HENRY PARK PRIMARY SCHOOL
2011 SEMESTRAL EXAMINATION 2
SCIENCE
PRIMARY 3

80

Duration of Paper: 1 h 30 min

Name:_____( )

Class: Pr 3 _____ 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 statements about living things is correct?

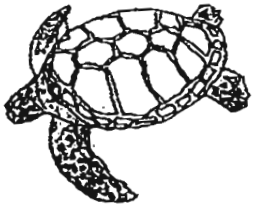
   (1) They feed on smaller animals.
   (2) They can move from place to place.
   (3) They can respond to changes around them.
   (4) They reproduce by giving birth to their young.

( )

2. Ali classified some animals into two groups as shown.

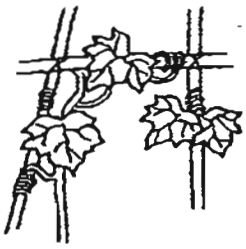
Group Y	Group Z
	
	

Which one of the following animals could be placed together with the animals in Group Y?

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

( )

3. Julie classified 4 plants in a group as shown below.

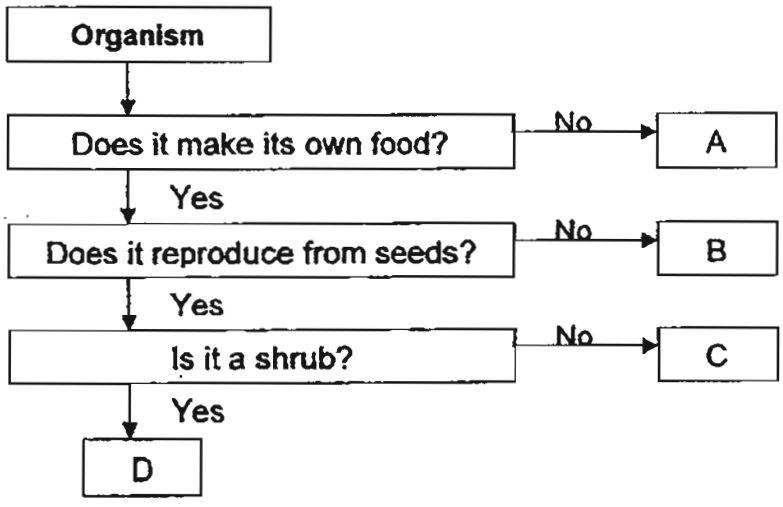
			
Plant A	Plant B	Plant C	Plant D

Her classmate commented that **Plant B** does not belong in the group.
Which one of the following explains why Plant B does not belong?

(1) Plant B has big leaves.
(2) Plant B has weak stems.
(3) Plant B does not have fruits.
(4) Plant B does not have flowers.

( )

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

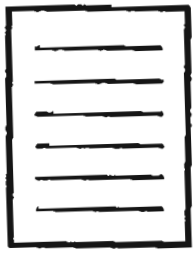


Which organism, A, B, C or D best represents a bird's nest fern?

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

( )

5. Which of the following will likely show signs of fungi growing on it after a few days?

(1)	A wet log 	(2)	Toasted bread 
(3)	A dried leaf 	(4)	Dry writing paper 

( )

6. John used the statements below to describe Material X.

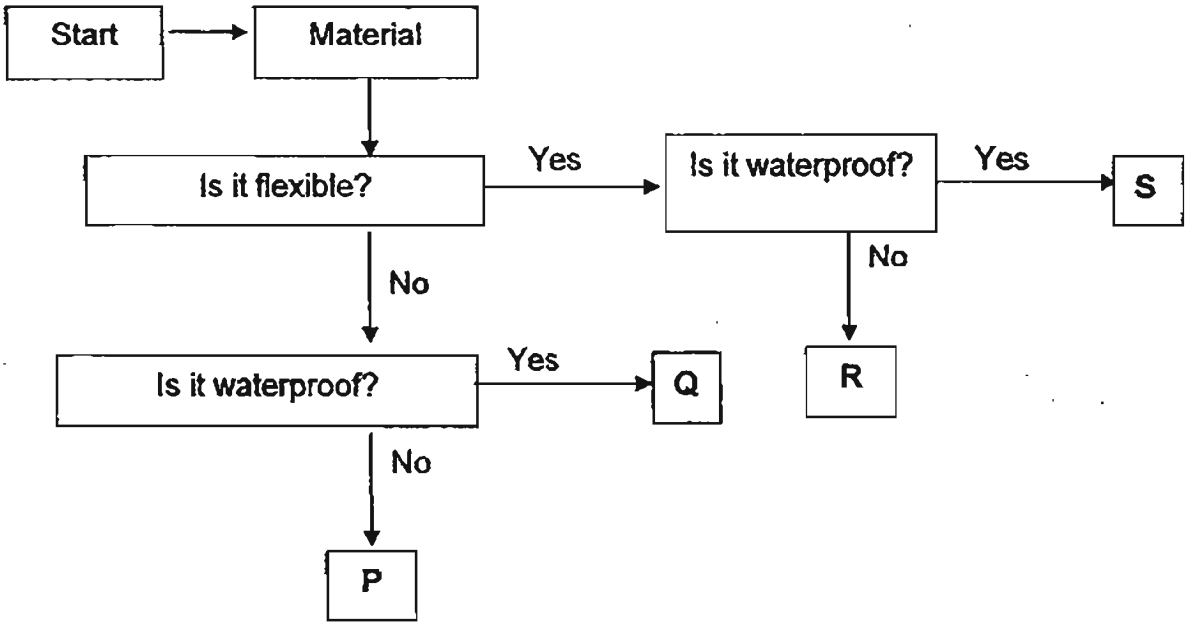
A: It is waterproof.
B: it is non-magnetic.
C: It is transparent.

Which of the following material best represents Material X?

(1) Cloth
(2) Steel
(3) Paper
(4) Glass

( )

7. The flowchart below shows the characteristics of Materials P, Q, R and S.



Which material, P, Q, R or S is most likely to be wood?

