HENRY PARK PRIMARY SCHOOL
2010 SEMESTRAL EXAMINATION II
SCIENCE
PRIMARY 3

Duration of Paper: 1 h 45 min

100

Name: _____ (

Parent's Signature

Class: Pr 3 _____

_____

Part 1 (60 marks)

For each question from 1 to 30, 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.

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1. When John chases a stray kitten, it runs away in fear. Which of the following characteristics does the cat show?

(1) It can grow.
(2) It can move..
(3) It needs food.
(4) It can reproduce. ( )

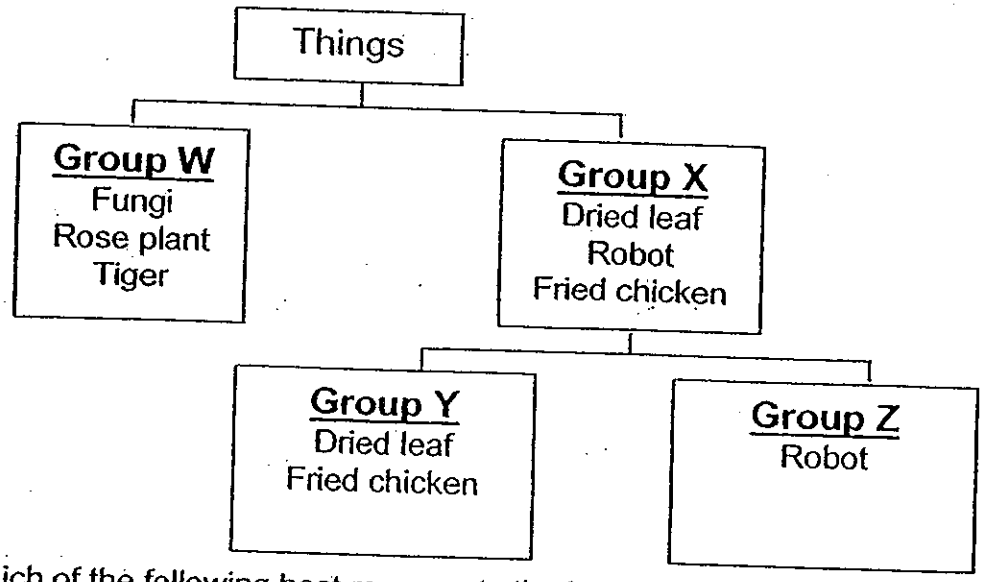
2. The following materials shown below are classified according to where they come from.

Group A	Group B
Rubber	Leather
Cotton	Silk

Which of the following items can be placed together with the items in **Group A**?

(1) Rattan
(2) Nylon
(3) Wool
(4) Metal ( )

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

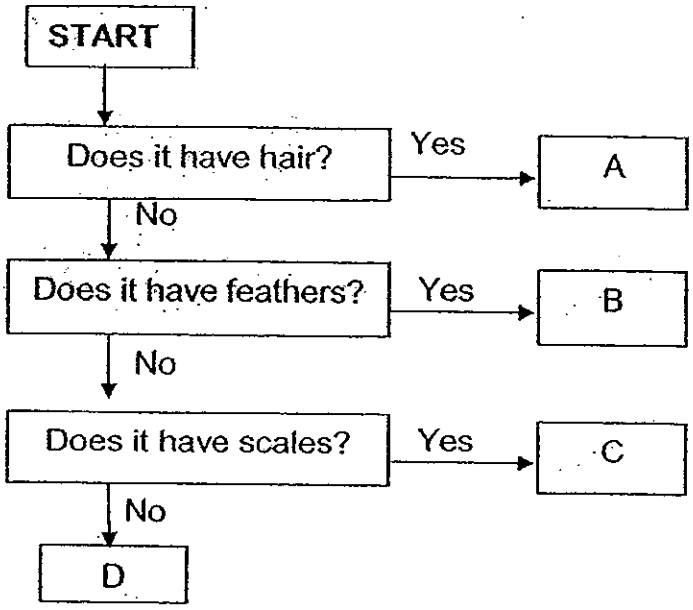


Which of the following best represents the headings for Group Y and Group Z?

	Group Y	Group Z
(1)	Living things	Non-living things
(2)	Edible	Non-edible
(3)	Once alive	Never alive
(4)	Man-made	Natural

( )

4. The flowchart below shows the characteristics of A, B, C and D.



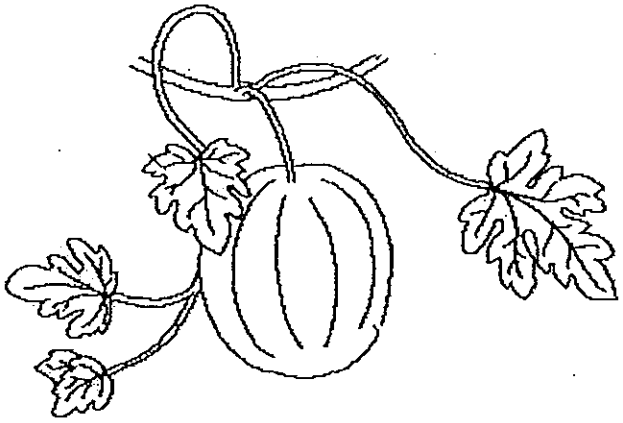
Based on the flowchart, which one best represents A, B, C and D?

	A	B	C	D
(1)	Insect	Mammal	Bird	Fish
(2)	Bird	Fish	Insect	Mammal
(3)	Insect	Fish	Mammal	Bird
(4)	Mammal	Bird	Fish	Insect

( )

5. The pictures below show two plants.

Morning Glory

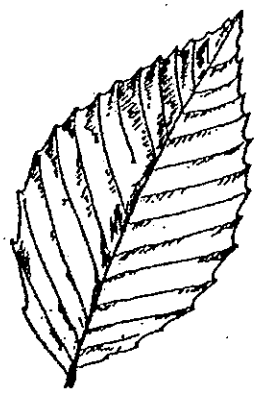


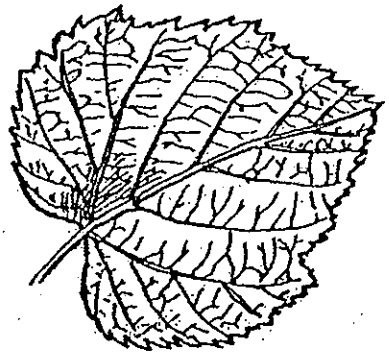
Watermelon Plant

Based on the pictures, which of the following statements about the two plants above are true?

(1) Both are flowering plants.
(2) Both plants have strong stems.
(3) Only the morning glory plant produces flowers.
(4) Only the watermelon plant reproduces from seeds. ( )

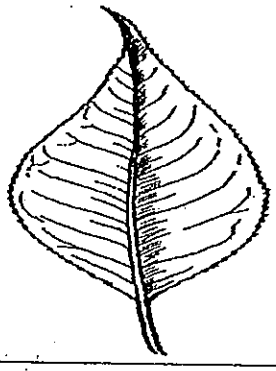
6. Look at the leaves shown below.



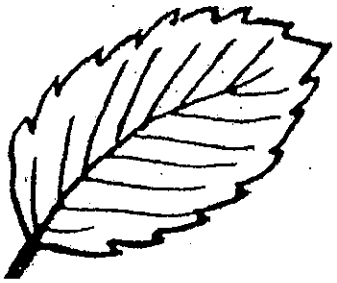


Which of the following leaves cannot be classified in the same group as the two leaves above?

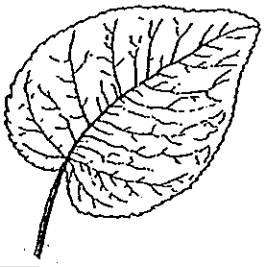
(1)



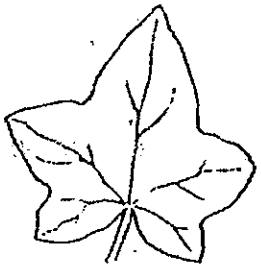
(3)



(2)

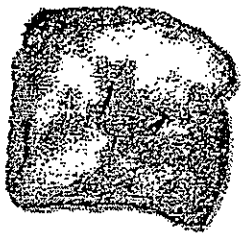


(4)



( )

7. A slice of bread was placed by the kitchen for a few weeks. Some mould was seen growing on it after a week.



Which of the following is/are a characteristic(s) of the bread mould?

A: It is a plant.
B: It can reproduce from spores.
C: It gets its nutrients from the slice of bread.

