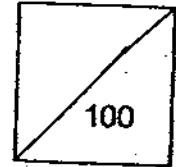




**HENRY PARK PRIMARY SCHOOL
2009 SEMESTRAL EXAMINATION 2
SCIENCE
PRIMARY 3**

Duration of Paper: 1 h 45 min



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.

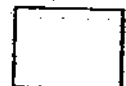
1. Study the two groups below.

Group A	Group B

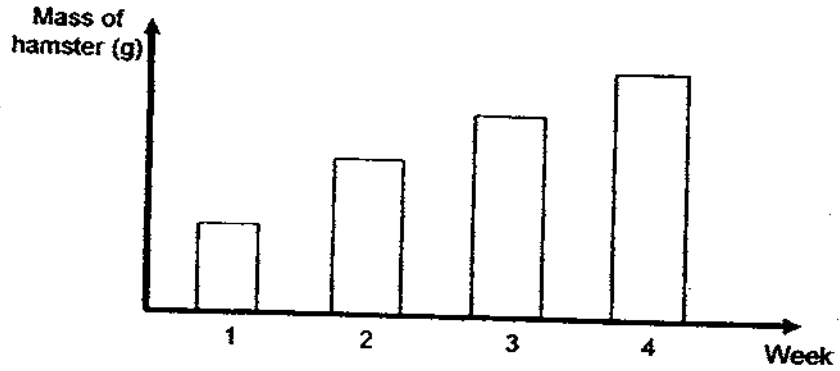
Which of the following statements about the two groups is TRUE?

- (1) Things in Group B only need air to stay alive.
- (2) Things in Group A consist of non-living things.
- (3) Things in both Group A and B can move about freely.
- (4) Things in both Group A and B can reproduce.

()



2. Sam recorded the mass of his pet hamster over 4 weeks. The graph below shows the changes in his pet hamster's mass.



Which characteristic of living things does the graph above show?

- (1) Living things die.
- (2) Living things grow.
- (3) Living things respond to changes.
- (4) Living things move by themselves.

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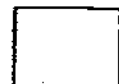
3. Some animals have been grouped in the table below.

Group A	Group B
Snail	Shark
Cow	Crocodile
Elephant	Leopard

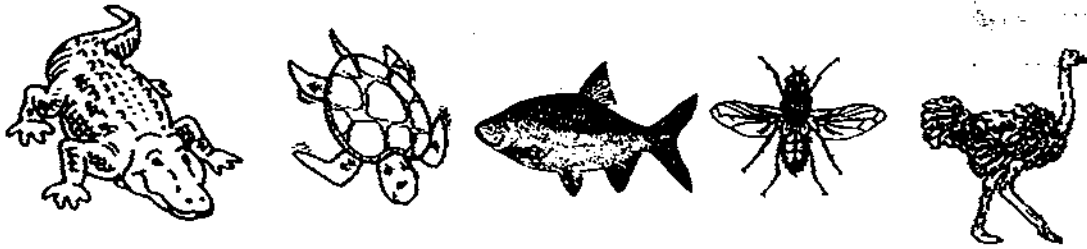
Which of the following shows suitable headings for Groups A and B?

	Group A	Group B
(1)	Plant Eaters	Animal Eaters
(2)	Mammals	Not mammals
(3)	Animal and Plant Eaters	Animal Eaters
(4)	Animals that live on land	Animals that live in water

()



4. Look at the animals below.

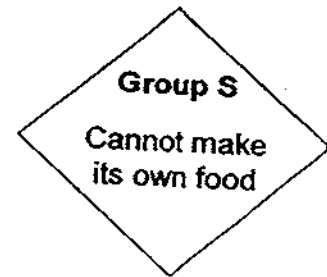
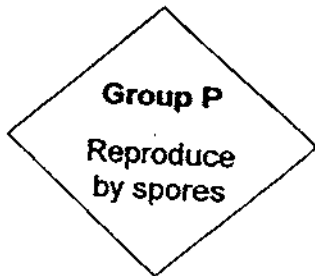


What is the similarity among the animals above?

- (1) They can fly.
- (2) They lay eggs.
- (3) They live in water.
- (4) They are animal eaters.

()

5. Study the groups below carefully.



The picture below shows a part of a plant.





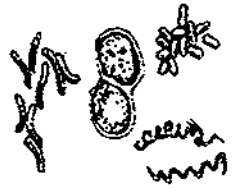

In which groups, P, R or S, can this plant be placed in?

- (1) P only
- (2) P and R only
- (3) P and S only
- (4) R and S only

()



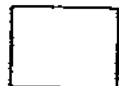
6. Paul classified the four living things as plants.

			
cactus	bean plant	bacteria	banana plant

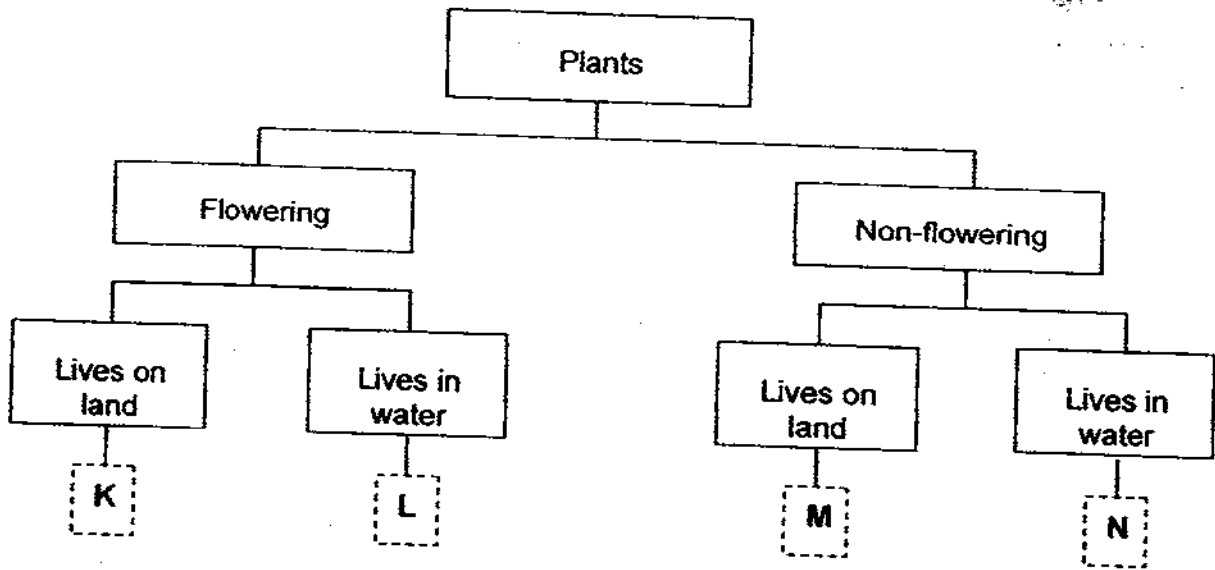
One of the living things is placed wrongly.
Which living thing should Paul remove from the group?

- (1) Cactus
- (2) Bean Plant
- (3) Bacteria
- (4) Banana Plant

()



7. The following classification chart shows how plants can be grouped.



Ben observed the characteristics of 3 plants, (A, B, and C) in the table below. A tick (✓) shows that the plant has the characteristic. A cross (X) shows that the plant does not have the characteristics.

