CATHOLIC HIGH SCHOOL
PRIMARY 3
SEMESTRAL ASSESSMENT 2, 2010

SCIENCE

Name : _____( )

Class : Primary 3

Date : 28 October 2010

BOOKLET A

30 Questions
60 Marks

Total Time for Booklets A & B : 1 hour 30 minutes

Instructions to Candidates

Do not open this booklet until you are told to do so.
Follow all instructions carefully.
Answer all questions.

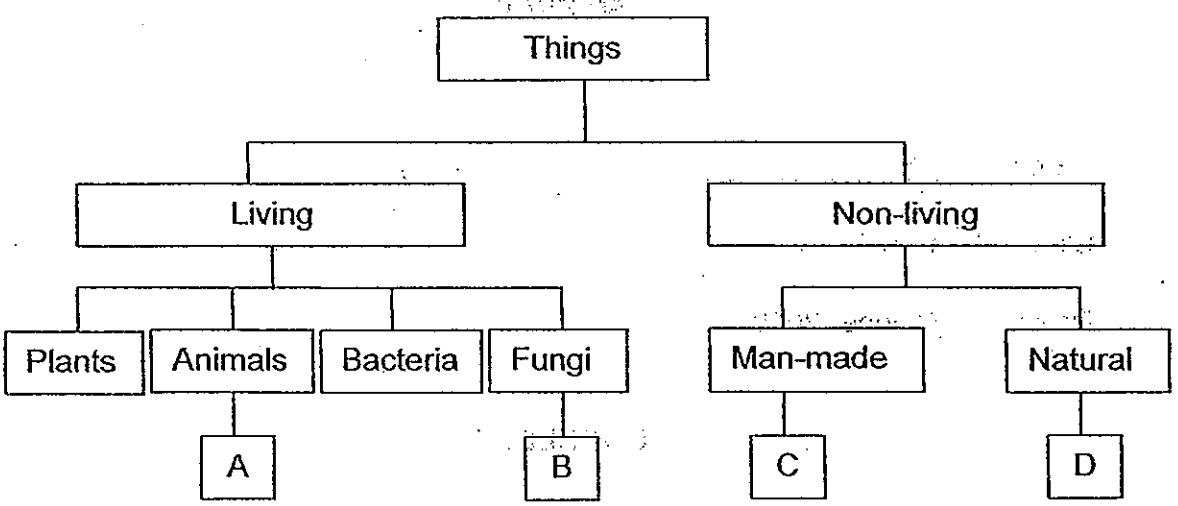
Section A : Multiple Choice Questions (60 marks)

For each question from 1 to 30, four options are given. One of them is the most suitable answer. Make your choice (1, 2, 3 or 4) on the Optical Answer Sheet.

1. Which of the following are all non-living?

   (1) rain, plant, fan
   (2) rain, candle, girl
   (3) rain, water, grass
   (4) rain, smoke, cloud

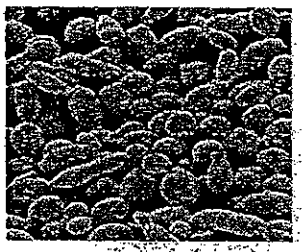
2. Look at the classification table below.



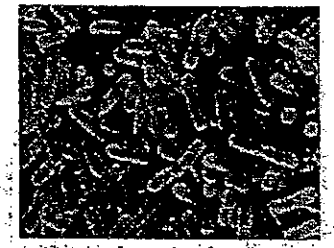
What do A, B, C and D represent?

	A	B	C	D
(1)	monkey	yeast	brick	glass
(2)	horse	fern	copper	cotton
(3)	duck	toadstool	plastic	wood
(4)	moss	mushroom	wood	cotton

3. The diagrams below show yeast and bacteria.



yeast



bacteria

In what way(s) is/are they similar?

A Both are poisonous.

B Both cannot make their own food.

C Both do not have leaves, stems and roots.

D Both cannot move freely from place to place.

(1) A only

(2) C only

(3) B and C only

(4) A, B, C and D

4. Water is needed for _____.

A : plants to make food

B : maintaining the firmness of a plant's stem

C : roots of a plant to absorb mineral salts from the soil

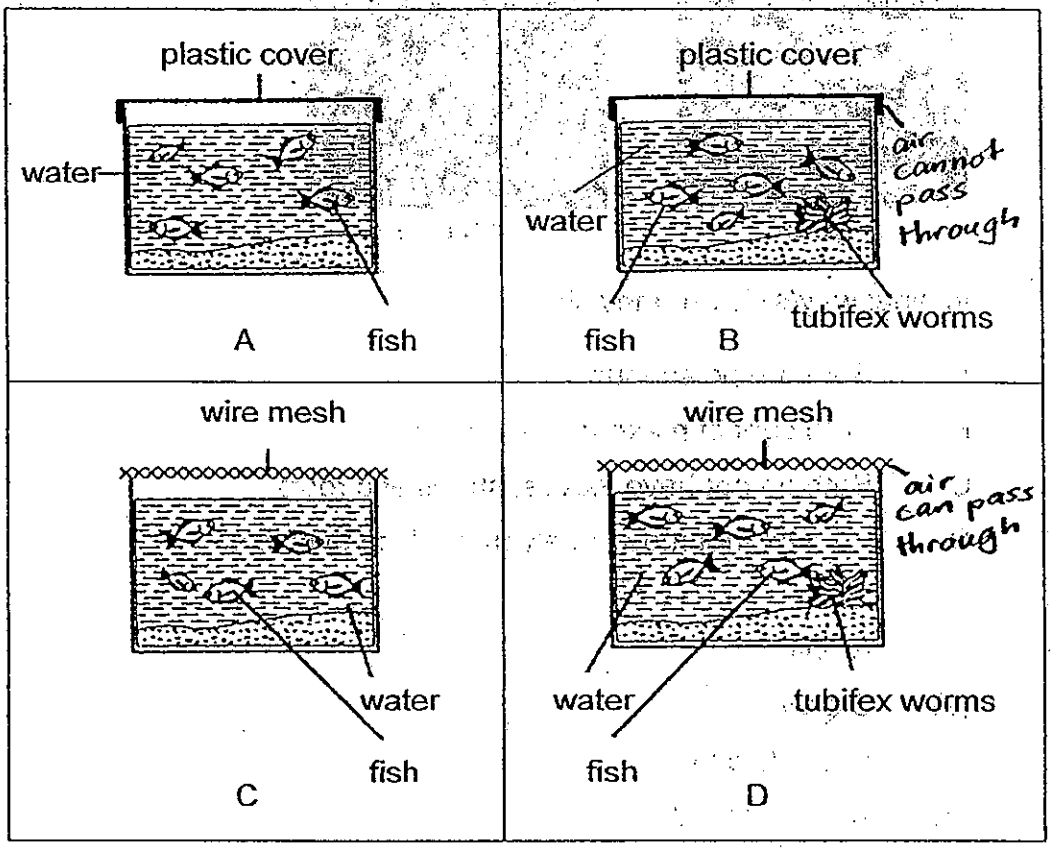
(1) A and B only

(2) A and C only

(3) B and C only

(4) A, B and C

5. Ellena prepared the four set-ups as shown in the diagram below.



The aim of her experiment was to find out if living things need air to survive. Which two set-ups should she use to compare to ensure that it is a fair test?

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

6. The classification table below shows animals being classified into two different groups.

Group A	Group B
horse	seagull
lion	penguin

How are the above animals grouped?