(1) A only

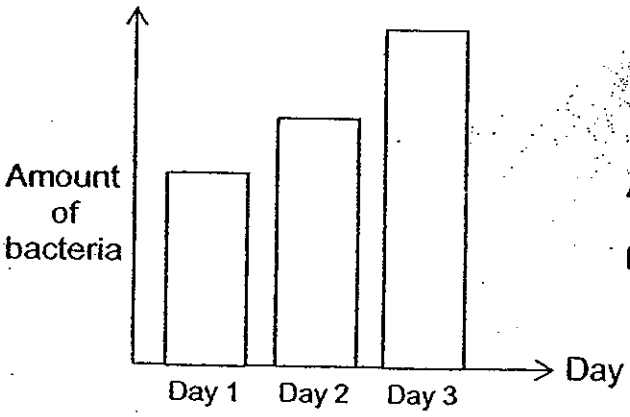
(2) B only

(3) A and C only

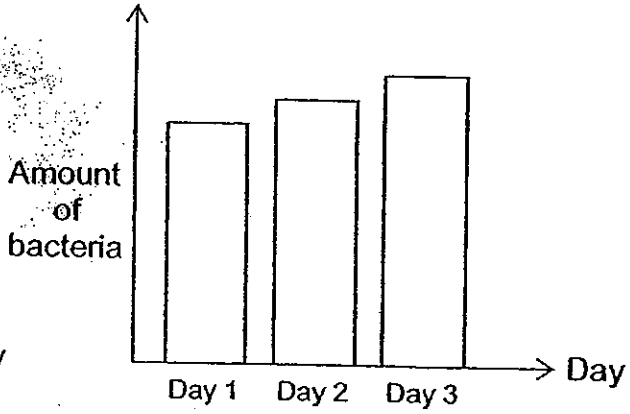
(4) B and C only

( )

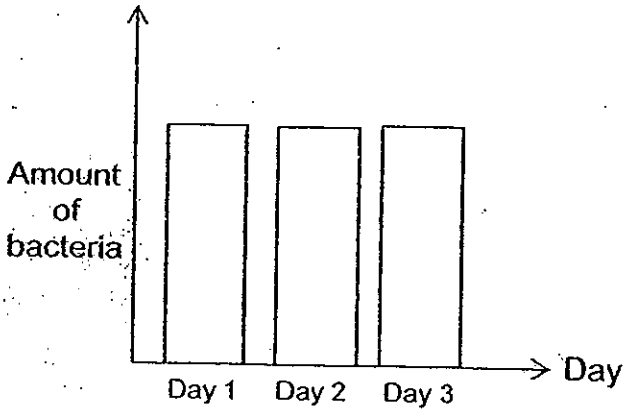
8. The same amount of bacteria, X, Y and Z were shown under a microscope. They were observed over three days and the amount of each type of bacteria was recorded at the end of each day. The data collected was shown on the graphs below.



Bacteria X



Bacteria Y



Bacteria Z

Based on the graphs, what can you conclude about the reproduction of the three types of bacteria?

(A) Bacteria X reproduced after one day.
(B) Bacteria Y reproduced more than X over the three days.
(C) Bacteria Z did not reproduce over the three days.

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

( )

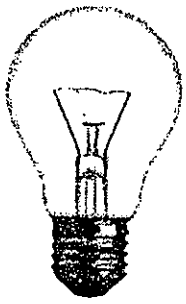
9. Which is the **most** important reason for choosing plastic to make raincoats?

(1) It is elastic
(2) It is heavy
(3) It is colourful
(4) It is waterproof

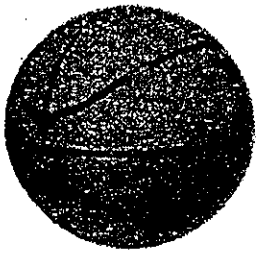
( )

10. Which ~~one~~ are of the following objects is made from only **one** material?

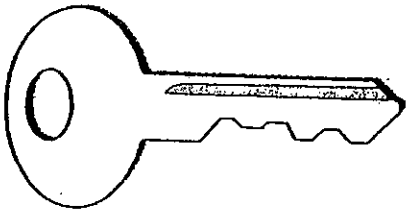
(A)



(C)



(B)

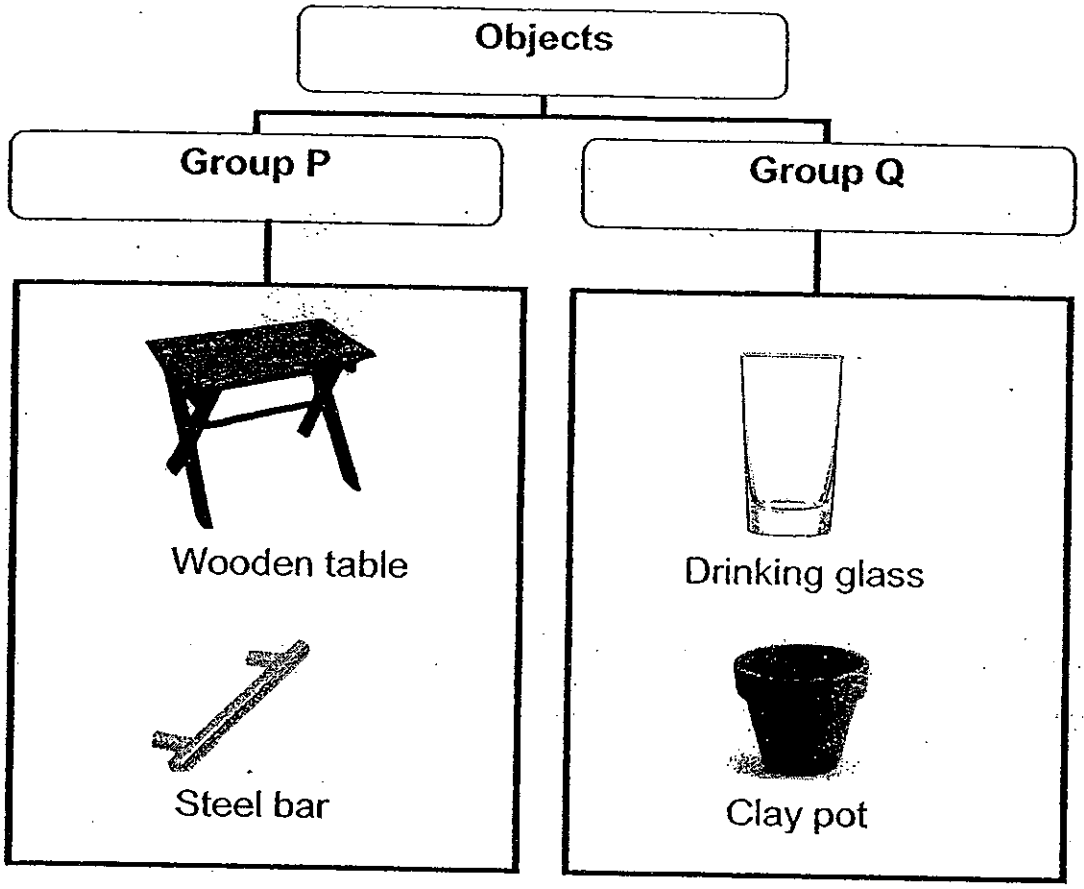


(D)

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

( )

11. The classification table below shows how some objects are grouped into P and Q.



Which one of the following best describes the materials used to make the objects in Group P and Group Q?

	Group P	Group Q
(1)	Soft	Hard
(2)	Strong	Breaks Easily
(3)	Flexible	Not flexible
(4)	Light	Heavy

( )

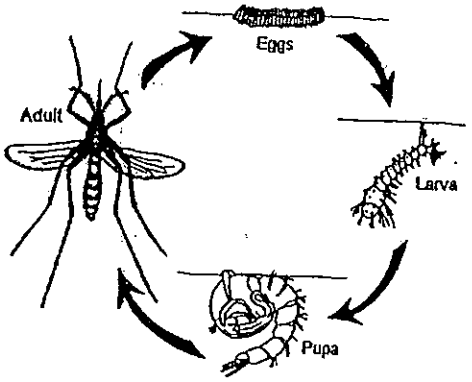
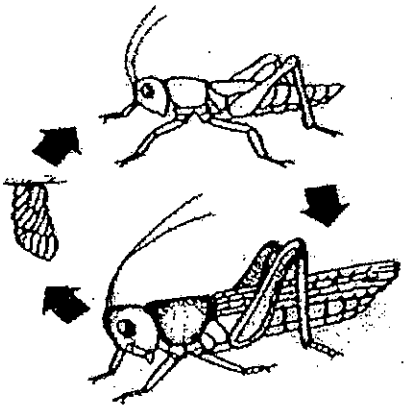
12. Which of the following statement(s) is/are true of a life cycle?

A: Different animals have different stages of life cycles.
B: The life cycle of a living thing involves only reproduction.
C: The young of an animal goes through the same life cycle as its parents.

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

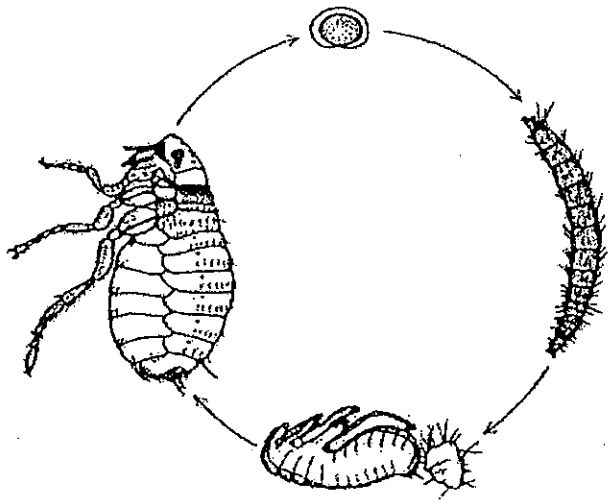
( )

13. John compared the life cycles of a mosquito and a grasshopper. Which one of the following comparisons is true?

	Mosquito	Grasshopper
		
(1)	Its life cycle has 3 stages.	Its life cycle has 4 stages.
(2)	Its young has wings.	Its young does not have wings.
(3)	Its young undergo moulting a few times.	Its young does not undergo moulting.
(4)	Its young does not look like the adult.	Its young looks like the adult.

