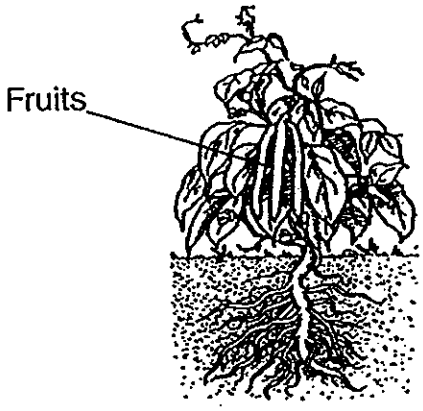
Answer **Questions 7** and **8** based on the classification chart below.



7. Which one of the following plants are flowering plants?
   (1) W and X
   (2) X and Y
   (3) Y and Z
   (4) Z and W

( )

8. Lela saw plant A below in her school garden.

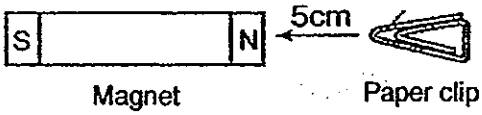


Plant A

Which plant, W, X, Y or Z can plant A be grouped with?
(1) W
(2) X
(3) Y
(4) Z

( )

9. Bella brought a magnet near a metal paper clip. She observed that the paper clip was attracted to the magnet when it was 5 cm away.



Based on her observation, which one of the following conclusions can Bella make?

(1) Magnetic force can act at a distance.
(2) The North pole of a magnet is the strongest.
(3) The paper clip is made of a non-magnetic material.
(4) Only the North pole of a magnet can attract a magnetic object at a distance. ( )

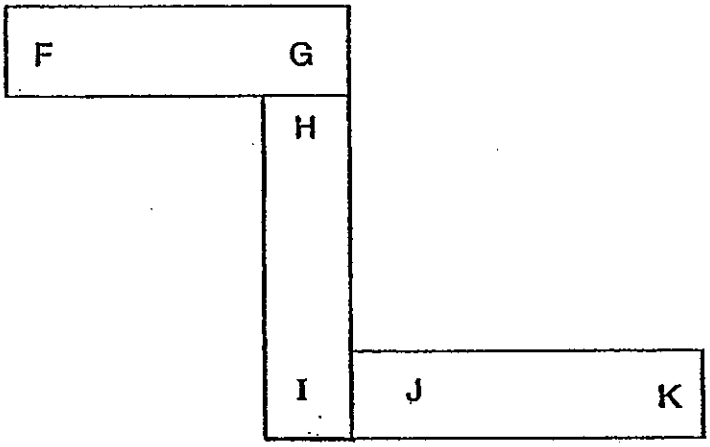
10. The table below shows the number of paper clips that are attracted to the different parts of a bar magnet.

Parts of a bar magnet	Number of paper clips attracted
A	10
B	5
C	3
D	15

Which one of the following represents the poles of the bar magnet?

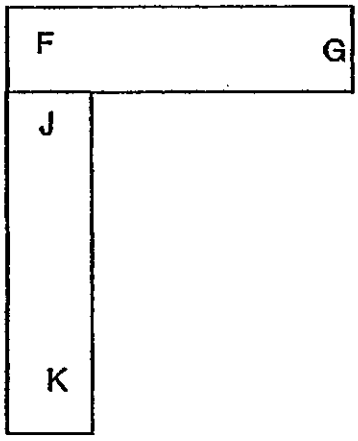
(1) A and B only
(2) A and D only
(3) B and C only
(4) C and D only ( )

11. Three bar magnets with their ends marked **F** to **K** were arranged as shown below.

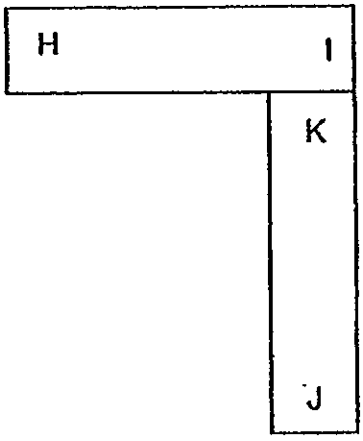


Which one of the following shows a possible arrangement of two of the magnets?

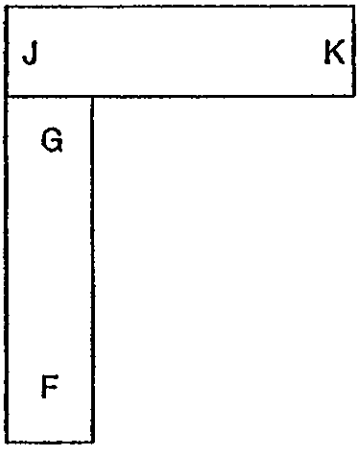
(1)



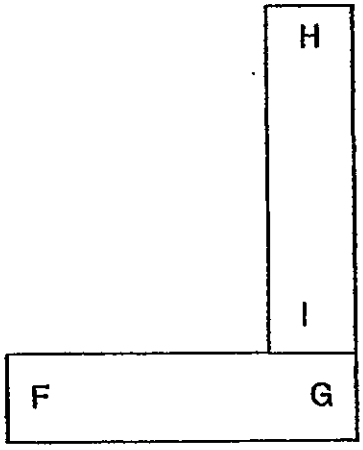
(2)



(3)

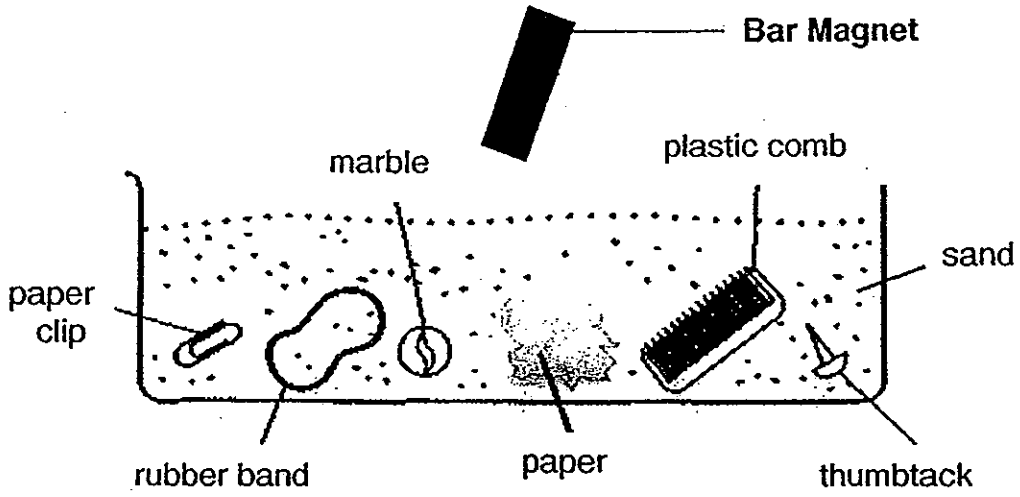


(4)



( )

