



**NAN HUA PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 2 – 2012
PRIMARY 3**

SCIENCE

BOOKLET A

30 Multiple Choice Questions (60 marks)

Total Time for Booklets A and B : 1 hour 45 minutes

INSTRUCTIONS TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Shade your answers in the Optical Answer Sheet (OAS) provided.

Marks Obtained

Booklet A		/ 60
Booklet B		/ 40
Total		/100

Name: _____ () Class: P 3 _____

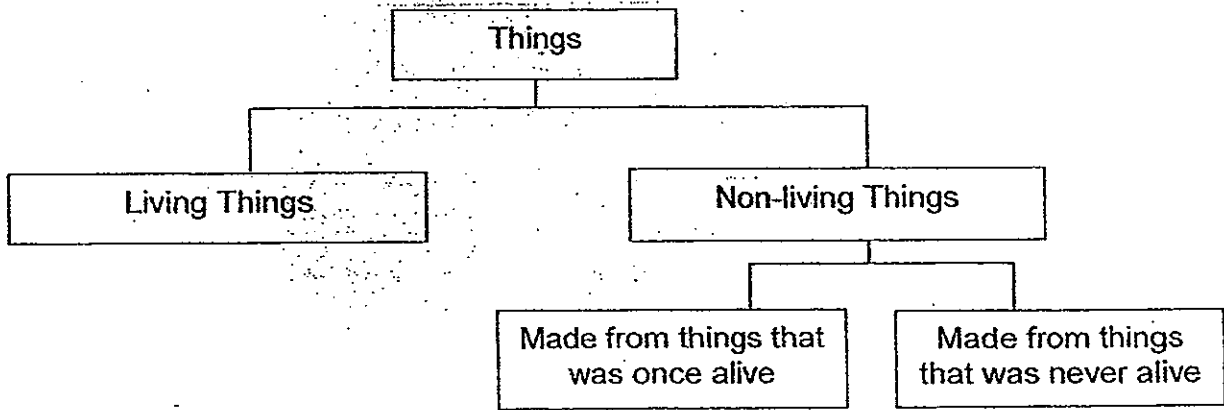
Date : 23rd October 2012

Parent's Signature: _____

Section A: (30 x 2marks = 60marks)

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. Look at the classification chart below.



Which of these objects **cannot** be classified as 'Made from things that was once alive'?

- (1) Paper bag
- (2) Rubber mat
- (3) Leather belt
- (4) Ceramic cup

2. Susan asks the following questions about an animal.

A	Does it have wings?
B	How many legs does it have?
C	What food does it eat?
D	How many body parts does it have?

Which of these questions, A, B, C and/or D will definitely help her to find out if the animal is an insect?

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



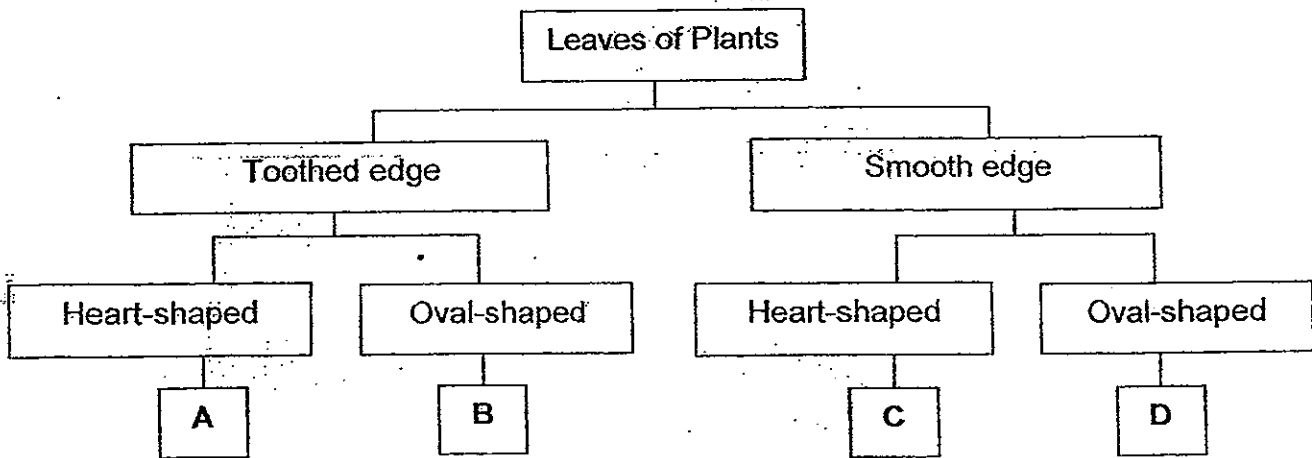
3. One morning, Mr Lim was standing in front of the window, admiring the view of tall buildings.
The diagram below shows the office window with one of its parts marked X.



Which one of the following correctly shows what part X is made of and the reason for the material to be used?

	Material used for Part X	Reason
(1)	Glass	It breaks easily.
(2)	Plastic	It can bend.
(3)	Glass	It allows light to pass through.
(4)	Plastic	It absorbs water.

4. Susan observed some leaves and grouped them according to her observation. The classification chart below shows the observation Susan has made on some leaves.



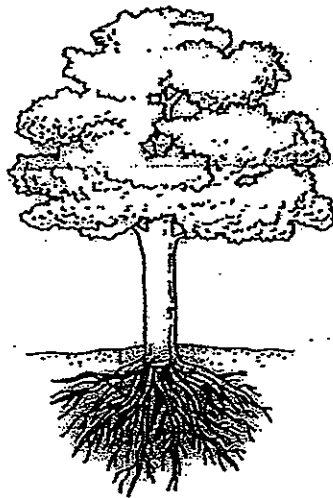
Which of the following represents Leaf B and Leaf D?

	Leaf B	Leaf D
(1)		
(2)		
(3)		
(4)		

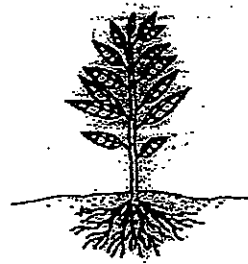


5. Which of these plants can be pulled out from the soil most easily?

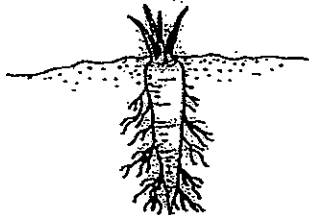
(1)



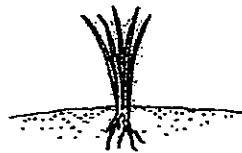
(2)



(3)



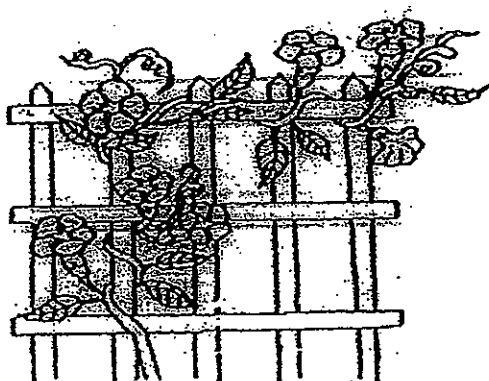
(4)



6. Which one of the following does not correctly show the parts that make up the system stated?

	System	Parts of the system
(1)	Skeletal	Skull, ribcage, backbone
(2)	Circulatory	Lungs, blood vessels, blood
(3)	Digestive	Mouth, gullet, small intestine, large intestine
(4)	Respiratory	Nose, wind pipe, lungs

7. The diagram below shows a plant growing in the garden.



Which of the following statement(s) is/are correct?

A	This plant has a weak stem.
B	This plant is a flowering plant.
C	This plant reproduces from spores.