( )

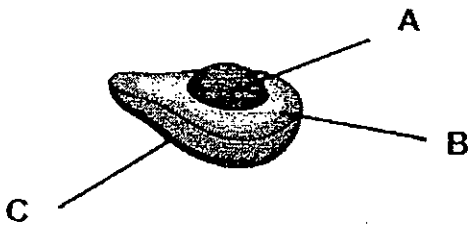
14. Which of the following statement describes the life cycle of the insect below correctly?



(1) The insect does not moult.
(2) The young looks like the adult.
(3) The insect lays its eggs in the water.
(4) The young stops feeding for a period of time.

( )

15. The diagram below shows a fruit.

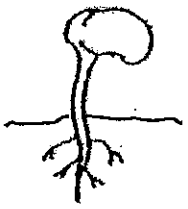


Under suitable conditions, which part/s of the fruit above (**A**, **B** or **C**) will grow into a new plant?

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

( )

16. The picture below shows a seedling.

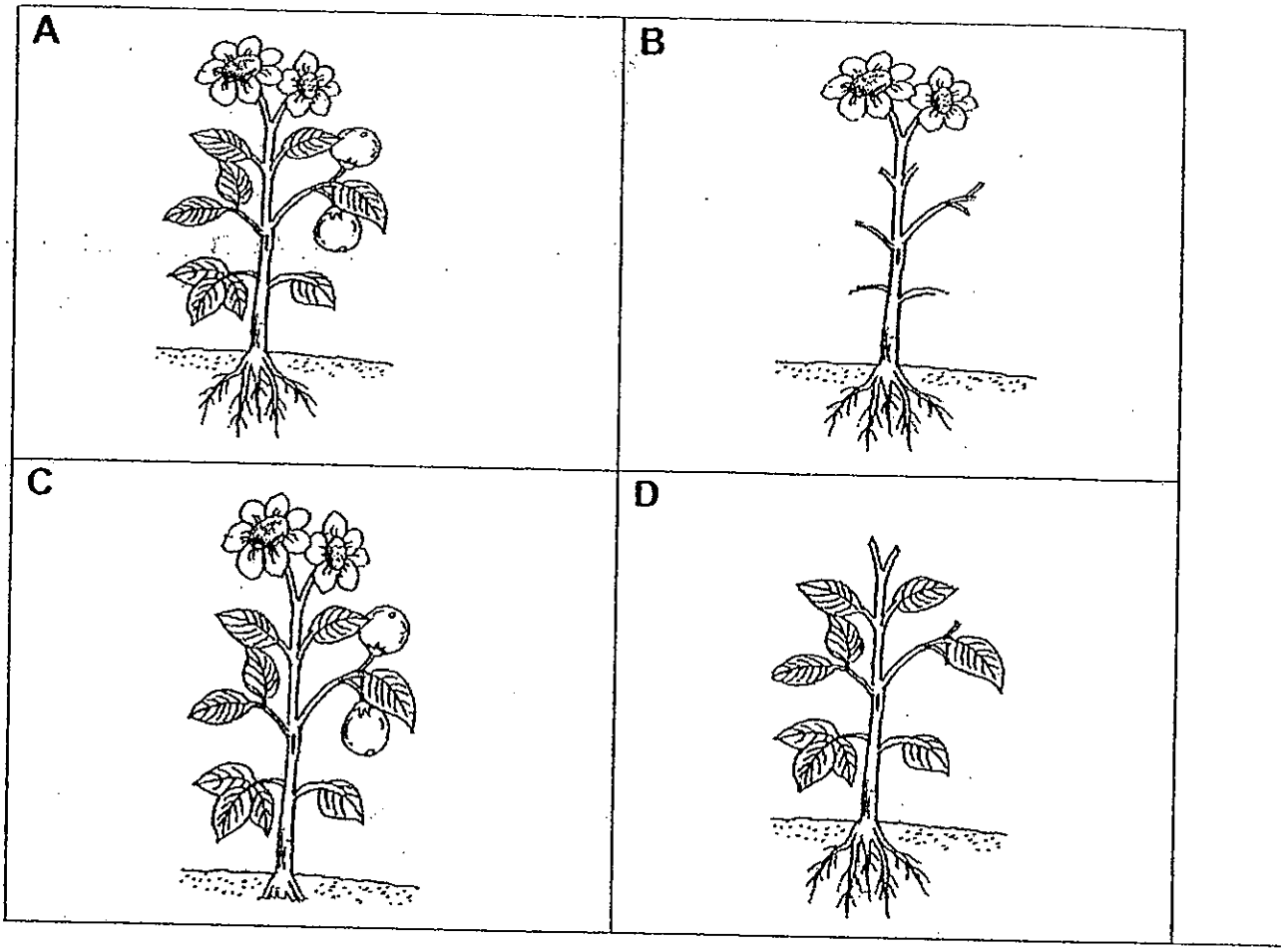


What will appear from the seedling after this stage?

(1) Fruits
(2) Flowers
(3) Leaves
(4) Seed coat

( )

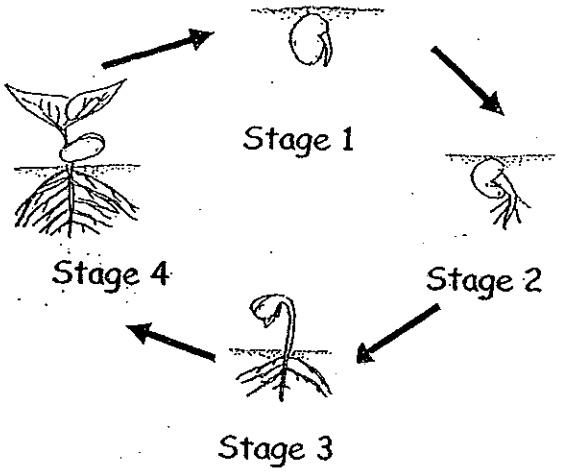
17. The following plants are placed in the sunlight and given water every day. Which plant(s) **will not** be able to survive past one week?



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

( )

18. The diagram below shows the life cycle of a flowering plant.



The plant will not survive and grow without sunlight in _____.

(1) Stage 1
(2) Stage 2
(3) Stage 3
(4) Stage 4

( )

19. Ben carried out an experiment to find out what would happen when **3** objects are brought near a **bar magnet**. The table below shows the results of his experiment.

√ – Yes
X – No

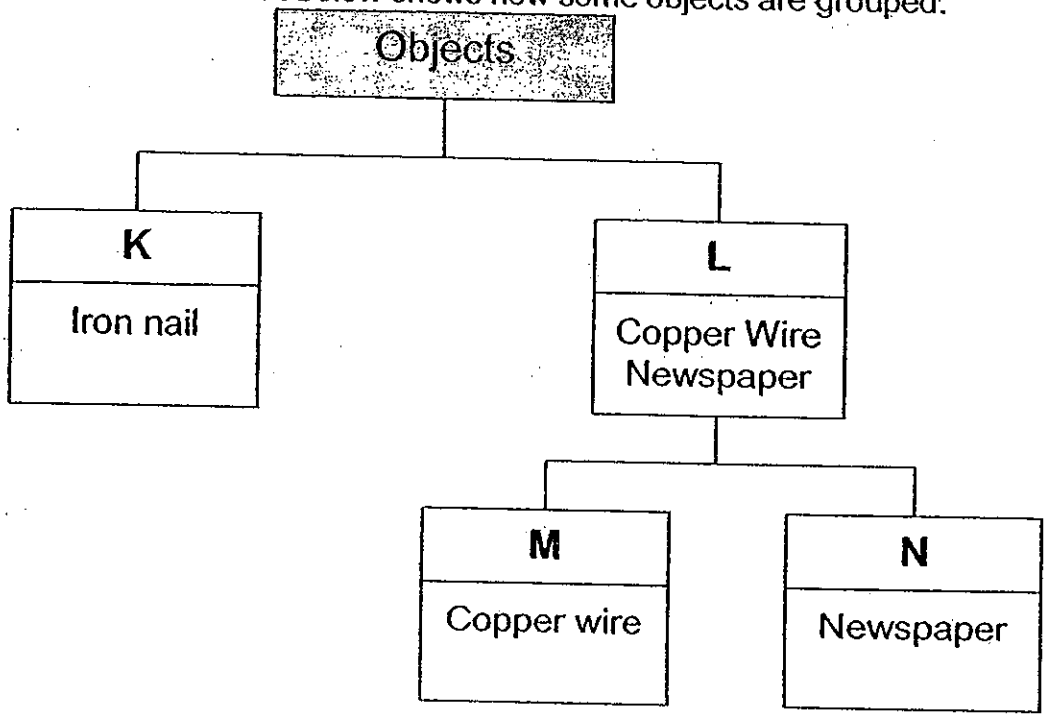
Object	Attracted to magnet	Repelled by magnet
A	√	X
B	X	X
C	√	√

What could objects **A**, **B** and **C** be?