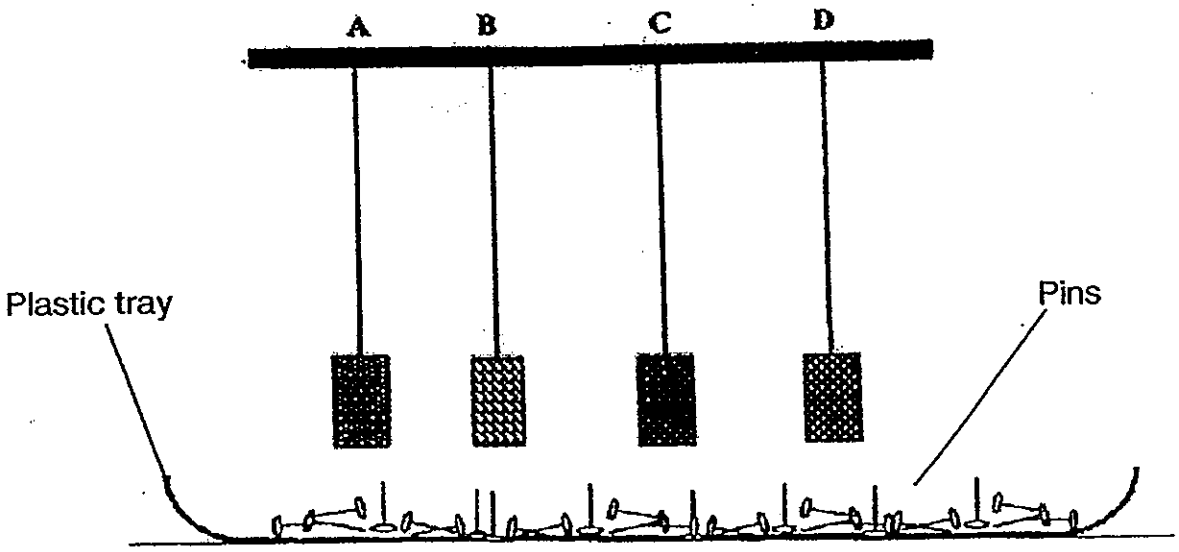
12. Rosy wanted to take out some of the things in a box filled with sand with a bar magnet as shown below.



Which objects will be taken out from the box without the magnet touching the sand?

(1) Marble
(2) Paper clip
(3) Plastic comb
(4) Rubber band ( )

13. Caleb did an experiment to find out the strength of four magnets, **A, B, C** and **D** as shown in the diagram below.
He tied the magnets with strings of the same lengths and hung them above a tray of pins.



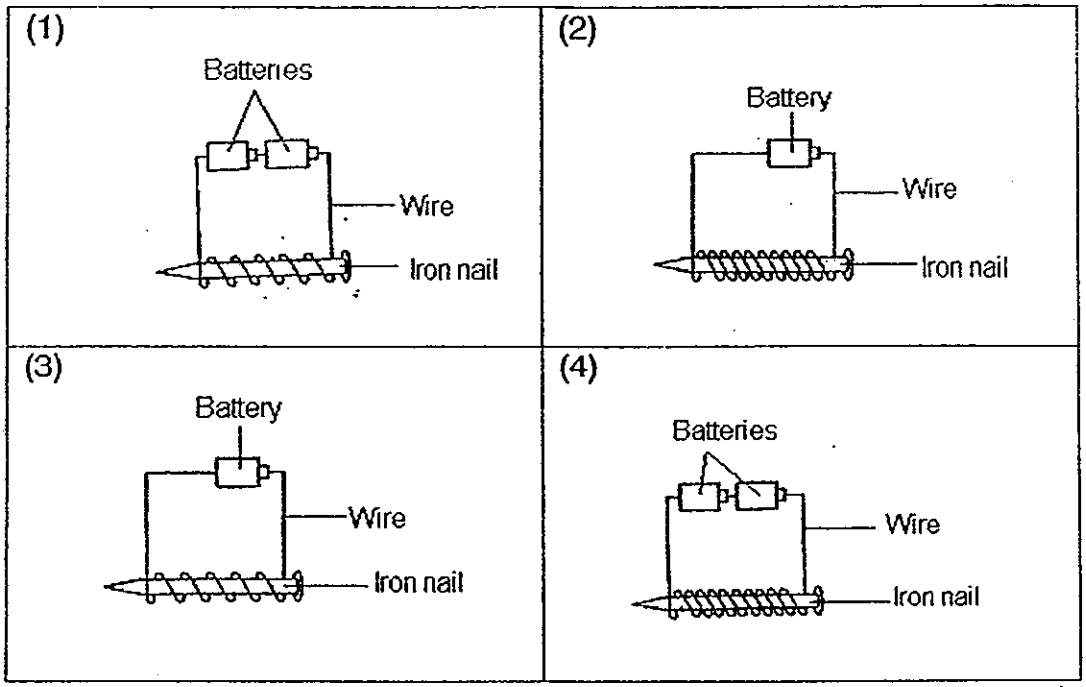
He then recorded his findings as shown in the following table.

Magnet	Number of pins attracted
A	20
B	7
C	20
D	18

Based on Caleb's experiment, which one of the following statements is true?

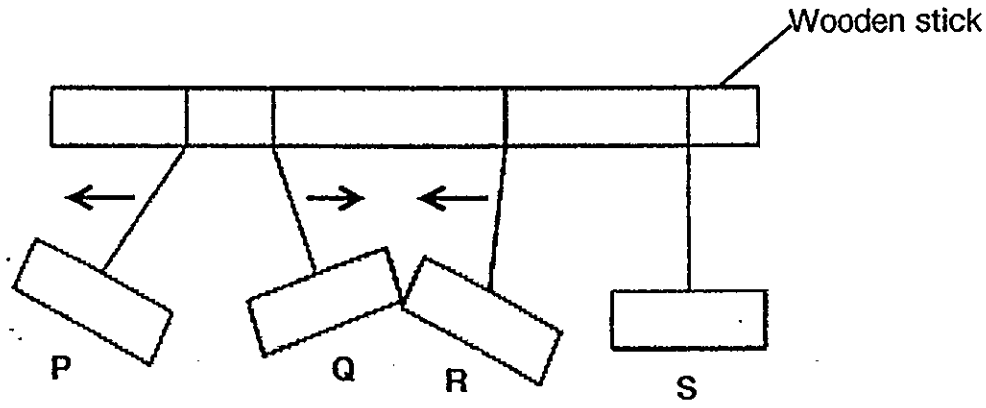
(1) Magnet B is the weakest magnet.
(2) Magnet C is the strongest magnet.
(3) Magnet D is as strong as magnet A.
(4) Magnet D is stronger than Magnets A and C. ( )

14. Which magnetised iron nail in the following set-ups will attract the **most** number of paper clips?



( )

15. Ivan hung four metal bars, **P**, **Q**, **R** and **S** from a piece of wooden stick. They moved in different directions as shown in the diagram below.