Characteristic	Plant A	Plant B	Plant C
Bears fruit	✓	✓	X
Grows in water	✓	X	X

Which box (K, L, M or N) should Plant A, B, and C belong?

	Plant A	Plant B	Plant C
(1)	K	L	N
(2)	N	K	L
(3)	L	K	M
(4)	K	M	N

()



8. The table below shows the characteristics of **Object X**.
 A tick (✓) shows that it has the property.
 A cross (X) shows that it does not have the property.

Object X		
Soft	Strong	Flexible
✓	X	✓

Which one of the following can **Object X** be?

- (1) Metal ruler
- (2) Spinning top
- (3) Ceramic cup
- (4) Rubber band

()

9. 3 Little Pigs built 3 different houses.
 The first house was made from straw. The second house was made from wood while the third house was made from bricks.
 Big Bad Wolf was unable to blow the third house down.

Which property of the bricks prevented the house from being blown down?

	Property
(1)	Hardness
(2)	Strength
(3)	Flexibility
(4)	Waterproof

()

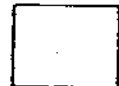
10. Amanda and Billy found a pupa in the school garden.
 They wrote the statements below after observing the pupa for two weeks.

- A: The pupa is changing into a butterfly.
- B: The pupa is moulting.
- C: The pupa does not need air.

Which of the statements below is/are **FALSE**?

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

()



11. Annie did a study on two animals, Y and Z. She made a checklist based on her observations.
 A tick (✓) shows that the animal has the characteristic.
 A cross (X) shows that the animal does not have the characteristic.

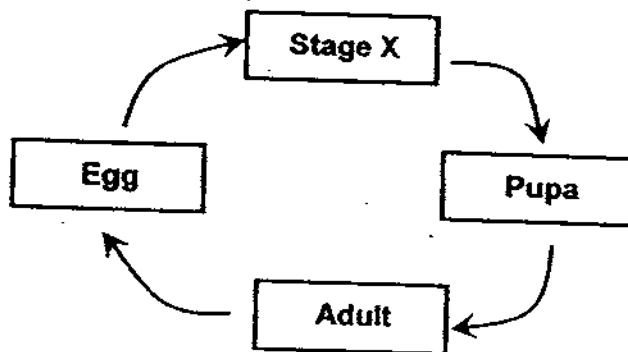
Observation	Animal Y	Animal Z
There are 4 stages in the life cycle.	X	✓
The young looks like its parent.	✓	X
The eggs are laid on land.	✓	✓

Which one of the following represents Animals Y and Z correctly?

	Animal Y	Animal Z
(1)	Cricket	Frog
(2)	Mosquito	Butterfly
(3)	Grasshopper	Cockroach
(4)	Cockroach	Butterfly

()

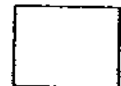
12. Study the diagram below.



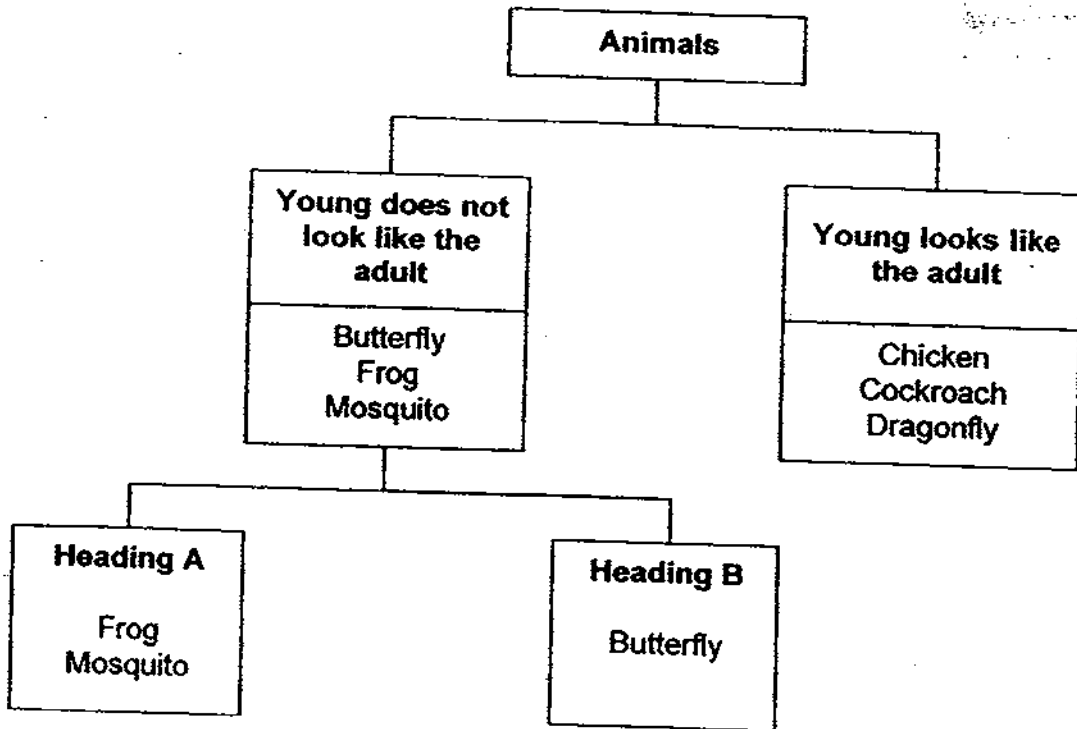
Which one of the following represents the animal at **Stage X** and **Adult** stage correctly?

	Stage X	Adult
(1)	Chick	Chicken
(2)	Nymph	Grasshopper
(3)	Tadpole	Frog
(4)	Caterpillar	Butterfly

()



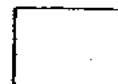
13. Study the classification table below carefully.



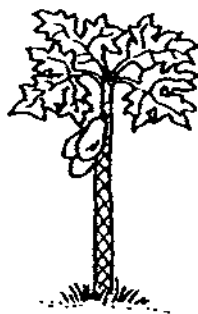
Which one of the following represents **Headings A and B** correctly?

	Heading A	Heading B
(1)	Moults when young	Does not moult when young
(2)	Lays its eggs in water	Lays its eggs on land
(3)	Has four stages in its life cycle	Has three stages in its life cycle
(4)	Plant eater	Animal eater

()



14. The diagram below shows a papaya plant.



Janet wrote some statements about the plant.

- A: It can flower.
- B: It has a weak stem.
- C: It reproduces by seeds.
- D: It is in the adult stage of its life cycle.

Which one of the following statements is/are correct?