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

( )

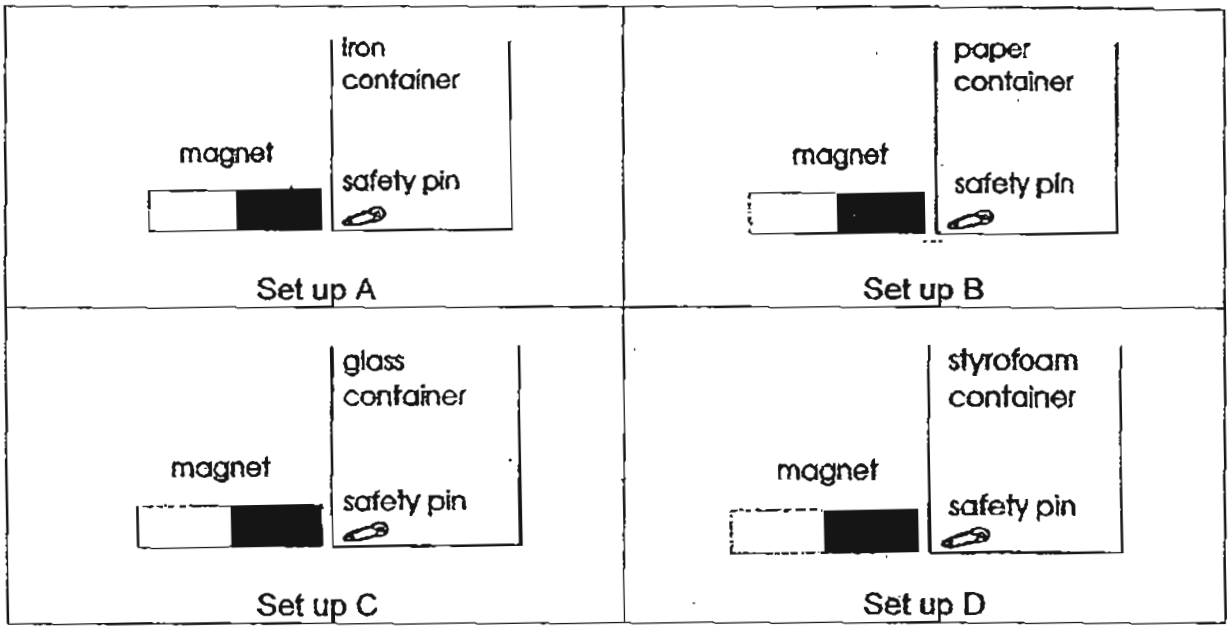
8. The table below shows four materials, objects made of these materials and two properties that make them suitable for use.

Which material has **incorrect** reasons for its use in making the following objects?

	Object	Material	Reasons
(1)	Knife	Metal	▪ Strong ▪ Hard
(2)	Clothes	Fabric	▪ Light ▪ Flexible
(3)	Spectacles	Glass	▪ Breaks easily ▪ Flexible
(4)	Raincoat	Plastic	▪ Flexible ▪ Waterproof

( )

9. Timothy placed a safety pin in 4 containers made of different materials.
He wanted to find out if the same magnet would be able to attract the safety pin out of the containers when he moves the magnet without touching the containers.



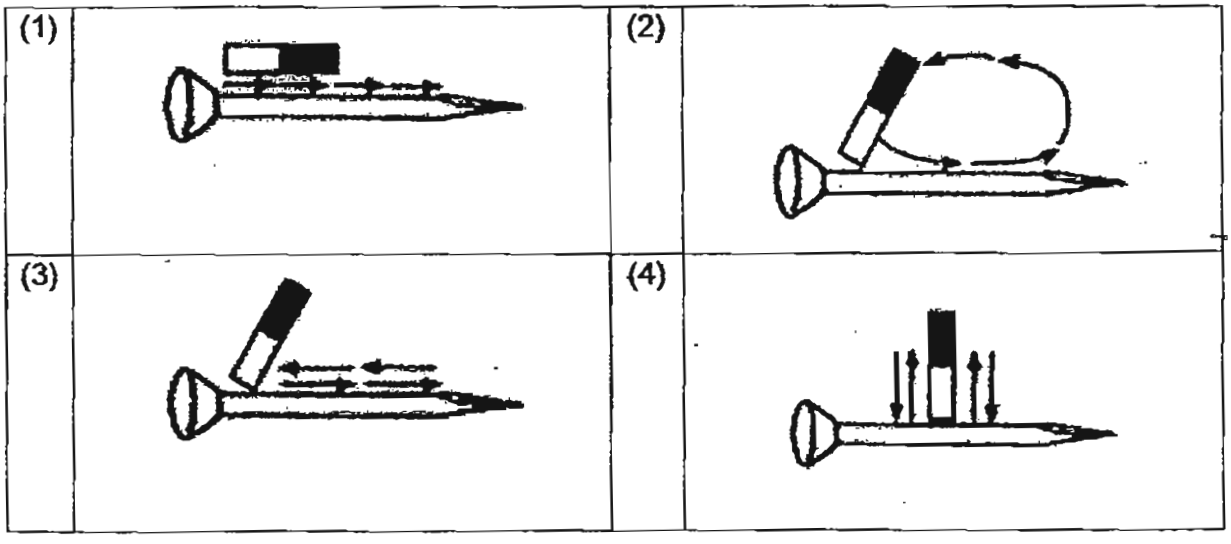
In which of the following set ups the magnet **will not** attract the safety pin?