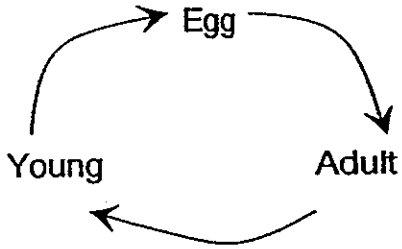
Two of the metal bars are magnets. Which two metal bars, P, Q, R or S are most likely to be magnets?

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

( )

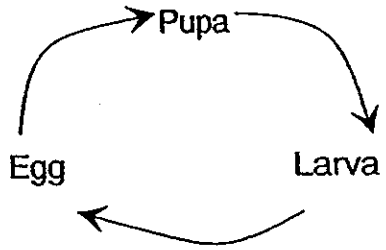
16. Alice was asked to draw and label a three-stage life cycle of an animal.
She drew 4 different life cycles as shown below.
Which one of the life cycles is correct?

(1)



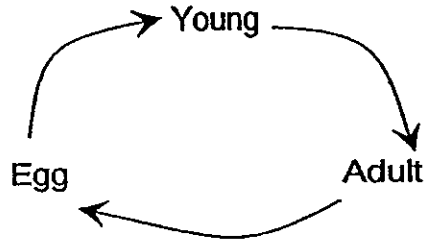
Life Cycle A

(2)



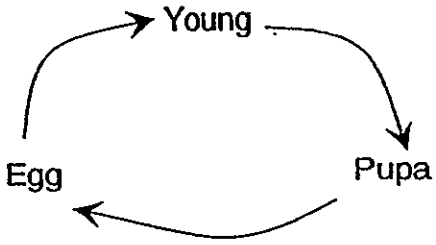
Life Cycle B

(3)



Life Cycle C

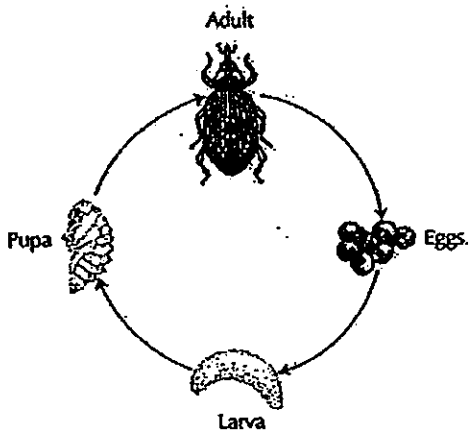
(4)



Life Cycle D

( )

17. The diagram below shows the life cycle of animal P.



Life cycle of Animal P

Which one of the following animals has a similar life cycle to animal P?

(1) Chicken
(2) Butterfly
(3) Cockroach
(4) Grasshopper

( )

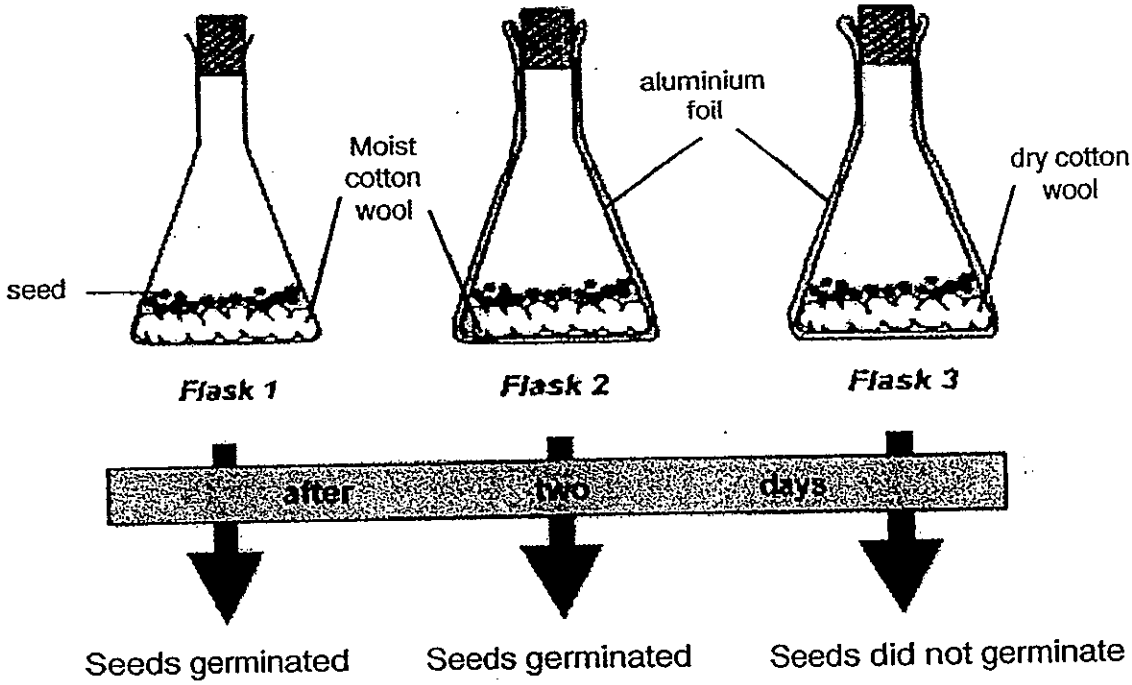
18. The table below shows what a pupil had observed at each stage of growth in the life cycle of an insect.

Date	Development at each stage	Amount of food taken
13 July	Eggs were laid in water.	0g
17 July	Eggs hatched into larvae.	50g
26 July	Larvae became pupae.	0g
1 August	Pupae became adult insects.	47g

Based **only** on the information in the table above, which statement(s) is/are true?

(1) The young resemble the adult insects.
(2) The pupae ate more food than the larvae.
(3) The larvae do not need to take in any food.
(4) There are 4 stages in the life cycle of this insect. ( )

19. Sam carried out an experiment with some seeds in 3 different conditions as shown by the 3 set ups below.



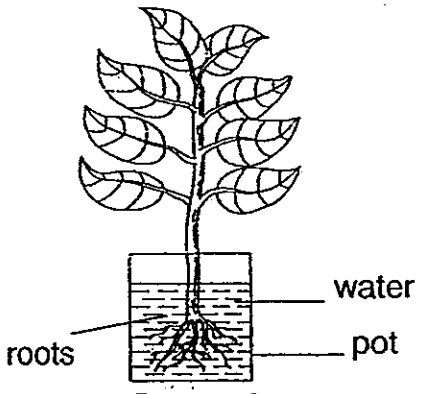
Flask 2 and 3 were covered with aluminium foil to prevent sunlight from reaching the seeds.

What is the correct conclusion Sam can make from this experiment?

(1) The seeds are non-living things.
(2) The seeds need light to germinate.
(3) The seeds need water to germinate.
(4) The seeds can germinate without water. ( )

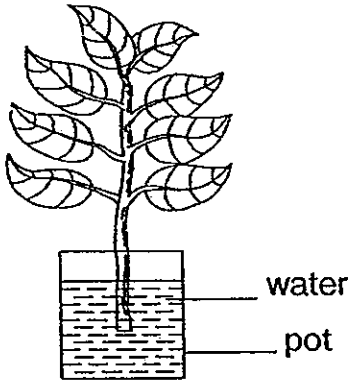
20. Fred wanted to find out if the number of leaves would affect the amount of water taken in by the plant. Which two set-ups should he use?