	A	B	C
(1)	Paper clip	Plastic cup	U-shaped magnet
(2)	U-shaped magnet	Plastic cup	Paper clip
(3)	Plastic cup	Paper clip	U-shaped magnet
(4)	U-shaped magnet	Paper clip	Plastic cup

( )

20. The classification chart below shows how some objects are grouped.

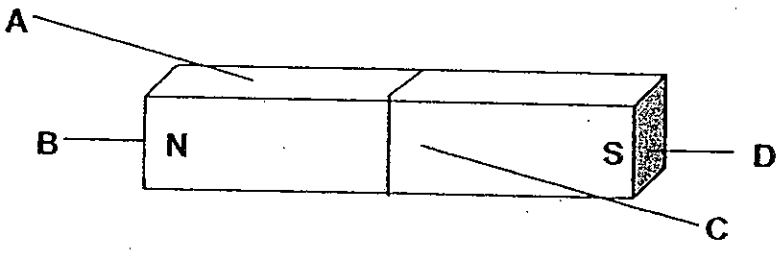


Which of the following shows suitable headings for **K, L, M and N**?

	K	L	M	N
(1)	Magnetic	Non-magnetic	Not waterproof	Waterproof
(2)	Non-magnetic	Magnetic	Non-metal	Metal
(3)	Magnetic	Non-magnetic	Metal	Non-metal
(4)	Non-magnetic	Magnetic	Not waterproof	Waterproof

( )

21. The diagram below shows a **bar magnet.**



If the magnet is placed in a box of paper clips, which part of the magnet, **A, B, C** or **D**, will attract the most number of paper clips?

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

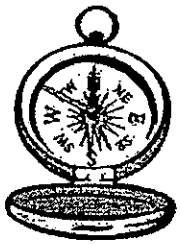
( )

22. Which of the following devices does not contain a magnet?

(1)

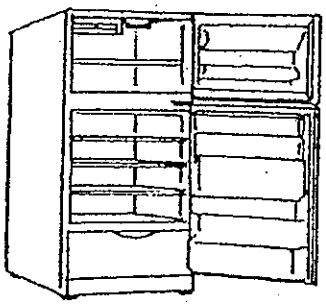
An EZ-link card

(2)



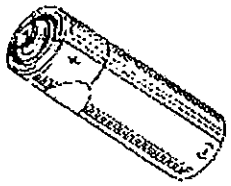
A compass

(3)



A refrigerator

(4)

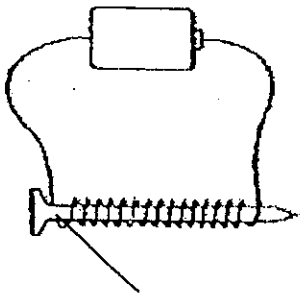


A battery

( )

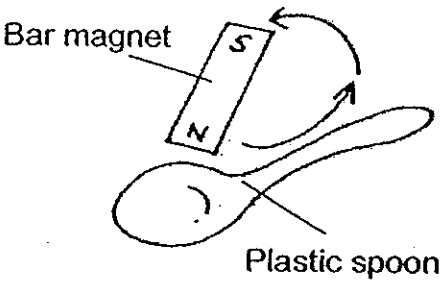
23. Which of the following will create a temporary magnet?

(1)

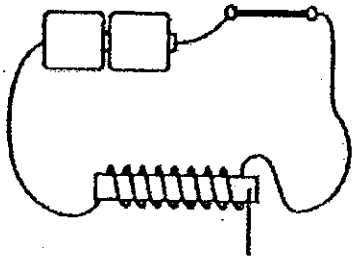


Iron nail

(2)

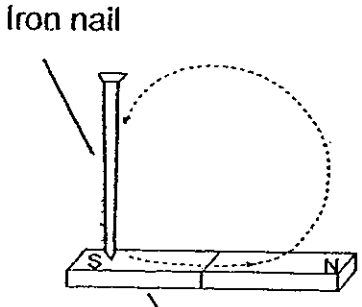


(3)



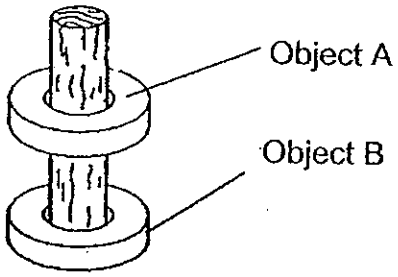
A piece of wood

(4)



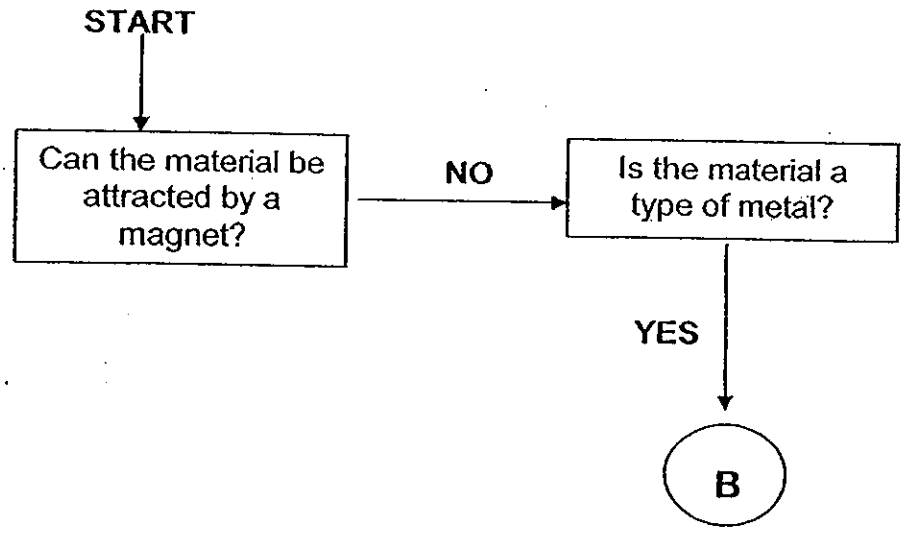
( )

24. The diagram below shows Object A floating above Object B. Which one of the statements is **TRUE**?



(1) Object A is attracted to Object B.
(2) Both Object A and B are magnets.
(3) Object A and Object B are non-metals.
(4) Only Object A is a magnet but Object B is a magnetic material. ( )

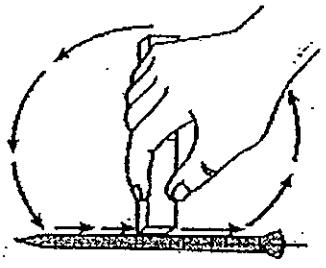
25. The flow chart below shows the characteristics of B.



Which of the following could B be?

(1) Iron
(2) Steel
(3) Nickel
(4) Copper ( )

26. John is making a temporary magnet by using the stroking method. He wants to find out whether the magnetic strength of a temporary magnet increases as the number of strokes increases.



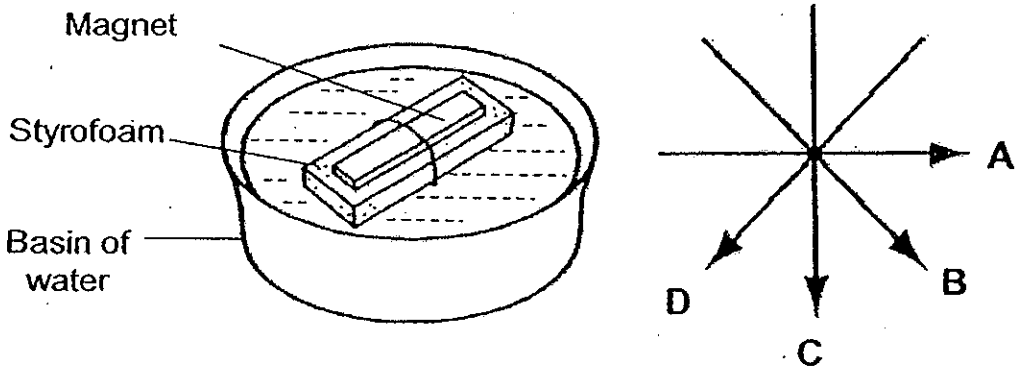
In order to carry out a fair test, what are the variables that need to be kept the same?

A: The number of strokes.
B: The types of magnet used for stroking.
C: The size of the iron nail.

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

( )

27 A magnet is allowed to float on water. After a while, it comes to rest in the direction as shown below.

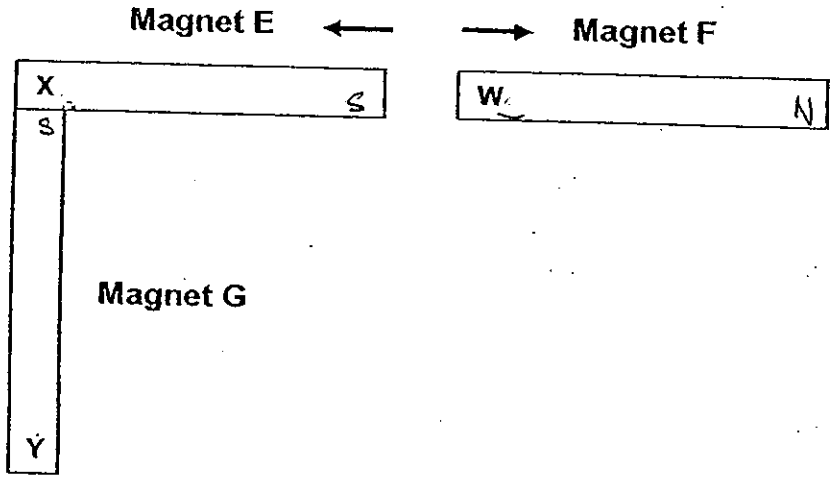


Which direction, A, B, C or D is the North pole of the magnet pointing to?