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

( )

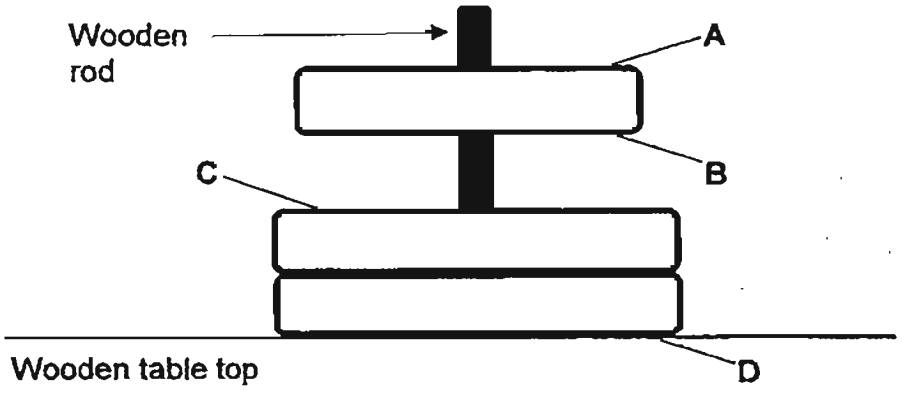
10. Bala learnt that a nail can be made into a magnet by stroking it with a magnet.

Which is the correct way of doing it?



( )

11. Shirley puts a wooden rod through three ring magnets as shown below.

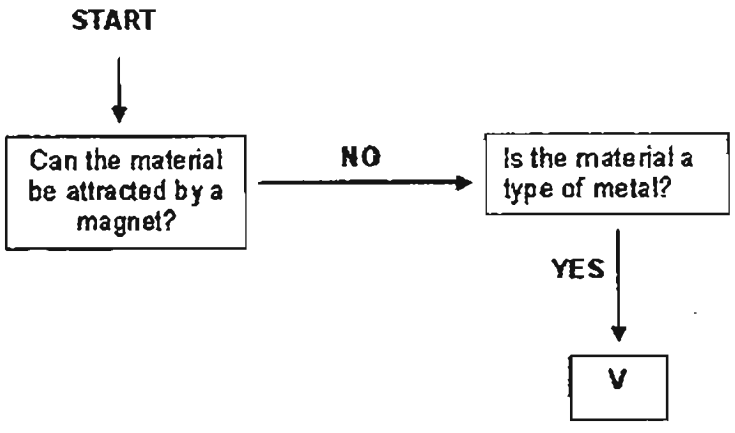


Which one of the following correctly labels the poles A, B, C and D?

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

( )

12. The flow chart below shows the characteristics of Material V.



Which of the following could Material V be?

(1) Iron
(2) Gold
(3) Nickel
(4) Cobalt

( )

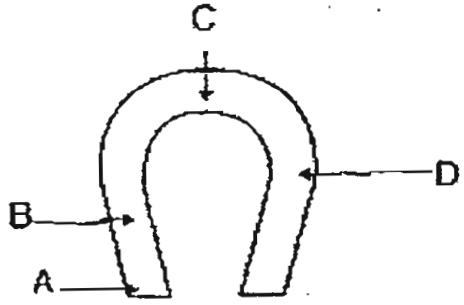
13. Ivy made a toy boat with a magnet in it. She held object 'X' near the boat, and the boat moved away from her.

Object 'X' is likely to be a _____.

(1) magnet
(2) steel ruler
(3) copper nail
(4) silver bracelet

( )

14. The diagram below shows a 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?

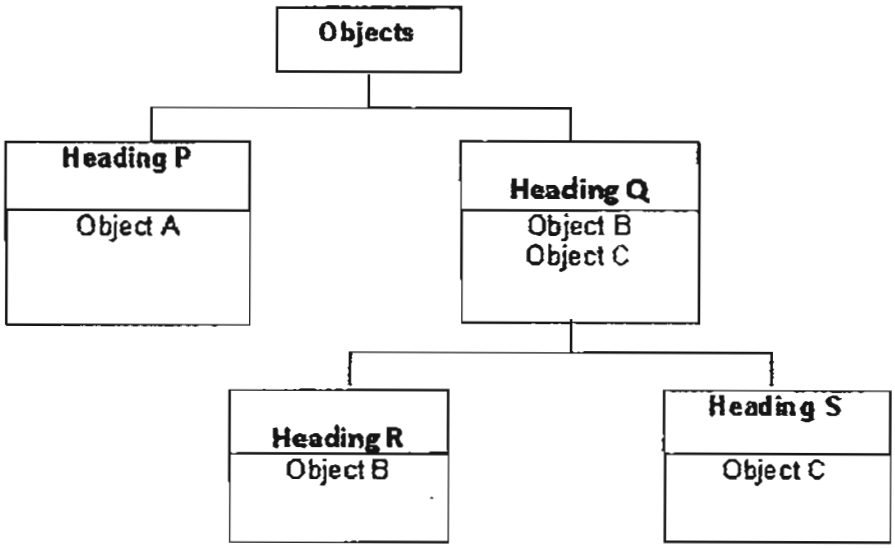
(1) A
(2) B
(3) C
(4) D

( )

15. The table below shows the characteristics of some objects.

Characteristics / Objects	Is it a metal?	Is it magnetic?	Is it waterproof?
A	✓	✓	X
B	✓	X	✓
C	X	X	✓

The classification chart below shows how objects A, B and C are grouped.

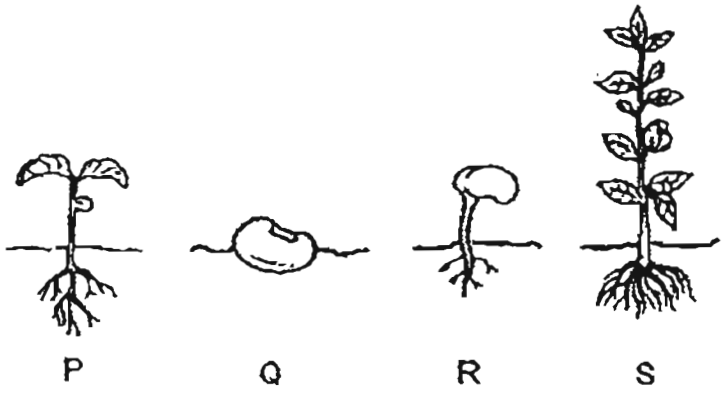


Based only on the information given above, which of the following can heading R be?