(1)



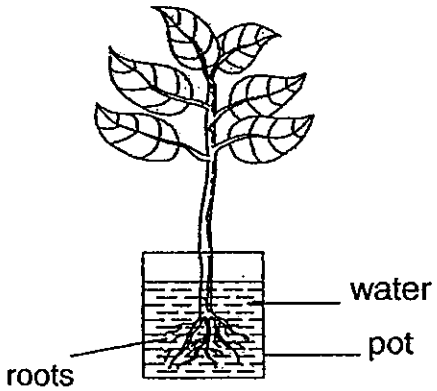
Set-up A

(2)



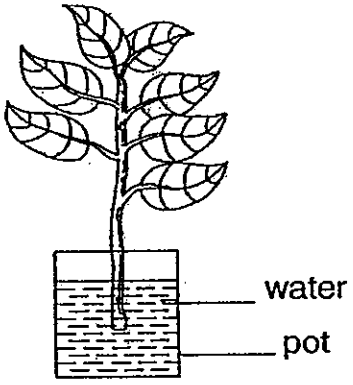
Set-up B

(3)



Set-up C

(4)



Set-up D

(1) Set-ups A and B

(2) Set-ups A and C

(3) Set-ups B and C

(4) Set-ups C and D ( )

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Section B: Structured Questions (6 x 2 marks)

21. Write your answers to questions 21 to 26 in the spaces given.

Figure 1 shows different kinds of beads used to make bracelets.

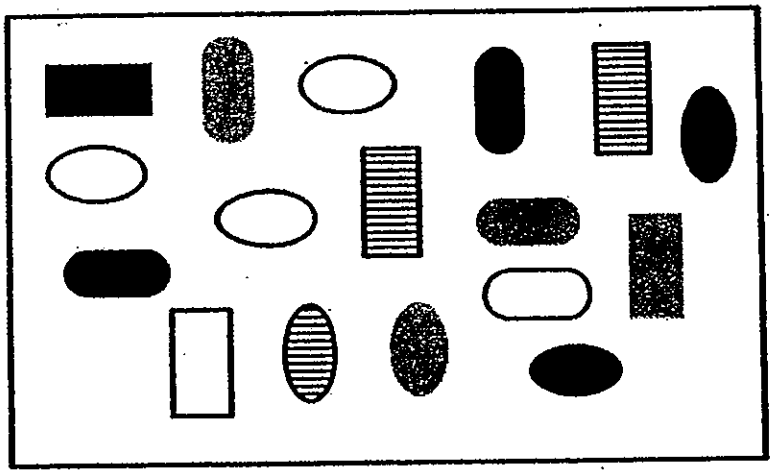


Figure 1

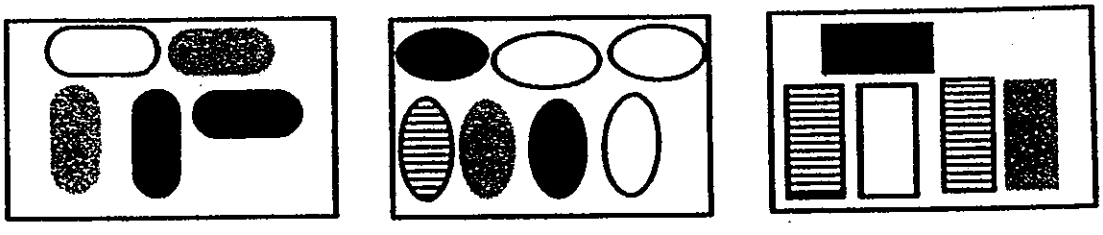
a) Based on Figure 1 above, how can the beads be classified into 4 **groups only** ? Tick (√) the correct answer. *(1m)*

☐ Size

☐ Shape

☐ Colour

b)



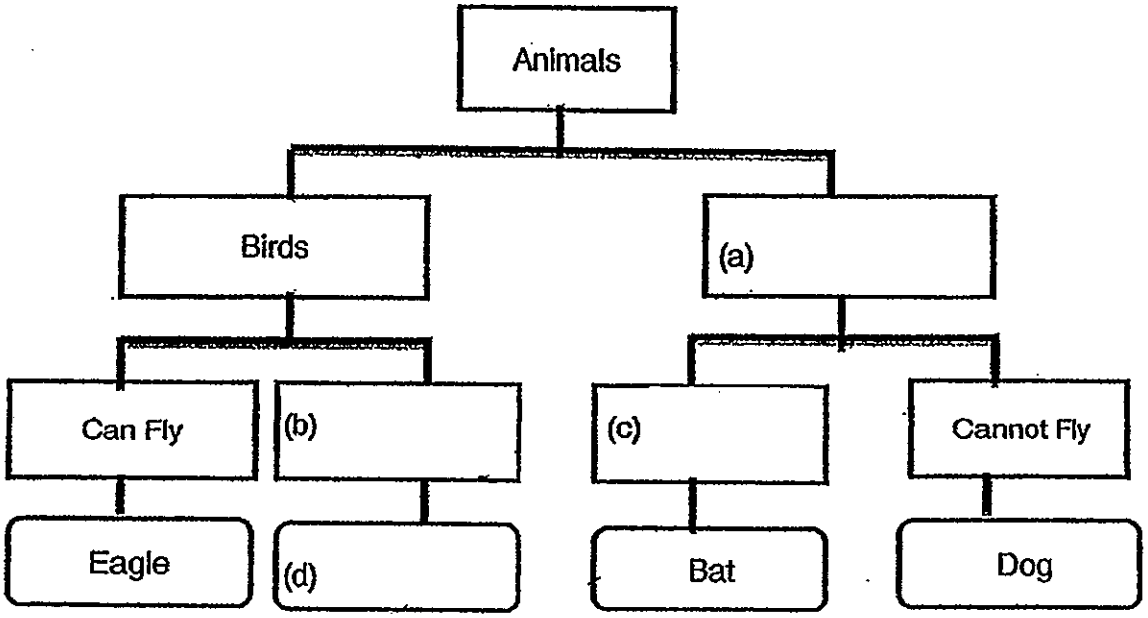
How are the beads grouped as shown above? *(1m)*