	Group A	Group B
(1)	Give birth to young alive	Lay eggs
(2)	Bodies covered with scales	Bodies covered with hair
(3)	Herbivorous	Carnivorous
(4)	Run	Fly

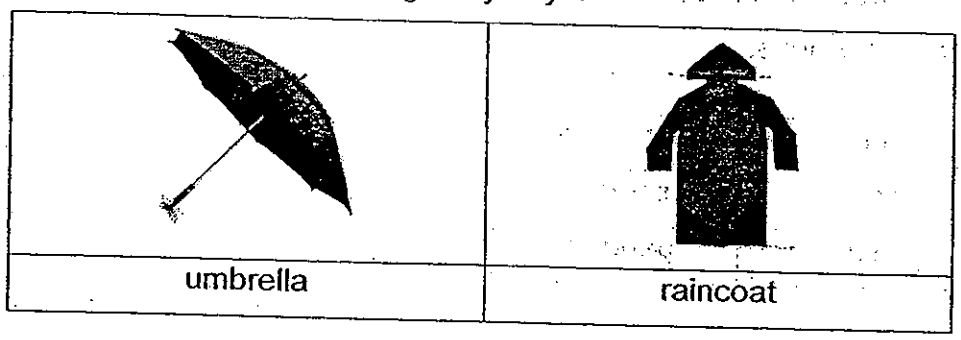
7. The list below shows the properties of a type of material.

It is light.
It is not transparent.
It absorbs water easily.
It does not get scratched easily.

What could this material be?

(1) wood
(2) glass
(3) fabric
(4) plastic

8. Jane uses two items during rainy days.

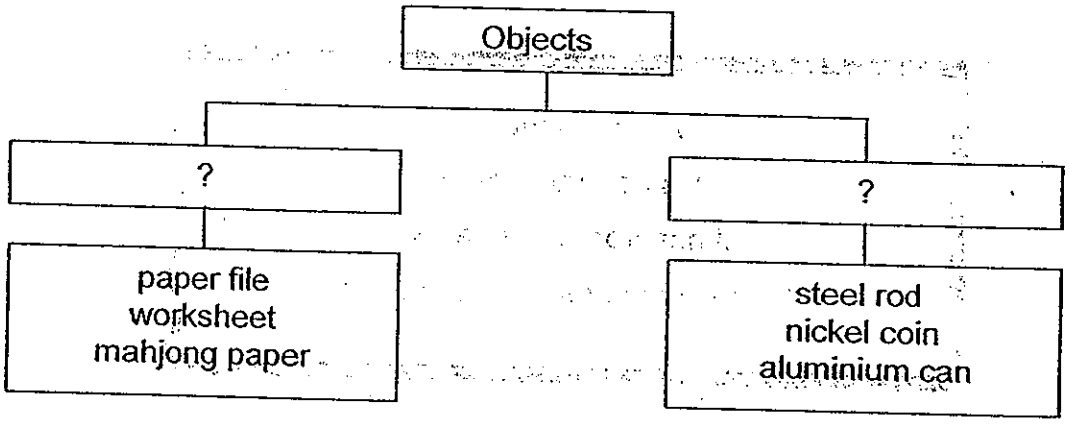


umbrella	raincoat

What are the two most important properties the umbrella and raincoat have that help people during rainy days?

(1) flexible and light
(2) light and waterproof
(3) transparent and light
(4) transparent and waterproof

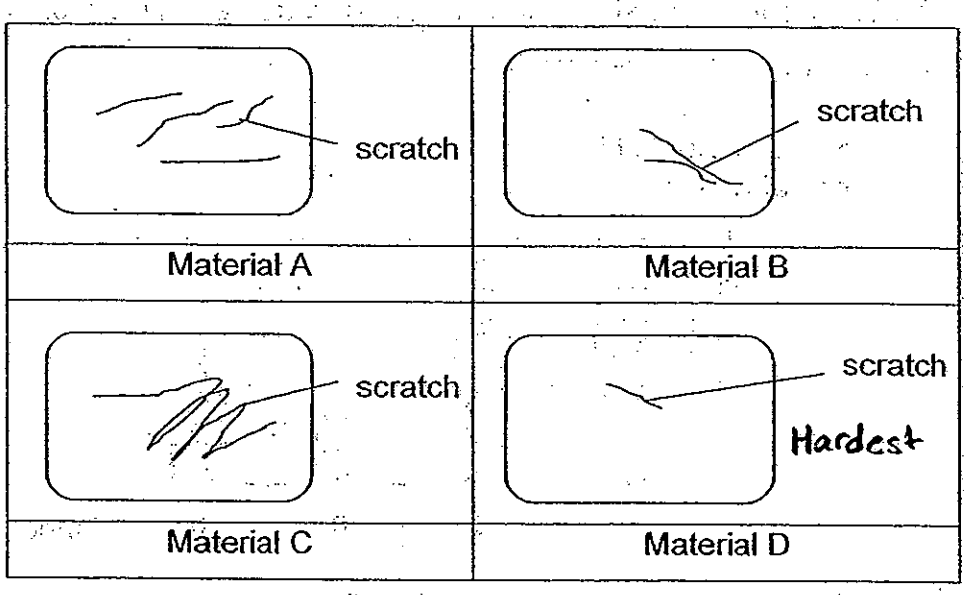
9. Study the classification chart below.



The objects above are grouped according to _____.

(1) whether they float or sink
(2) whether they are flexible or not
(3) whether they can be recycled or not
(4) the types of material they are made of

10. Four types of materials underwent a scratch test. The results are shown in the diagrams below.



What can you conclude from the test results?

(1) Material D is the hardest material.

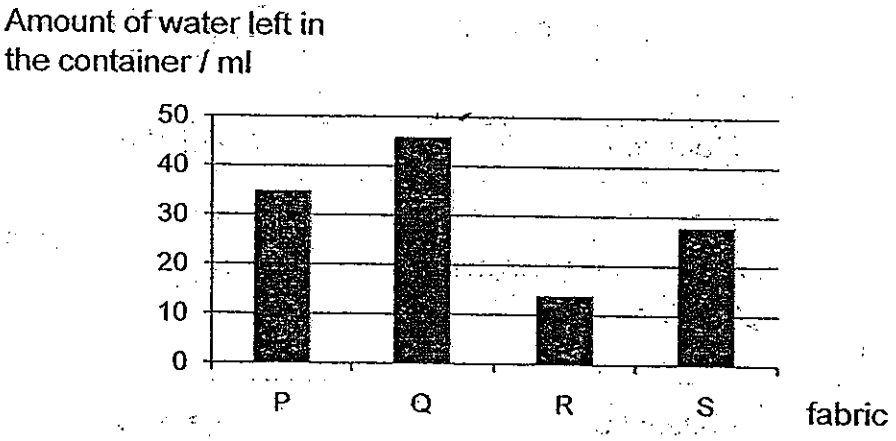
(2) Material C is the hardest material.

(3) Material C is stronger than material A.

(4) Material B is stronger than material D.

11. Four types of fabrics (P, Q, R and S) of the same size were immersed into four containers each containing 50ml of water for two minutes.

The bar graph below shows the amount of water left in the four containers after the fabrics were removed.



Which fabric is the least water absorbent?

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

12. Study the following descriptions of part Q of a plant.

Q can store food. Q can spread far and wide. Q can grow deep into the soil. Q can take in water and mineral salts from the soil. Q can crack tiles, concrete or pavement as it grows.