(1) Metal
(2) Magnetic
(3) Non-magnetic
(4) Waterproof

( )

16. The following shows the stages in the life cycle of a bean plant.
Study the diagrams and answer **questions 16 and 17.**



Which of the following shows the life cycle of the bean plant in the correct order?

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

( )

17. At which stage of the life cycle above is sunlight needed for the plant to make food?

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

( )

18. Amanda wishes to carry out an experiment to find out whether kidney bean seeds or green bean seeds germinate faster.

Which of the following variables must she **keep the same** for this experiment?

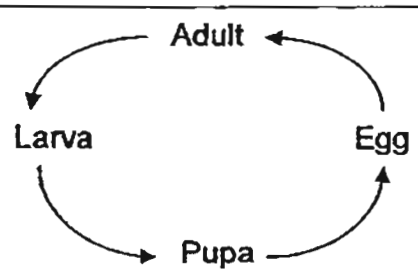
A: The type of soil
B: The type of seeds
C: The amount of water given to the seeds
D: The temperature of the location where seeds are placed.

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

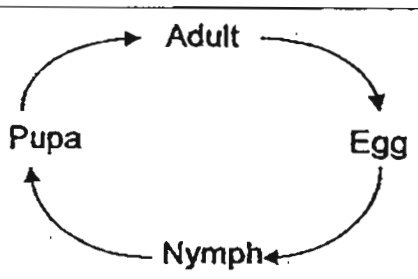
( )

19. Which of the following shows the life cycle of a cockroach?

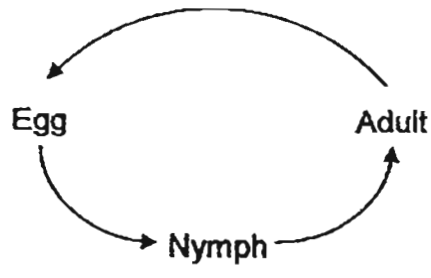
(1)



(2)



(3)



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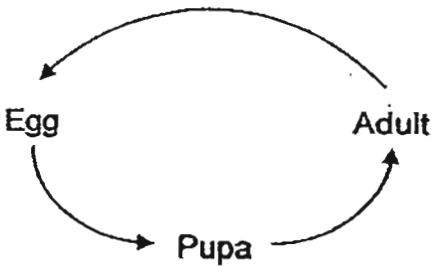
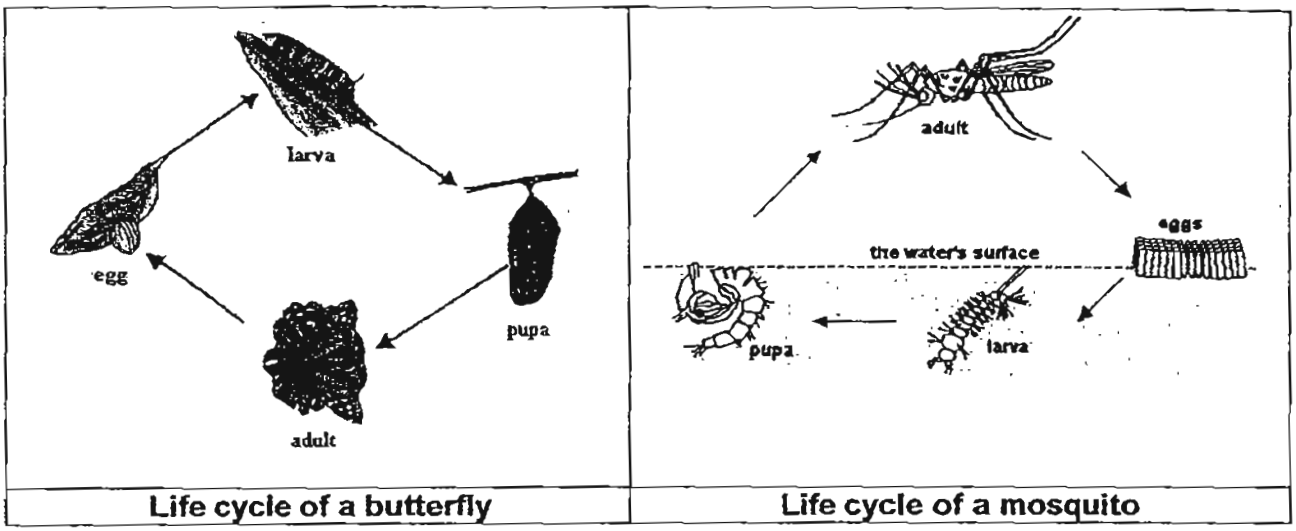


( )

20. The diagram below shows the life cycle of a butterfly and a mosquito.



Which of the following statements about their life cycles are most likely correct?

A: The mosquito spends part of its life in the water but the butterfly does not.
B: There are four stages in the life ~~cycle~~ cycle of the butterfly while the mosquito has three stages in its life cycle.
C: Both the larva of the butterfly and the mosquito go through the process of moulting.
D: During the life cycle of each animal, only the mosquito stops feeding during one stage.