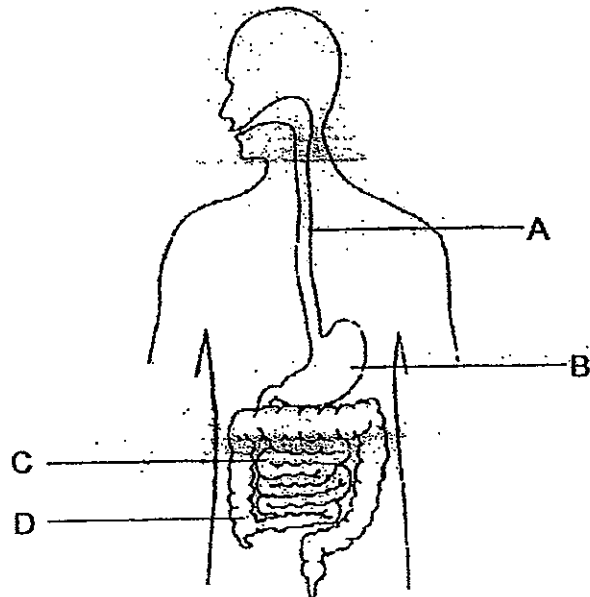
- (1) B only
- (2) C only
- (3) A and B only
- (4) B and C only

8. How are the following objects grouped in the table below?

Group X	Group Y
iron nails	eraser
paper clips	tissue paper
thumbtacks	ceramic cup

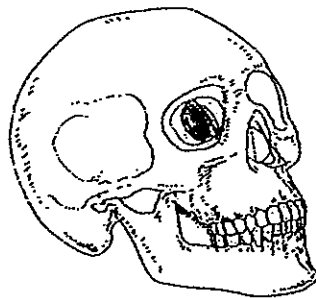
	Group X	Group Y
(1)	hard	soft
(2)	magnetic	non-magnetic
(3)	flexible	non-flexible
(4)	waterproof	non-waterproof

9. In which part of the digestive system is the digested food absorbed through the walls and into the blood to be carried around the body?



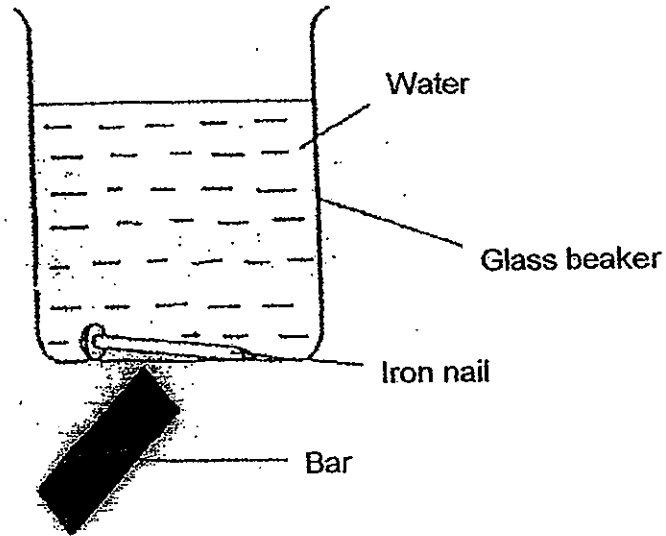
- (1) A
- (2) B
- (3) C
- (4) D

10. Which one of the following organs does the skull protect?



- (1) Ears
- (2) Nose
- (3) Eyes
- (4) Brain

11. Jane wanted to remove the iron nail from the beaker of water. She was able to do so by simply placing the bar at the outer surface of the glass beaker where the iron nail was. She slowly moved the bar towards the mouth of the beaker and observed that the iron nail moved with the bar.

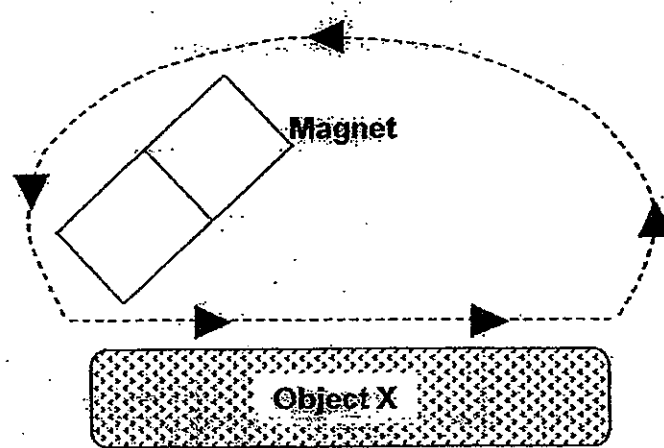


What does the above experiment show?

A	The bar is a magnet.
B	The iron nail has become a permanent magnet.
C	Magnetic force can pass through glass only.
D	Magnetic force can pass through glass and water.

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

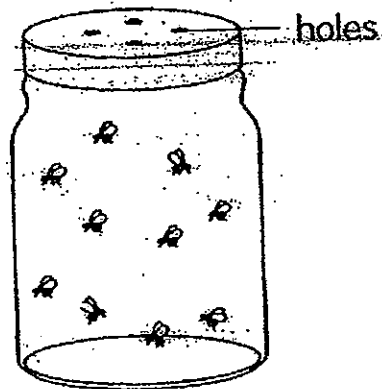
12. Barney stroke Object X with a magnet as shown below.



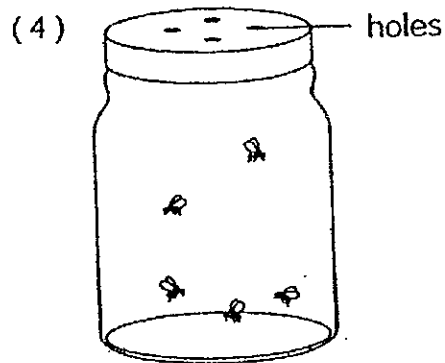
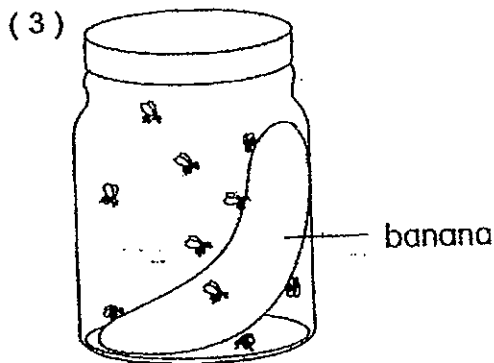
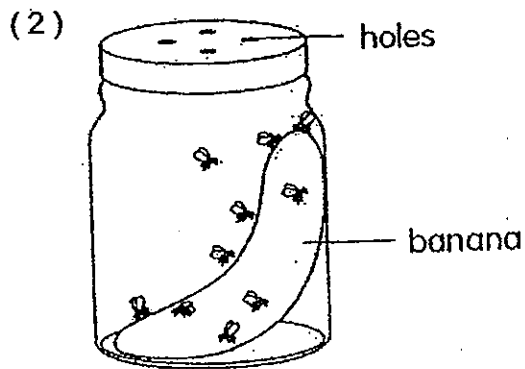
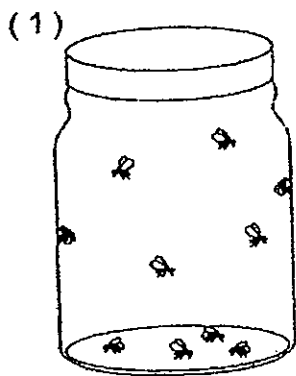
After repeatedly stroking Object X, it was able to attract some paper clips. Based on the above experiment, which one of the following statements is true?

- (1) Object X is magnetised.
- (2) Object X is most likely to be made of copper.
- (3) The magnet lost its magnetism when it was used to stroke Object X.
- (4) The more times Object X was stroked, the less number of paper clips it could attract.