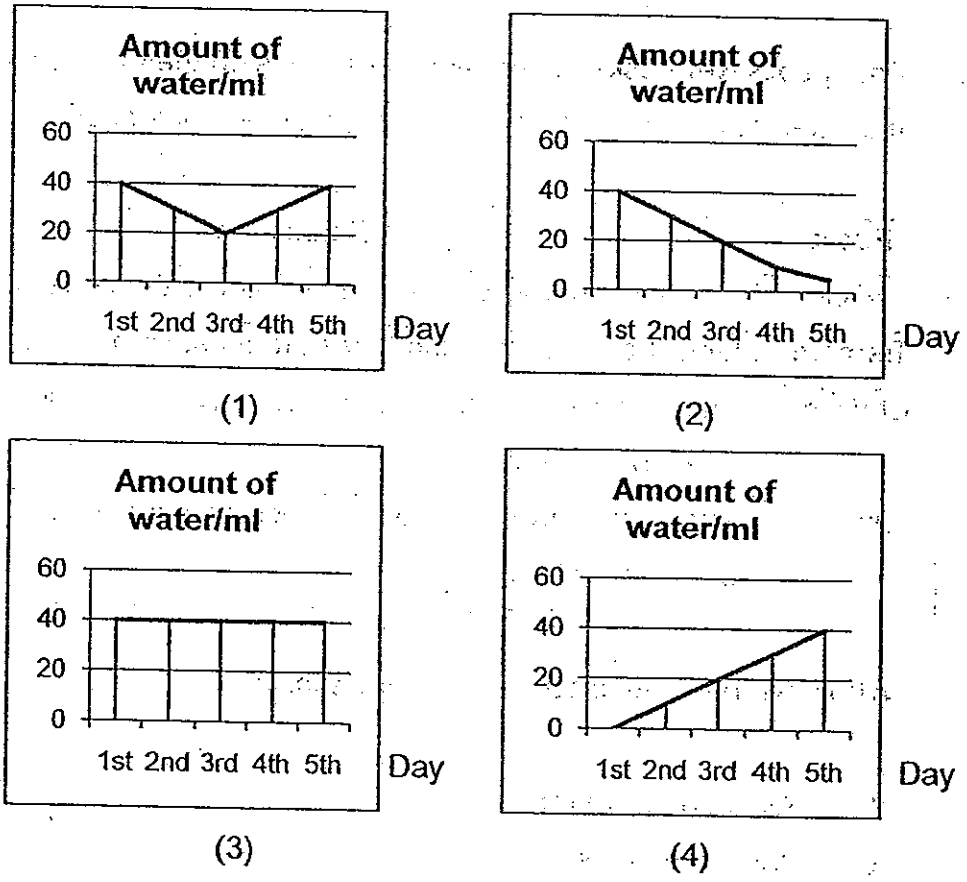
What is part Q?

(1) leaf
(2) root
(3) fruit
(4) stem

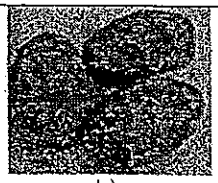
13. Which one of the following statements is not true about the leaf?

(1) It keeps the plant upright.
(2) It makes food for the plant.
(3) It needs to provide energy for the roots.
(4) It needs sunlight, carbon dioxide and water to make food.

14. Jane conducted an experiment to find out whether plants can take in water after their roots are removed. She placed a plant with roots removed in a beaker of water for five days. She monitored the level of water in the beaker for five days. No evaporation took place. Which one of the following graphs correctly shows the amount of water left in the beaker from the 1st to the 5th day?



15. Look at the plant parts shown below.

			
yams	water chestnuts	ginger	potatoes

Which plant part do the above belong to?

(1) leaf
(2) root
(3) fruit
(4) stem

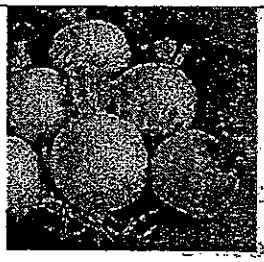
16. Four pupils were asked to provide statements on their understanding of the water-carrying tubes and food-carrying tubes of a plant.

Pupils	Statements
Alice	The water-carrying tubes carry water to the flowers.
Bernard	Only the water-carrying tubes are present in a celery stalk.
Christine	The food-carrying tubes transport food from the leaves to every part of the plant.
Dianna	The water-carrying tubes and food-carrying tubes are found only in the stem.

Who have provided statements that are false?

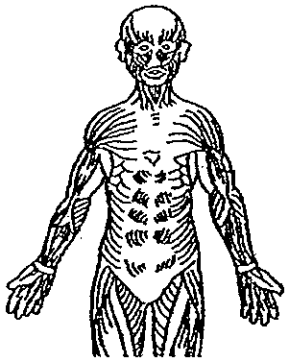
(1) Alice and Bernard
(2) Alice and Christine
(3) Bernard and Dianna
(4) Bernard and Christine

17. Which of the following shows a fruit?

	
garlic	Cucumber
	
carrot	turnip

(1) garlic
(2) turnip
(3) carrot
(4) cucumber

18. Name the system shown below.



(1) Skeletal
(2) Muscular
(3) Circulatory
(4) Respiratory

19. The card below shows the functions of an organ in the digestive system.

- Food is mixed with more digestive juices in this organ.
- Food gets completely digested here.
- Digested food is absorbed into the bloodstream to be carried away to other parts of the body.

Which of the following suits the above description?

(1) mouth
(2) stomach
(3) large intestine
(4) small intestine

20. Which system does the lungs belong to?

(1) Skeletal system
(2) Digestive system
(3) Circulatory system
(4) Respiratory system

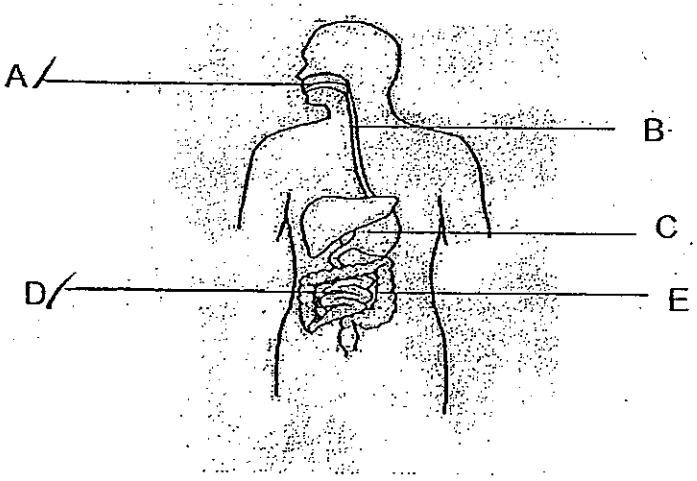
21. The table below shows some systems and their functions.

	System	Function
S	Skeletal	Works with the muscular system to help us move.
M	Muscular	Delivers digested food from the digestive system to enable the body to move.
C	Circulatory	Carries waste materials away from all parts of the body to be removed.
R	Respiratory	Enables the exchange of gases with the surroundings.

Which of the following systems have been matched correctly to their functions?