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

15. The diagram below shows the different stages of a seed growing. At which stage will it need sunlight to grow?

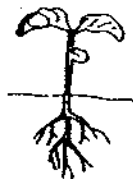
(A)



(B)



(C)



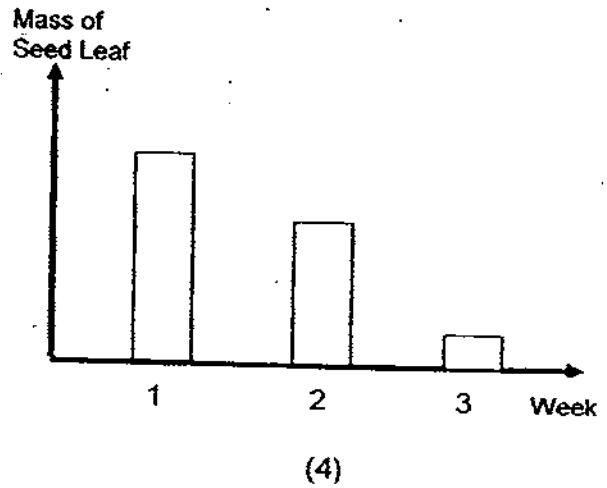
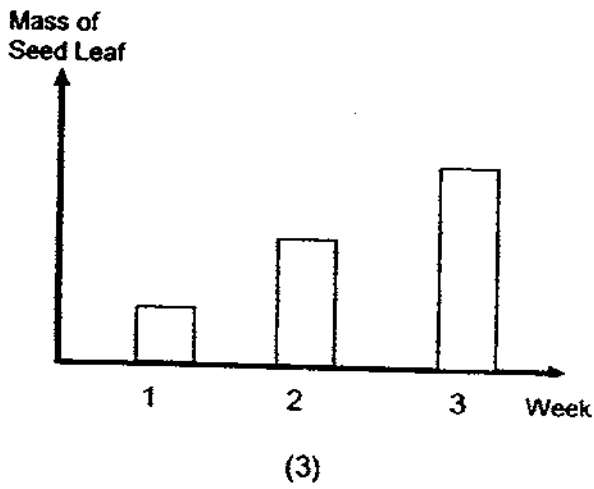
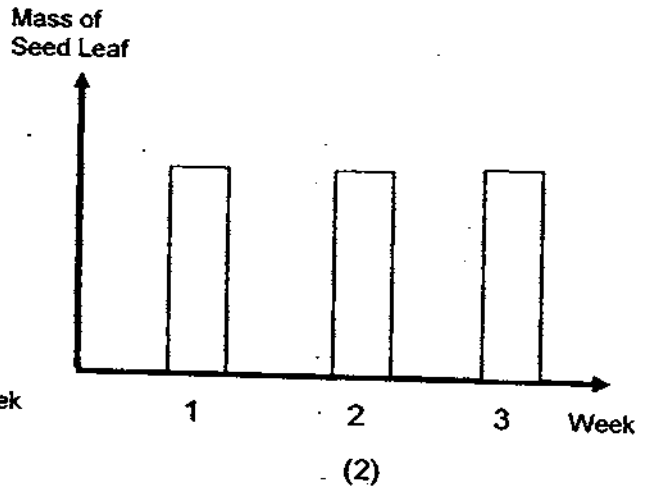
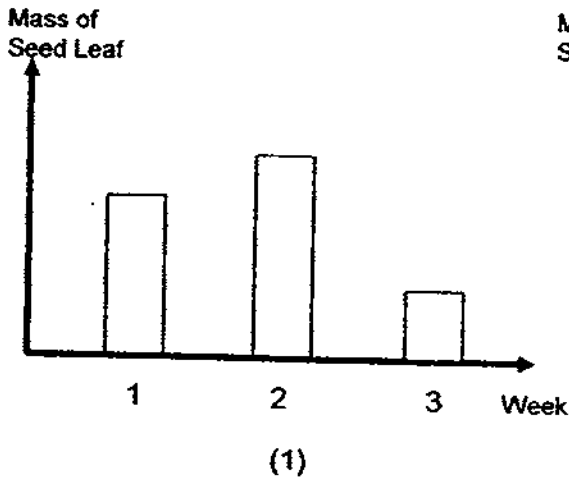
(D)



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



16. Sally germinates some seeds. She measures the mass of seed leaves as the seedlings grow. She shows her results in a graph. Which of the following graphs below shows correctly the changes in the mass of the seed leaves as the seedlings grow?



()

17. Which of the following will cause a magnet to lose its magnetism?

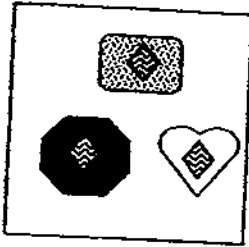
- A: When it is placed in a freezer for a long time.
- B: When it is placed near a compass.
- C: When it is placed in boiling water.

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

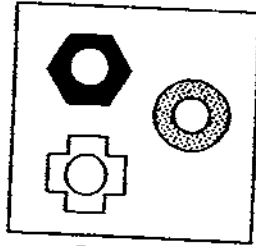
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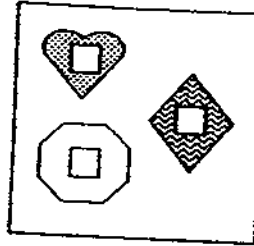
18. Study the 4 groups below.



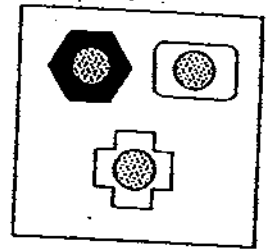
Group A



Group B



Group C



Group D

Look at the shape below.

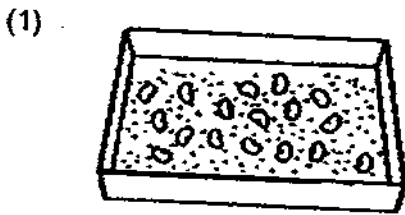


Which group does the shape belong to?

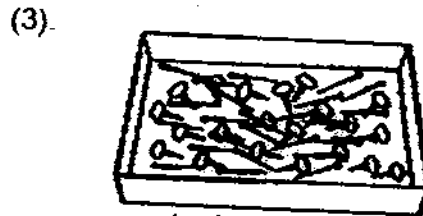
- (1) A
- (2) B
- (3) C
- (4) D

()

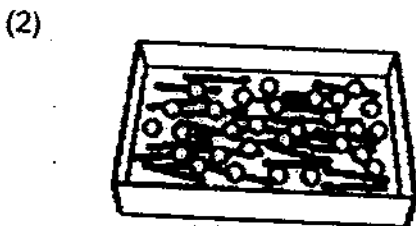
19. There are two types of objects in each of the trays shown below. Which mixture of objects can be easily separated using a magnet?



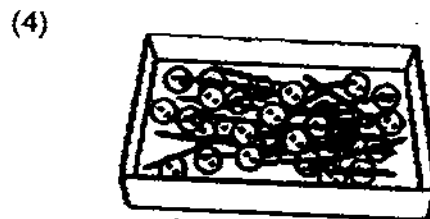
beans and soil



steel needles and steel thumbtacks



matchsticks and copper coins

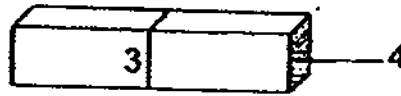
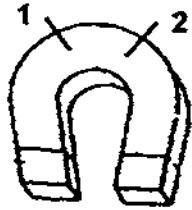


plastic buttons and steel needles

()



20. The diagrams below show two magnets of different shapes.

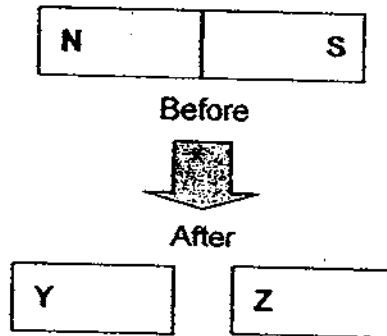


Based on the diagrams above, which of the following parts of the magnets can attract the most pins?

- (1) Part 1
- (2) Part 2
- (3) Part 3
- (4) Part 4

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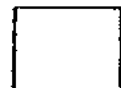
21. Evelyn broke a magnet into two pieces.