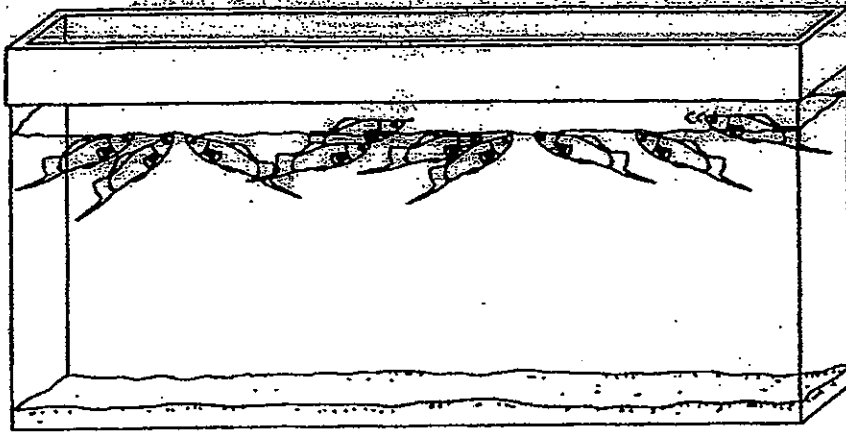
13. Bobby wants to carry out an experiment to show that living things need food to survive. In one set-up, he placed ten fruit flies in a jar as shown below.



Which one of the following set-ups should he include so that he can reach a conclusion for his experiment?



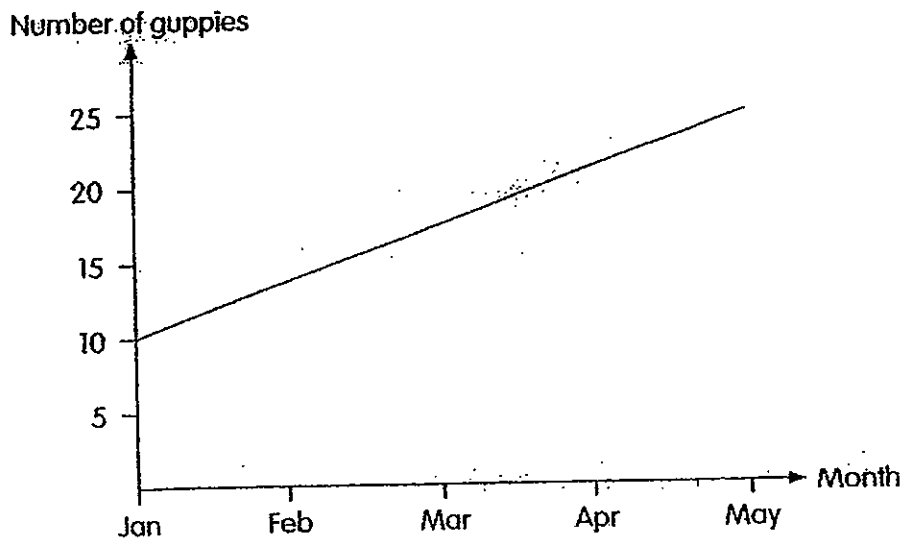
14. Sarah notices that the swordtail fish she has bought are swimming near the surface of the water in the tank.



Which of the following changes may solve the problem?

- (1) Adding some salt into the tank.
- (2) Adding more fish into the tank.
- (3) Adding more sand into the tank.
- (4) Adding an air pump to increase the amount of air in the tank.

15. Ken puts ten guppies in a fish tank and feeds them every day. He does not add any more guppies into the tank. The graph below shows how the number of guppies in the fish tank changes over the next few months.



The graph shows that living things _____.

- (1) grow
- (2) reproduce
- (3) respond to changes
- (4) need air, food and water to survive

16. Study the pictures of Plant A and Plant B as shown below.



Plant A

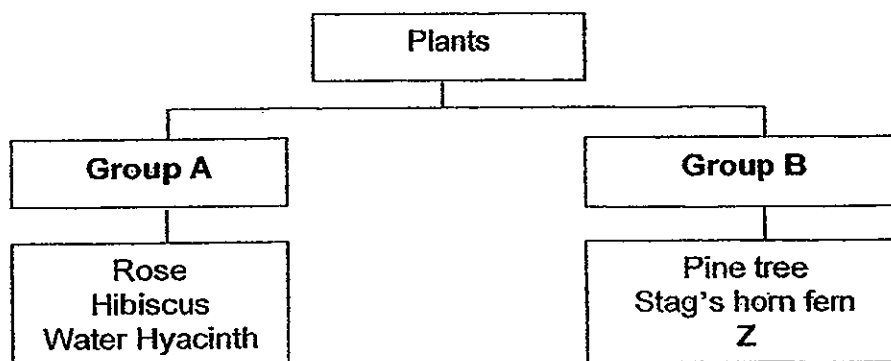


Plant B

Why do the plants grow upwards?

- (1) To reach for sunlight.
- (2) To store food in the stem.
- (3) To make food in the roots.
- (4) To take in water and mineral salts from the ground.

17. The classification table below shows how some plants are grouped.

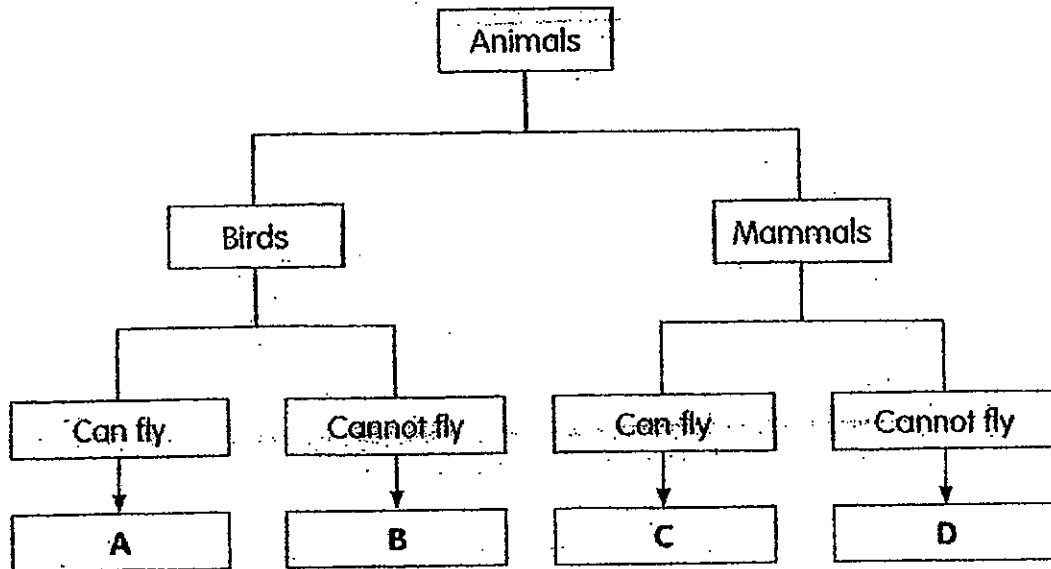


The plants in Group A and Group B are classified according to whether they are flowering or non-flowering plants respectively.

Which one of the following could Z be?

- (1) Moss
- (2) Ginger
- (3) Orchid
- (4) Sunflower

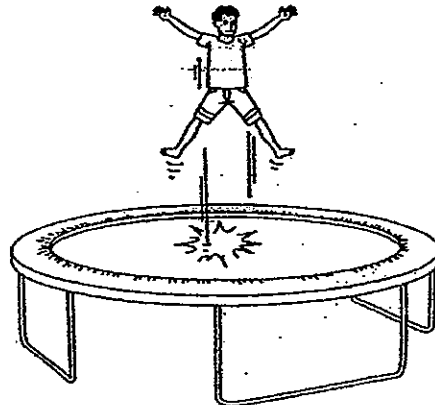
18. Look at the classification chart below.