_____

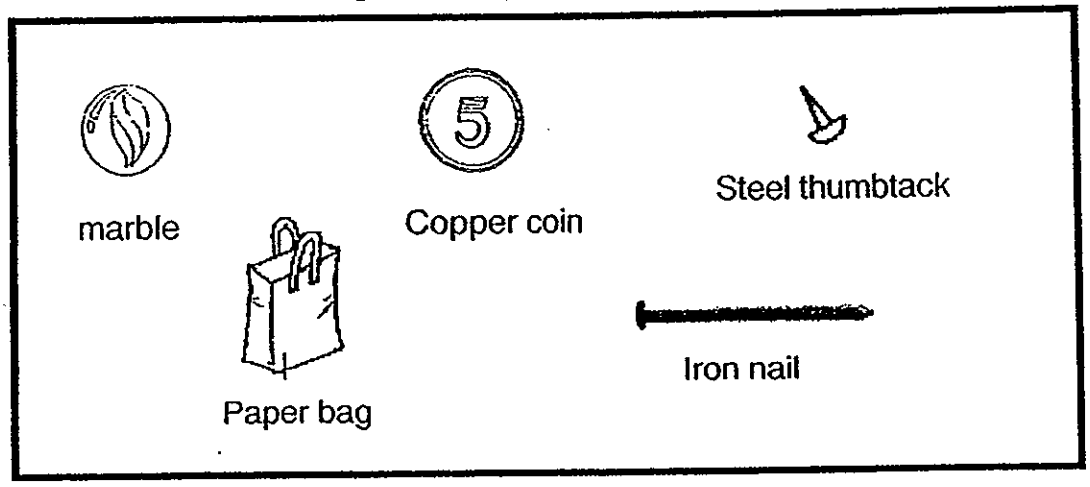
22. **Circle** True or False for each statement. (2m)

a) Bacteria can be in different shapes and sizes.	True	False
b) Bacteria are not useful to us.	True	False
c) Bacteria can be seen only under the microscope.	True	False
d) Bacteria cannot survive without air.	True	False

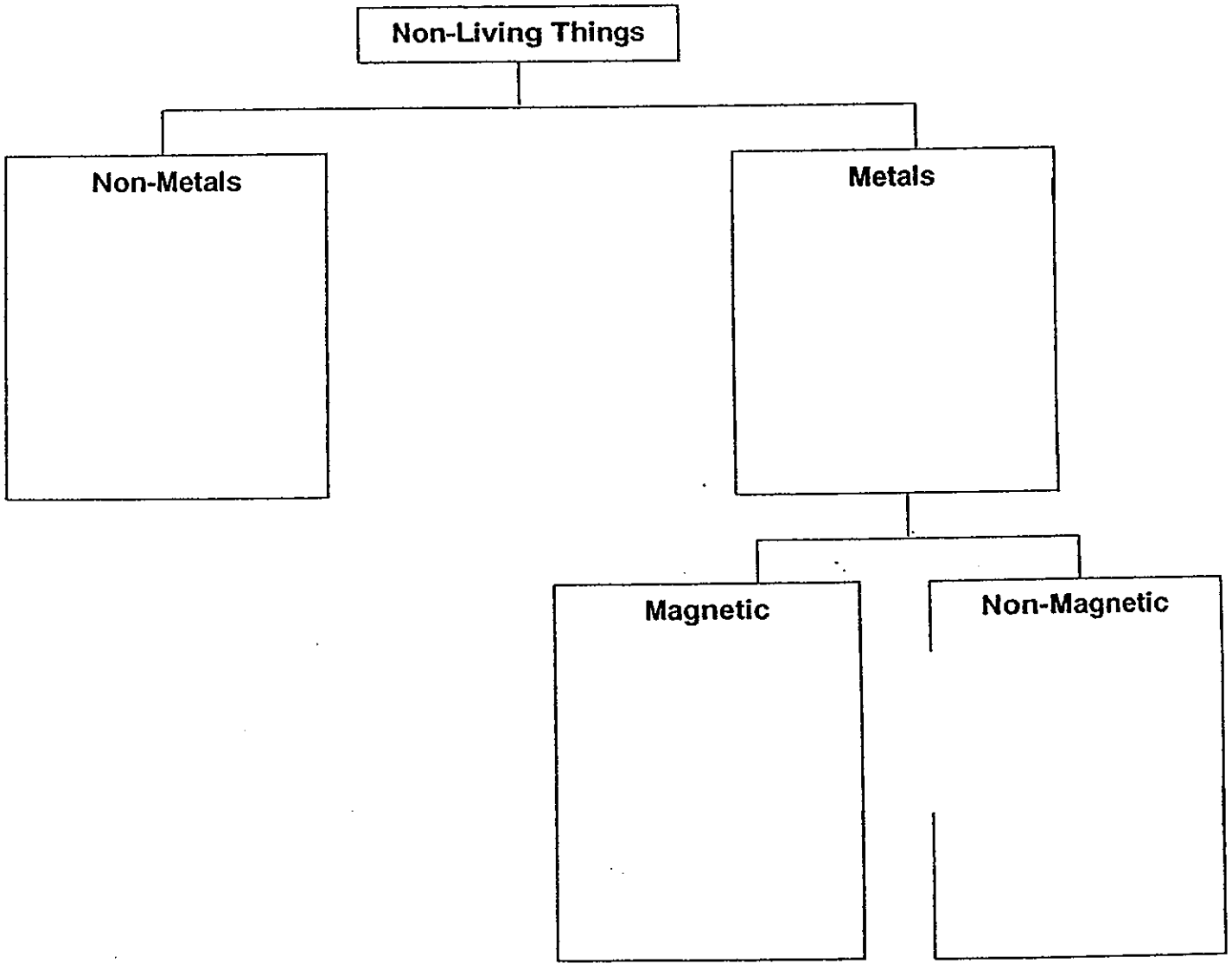
23. The table below shows how some animals are classified.
Fill in the table below with suitable headings for (a), (b), (c) and (d). (2m)



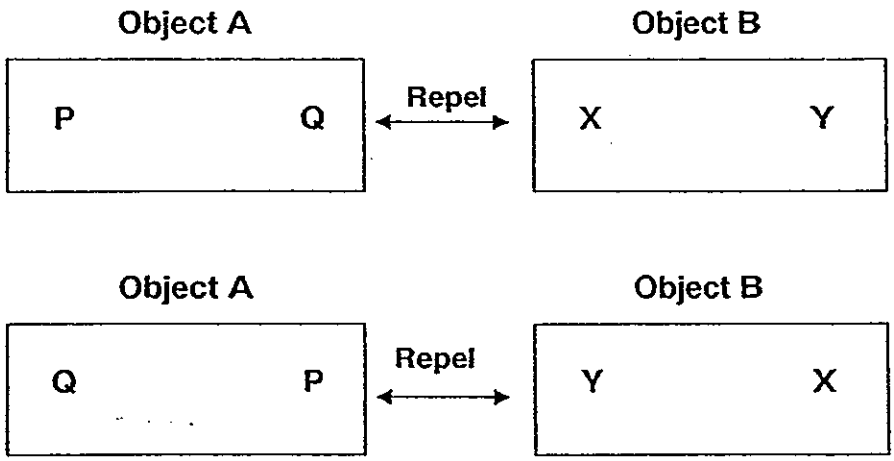
24. The box below shows a group of objects. (2m)



Classify the objects in the classification table below.



25. Edward conducted an experiment with two objects, A and B. He tried to put the two objects near each other as shown in the diagrams below.