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

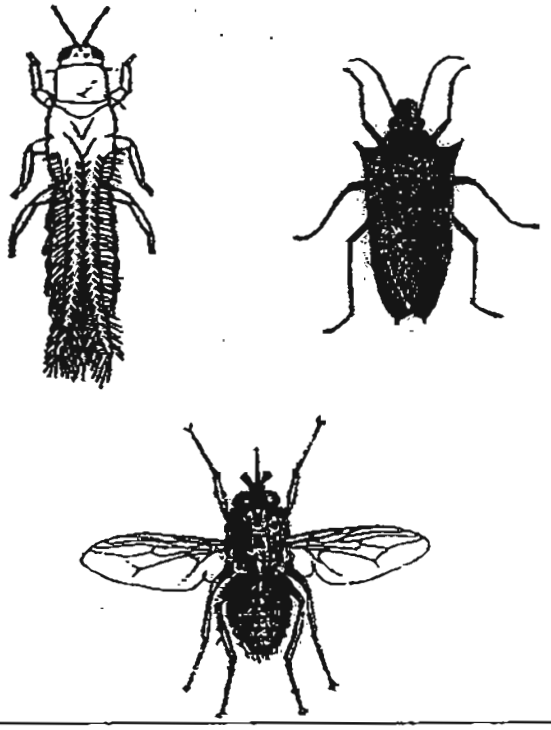
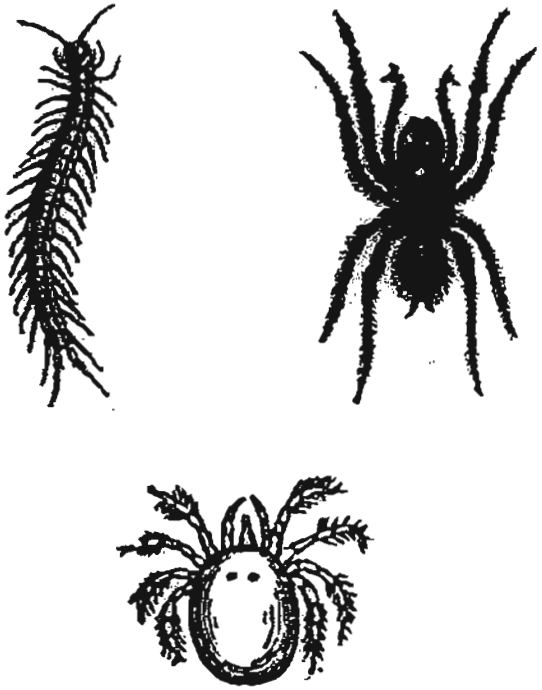
End of Section A

Name:_____( ) Class: Pr 3_____

Section B (12 marks)

For each question from 21 to 26, read the instructions carefully and write your answer in the spaces provided.

21. Siti caught some organisms from her home garden and classified them into two groups as shown below.

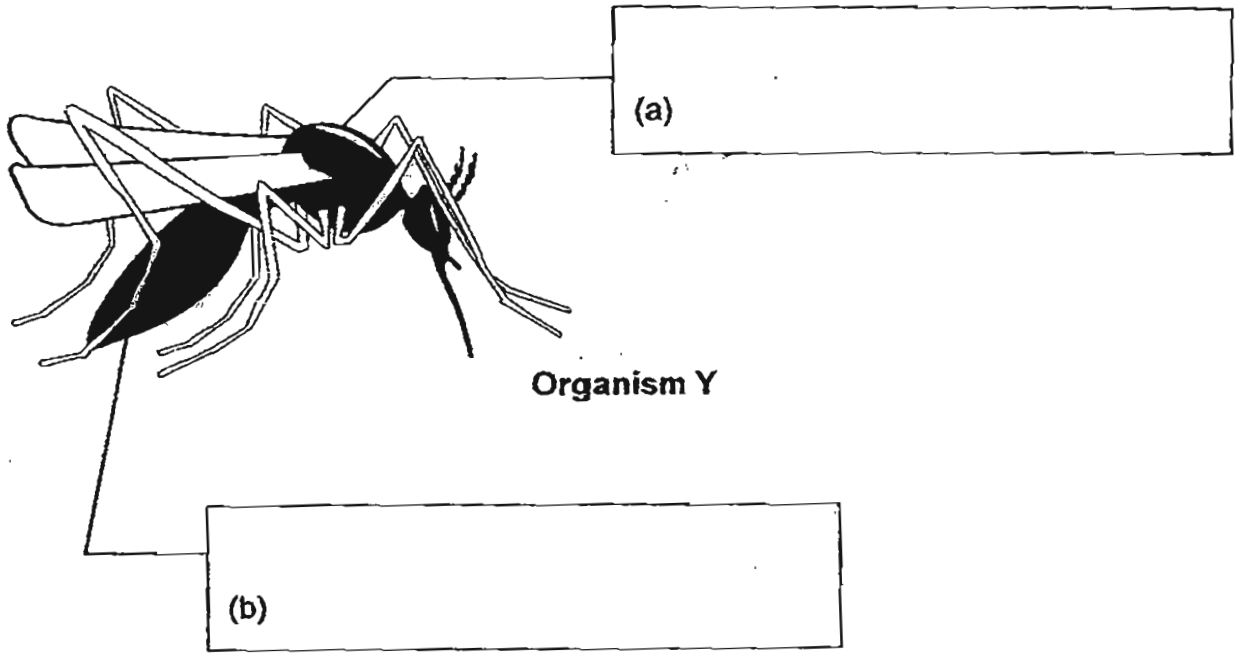
Group A	Group B
	

Write suitable headings for Group A and Group B. [2m]

Group A: _____

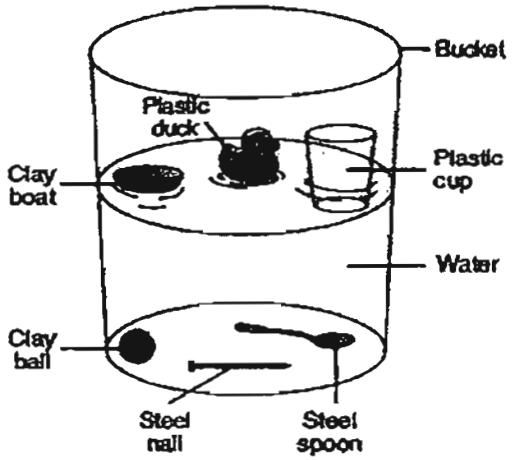
Group B: _____

22. Label the body parts of Organism Y drawn below. [2 m]



Organism Y

23. Faizal collected some objects to find out if they would float or sink as shown below.



He recorded the mass of the objects in a table.

a) Tick (√) **'Float'** or **'Sink'** in the respective columns for the objects according to Faizal's experiment above. [1m]

Objects	Mass	Float	Sink
Clay boat	50 grams		
Clay ball	50 grams		
Steel nail	20 grams		
Steel spoon	15 grams		
Plastic duck	10 grams		
Plastic cup	5 grams		

Faizal made the following conclusions **based on his experiment above.**

b) Tick (√) **'True'** or **'False'** in the respective columns for the following conclusions. [1m]

Conclusions	True	False
(i) Objects made of clay will sink.		
(ii) The mass of an object will determine if it floats or sinks in water.		