Which one of the following shows the animals correctly classified as A, B, C and D?

	A	B	C	D
(1)	Swallow	Penguin	Squirrel	Horse
(2)	Kingfisher	Emu	Bat	Cow
(3)	Eagle	Parrot	Bat	Penguin
(4)	Bat	Kiwi	Fox	Spiny anteater

19. A trampoline is made of a piece of fabric stretched over a steel frame, with many coiled spring connecting the fabric to the frame.



- Which one of the following correctly shows the property of the material chosen to make the fabric and steel frame?

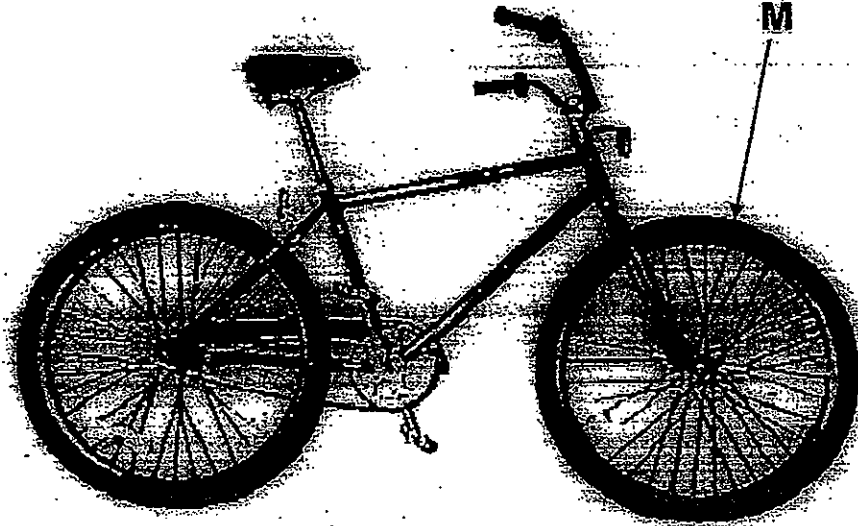
	Fabric	Steel frame
(1)	Stiff	Hard
(2)	Flexible	Magnetic
(3)	Elastic	Strong
(4)	Strong	Hard

20. Which of the following properties of glass is/are **suitable** for making aquariums?

A	It is hard.
B	It is flexible.
C	It is waterproof
D	It allows light to pass through.

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

21. The picture below shows a bicycle.

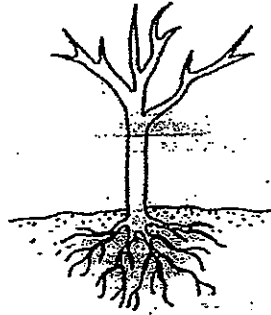


What are the properties of rubber that make it suitable for making part **M** of the bicycle tyres?

A	It is strong.
B	It is flexible.
C	It sinks easily in water.

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

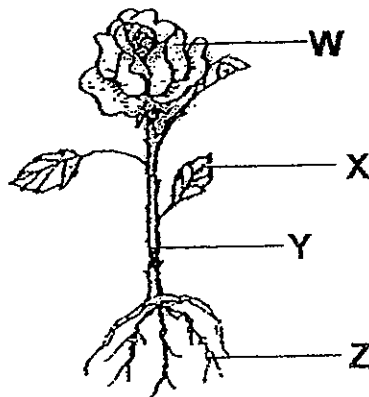
22. Look at the diagram below.



Which one of the following functions cannot be carried out by the plant in the diagram above?

- (1) Making food.
- (2) Staying upright.
- (3) Reaching for water in the soil.
- (4) Transporting food, water and dissolved mineral salts.

23. The diagram below shows a rose plant.



Which one of the parts shown above W, X, Y or Z supports the leaves and carries the food made by the leaves to the rest of the plant?

- (1) W
- (2) X
- (3) Y
- (4) Z

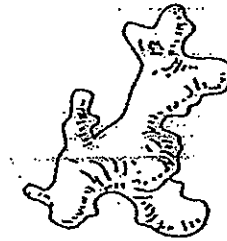
24. Which one of the following are stems that store food for the plant?

(A)



Carrot

(B)



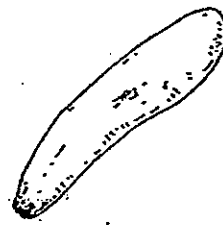
Ginger

(C)



Asparagus

(D)



Sweet potato

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

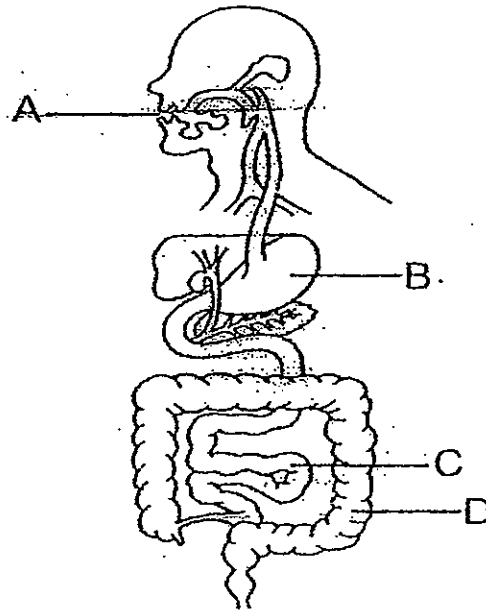
25. Selena stretches out her arms to catch a ball as shown below.



Which of the following systems have to work closely together to enable her to stretch her arms to catch the ball?

- (1) Skeletal system and muscular system
- (2) Digestive system and circulatory system
- (3) Digestive system and respiratory system
- (4) Respiratory system and circulatory system

26. The diagram below shows the human digestive system.



In which part, A, B, C or D, is digestion completed?

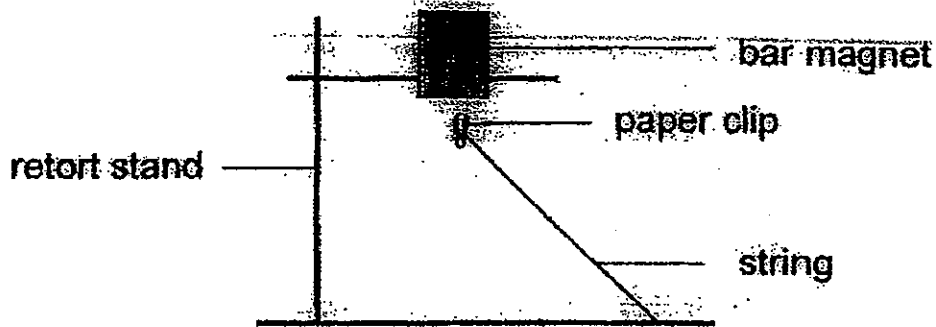
- (1) A
- (2) B
- (3) C
- (4) D

27. When we drink a cup of plain water, what will happen to it in the digestive system? Which of the following statement(s) is/are correct?

A	The water will be absorbed in the large intestine.
B	Saliva will be produced to break down the water.
C	Digestion of water occurs in the stomach and small intestine.

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

28. Clarice set up the apparatus as shown below. She noted that when she placed different materials of similar thickness between the bar magnet and the paper clip, the paper clip remained floating in the air.