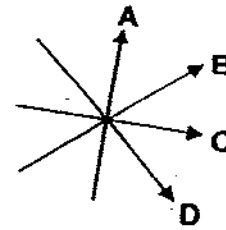
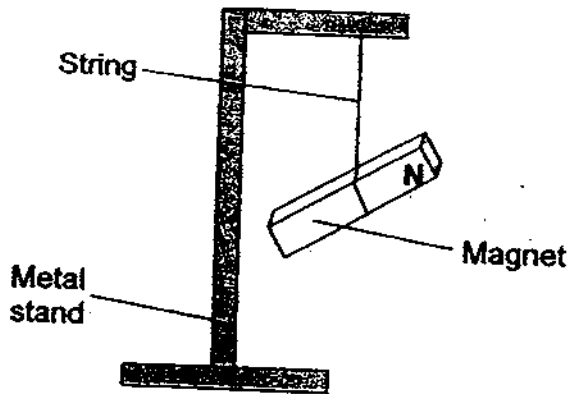
Which of the following shows what poles Y and Z are?

	Y	Z
(1)	South	South
(2)	North	North
(3)	South	North
(4)	North	South

()



22. A bar magnet was left hanging from a string on a metal stand. It rotated for a while then came to a complete stop.

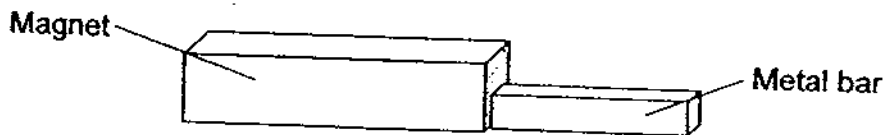


Which arrow, A, B, C or D is pointing in the North direction?

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

()

23. Sam brought a magnet close to a metal bar. The metal bar was attracted to the magnet.



Sam then made the following statements:

- A: The metal bar could be a magnet.
- B: The metal bar could be made from gold.
- C: The metal bar could be made of a magnetic material.

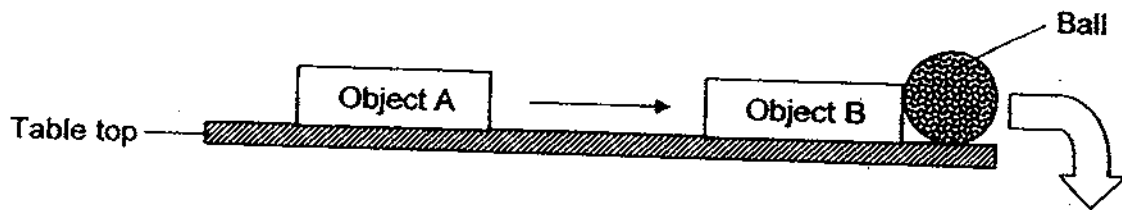
Which of the above statements are correct?

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

()



24. Edwin pushed Object A towards Object B slowly. Before Object A touches Object B, he observed that the ball was pushed off the table by Object B.

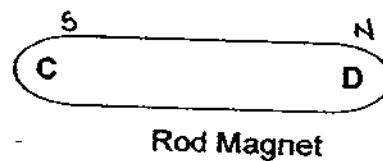
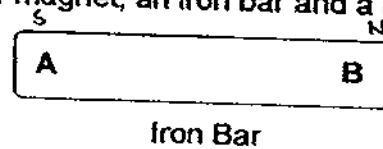
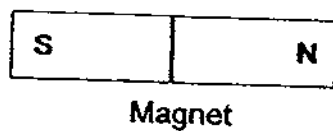


If Objects A and B did not touch each other, what could Objects A and B be?

	A	B
(1)	Magnet	Iron
(2)	Nickle	Magnet
(3)	Iron	Steel
(4)	Magnet	Magnet

()

25. Lynn carried out an experiment with a bar magnet, an iron bar and a rod magnet.

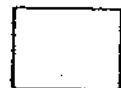


She brought the North pole of the magnet close to different ends, A, B, C and D, of the iron bar and rod magnet.

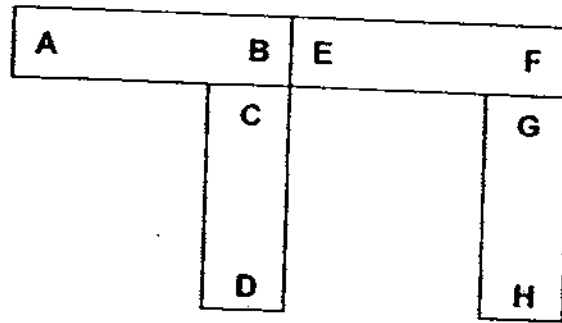
Which one of the following would be Lynn's observation?

	Bar		Rod Magnet	
	Iron Magnet		C	D
	A	B		
(1)	Attract	Repel	Attract	Repel
(2)	Attract	Attract	Repel	Attract
(3)	Attract	Attract	Attract	Attract
(4)	Repel	Repel	Attract	Attract

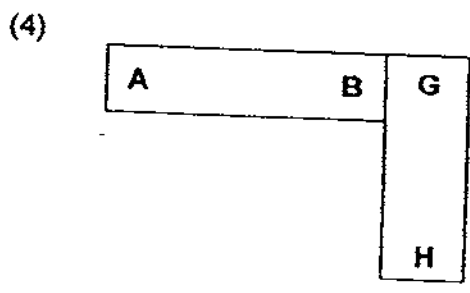
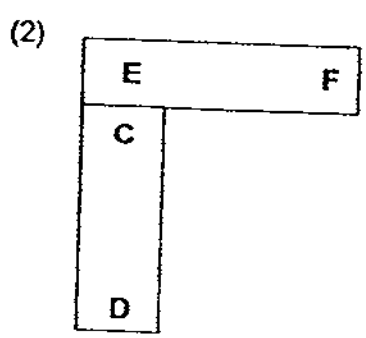
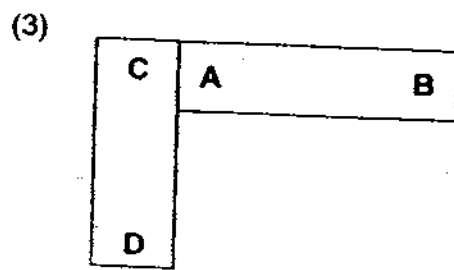
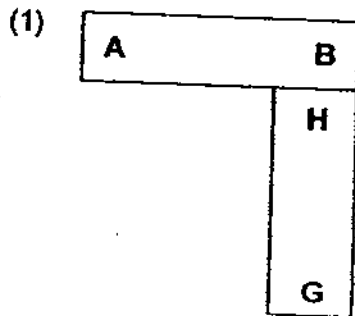
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26. Four bar magnets with their ends marked A to H can be arranged in the manner as shown below.