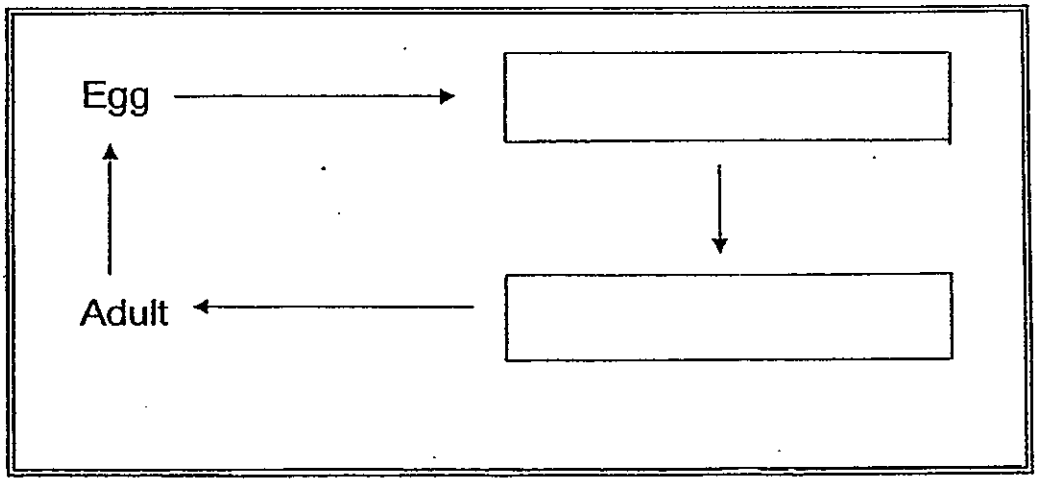
Based on your observations of the diagram above, fill in each blank below with the correct word.

(a) Both Object A and Object B repel each other because both are

_____. (*1m*)

(b) If Q is the North-pole of Object A, Y is the _____-pole of Object B. (*1m*)

26. Complete the life cycle of a butterfly in the box below. (*2m*)



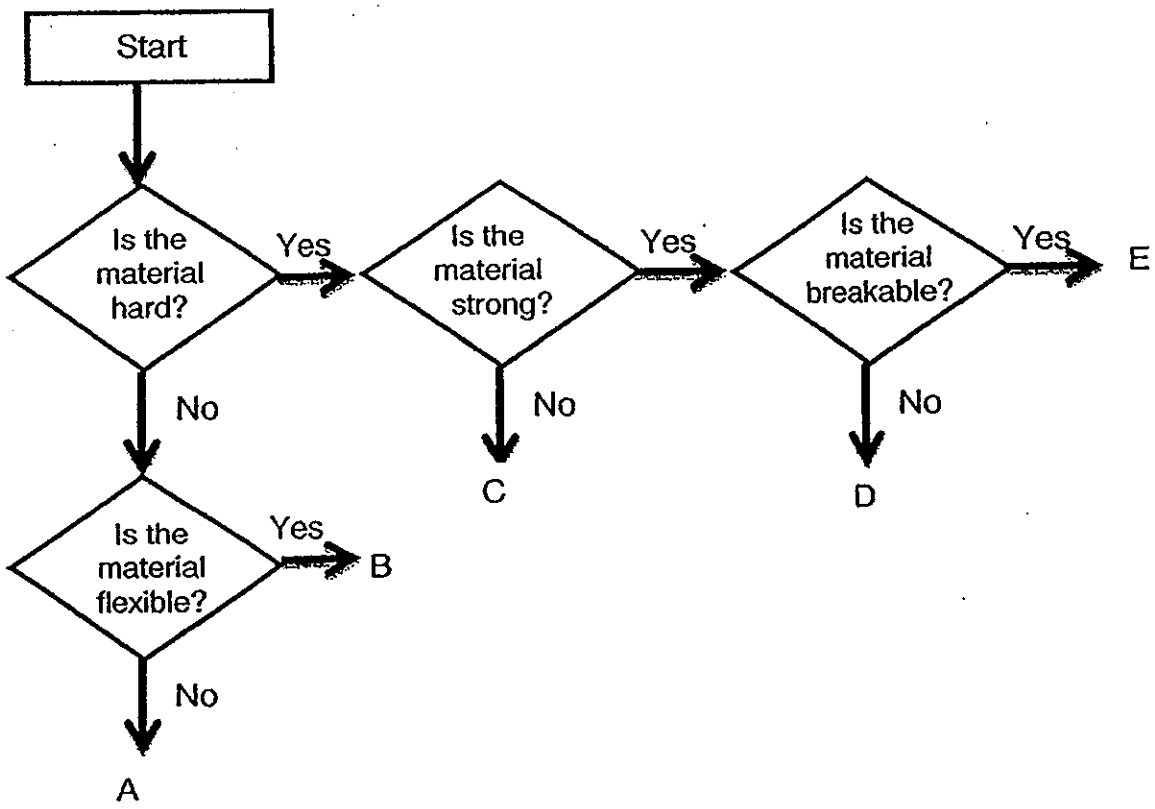
Name: _____ ( )

Class: Primary 3_____

Section C: Open-Ended Questions (28 marks)

Write your answers to questions 27 to 34 in the spaces given.

27. The flowchart below shows the properties of Material A, B, C, D and E.



(a) Based on the flowchart, state 1 similarity between Material C and D . *(1m)*

Similarity : _____

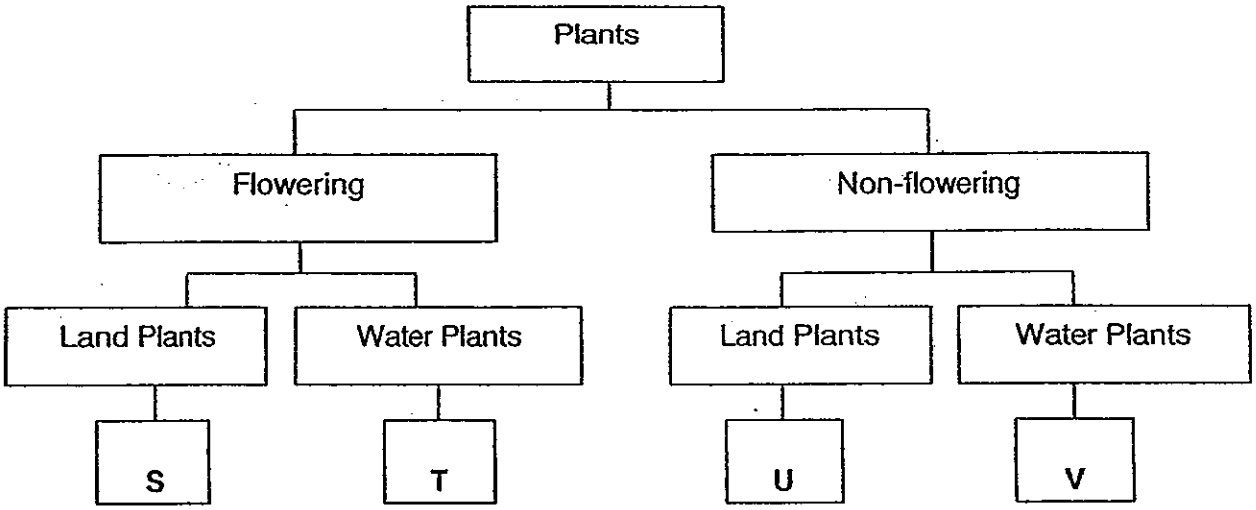
(b) Which Material, A or E, is most likely to be glass ? *(1m)*

_____

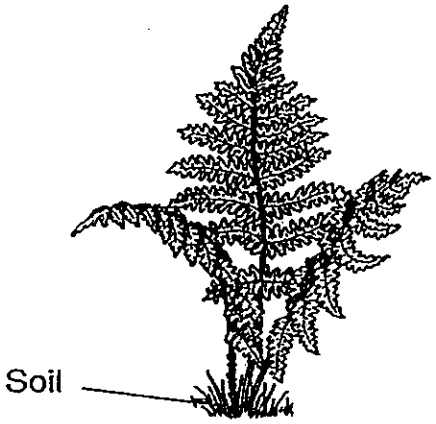
(c) Based on the flowchart above, list two properties of Material B. *(2m)*

_____

28 The classification table below shows characteristics of 4 groups of plants, S, T, U and V.



Jane saw plant H on her school fieldtrip. She did a drawing of the plant and made some observations in her Science journal as shown below.