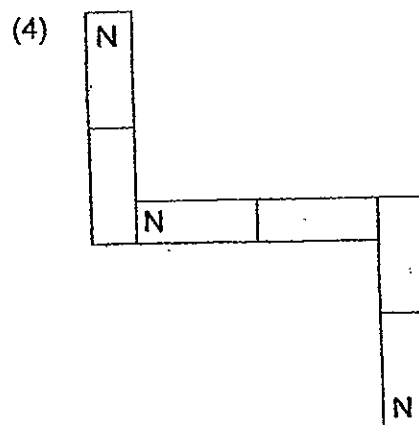
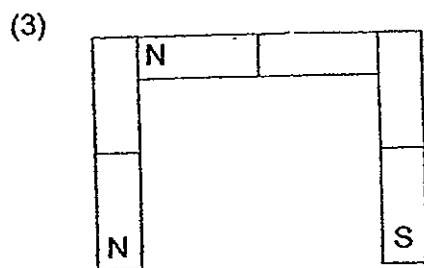
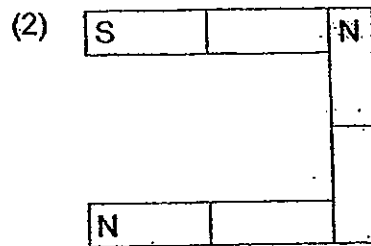
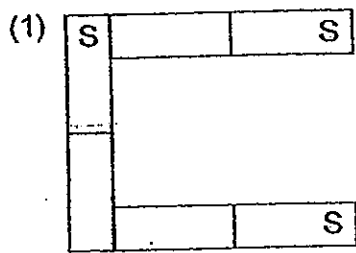


Which of the following materials would allow the paper clip to remain floating in the air?

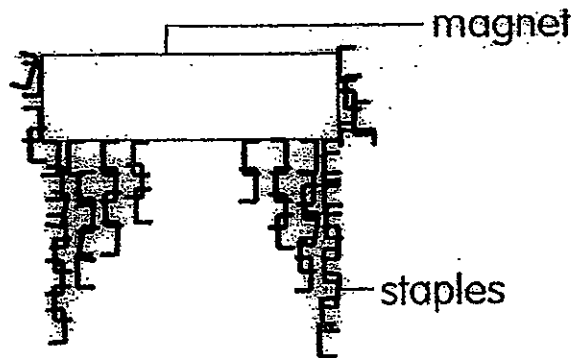
A. Iron	B. Plastic	C. Wood	D. Glass	E. Steel
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- (1) A and E only
- (2) B and D only
- (3) B, C and D only
- (4) C, D and E only

29. Study the arrangements of 3 bar magnets as shown below.
Which arrangement is correct?



30. The entire length of a bar magnet is lowered into a dish of staples. When it is lifted away from the dish, the bar magnet has staples stuck on it as shown below.



Which properties of a magnet can be seen from this diagram?

Properties of magnet	
A	A magnet attracts magnetic materials.
B	The attraction of a magnet is strongest at its poles.
C	Unlike poles of two magnets attract and like poles repel.
D	A magnet, when free to move, will always come to rest in the North-South direction.

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





**NAN HUA PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 2 – 2012
PRIMARY 3**

SCIENCE

BOOKLET B

14 Open-ended questions (40 marks)

Total Time for Booklets A and B: 1 hour 45 minutes

INSTRUCTIONS TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write your answers in this booklet.

Marks Obtained

Section B

	/40
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Name: _____ () **Class: P 3** _____

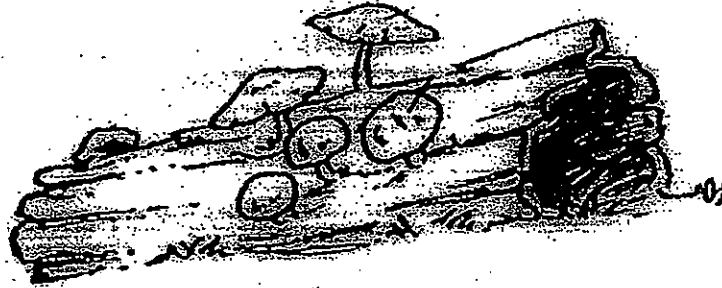
Date : 23rd October 2012

Parent's Signature: _____

Section B (40 marks)

Write your answers to questions 31 to 44 in the spaces provided. The marks available is shown in brackets [] at the end of each question or part question.

31. Study the diagram below carefully.



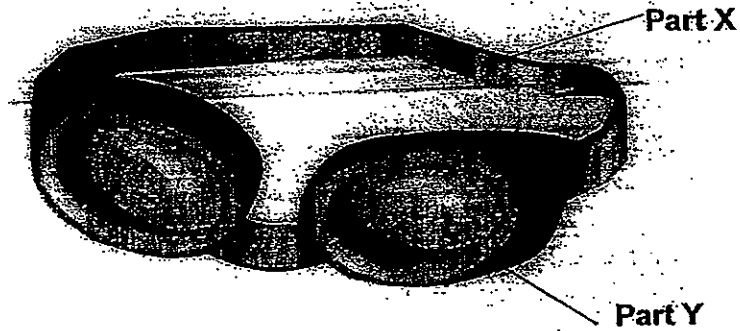
Fungi growing on a dead log

(a) List two things that are necessary for the fungi to stay alive. [1]

(b) Give one reason why fungi is not a plant. [1]

(c) Based on the diagram above, how do fungi get nutrients for its growth? [2]

32. The swimming goggles shown in the diagram below is made of two different materials.



(a)

Metal	Rubber	Wood	Plastic
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Based on the table provided above, name the most suitable materials that can be used to make part X and Y of the swimming goggles. Write your answer in the blanks provided below. **Each material can only be used once.**

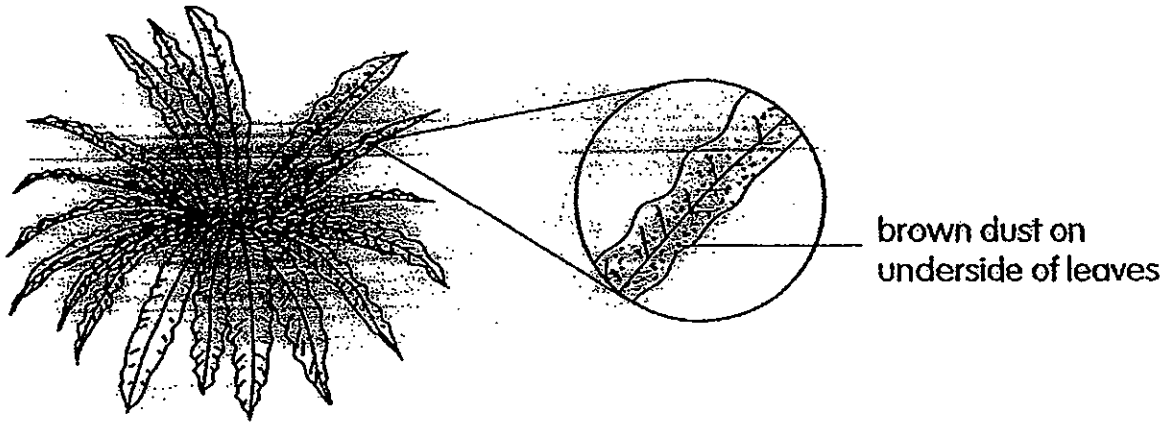
Part X: _____ [1]

Part Y: _____ [1]

(b) For Part Y, give **one characteristic** of the material stated in part (a) that makes it a preferred choice in making the swimming goggles compared to glass. [1]

Score	3
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33. Look at the diagram of the bird's nest fern below.



Bird's nest fern

(a) Based on the diagram above, why do you not see flowers in this plant? [1]

(b) Based on the diagram above, what is the brown dust found on the underside of the leaves of the bird's nest fern? [1]

(c) What is the function of this brown dust? [1]

34. The following processes A, B, C and D take place in the various parts of the digestive system.

A Food is digested and absorbed into the blood stream.

B Saliva is produced to break down the food.

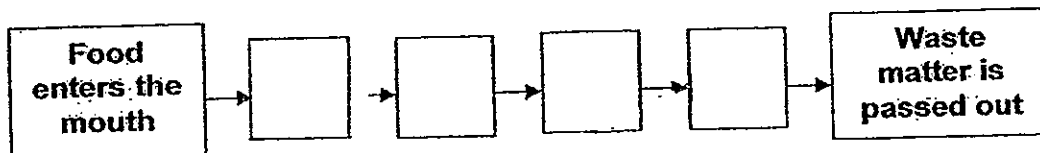
C Partially digested food is pushed down the tube.