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

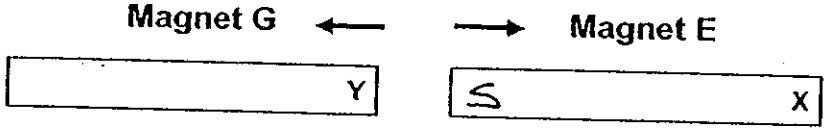
( )

28. Bella placed 3 bar magnets, E, F and G as shown below. Magnets E and G attract each other but Magnets E and F repel each other.

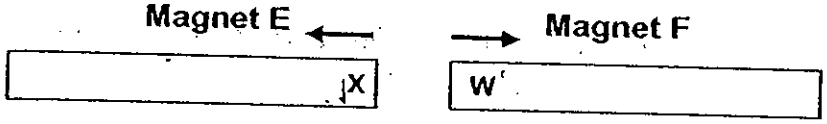


Which one of the following shows correctly how Magnets **E**, **F** and **G** interact with one another?

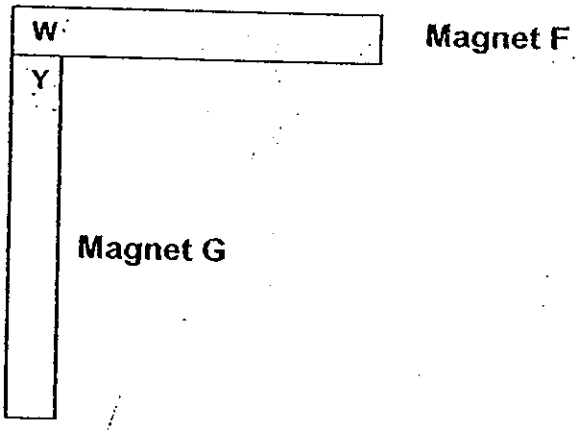
(1)



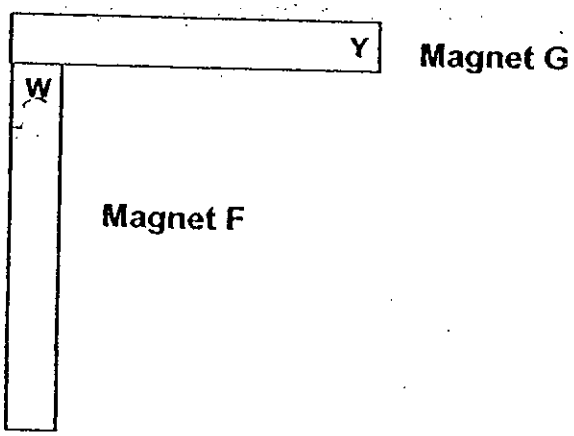
(2)



(3)

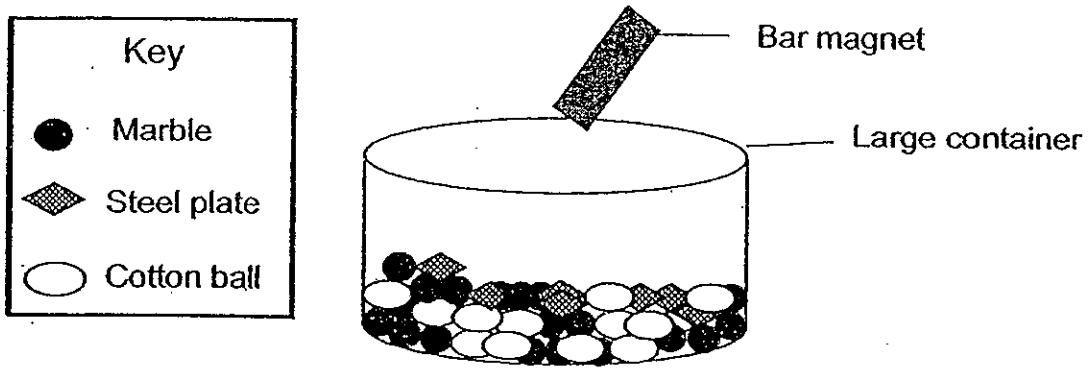


(4)



( )

29. Sam has a large container containing some objects as shown below. He wants to separate these objects.



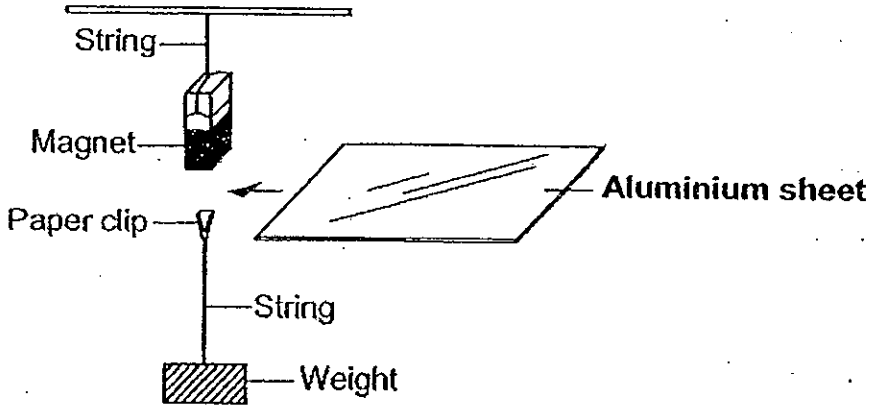
Sam is able to take some of the things out from the container by using a bar magnet.

Which of the objects below can be taken out using the bar magnet?

(1) Marbles only
(2) Steel plates only
(3) Marbles and steel plates only
(4) Cotton balls and marbles only

( )

30. Sam 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.



When Sam placed the aluminium sheet between the magnet and the paper clip, the paper clip remained suspended.

Which of the following statements below is **TRUE**?

	Statements
(1)	Magnetism can pass through magnetic materials.
(2)	Magnetism cannot pass through aluminium.
(3)	Magnetism repels the paper clip at a distance.
(4)	Magnetism enables the paper clip to stay suspended.

( )

End of Part 1

HENRY PARK PRIMARY SCHOOL
2010 SEMESTRAL EXAMINATION II
SCIENCE
PRIMARY 3

40

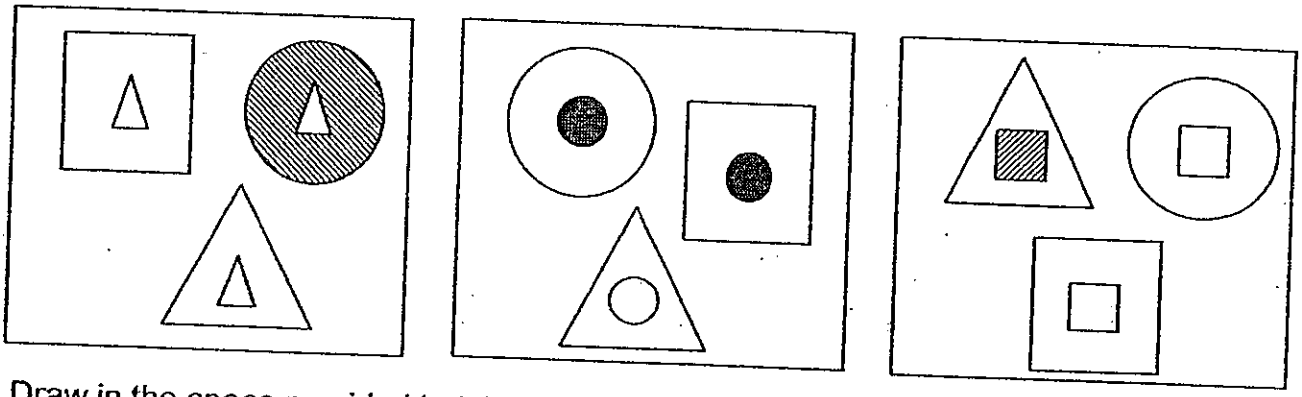
Name: _____

Class: Pr 3_____

Part 2 (40 marks)

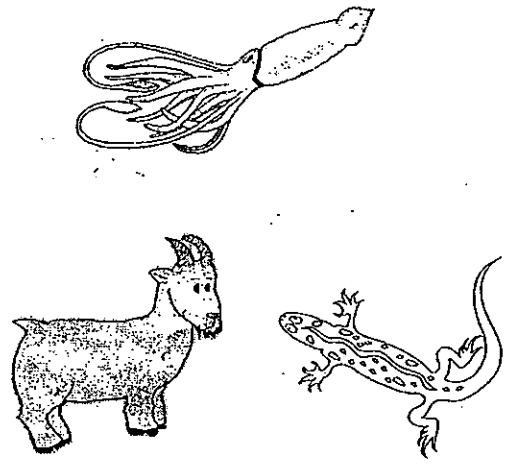
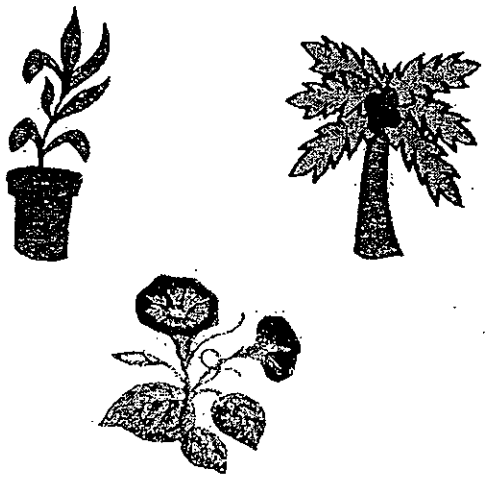
Write your answers to questions 31 to 44 in the spaces given.