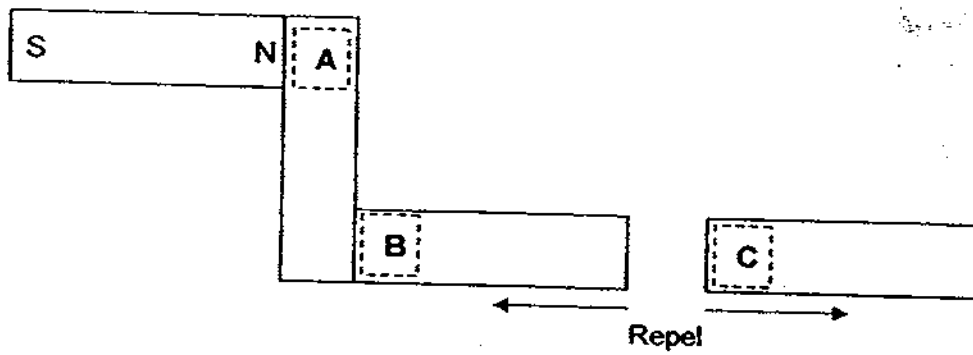
Which of the following diagrams shows a possible arrangement of two of the magnets?



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27. The diagram below shows the arrangement of 4 magnets.



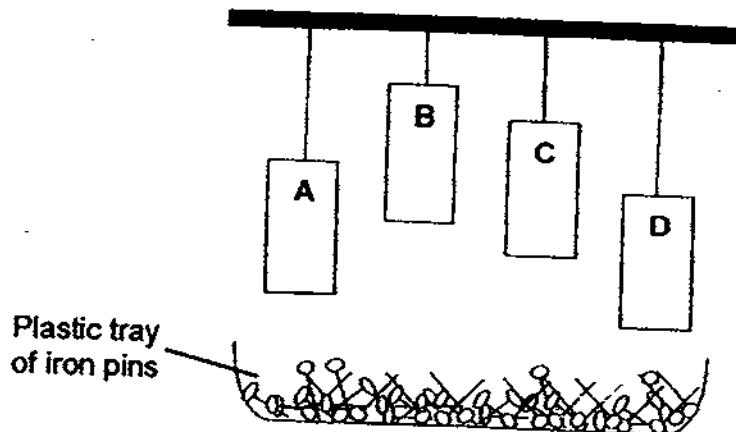
Which one of the following correctly represents what poles A, B and C are?

	A	B	C
(1)	South	South	South
(2)	North	North	South
(3)	South	South	North
(4)	South	North	South

()



28. Four similar-sized magnets, A, B, C and D are hung from strings of different lengths as shown below. A plastic tray of iron pins was placed below the magnets.



The table below records the number of pins attracted to each magnet.

Magnet	Number of pins attracted to magnet
A	5
B	7
C	7
D	5

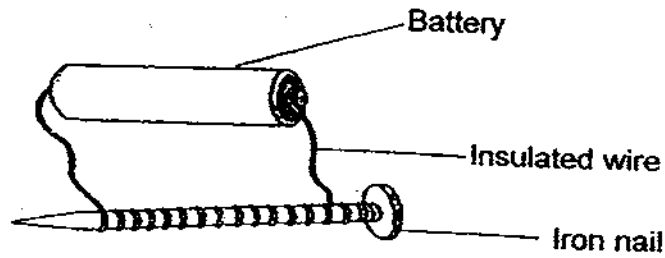
Which magnet is the strongest?

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

()



29. Julie prepared the setup below.



Julie wanted to increase the strength of the electromagnet. Her friends gave her the following suggestions.

Alex: Use a longer wire

Bob: Use more batteries

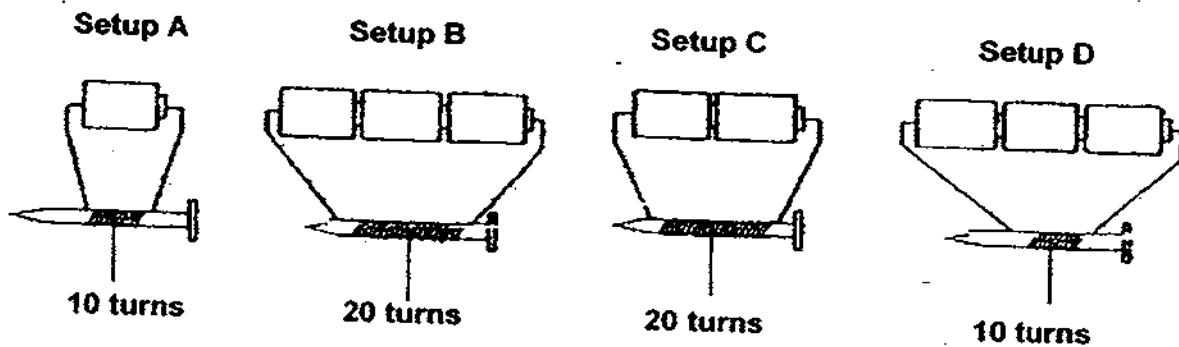
Chris: Increase the number of coils of wire around the iron nail

To increase the strength of the electromagnet, whose suggestion is correct?

- (1) Bob only
- (2) Alex and Bob only
- (3) Alex and Chris only
- (4) Bob and Chris only

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30. Martini prepared 4 setups using similar batteries, wire and iron nails.



The number of coils of wire around the iron nails and the number of batteries used are different for the setups.

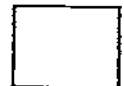
Which 2 setups should she choose to find out if the number of batteries would affect the strength of the electromagnets?

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

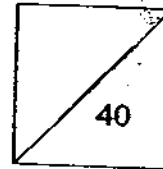
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End of Part 1

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HENRY PARK PRIMARY SCHOOL
2009 SEMESTRAL EXAMINATION 2
SCIENCE
PRIMARY 3



Name: _____ ()

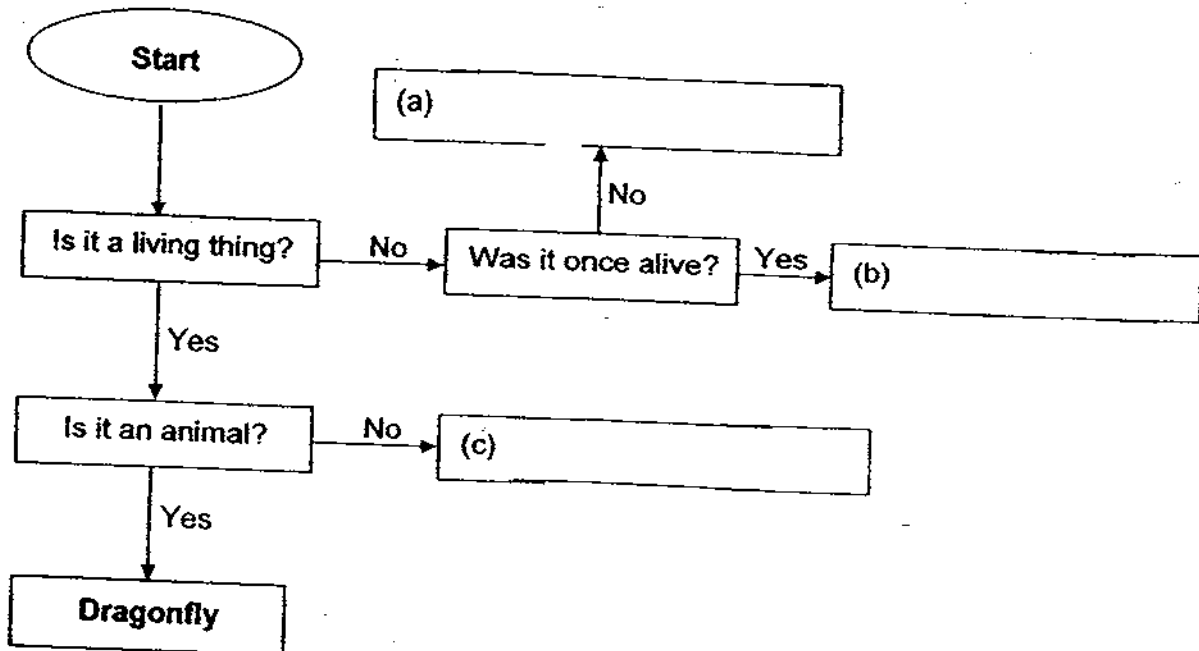
Class: Pr 3 _____

PART 2 (40 marks)