24. Classify the following objects into the table below. [2m]

Chair

Compass

Light Switch

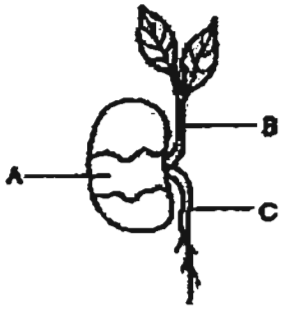
Refrigerator

Make use of magnets	Do not make use of magnets

25. Read each statement and put a tick in the box to show whether it is true or false. [2m]

	Statement	True	False
(a)	A magnet is strongest at its poles.		
(b)	The bigger a magnet, the stronger it is.		
(c)	The north pole of a magnet is always stronger than its south pole.		
(d)	A magnet comes to rest in a north-south direction when turned freely.		

26. The diagram below shows a young seedling of a bean plant.



a) Name the parts marked 'A' and 'C'. [1m]

A: _____

C: _____

b) During the growth of the seed, which part, B or C, appears first? [1m]

_____

End of Section B

Name:_____ ( ) Class: Pr 3._____

Section C (28 marks)

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

27. List the characteristic of the living things observed in each of the following statements.

(a) The height of a hibiscus plant increased by 3 cm in a week.

Living things _____.

(b) Some eggs are found in the pigeon's nest.

Living things _____.

(c) A deer running away from a lion.

Living things _____.

(d) Jonathan touched a glass of hot milk and quickly pulled his hand away.

Living things _____. (4m)

28. The diagram below shows two groups of plants.

Group A	Group B
	
	
	

(a) Give suitable headings for Group A and Group B. [2]

Group A: _____

Group B: _____

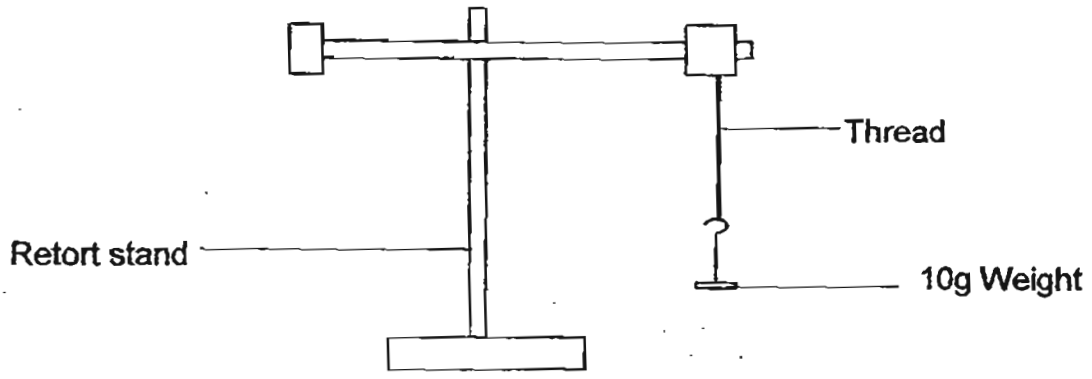
b) Which group should "moss" be put in? [1]

_____

c) How do plants in Group B reproduce? [1]

_____

29. Bernie carried out an experiment to test the strength of 4 different types of string.
He added 10g weights to each string as shown below, one at a time, until the thread broke.



He then recorded his results below.

	Thread A	Thread B	Thread C	Thread D
Number of 10g weights before thread breaks	7	5	12	15

a) Arrange the threads A, B, C and D from **strongest to weakest**. [1m]

_____

b) Based on Bernie's experiment, which thread(s) can be used to support a weight of 100g? [1m]

_____

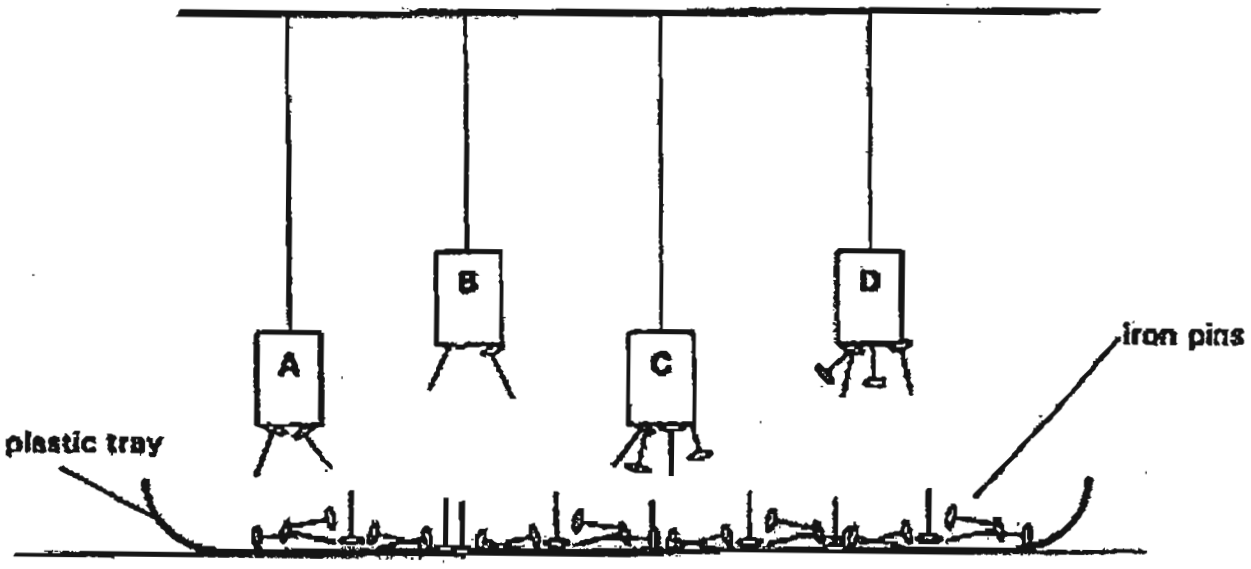
_____

c) Name 2 things that Bernie has to keep the same for a fair experiment. [2m]