31. Study the groups below. The objects below have been classified into 3 groups.



Draw in the space provided below, another way of classifying them into 3 groups. Each group must have an equal number of objects. *(3m)*

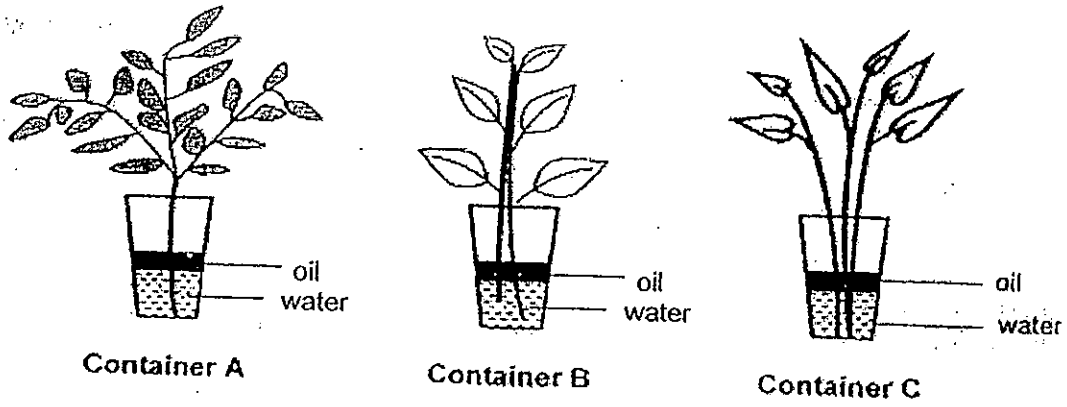
32. Living things are put into 2 groups as shown below.

Group A	Group B
	

a) How are the living things in Group A different from the living things in Group B in their movement? *(1m)*

b) State one way in which the living things in Group A and Group B are similar. (Do not mention movement, shape and size) *(1m)*

33. Three types of plants were placed into 3 identical containers filled with 150ml of water. 50ml of oil was poured into each container to prevent the water from evaporating into the air. One of them is a plastic plant.



Container A Container B Container C

The volume of water in each container was recorded on the 9th day in the table below.

	Container	Volume of water (ml)
	Day 1	Day 9
A	150	130
B	150	150
C	150	125

a) Which of the following containers (A, B or C) contained a plastic plant? *(1m)*

b) Use the table of results above to support your answer in (a). *(1m)*

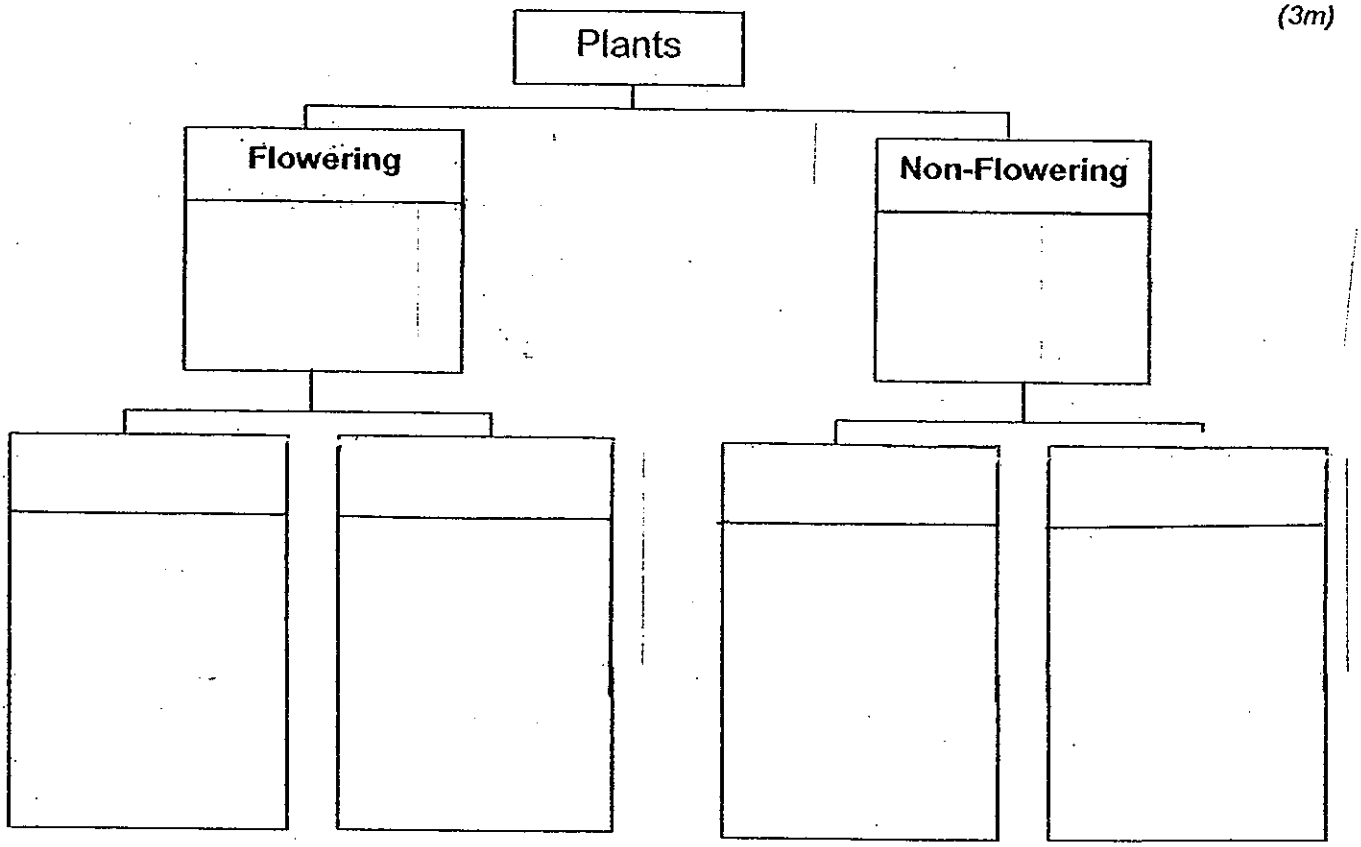
c) What does this experiment show about the needs of plants? *(1m)*

34 The table below shows the characteristics of plants A, B C, D, E and F.

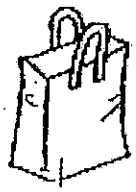
Plant	Reproduce from spores	Bears fruits	Weak stems
A		✓	
B	✓		✓
C	✓		✓
D		✓	✓
E		✓	
F	✓		

Using the information above, classify plants A, B, C, D, E and F into the classification table below. Provide suitable headings where needed.

(3m)

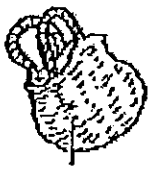


35. Below are 4 bags made up of different types of materials.



Paper Bag

Plastic Bag



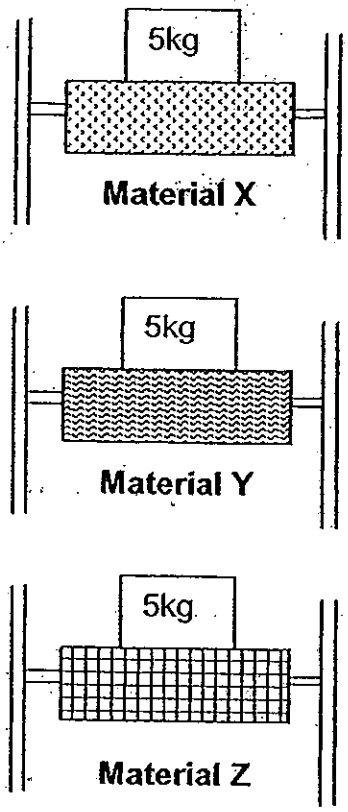
Woollen Bag

Cotton Bag

a) Which bag will be most suitable for keeping a wet swimsuit? *(1m)*

b) Explain your answer in (a). *(1m)*

36. Lyn put a 5 kg weight onto three rods, made from materials X, Y and Z as shown below.



Lyn then recorded her observations in a table as shown below.

Material X	Bent
Material Y	Remained the same
Material Z	Broke

a) Arrange Materials X, Y and Z from the strongest to the weakest. *(1m)*

_____

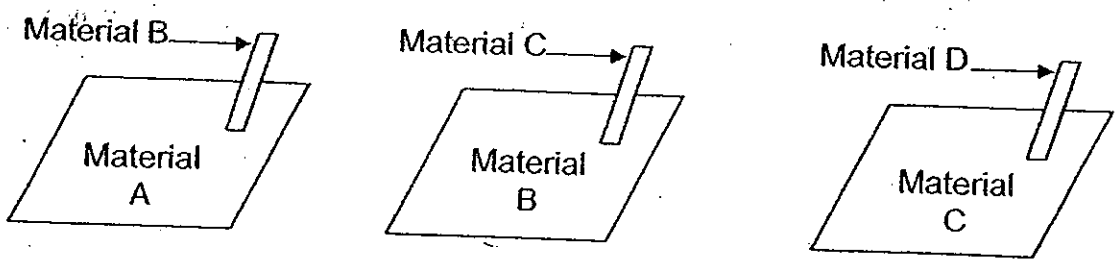
b) Lyn chose Material Y to make a fishing rod. *(1m)*
Using her observations above, explain why her choice was correct.