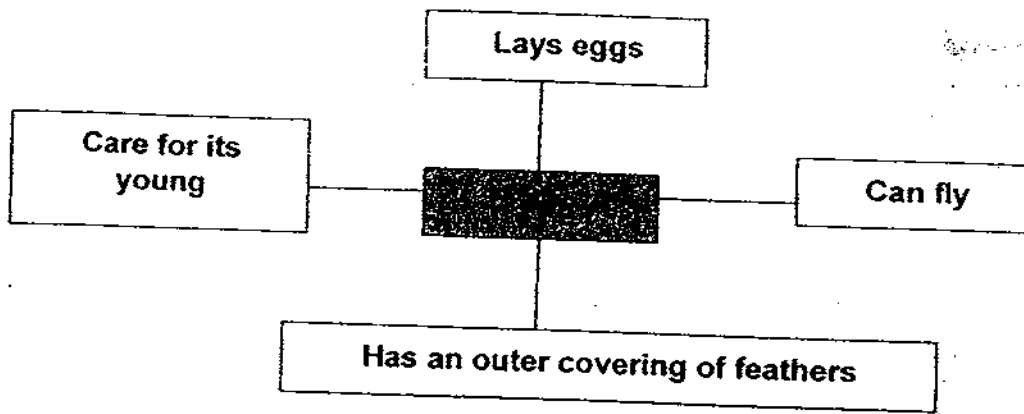
Write your answers to questions 31 to 46 in the spaces given.

31. Study the flowchart below and fill in the blanks with the words given in the box. (3m)

metal fork moss wooden table



32. The diagram below describes Animal Y.

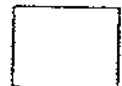


a) Using the information above, which group of animals does Animal Y belong to? Explain your answer. (1m)

b) State one similarity and one difference between Animal Y and a goldfish. (2m)

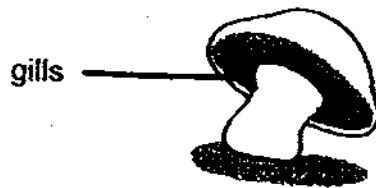
Similarity: _____

Difference: _____



33. The picture below shows a mushroom.

(3m)



a) What is the function of the gills in the mushroom?

(1m)

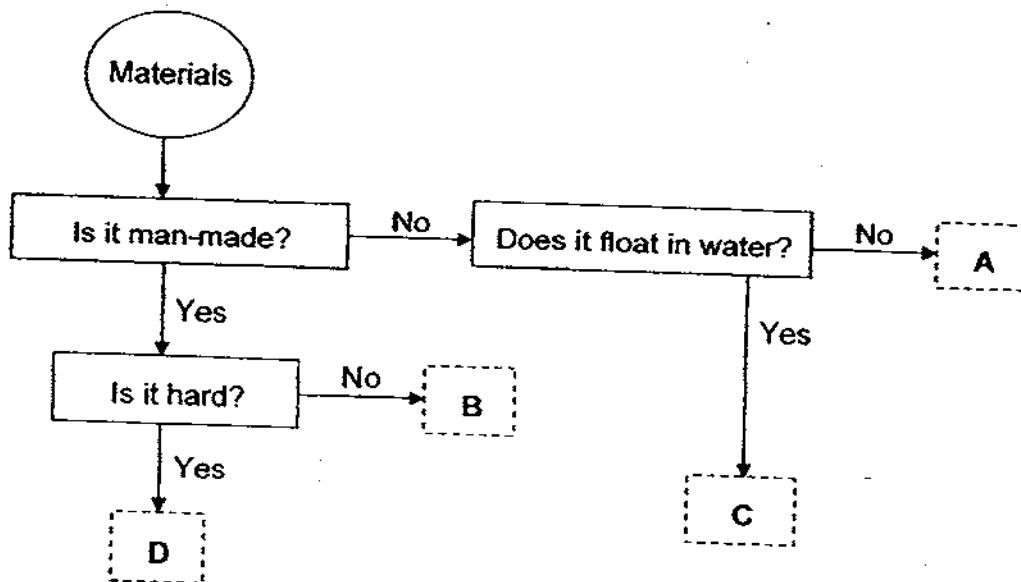
b) State two differences between a mushroom and a bean plant.

(2m)

(i) _____

(ii) _____

34. The chart below describes materials A,B, C and D.



Draw lines to match the materials.

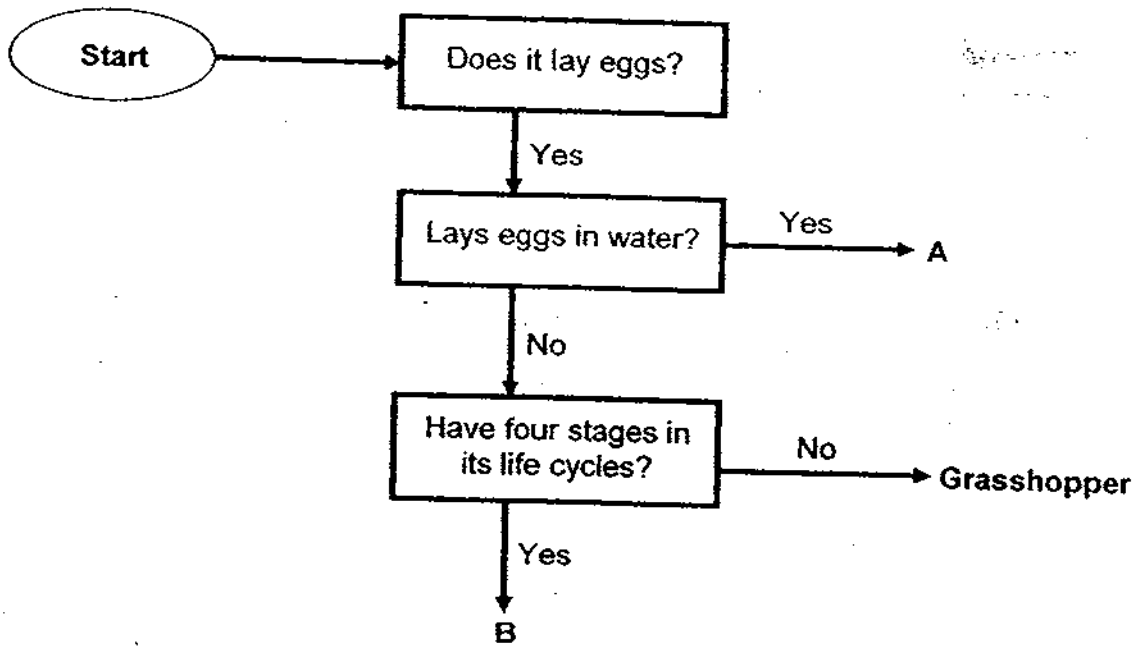
(3m)

- A ★
- B ★
- C ★
- D ★

- ★ Metal
- ★ Wood
- ★ Nylon
- ★ Glass



35. The chart below describes the life cycles of different animals.

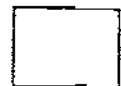


a) What could Animal A and Animal B be? (2m)

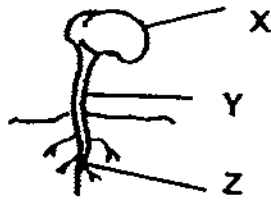
Animal A: _____

Animal B: _____

b) Using information from the chart above, state **ONE** similarity between the grasshopper and Animal A. (1m)



36. The picture below shows a seedling.



a) Which part (X, Y or Z) will provide food for the seedling above? (1m)

b) What will appear from the seedling after this stage? (1m)

c) What will the seedling be able to do after the part in (b) appears? (1m)



37. Lilian conducted an experiment to find out whether fertilisers will cause bean plants to grow more leaves. She planted the same number of bean plants in four separate pots (R, S, T and U).