D Undigested food is stored here to be passed out.

(a) Arrange the processes A, B, C and D according to the order that each takes place in the different parts of the digestive system.

Write the letters A, B, C and D in the correct boxes below.

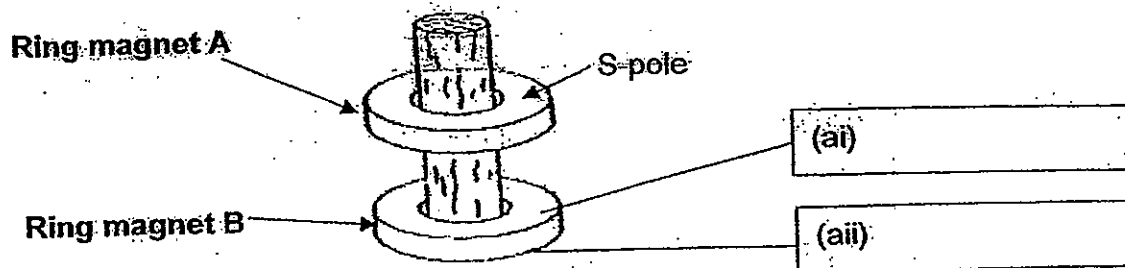
[2]



(b) Besides the mouth, name the other two parts of the digestive system where digestive juices are produced.

[2]

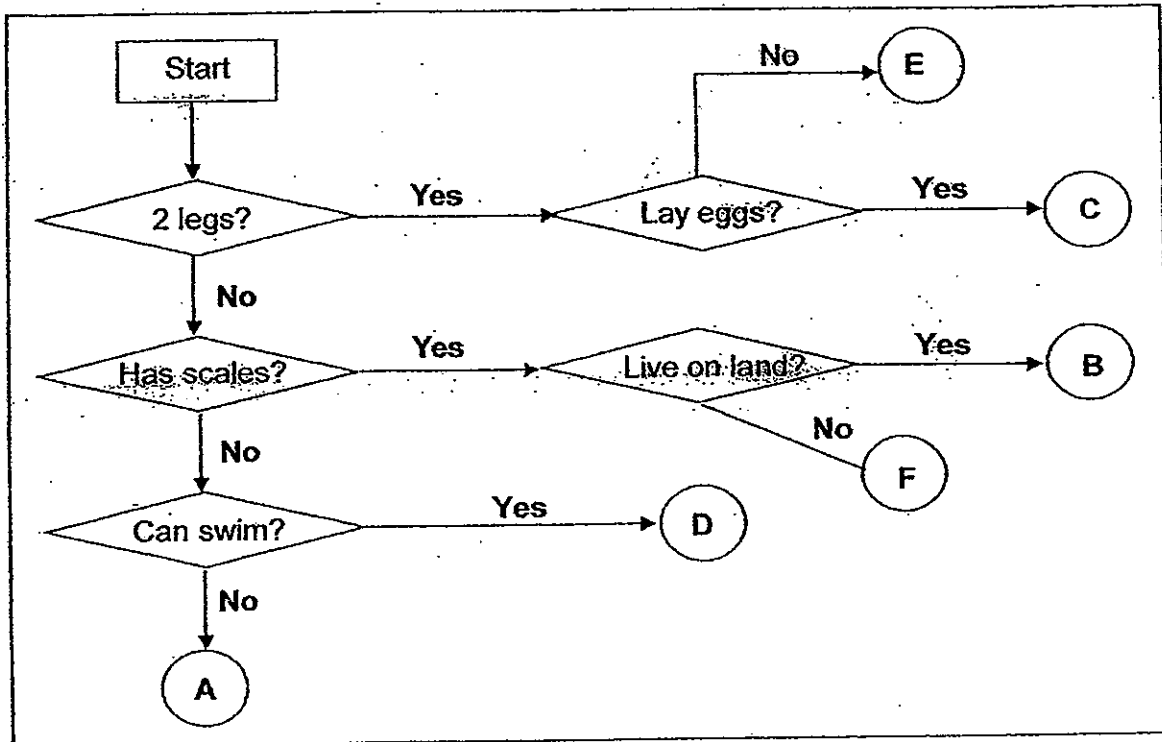
35. Ring magnet A 'floats' above Ring magnet B as shown in the diagram below.



(a) In the diagram above, identify the south pole and the north pole of Ring magnet B by putting "S-pole" and "N-pole" in the boxes provided. [1]

(b) Based on the diagram above, explain why Ring magnet A 'floats' above Ring magnet B. [2]

36. Study the flow chart and complete the table below.



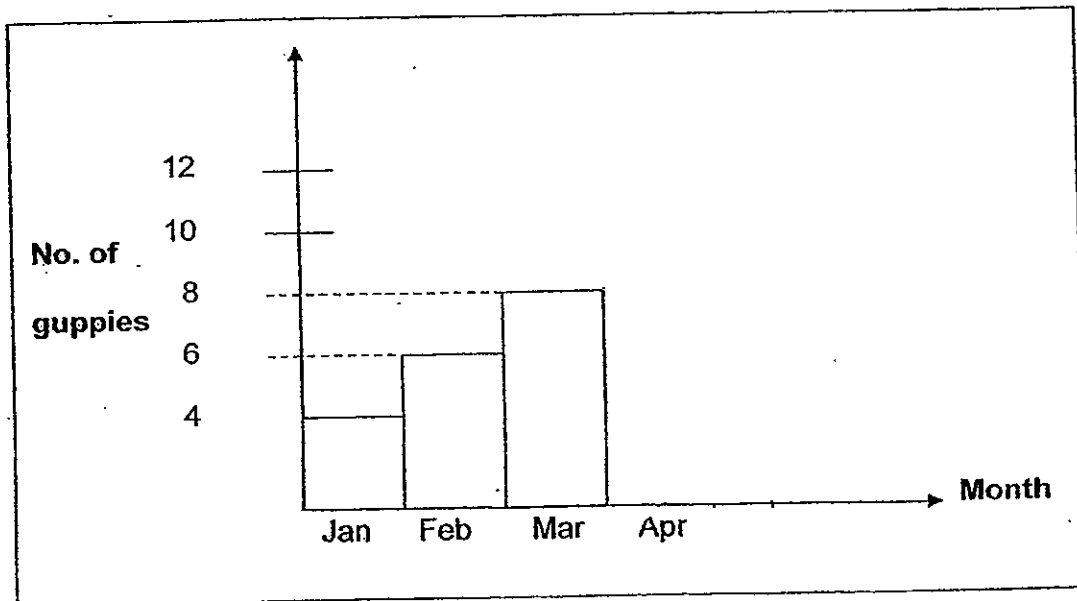
Based on the above information, write the appropriate letters (A, B, C, D, ~~E~~^{E or F}) that could represent the following animals in the table below. [4]

Snail	
Guppy	
Pigeon	
Whale	

37. Tania was studying 4 guppies in a fish tank. She wanted to find out if the amount of fish food would affect the reproduction rate of the guppies. The table below gives information on the variables given over a period of 4 months.