_____

_____

_____

37. 4 different materials were tested on their hardness. They were rubbed against each other as shown below



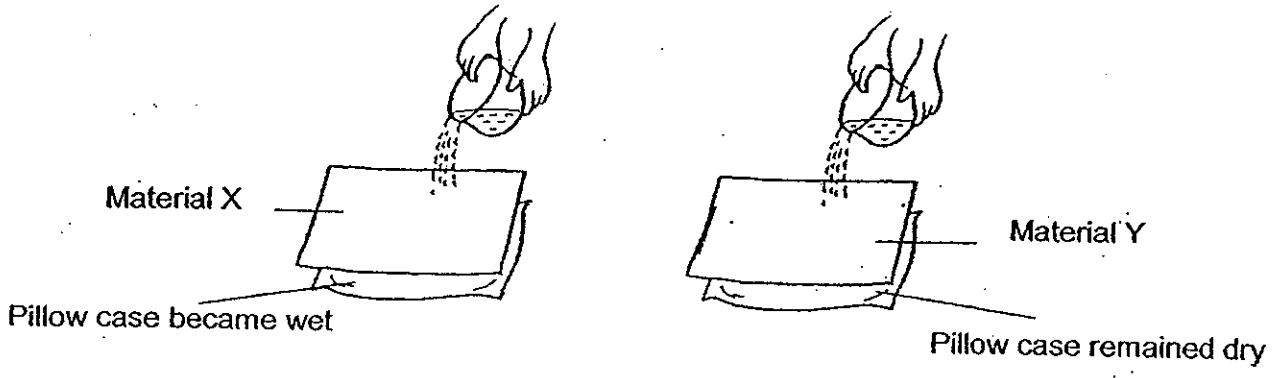
The results were as shown below:

- B scratches A
- C scratches B
- D scratches C

a) Which material is the most suitable for making spectacle lens? *(1m)*

b) Explain your answer in (a). *(1m)*

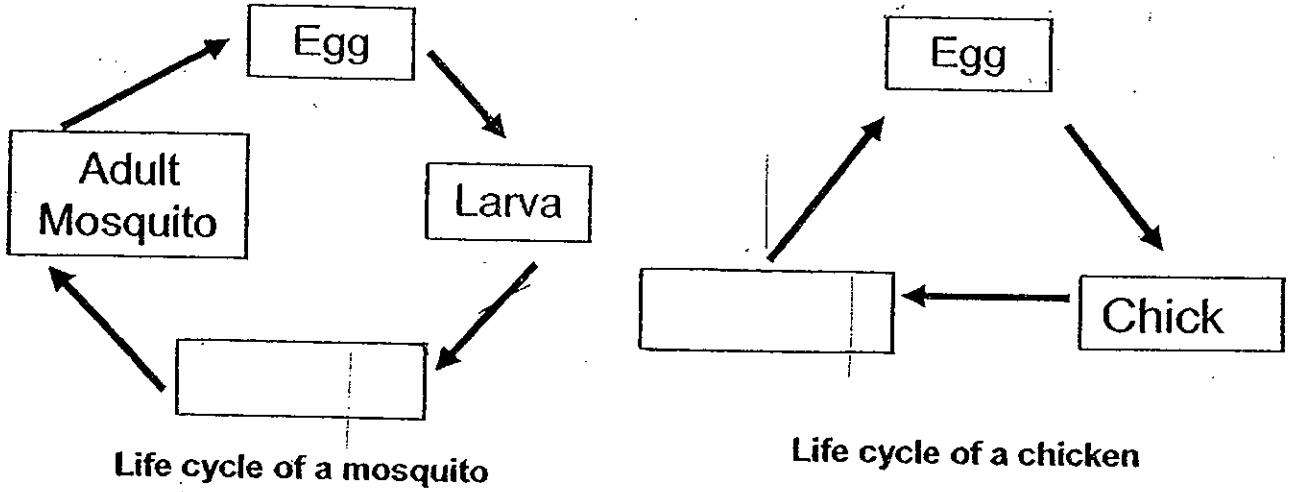
38. A sheet of Material X and Material Y were placed on a dry pillow case. 200ml of water was poured slowly onto each material. After a while, the pillow case below Material X was wet but the pillow case below Material Y remained dry.



a) What can you conclude about the properties of X and Y? *(2m)*

b) Name a material that X can be made of. *(1m)*

39. The life cycles of a mosquito and a chicken are shown below.



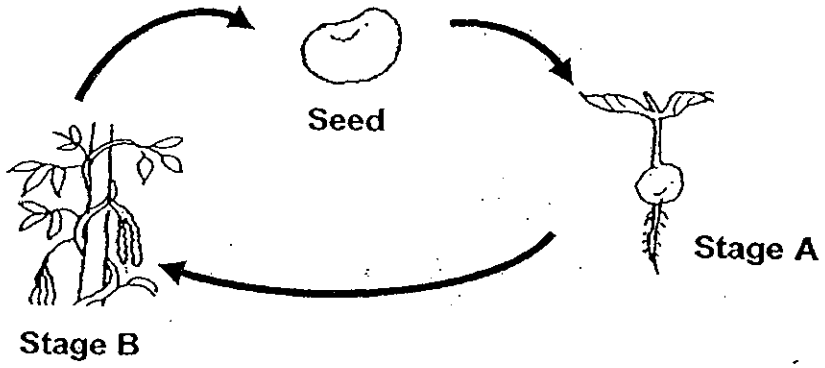
Life cycle of a mosquito

Life cycle of a chicken

a) Complete the life cycles by filling in the boxes above. *(1m)*

b) Which animal, the mosquito or the chicken, has a life cycle that is similar to that of a beetle? *(2m)*
In what ways are they similar?

40. The diagram below shows the life cycle of a plant.



a) Name the stages, **A** and **B** in the table below. *(1m)*

Stage A	
Stage B	

b) At which stage, A or B, will the plant be able to reproduce? *(1m)*

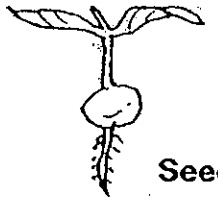
Stage _____

c) Give a reason for your answer in (b). *(1m)*

_____

_____

41. Jacob carried out an experiment on two seedlings, **A and B**.



Seedling

He then recorded the increase in height of seedlings **A** and **B** after 5 days. Study the table below and answer the following questions.

Seedling	Increase in height of seedlings after 5 days	Type of plant	Amount of water given per day	Location of seedling
A	2 cm	Bean plant	20 ml	In a covered box
B	10 cm	Bean plant	20 ml	Near the window

a) From the information above, what was the aim of the experiment? *(1m)*

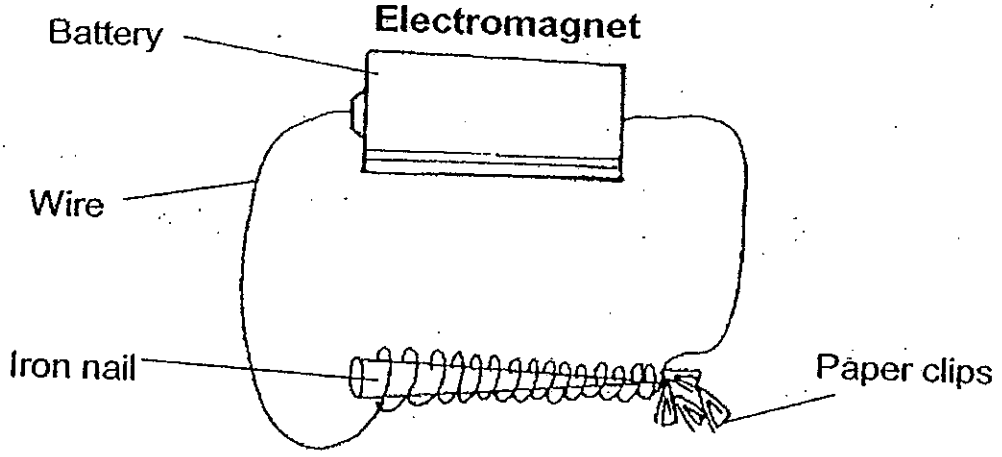
It was to find out whether _____ affects the height of the seedlings.

b) State two conditions that a seedling needs in order to survive. *(2m)*

(i) _____

(ii) _____

42. Edward set up an experiment below. He wanted to find out whether the number of batteries will increase the strength of an electromagnet.



a) In order to have a fair experiment, which conditions in the table below must he follow? *(2m)*
In the table below, put a tick (✓) against the correct conditions.