The table below shows the data collected by Lilian on the growth of the bean plants in the four pots.

Pots	Number of new leaves growing (after 1 week)	Amount of fertilisers added (g)	Amount of water added (ml)
R	8	3	100
S	8	5	200
T	0	3	0
U	2	0	100

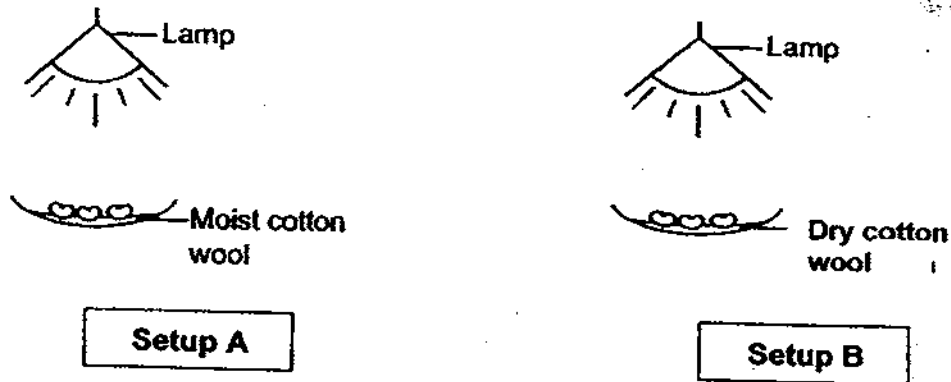
- a) Which two pots should Lilian compare? (1m)

- b) Put a tick (✓) next to the statement that shows what Lilian can learn from the experiment. (1m)

Statements	
▪ Fertilisers do not cause more leaves to grow on bean plants.	
▪ Fertilisers cause more leaves to grow on bean plant.	
▪ Fertilisers cause fewer leaves to grow on the bean plant.	

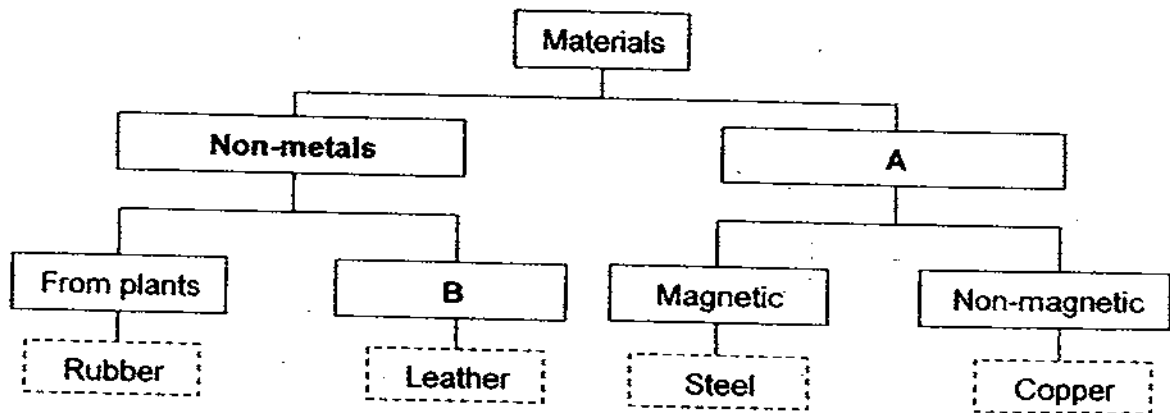


38. David made the setups shown below.

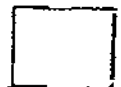


- a) After a few days, in which setup will the seeds germinate? (1m)
-
- b) Explain your answer in (a). (1m)
-
- c) In the set-up you have chosen in (a), David can remove one variable yet the seeds will still continue to germinate. Which variable will it be? (1m)
-

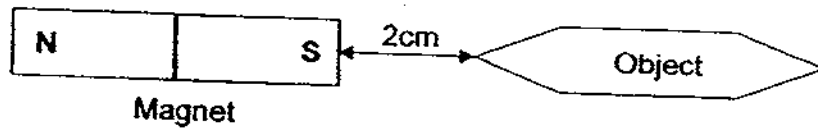
39. Study the classification chart below.



- a) Give suitable headings to A and B. (2m)
- Heading A: _____
- Heading B: _____
- b) Based on the chart above, state a difference between rubber and copper. (1m)
-



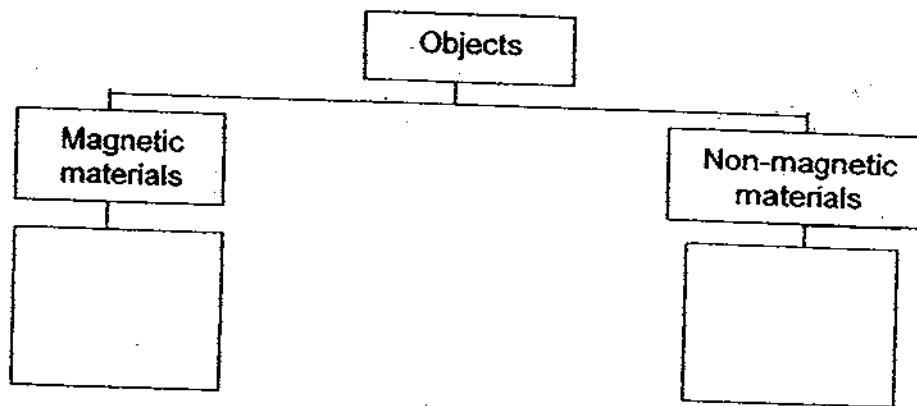
40. Max placed a strong magnet 2 cm away from some objects.



The table below shows the observations Max made.

Objects	Observations made
A	Moved 2cm away from the magnet
B	Did not move
C	Moved 1cm away from the magnet
D	Moved and touched the magnet

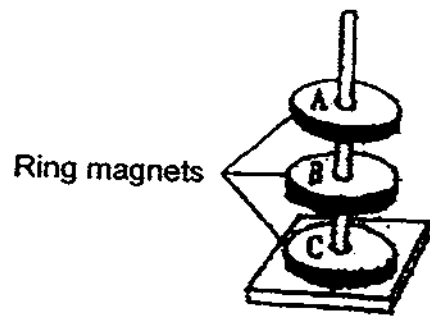
a) Based on the observations Max made, fill in the classification chart below (2m)
with the letters, A to D.



b) Which 2 of the above objects are definitely magnets? (1m)

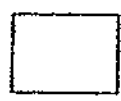


41. The diagram below shows three ring magnets, A, B and C.
Magnet B floated above Magnet C while Magnet A floated above Magnet B.