(1) S, M and C only
(2) S, C and R only
(3) M, C and R only
(4) S, M and R only

22. The figure below shows our digestive system.

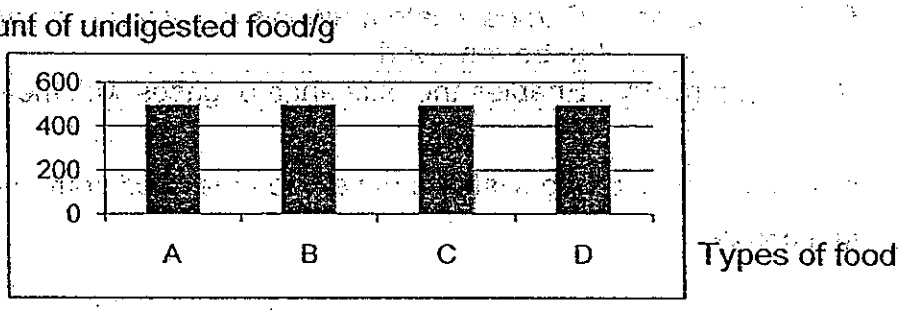


At which of these parts (A, B, C, D or E) are digestive juices produced?

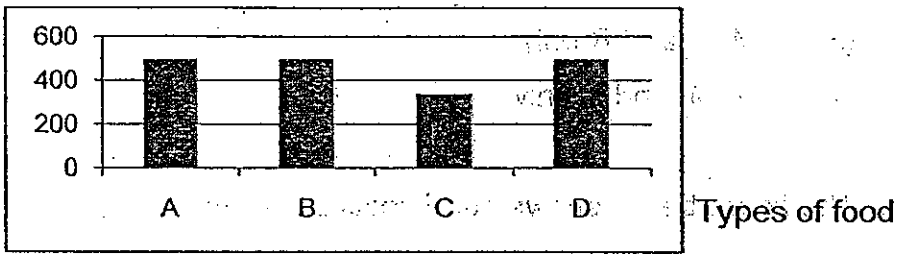
(1) A, B and C only
(2) A, C and D only
(3) B, C and D only
(4) C, D and E only

23. The graphs below show the amount of food being digested in a human body as it travels down the digestive system.

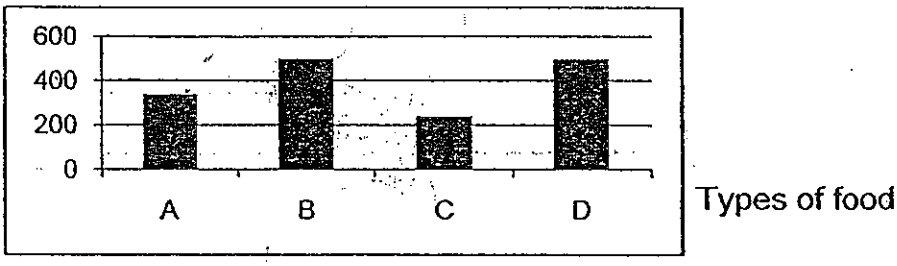
At the beginning



In the mouth



In the stomach



Which of the food (A, B, C or D) only start(s) being digested in the stomach?

(1) A only

(2) D only

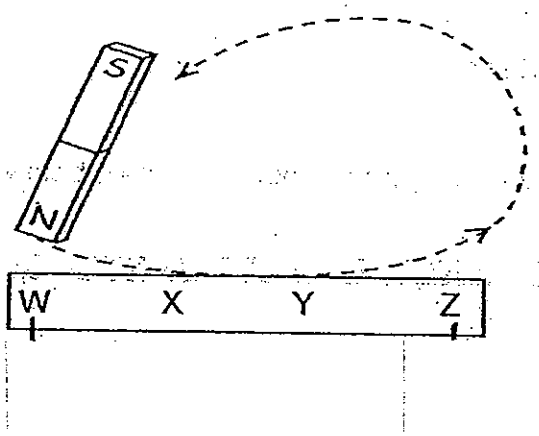
(3) A and C only

(4) A and B only

24. When a bar magnet is allowed to hang freely in the air, it will always point in a _____ direction.

(1) north-east
(2) north-south
(3) south-west
(4) south-east

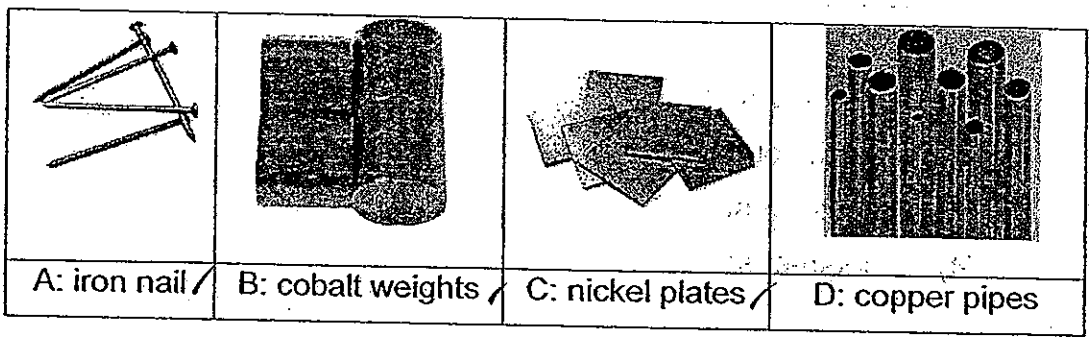
25. A magnet is used to make a steel bar into a temporary magnet using the stroking method below.



Which part of the steel bar will become the south-seeking pole?