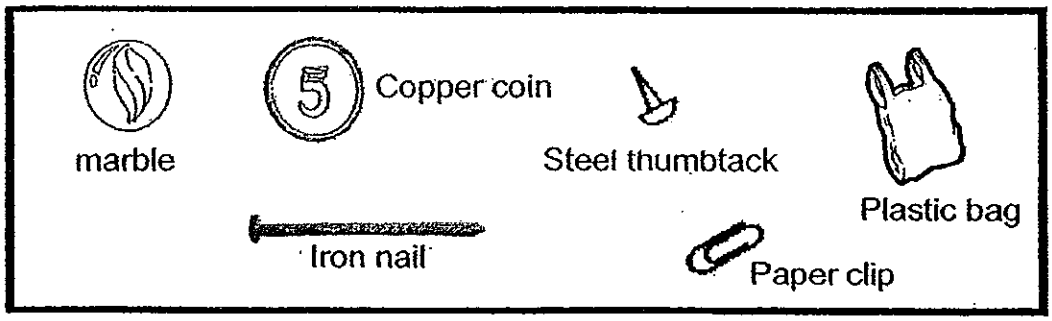
(i) The same type of wire must be used	
(ii) The number of coils of the wire must be different	
(iii) The number of batteries must be different	
(iv) The type of batteries used must remain the same	

b) Other than number of batteries, name two other variables that will affect the strength of an electromagnet. *(2m)*

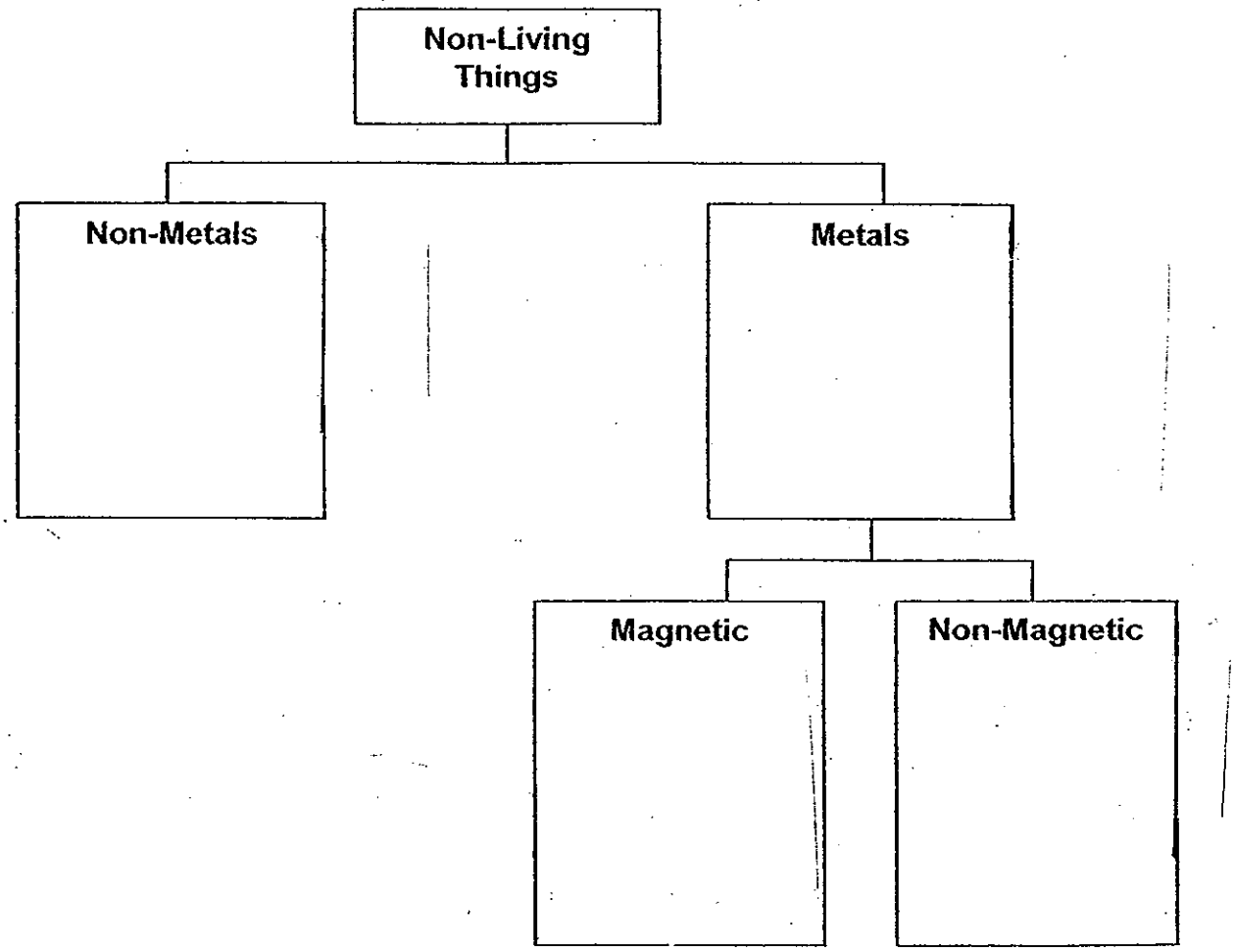
(i) _____

(ii) _____

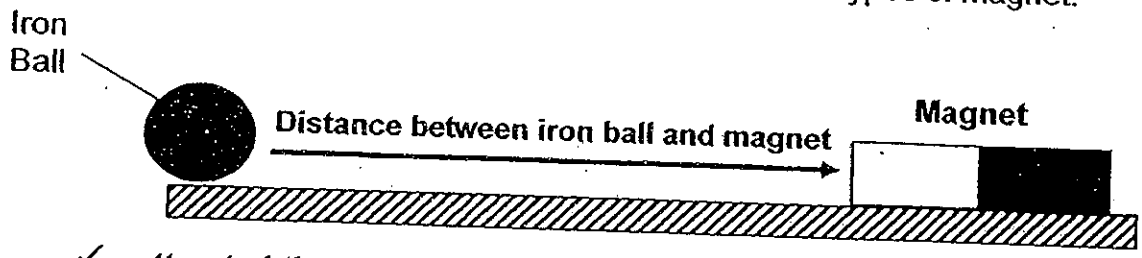
43. The box below shows a group of objects.



Classify the objects in the classification table below. *(4m)*



44. Siti wanted to investigate the strength of different types of magnets by changing the distance between the iron ball and the types of magnet.



✓ - **attracted the iron ball**

X - **did not attract the iron ball**

Distance between iron ball and magnet	Rod Magnet	Ring Magnet	U-shaped magnet
5 cm	✓	✓	✓
10 cm	✓	✓	✓
15 cm	✓	✓	X

a) Based on Siti's results above, which is the weakest magnet?

_____ *(1m)*

b) Explain your answer in (a)

_____ *(1m)*

_____

c) Using the same experimental setup, what can Siti do to find out which is the strongest magnet? *(1m)*

_____

_____

End of Part 2

Setters: Mdm Doris Heng
Mdm Fathlon Tawfik

Ans

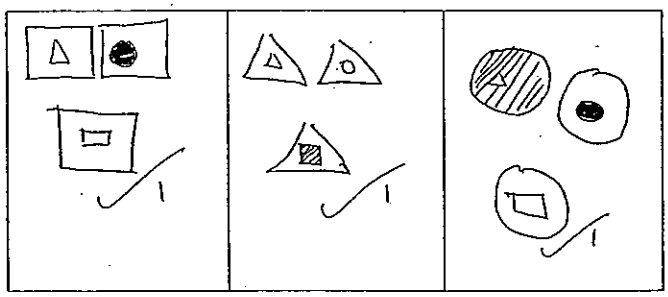
EXAM PAPER 2010

SCHOOL : HENRY PARK PRIMARY
SUBJECT : PRIMARY 3 SCIENCE
TERM : SA2

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

Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30
4	**1**	**3**	**3**	**4**	**1**	**2**	**4**	**3**	**4**	**3**	**2**	**4**

31)



32a) Group A can move freely while group B cannot move freely.
32b) They all need air, food and water.

33a) B
33b) B did not use any water and plastic plants do not need water as they are non-living things.
33c)Plants need water to survive

34) Flowering – A, D, E

Has weak stems - D **Does not have weak stems – A, E**

Non-Flowering

Has weak stems – B,C **Does not have weak stems - F**

35a) Plastic bag
35b) The water bag is water proof so it will not absorb the water from the wet swimming suit.

36a) Y,X,Z
36b) Material Y is the strongest as it can withstand the weight.

37a) D
37b) D is the hardest and cannot be scratched by other materials.

38a) X is not waterproof as the pillowcase became wet while Y is waterproof as no water can leak through and wet the pillowcase.
38b) Paper

39a) Pupa
Adult Chicken
39b) Mosquito. It has the same number of stages as the beetle.

40a) Stage A –seedlings
Stage B –Adult Plant
40b) Stage B
40c) It has already grown fruit and inside the fruit there are seeds.

41a) The location
41bi) Sunlight
41bii) water

42ai) √
42aiii) √
42aiv) √

42bi) Number of coils
42bii) The voltage of the batteries

43) Non-metals – Marbles, Plastic bag
Metals – Copper coin, steel thumbtack, iron nail, paper clip

Magnet – copper coin

Magnetic – Steel thumbtack, iron nail, paper clip

44a) U-shaped magnet
44b) It could not attract the iron ball 15cm away while the other magnets could attract the iron ball 15cm away.
44c) She could try to see if the rod magnet or the ring magnet can attract the iron ball 20cm away.