Plant H

Observations

There were brown powdery spots on the underside of the leaves of the plant.

(a) In which group, S, T, U or V, should Jane group plant H? *(1m)*

_____

(b) State how the brown powdery spots that Jane observed help plant H. *(1m)*

_____

(c) Name a plant that can be placed in group T. *(1m)*

_____

29. Mei mei classifies the organisms into ~~four~~ three groups, E, F and G, as shown below. A tick (√) means that the organism has the given characteristics.

Characteristics	Organisms		
	E	F	G
Does it have three body parts?		√	
Can it fly ?		√	
Does it make its own food?	√		
Does it reproduce by spores?	√		√
Does it need shady area to grow?	√		√

(a) Which of the following animal groups does organism F most likely belong to ?

Circle the correct answer. (1/2m)

Mammal **Insect** **Bird** **Plant**

(b) Explain your answer in (a) (1/2m)

_____

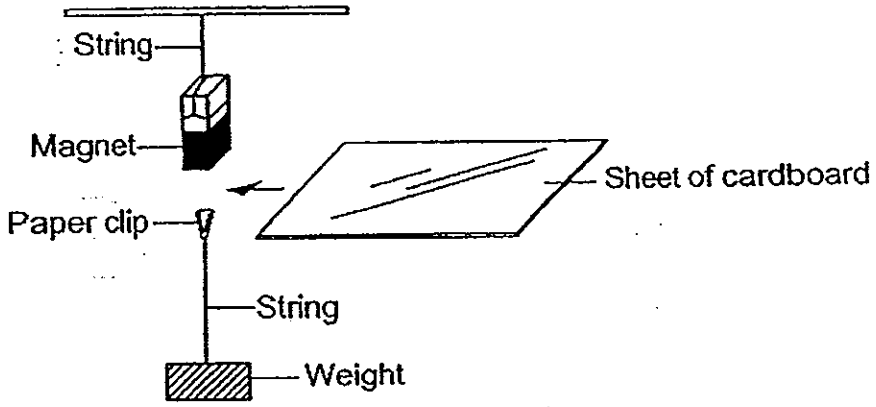
(c) What is the difference between organism E and G ? (*1m*)

_____

(d) During a forest fire, what can organism F do that organism E and G cannot do ? (*1m*)

_____

30. Kelly hung a bar magnet above a paper clip which was tied to a weight by a string. The paper clip was then suspended in the air as shown below.



(a) Kelly placed a sheet of cardboard between the magnet and the paper clip. What would she observe? *(1m)* *(1m)*

_____

(b) Kelly then placed an **iron sheet** between the magnet and the paper clip. What would she observe? *(1m)*

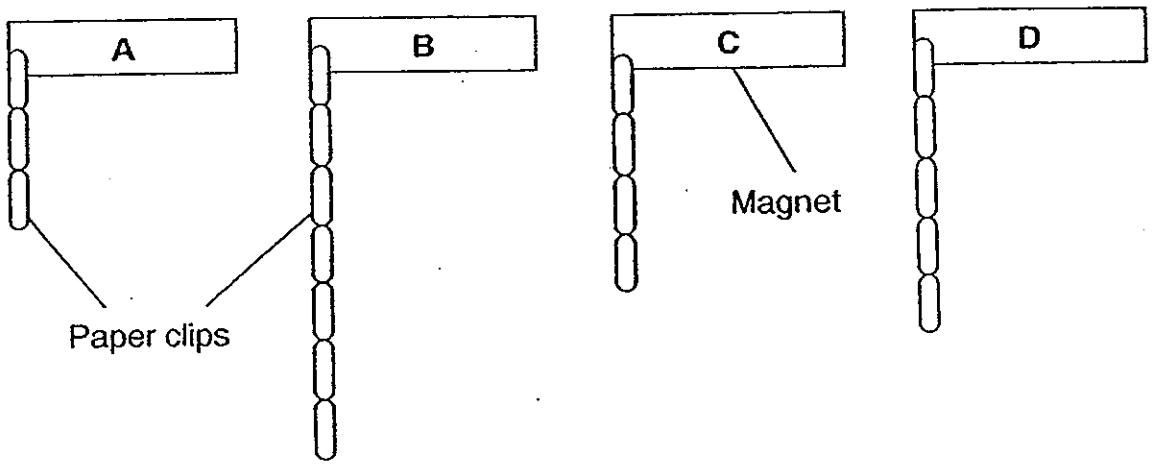
_____

(c) From Kelly's experiment above, what does this tell you about magnetism? *(1m)*

_____

_____

31. Thomas had 4 bar magnets, A, B, C and D. He wanted to find out which magnet was the strongest magnet. The following diagram shows the results of his experiment.



(a) Which magnet, A, B, C or D is the strongest?

_____

(b) Explain your answer in (a).

_____

(c) Thomas tested another magnet G. From the results, he concluded that it was stronger than magnet A but weaker than magnet D.
State the number of paper clips most likely attracted by magnet G.

_____

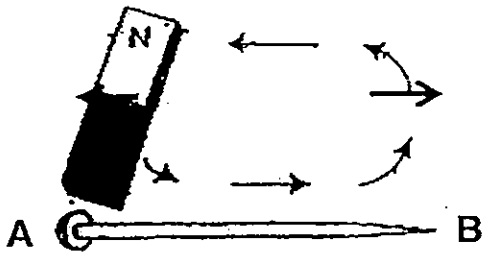
(d) Thomas tried to use magnet G to attract Object Y as shown below.

He observed that object Y was not attracted to magnet G.

Name ~~one~~ material that object Y could be made of.

_____

32. Hani wanted to make an iron nail into a temporary magnet. She used a bar magnet to stroke an iron nail in the direction as shown in the diagram below.



(a) What must Hani do to make the temporary magnet stronger? *(1m)*

_____

Hani then wanted to find out which type of nails can make the strongest temporary magnet using the stroking magnet.