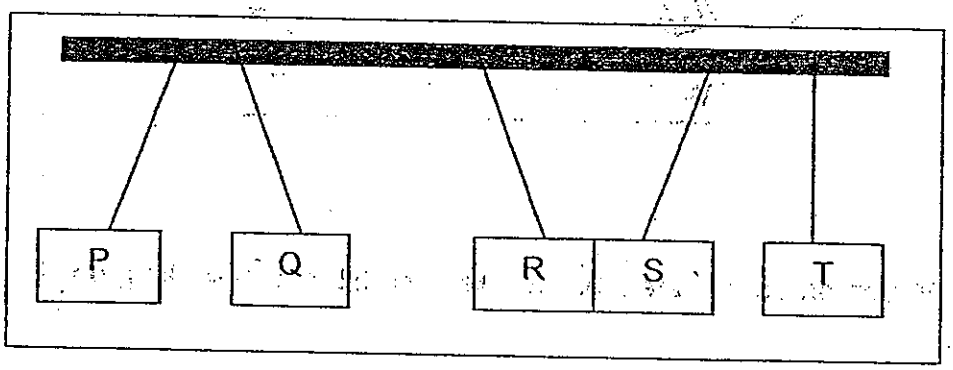
(1) W
(2) X
(3) Y
(4) Z

26. Which of the following objects will be attracted to a magnet?



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

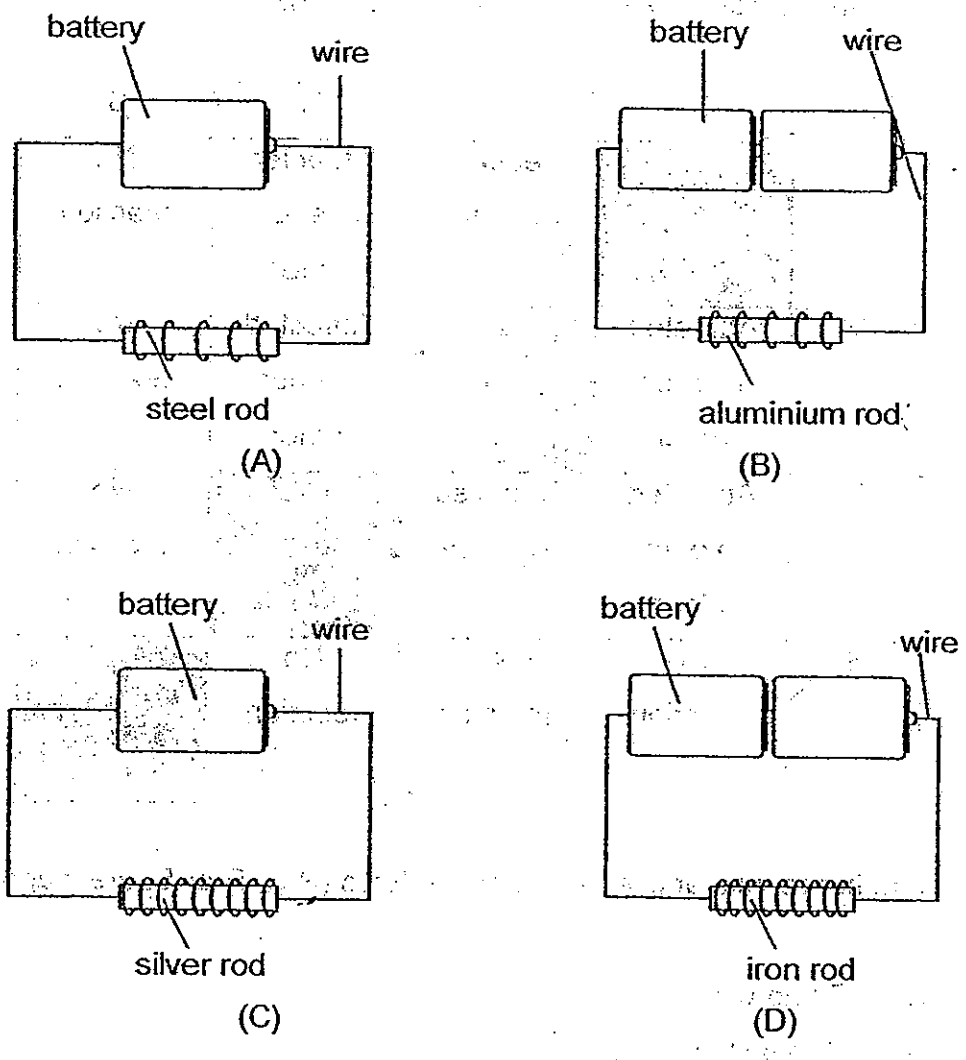
27. Five magnets are hung from a pole as shown below.



If magnet Q is removed, what can be observed?

(1) R and S will repel each other.
(2) P and R will repel each other.
(3) P and R will attract each other.
(4) S and T will attract each other.

28. Look at the four set-ups below.



Which of the set-up(s) will turn the rod into an electromagnet?

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

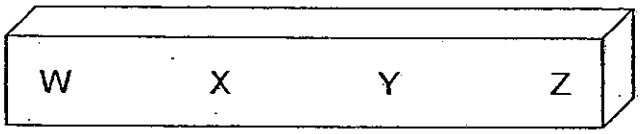
29. Gwen wanted to find out if items P, Q, R and S were magnets.
She tested how the objects interacted with one another.
She then recorded the results in the table below.

Object	P	Q	R	S
P		Repelled each other	Attracted to each other	No reaction
Q	Attracted to each other		Attracted to each other	No reaction
R	Attracted to each other	Repelled each other		No reaction
S	No reaction	No reaction	No reaction	

From her results above, which of the items (P,Q, R or S) are magnets?

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

30. Jamie lowered the magnet as shown in the diagram below near a tray of pins. He recorded the results of the number of pins attracted to each position of the magnet in the table below.



Position of the magnet	Number of pins attracted
W	15
X	3
Y	4
Z	13

What was the aim of his experiment?

(1) To find out how strong this magnet is.
(2) To find out if the pins would be attracted to the magnet.
(3) To find out which is the like and unlike pole of the magnet.
(4) To find out which part of the magnet has the strongest magnetic attraction.

-End of Section A-

CATHOLIC HIGH SCHOOL
PRIMARY 3
SEMESTRAL ASSESSMENT 2, 2010

SCIENCE

Name _____ ( )

Class : Primary 3 _____

Date : 28 October 2010

BOOKLET B

14 Questions
40 Marks

Total Time for Booklets A & B: 1 hour 30 minutes

Instructions to Candidates

Follow all instructions carefully.
Answer all questions.

Score	
Section A	/60
Section B	/40
Total	/100

Parent's Signature: _____

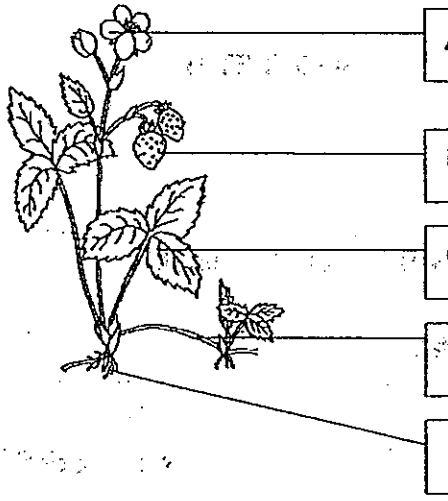
Date: _____

Section B : Open-Ended Questions (40 marks)
Read questions 31 to 44 carefully and write your answers in the space provided. The maximum marks that can be awarded are shown at the end of each question or part-question.

31. For each of the following statements, write 'T' for true and 'F' for false in the boxes provided. [2]

(a)	All birds have wings and can fly.	
(b)	All insects do not have wings.	
(c)	Fishes' bodies are covered with scales.	
(d)	Some mammals lay eggs instead of giving birth to young alive.	

32. (a) Label the parts of the flowering plant below. [2½]



(b) Which part of the plant (A, B, C, D or E) allows the exchange of gases to take place? [½]

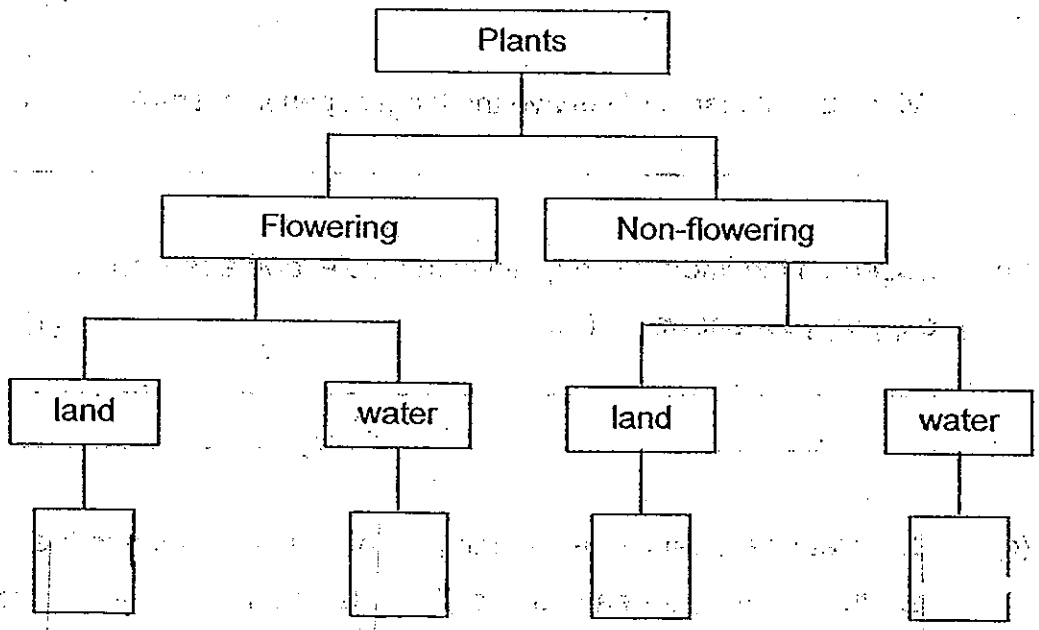
_____

5

33. The table below shows the characteristics of four plants, P, Q, R and S.

Characteristics	Plants			
	P	Q	R	S
Grows in the water	Yes	No	Yes	No
Grows flowers	No	Yes	Yes	No