(i) _____

(ii) _____

30. Pei Lin set up 4 magnets A, B, C and D as shown below. The magnets are hanging from strings of two different lengths. A plastic tray of iron pins is placed below the magnets. Different numbers of pins are attracted to the magnets.



a) Name the magnet(s) that is/are stronger than A. [1m]

b) Pei Lin concluded that C is **definitely** a stronger magnet than B. Pei Lin's Science Teacher told her that she is not right. Using information given in the diagram, explain why her teacher is correct. [1m]

c) Describe clearly what must be done to magnets B and C in the set up above to determine correctly which of the 2 magnets (B or C) is stronger. [1m]

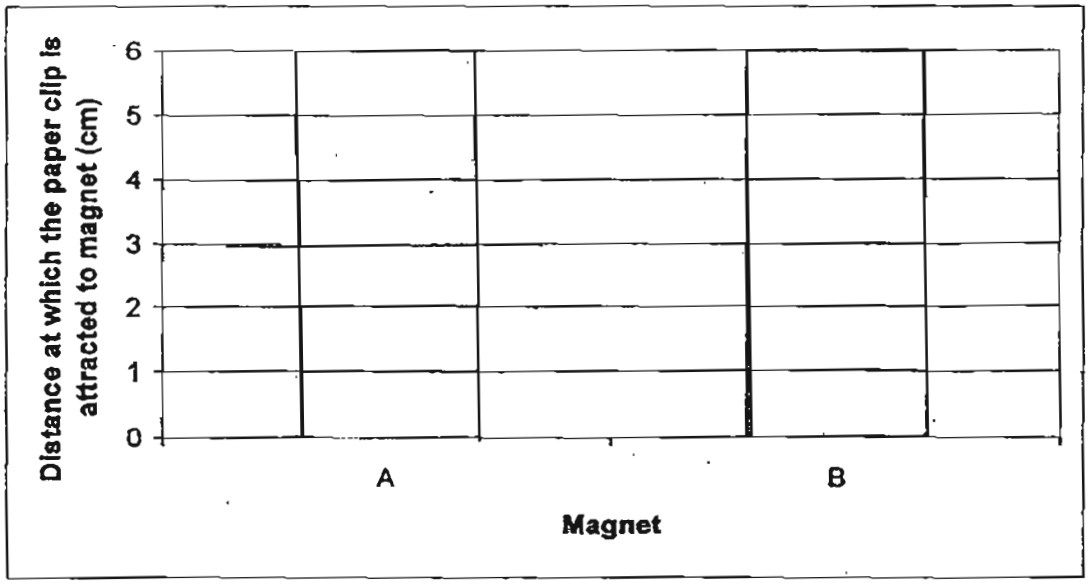
31. Kate had a bar magnet, magnet A, and a rod magnet, magnet B. She wanted to find out which magnet was stronger. She placed magnet A on one end of the ruler and slowly pushed a paper clip along the ruler towards the magnet until the clip was attracted.

She repeated the steps using magnet B.

She then measured the distance at which the paper clips are attracted to magnets A and B respectively.

Magnet	A	B
Distance at which the paper clip is attracted to magnet	4 cm	3 cm

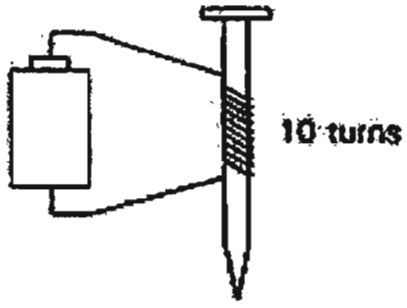
a) Colour the correct number of boxes to show the above results for magnets A and B. [2m]

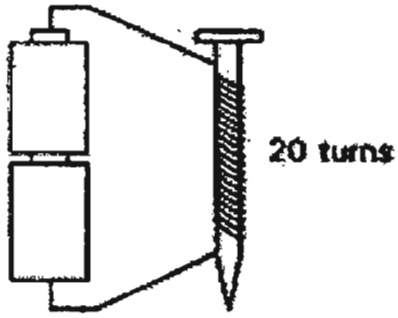


b) Which magnet is stronger? [1m]

c) Explain your answer in (b). [1m]

32. Ethan wants to find out whether the number of coils of the wire affects the strength of an electromagnet. He sets up two arrangements as shown below.





a) Give one reason why Ethan is not conducting a fair test. [1m]

_____

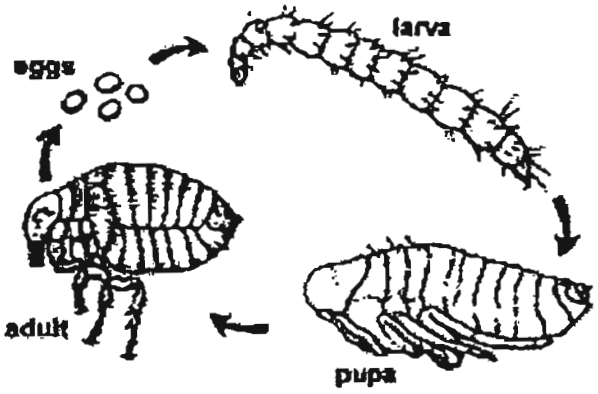
_____

b) Name two other variables that Ethan has to keep the same to conduct a fair test. [2m]