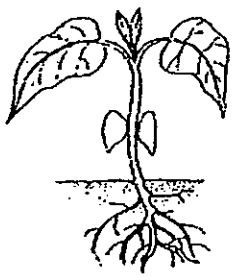
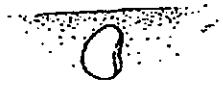
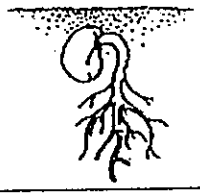
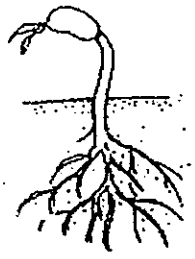
(b) In order to make a fair test, state two variables she needs to **keep the same** in this experiment. *(2m)*

Variable 1: _____

Variable 2: _____

33. The diagram below shows the different stages of the life cycle of a plant. They are not in the correct order.

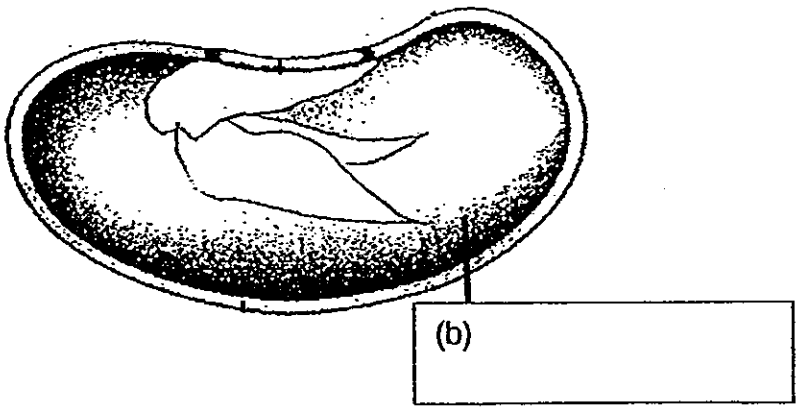
(a) **Write 2, 3, 4 and 5** in the boxes below to put them in correct order. **The first stage has been done for you.** (*2m*)

				
		1		

(b) Besides air, what else does a seed need to germinate? (2m)

_____ and _____

34. The picture is a cross-section of a seed.



(a) Label '**X**' on the part of the seed that represents the **baby plant.** (*1m*)

(b) Name the part of the seed in the box provided above. (*1m*)

(c) How does the part in (b) help the seed? (*1m*)

_____

(d) What will appear from the seed first during germination? (*1m*)

_____

END OF PAPER

Setter: Mdm Fathlon Tawfik
Mdm Nadia

Answer Ke

EXAM PAPER 2013
SCHOOL : HENRY PARK PRIMARY SCHOOL
SUBJECT : PRIMARY 3 SCIENCE

TERM : SA2

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

Q18	Q19	Q20
4	3	2

Section B

Q21

a)

	Size
	Shape
√	Colour

b) The beads are grouped together according to their shape

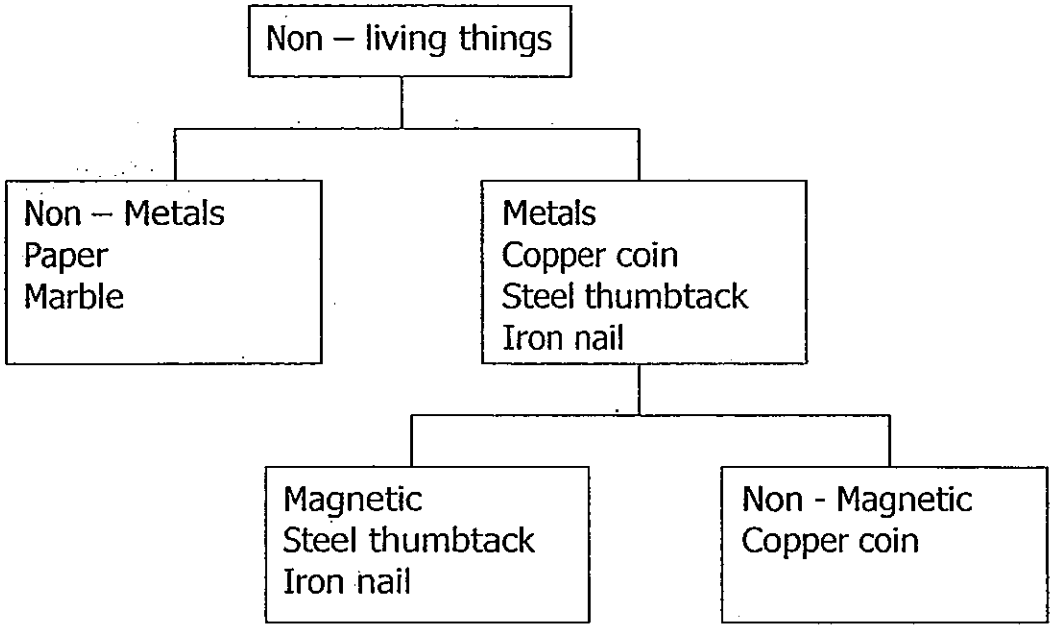
Q22

a) True
b) False
c) True
d) True

Q23

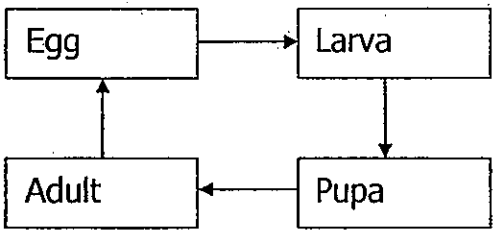
a) Mammals
b) Cannot Fly
c) Can Fly
d) Penguin

Q24
a)



Q25
a) Magnets
b) South

Q26

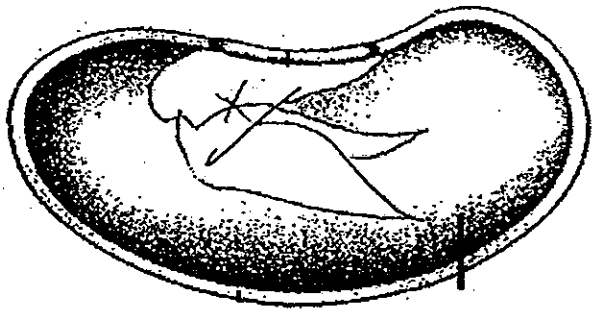


Section C
Q27
a) Both materials are hard
b) Material E
c) It is not hard but it is flexible

Q28
a) Group U
b) It helps by reproducing
c) Hydrilla

b) Water and Warmth

Q34
a)



b) Seed leaf
c) It helps to feed the plant
d) The roots

Q29
a) Insect
b) An insect has three body parts
c) Organism E makes it own food while organism G does not
d) Organism F can fly and thus move away from the forest fire.

Q30
a) The paper clip will still be suspended
b) The paper clip will fall
c) The magnetism can pass through non-magnetic material while the magnetism cannot be passed through magnetic materials

Q31
a) B
b) It collected the most paper clips
c) Four paperclips
d) Plastic

Q32
a) She should stroke the nail more times with the magnet
b) Variable 1: Use the same type of magnet
Variable 2: Stroke the same number of times

Q33
a) 2 5 1 3 4