(a) Based on the information given above, classify the plants (P, Q, R and S) in the classification chart below. [2]



(b) Based on the classification chart above, describe Plant S. [1]

(i) _____

(ii) _____

3

34. Four pots of plants were placed directly under the sun but under three different conditions. Study the table below carefully.

Conditions	Pots			
	A	B	C	D
type of cover used	transparent glass	black paper	transparent glass	black paper
air	present	present	absence	Absence
type of soil	wet	dry	dry	Dry

(a) Which pot of plant will survive the longest period of time? [1]

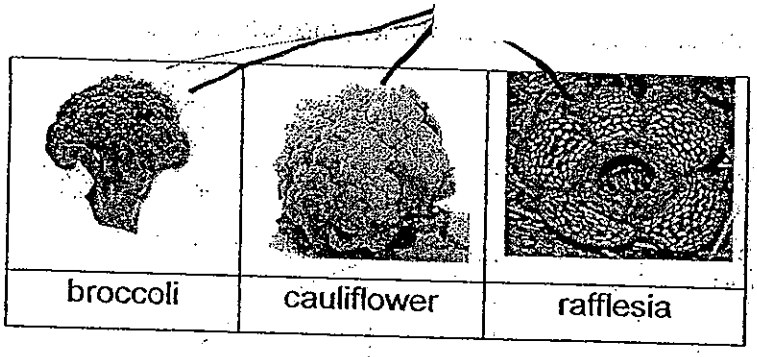
(b) Based on the information given in the table, give a reason to support your answer in (a). [1]

(c) Complete the arrangement of the pots of plant according to the length of survival for each of the plant. Begin with the plant that is the first to wither. [1]

C

3

35. Look at the plant parts shown below.

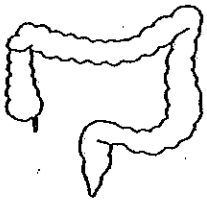


broccoli	cauliflower	rafflesia

(a) Name the plant part shown in the pictures above. [1]

(b) Name a function of this plant part in (a). [1]

36. The diagrams below show two parts of the digestive system. [2]



X

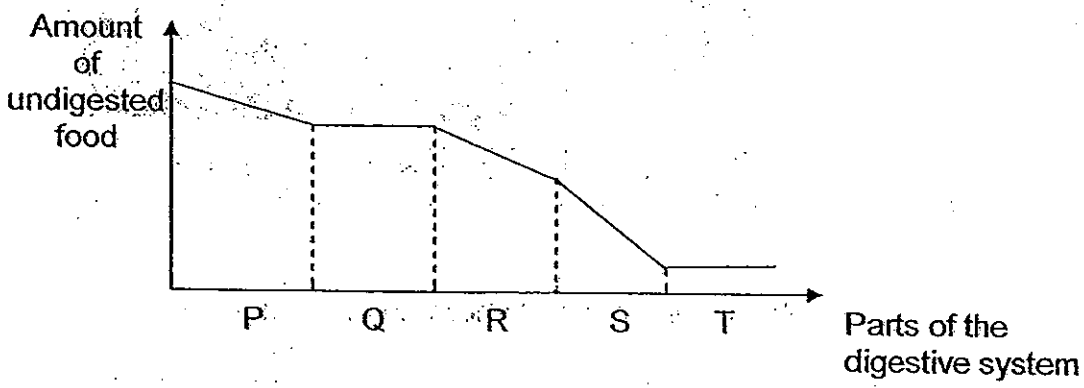
Y

Fill in the box with the correct part (X or Y) that performs the function below.

	Function	Part
(a)	Digestion is fully completed at this point.	
(b)	Undigested food is stored here temporarily.	
(c)	Digested food is absorbed through its walls.	
(d)	Water is absorbed from the undigested food.	

4

37. The graph below shows the amount of undigested food as it passes through different parts of the human digestive system.



(a) Based on the graph above, what does part R represent? [1]

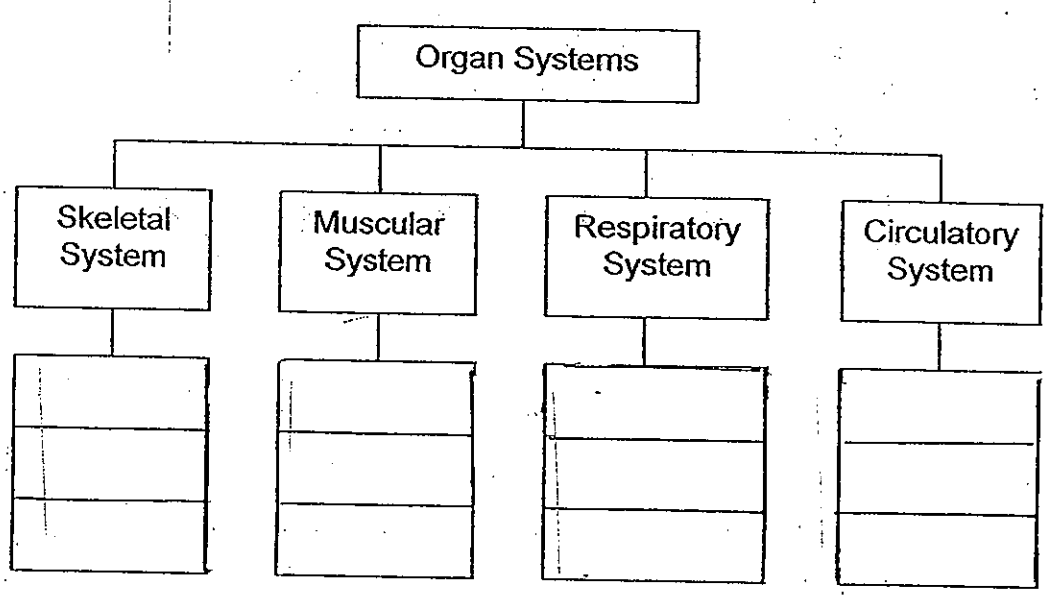
(b) Based on the graph above, what happens to the amount of undigested food in part Q? [1]

(c) Based on the graph above, which part(s) of the digestive system contains(s) digestive juices? [1]