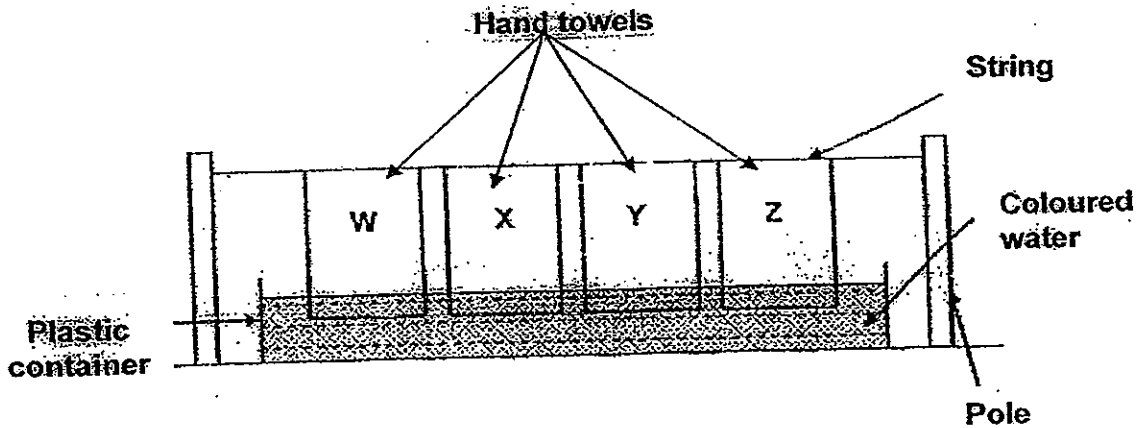
	January	February	March	April
Types of fish food	Type A	Type B	Type C	Type D
Amount of fish food daily	2g	4g	6g	8g
Amount of water	2 litres	2 litres	2 litres	2 litres

She drew the bar graph below to show the number of guppies found in the tank from the months of January to April.



- (a) Assume that there was an equal increase in the number of guppies every month, draw the bar for the month of April in the bar graph above. [1]
- (b) Do you think this is a fair test? Give a reason for your answer. [1]

38. Jerry wanted to find out which material makes a good hand towel that dries wet hands well. Four different materials of the same thickness, size and shape were used and the experiment was set up as shown below.



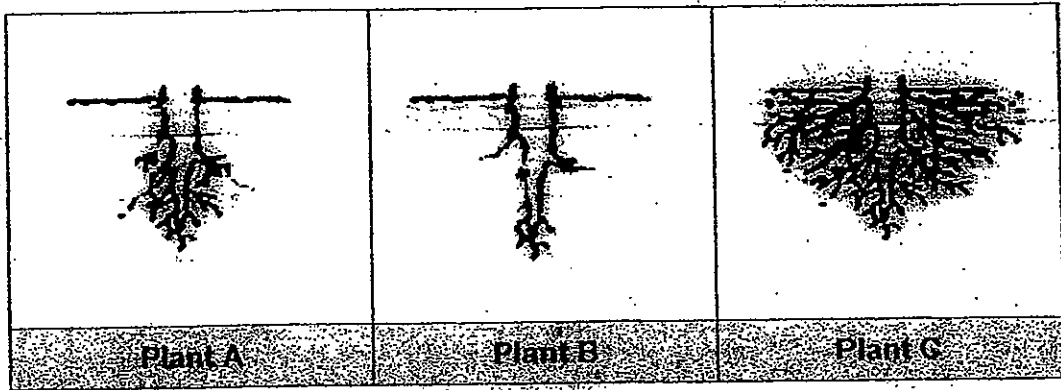
After 3 minutes, he measured the height of the water which had risen on the towels respectively. The results are shown in the table below.

Material	Height in which the water rose (cm)
W	15
X	5
Y	1
Z	3

- (a) Which material (W, X, Y or Z) would be the best material to make a hand towel? [1]

- (b) Explain why you have chosen the material in (a). [1]

39. The diagram below shows the roots of three different plants.

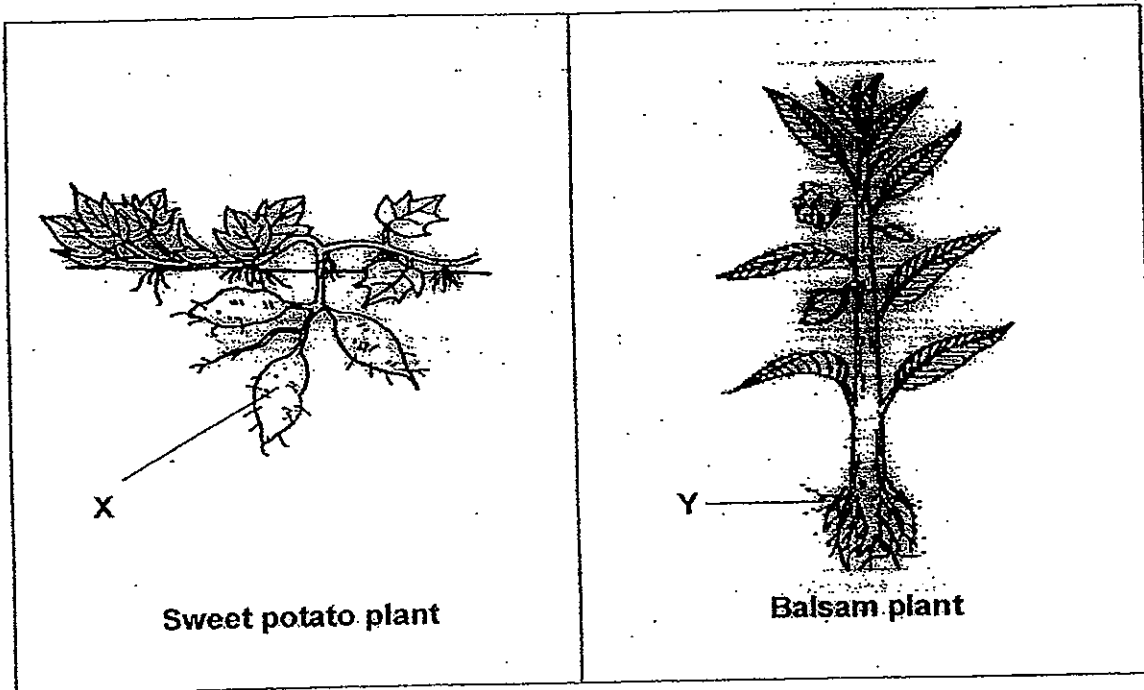


(a) Which plant has roots that hold it **most** firmly to the ground? [1]

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

(c) Give **another** function of roots. [1]

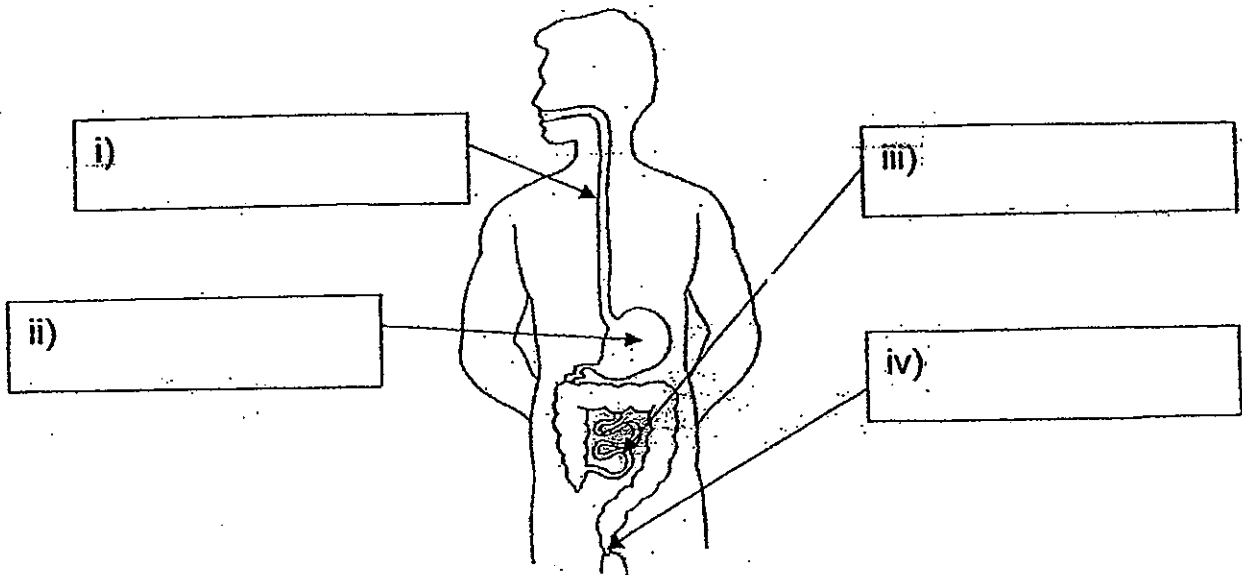
40. The diagram below shows a sweet potato plant and a balsam plant respectively.