(i) _____

(ii) _____

33. The diagram below shows the life cycle of Animal X. Study it carefully and answer the questions that follow.



Life Cycle of Animal X

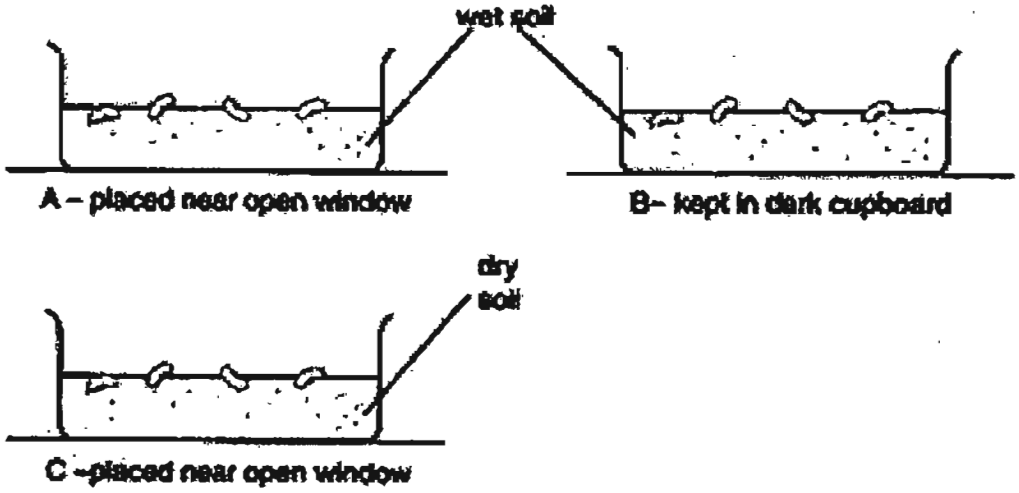
a) How many stages are there in the life cycle of Animal X? [1m]

b) The larva goes through a process called moulting. Explain why this process is important. [1m]

c) Animal X spends its life cycle on household pets like dogs and cats and is harmful to them. John found the larva of Animal X on his pet dog and his mother asked him to get rid of them before they develop into adults.

Give a reason why John should get rid of Animal X before it develops into an adult. [1m]

34. The following dishes were set up to compare the germination of seeds.



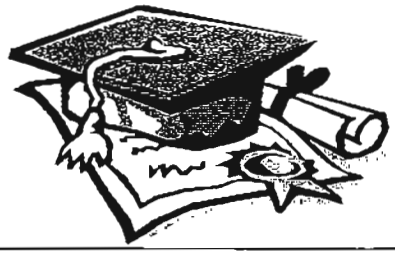
a) In which of the above set-ups (A, B or C) will the seeds germinate? [1m]

b) In which set-up/s will the seeds not germinate at all? [1m]

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

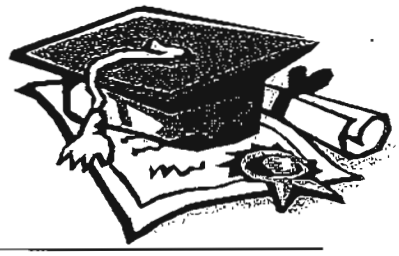
-End of paper-

Setters: Mdm Lim Yeow Khim
Ms Tan Ying Hui



ANSWER SHEET

EXAM PAPER 2011



SCHOOL : HENERY PARK
SUBJECT : PRIMARY 3 SCIENCE

TERM : SA2

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

Q18	Q19	Q20
4	3	2

21) Group A : has 6 legs **Group B : has more than 6 legs**

22) (a) thorax **(b) abdomen**

23a) Clay Boat ---- float
Clay ball ---- sink
Steel nail ---- sink
Steel spoon -- sink
Plastic duck -- float
Plastic cup -- float

23b) (i) false **(ii) false**

24)

Make use of magnets	Do not make us of magnets
Compass	Light switch
Refrigerator	chair

25) (a) True (b) False (c) False (d) True

26a) A : seed leaf **C : roots**

26b) Part C

27 a) Living things grow **(b) living things reproduce**
c) living things respond to hunger **(d) Living things respond to changes**

Page 2

28a) Group A : reproduce by spores
Group B : reproduce by seeds

28b) Group A

28c) Group B reproduce by seeds

29a) Thread D, thread C, thread A, thread B

29b) Thread C and D

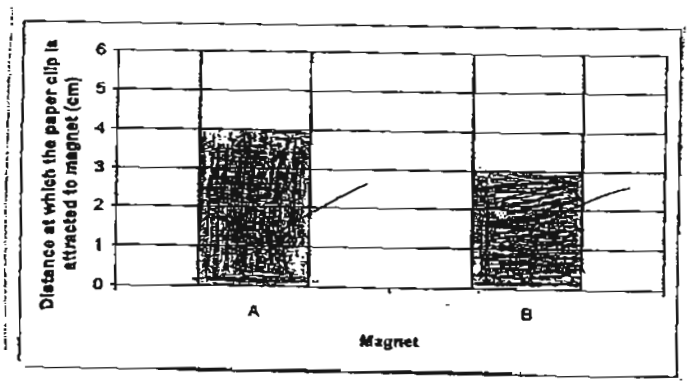
29c) (i) He has to use the same 10g weights.
(ii) He has to use the thread length

30a) B, D, C

30b) C is much closer to the iron pins, so C can attract more.

30c) they should be hanged with the same length string.

31a)



31b) Magnet A

31c) Magnet a can attract the paper clip at a further distance than magnet B.

32a) He did not use the same number of batteries for both experiments.

32b) (i) use the same type of batteries.
(ii) use the same type of nails.

33a) Four

33b) If the larva does not moult , it cannot grow bigger.

33c) It will start bitting the dog.

34a) A and B

34b) set-up C

34c) The soil is dry and any moisture found in the set-up will evaporate quickly.

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