3

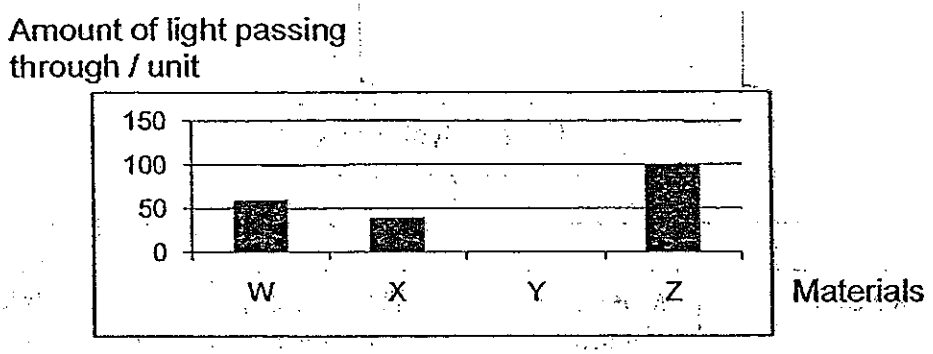
38. Classify the following parts under the correct organ system. [4]

~~skull~~	~~lungs~~	~~muscles~~	~~Heart~~
~~windpipe~~	~~ribs~~	~~blood vessels~~	~~Nose~~



4

39. Athan wanted to find out which material (W, X, Y and Z) allowed the greatest amount of light to pass through when light was shone on them. He plotted the bar graph below to show the amount of light that can pass through the 4 materials.



(a) Which material is most suitable for making the windows of a house? [1]

_____

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

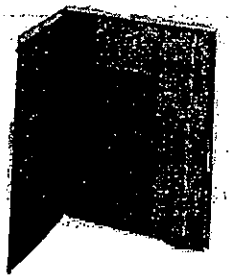
_____

(c) Which material would probably be a piece of ceramic tile? [1]

_____

3

40. Essac was given two types of files to keep his worksheets. One of the files was made of paper while the other was made of plastic as shown below.



paper file

plastic file

(a) Which file should he use if he did not want his fifty pieces of papers to be wet? [1]

_____

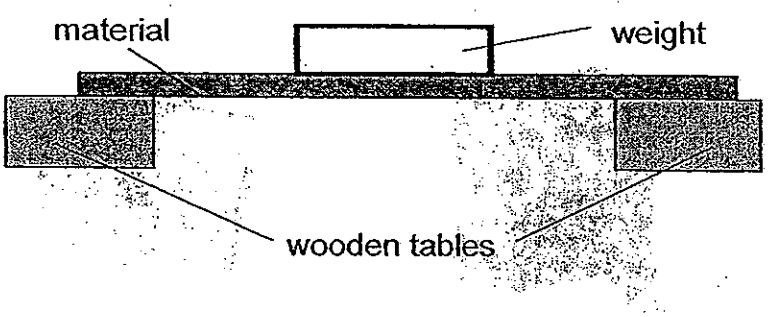
(b) Support his choice by giving two important properties of the material you have chosen for him in (a). [2]

(i) _____

(ii) _____

3

41. Peter set up an experiment as shown in the diagram below.



He placed some 1-kg weights on the centre of the material until the material broke. He conducted the test on four materials, P, Q, R and S. He recorded the results in the table below.

Materials	Number of 1-kg weight used before the material breaks
P	20
Q	50
R	80
S	10

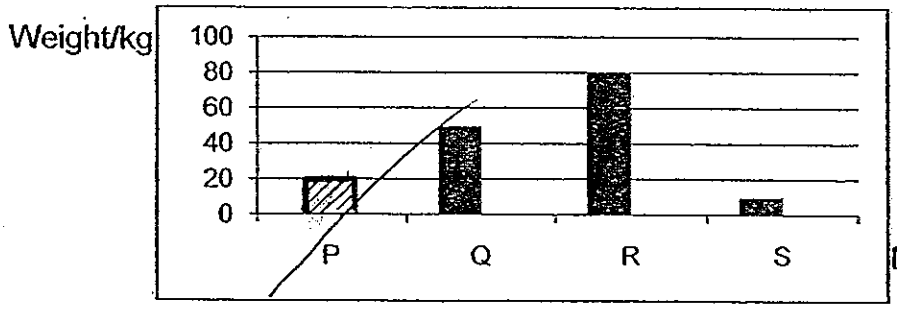
(a) What physical property of the material was Peter trying to test? [1]

Test for _____

(b) From the table above, which material is most suitable for making a metal cabinet? [1]

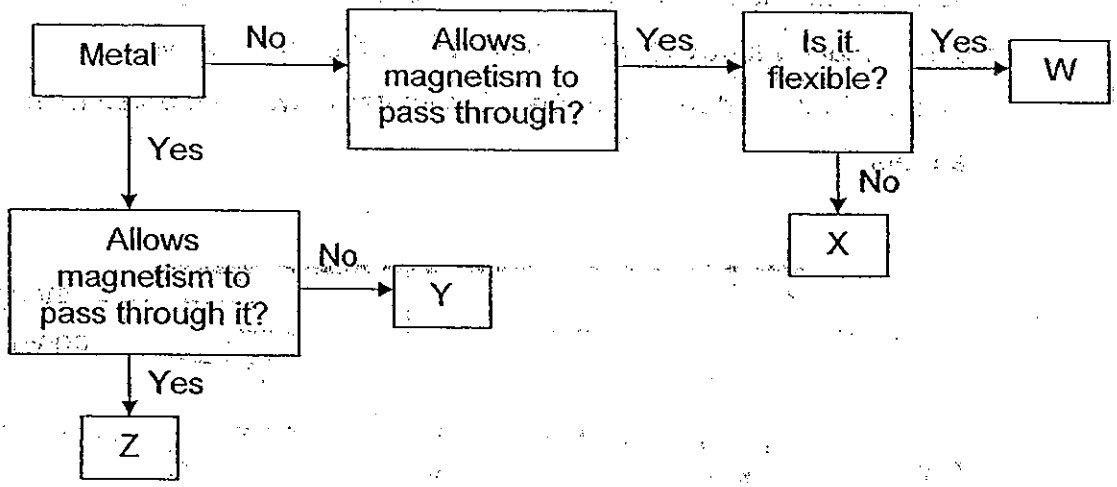
_____

(c) The graph below represents the data recorded. Complete the graph by drawing a bar for material P. [1]



3

42. Analyse the flow chart below carefully.



(a) Match the following items to the correct letters. [2]

steel sheet	glass pane	aluminium sheet	vanguard sheet

(i) W : _____

(ii) X : _____

(iii) Y : _____

(iv) Z : _____

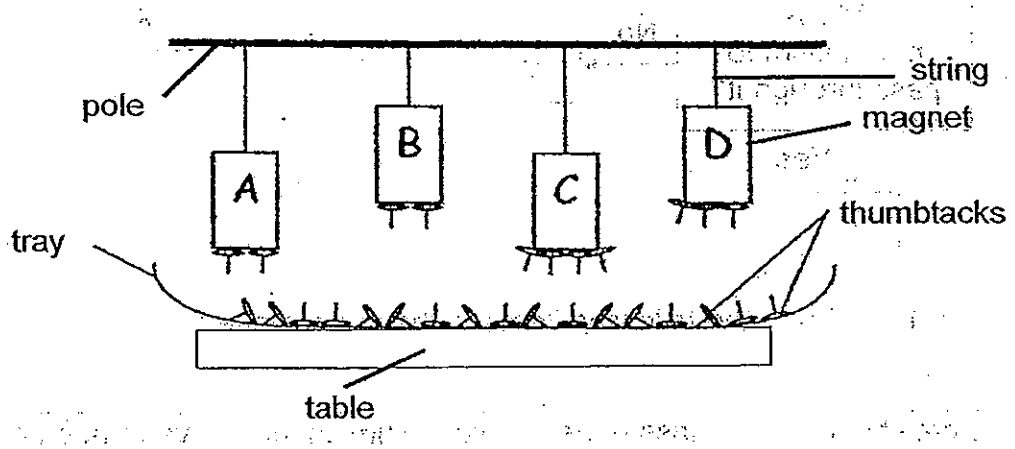
(b) Using the flowchart above, give one description of the object that is placed in box Y. [1]

_____

_____

3

43. Dexter hung four magnets of similar size A, B, C and D using the same type of string but of different lengths as shown in the diagram below. He then placed a tray of thumbtacks below the four magnets. He observed that a different number of thumbtacks were attracted to the magnets.