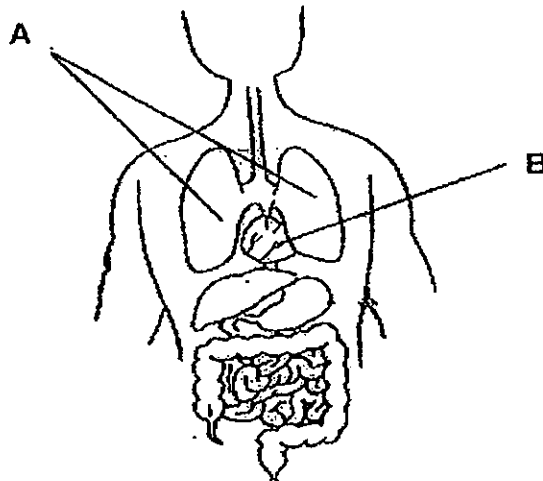
- (a) Name the part of the plant labelled 'X'. [1]

- (b) State the usefulness of part 'X' that is not found in part 'Y'? [1]

41. The diagram below shows some internal organs of the digestive system. Identify all the organs in the diagram. [2]



42. The diagram below shows some organs in the human body.



- (a) Name the following organs. [2]

A : _____

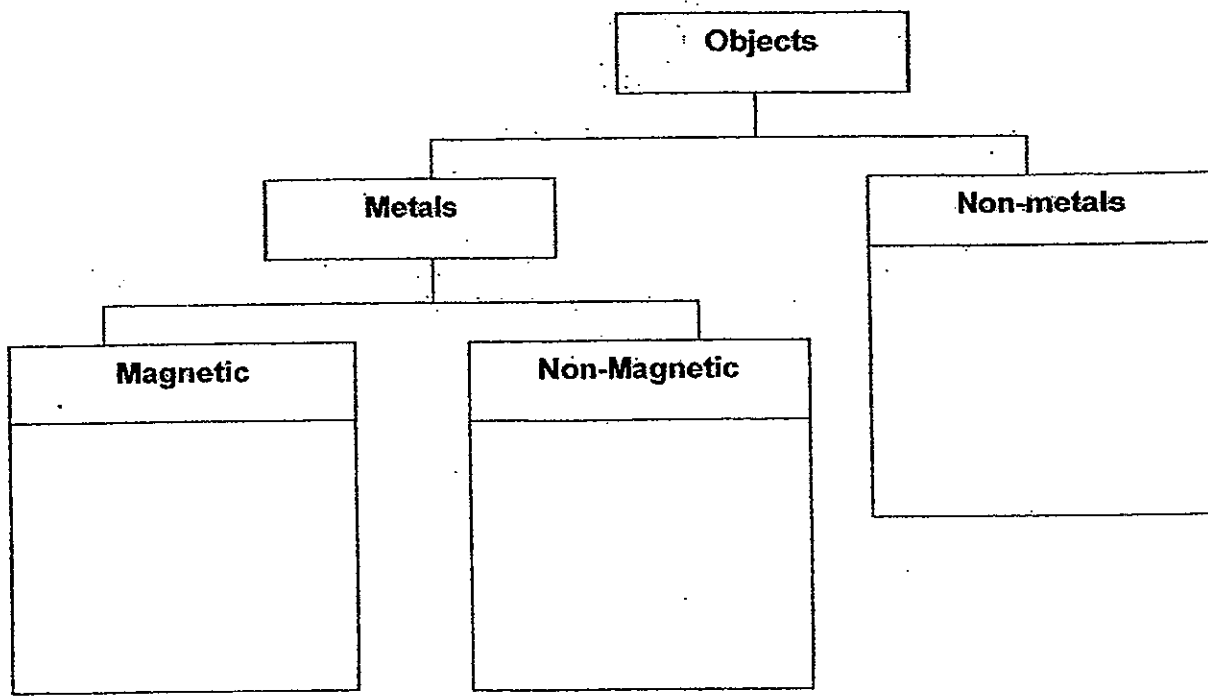
B : _____

- (b) Which organ A or B belongs to the respiratory system? [1]

Score	5
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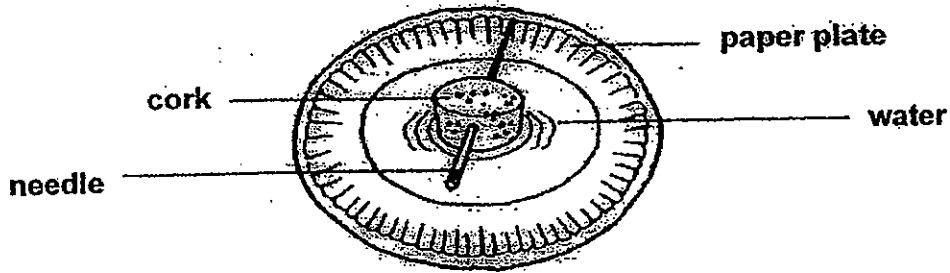
43. Classify all the 6 objects given in the box correctly into the classification table below: [3]

Silver chain	Ceramic plate	Gold coin
Copper wire	Iron nail	Steel ruler



Score	3
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44. Diana magnetised a needle by stroking its length in one direction with one pole of a magnet for about twenty times. She then pushed a piece of cork into it and allowed it to float in a plate of water as shown below. She claimed that she has made a temporary magnet.



- (a) Based on the diagram above, in which direction would the needle come to rest if Diana has made a temporary magnet? [1]

- (b) Seeing her experiment, Diana's sister said that she has made an instrument that can help them find directions. Name the instrument Diana had made. [1]

End of Paper

Answer Ke

EXAM PAPER 2012

SCHOOL : NAN HUA
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	3	4	4	2	3	2	3	4	1	1	2	4	2	1	1

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

- 31)a)It needs air and water to stay alive.
b)Fungi is not a plant because it does not make food while a plant makes food.
c)It feeds on the dead log.
- 32)a)X: Rubber Y: Plastic
b)Plastic is lighter compared to glass therefore plastic makes it a preferred in making the swimming goggles compared to glass.
- 33)a)Because it is a non-flowering plant.
b)The brown dust are spores.
c)The brown dust helps the bird's nest fern to reproduce.
- 34)a)B→C→A→D
b)They are stomach and small intestine.
- 35)a)i)N-pole ii)S-pole
b)Because when like poles meet, they will repel and therefore Ring magnet A 'floats' above Ring magnet B.

36)A F C D

37)a)Draw Apr to 10

b)No, because she used different type fish feed.

38)a)Material W would be the best material to make a hand towel.

b)Because it absorb more than any other materials.

39)a)Plants C.

b)There is greatest number of roots that spread over a widest area.

c)Roots also take in water and mineral salts for the plant.

40)a)'X' is a root.

b)'X' stores food for the plant while 'Y' do not store food for the plant.

41)i)gullet ii)stomach iii)small intestine iv)anus

42)a)A: lungs B: heart

b)Organ A belongs to the respiratory system.

43)Magnetic : Iron nail, Steel ruler

Non-magnetic: Gold coin, Silver chain, Copper wire

Non-metals: Ceramic plate

44)a)It would rest in a North-south direction.

b)It is a compass.