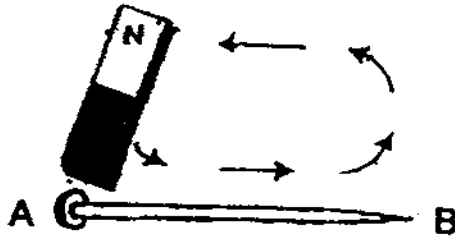


- a) Explain why the magnets did not touch one another. (2m)

- b) The three rings magnets would touch one another if you flip one of them. Which magnet would you flip? (1m)



42. A bar magnet is used to stroke an iron nail in the direction as shown in the diagram below.



- a) When the nail is magnetised, A and B will become poles. Write 'North' or 'South' in the blanks to indicate these poles. (1m)

A: _____

B: _____

- b) Cindy would like to find out: (2m)

WHICH TYPE OF NAILS CAN MAKE THE STRONGEST MAGNET USING THE STROKING METHOD?

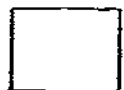
Draw a tick (✓) beside the variable(s) that Cindy should keep the same to ensure a fair test.

Type of nails used

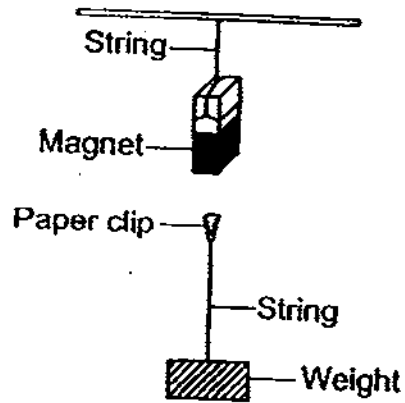
Type of the magnets used

Number of strokes used

Number of paper clips the nails can attract



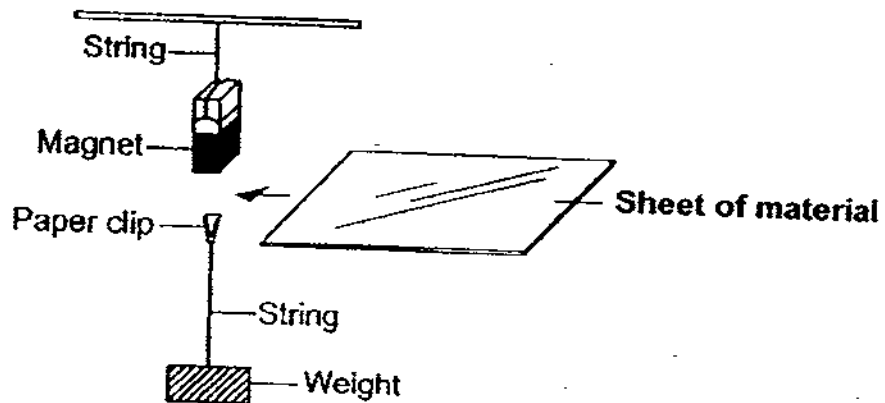
43. Doris prepared a setup as shown below.



a) Explain why the paper clip was suspended in the air.

(1m)

Doris then placed a sheet of material between the paper clip and magnet. She made sure that the sheet of material did not touch the magnet.



Doris observed that the paper clip remained suspended in the air.

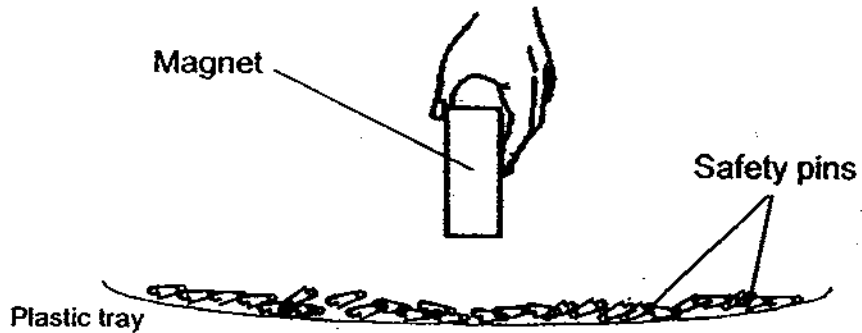
b) What could the sheet of material be made of, aluminium or steel? Explain your choice of material.

(2m)



44. Mona had four magnets, W, X, Y and Z.

To compare the strength of the magnets, she brought each magnet near a plastic tray of safety pins.



The table below shows the number of safety pins attracted by the Magnets W, X, Y and Z, from the various distances.

Magnet	Distance between magnet and safety pins (cm)	Number of safety pins attracted
W	4	10
X	6	11
Y	3	13
Z	4	12

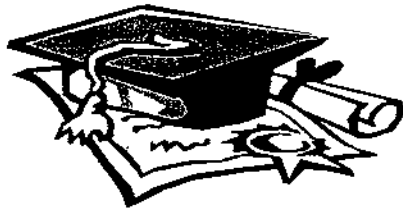
a) Which magnet, W or Z, is stronger? Explain your answer. (1m)

b) From her observation, is it correct for Mona to say that Magnet Y is the strongest magnet? Explain your answer. (1m)

End of Part 2

Setters: Mdm Fathlon Tawfik
Mrs Joyce Wee



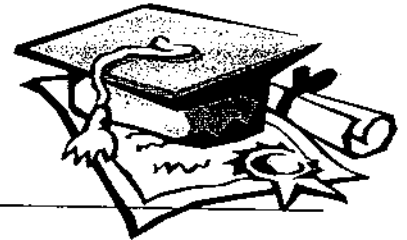


ANSWER SHEET

EXAM PAPER 2009

**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
4	2	1	2	2	3	3	4	2	3	4	4	2	4	3	4	1

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

31) a) metal fork b) wooden table c) moss

32) a) Animal Y belong to birds. Animal Y has an outer covering of feathers.

b) Similarity: Both lay eggs.

Difference: Animal Y can fly but a goldfish can swim.

33) a) There are to hold the spores.

b) i) The mushroom is reproduced by spores but the bean plant is reproduced by seeds.

ii) The bean plant can make its own food but the mushroom cannot make its own food.

34) A. _____
B. _____
C. _____
D. _____

35) a) A: Mosquito B: Butterfly

b) Both lay eggs.

36) a) Part X will provide food for the seedling.

b) True leaves will appear from the seedling.

c) The seedling will be able to make its own food.

37) a) Pot R and U.

b) Fertilisers cause more leaves to grow on bean plant.

- 38)a)Set-up A will germinate.
b)The seeds in set-up A receive air, warmth and water.
c)The variable to remove is the lamp.
- 39)a)A: Metals B: From animals
b)Rubber is a non-metal but copper is a metal.
- 40)a)Magnetic material: C,D,A Non-magnetic material: B
b)A and C.
- 41)a)The like poles of the magnets were facing each other and like poles repel.
b)Magnet B.
- 42)a)A: South B: North
b)Type of the magnets used.
Number of strokes used.
- 43)a)The paperclip is attracted to the magnet.
b)Magnetism can only pass through non-magnetic material and aluminium is a non-magnetic material.
- 44)a)magnet Z. It can attract more safety pins over the same distance.
b)No, the distance can between the magnet and safety pins are not the same.