(a) Based on the diagram above, Dexter concluded that magnet C is stronger than magnet D. Do you agree with him? [1]

_____

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

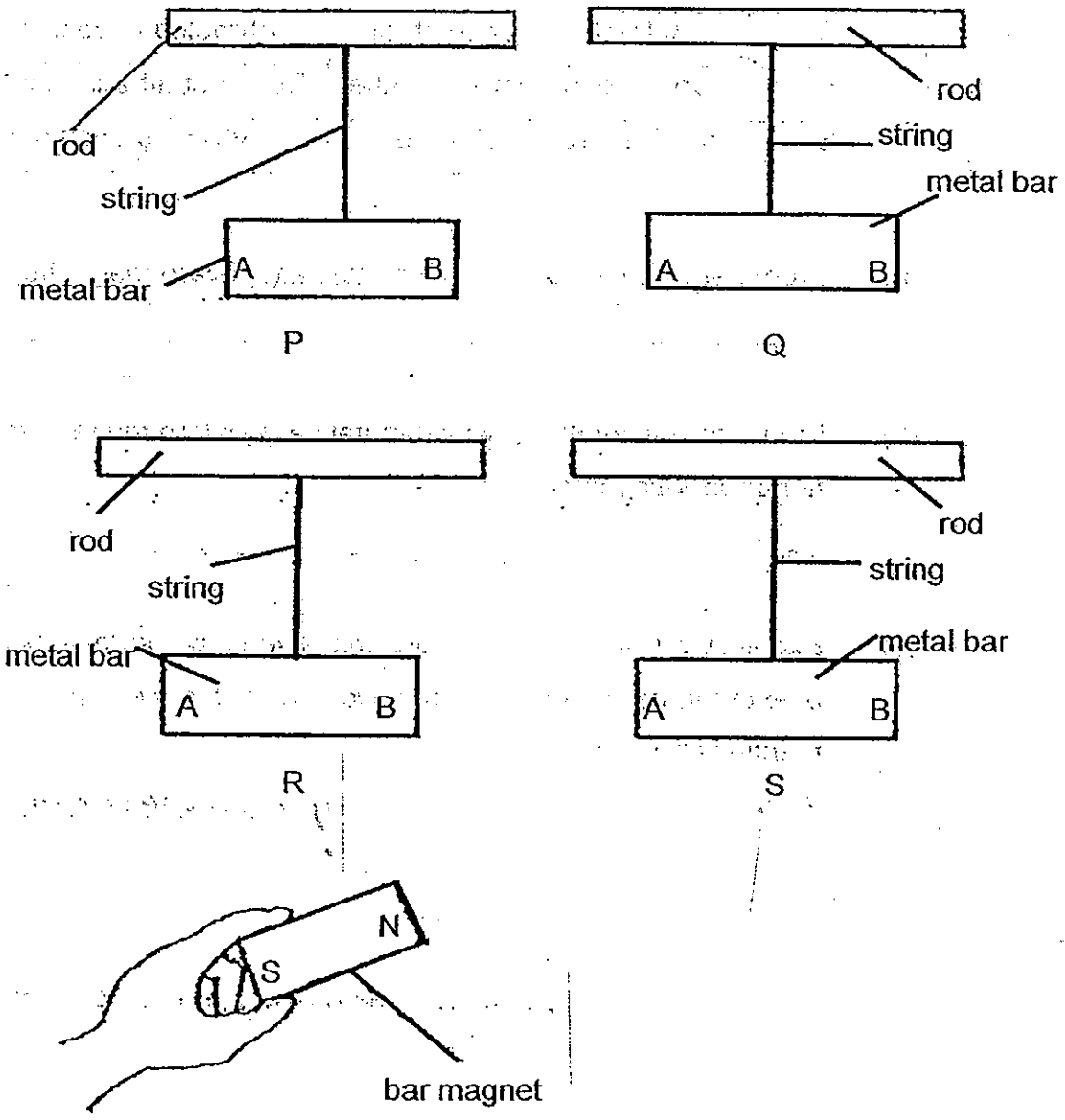
_____

(c) In order to conduct a fair test, which of the following step(s) should Dexter take in order to compare the strength of magnet B and C? Put a tick(✓) in the relevant box(es). [1]

Steps	Tick
Shorten the string of magnet C.	
Replace magnet B with a bigger magnet.	
Replace the string of magnet B to one that is of similar length as magnet C.	

3

44. Felicia hung four metal bars, P, Q, R and S from four horizontal rods as shown below. She brought the north-seeking pole of a bar magnet near A and then B of each metal bar.



She recorded her observations in the table below.

metal bar	North-seeking pole and A	North-seeking pole and B
P	Attracted to each other	Repelled each other
Q	Attracted to each other	Attracted to each other
R	Does not attract each other	Does not attract each other
S	Repelled each other	Attracted each other

(a) From her observations, which metal bar(s) is/are magnet(s)? [1]

(b) From her observations, which metal bar(s) is/are made from non-magnetic material(s)? [1]

(c) Explain why was there no reaction between the north-seeking pole of the bar magnet and the two ends of the metal bar mentioned in (b). [1]

-End of Section B-

3

Ans

EXAM PAPER 2010

SCHOOL : CATHOLIC HIGH 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	3	3	4	2	1	3	2	4	1	2	2	1	3	4	3	4

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

31)a)F b)F c)T d)T

32)a)A: flower B: fruit C: leaf D: stem E: root
b)Part c allows the exchange of gases to take place.

33)a)Q,R,S,P
b)i)Plant S does not grow flowers. ii)Plant S is a non-flowering plant.

34)a)A.
b)Sunlight can pass through, air water are present.
c)D, C, B, A

35)a)Flower. b)Develop 5 into a fruit.

36)a)Y b)X c)Y d)X

37)a)The stomach.
b)Amount of undigested food does not change in Part Q.
c)Parts P, R and S.

38)skull muscles lungs Heart
Ribs muscles windpipe blood vessels
Nose

39)a)Material Z.
b)Material Z allowed the greatest amount of light to pass through.
c)Material Y.

40)a)The plastic file.
b)i)The plastic file is waterproof.
ii)The plastic file is strong.

41)a)strength
b)Material R.
c)P = 20

42)a)i)vanguard sheet
ii)glass pane
iii)steel sheet
iv)aluminium sheet
b)It is a metal that does not allow magnetism to pass through.

43)a)No, I do not.
b)He did not use strings of the same length for magnets C&D
c) √

44)a)Bar P and S.
b)Bar R.
c)Material R, which is non-magnetic is not attracted to a bar magnet.