

ANGLO-CHINESE SCHOOL
(JUNIOR)



SEMESTRAL ASSESSMENT 1 (2009)
PRIMARY 4

SCIENCE
BOOKLET A

Friday 15th May 2009

1 hour 30 minutes

Name : _____ ()

Class : P 4 _____

INSTRUCTIONS TO PUPILS

DO NOT TURN OVER THE PAGES UNTIL YOU ARE TOLD TO DO SO

Follow all instructions carefully.
There are 25 questions in this booklet.
Answer **ALL** questions.

INFORMATION FOR PUPILS

The total marks for this booklet is 50.
The total time for Booklets A and B is 1 hour 30 minutes.

This question paper consists of 13 printed pages. (Inclusive of cover page)

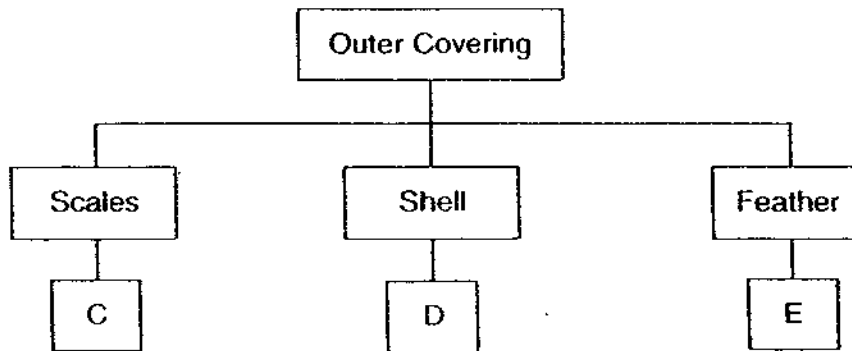
Section A (50 marks)

For each question from 1 to 25, four options are given. One of them is the correct answer. Choose the correct option (1, 2, 3 or 4) and shade the correct oval on the Optical Answer Sheet (OAS).

- 1 Which one of the following groups of objects has been grouped under the **correct** headings?

	From Non-living things	From Living things
(1)	Cotton wool	Plastic bag
(2)	Writing paper	Cotton wool
(3)	Plastic bag	Glass pane
(4)	Glass pane	Writing paper

- 2 The classification table below shows how organisms C, D and E are grouped according to their outer covering.



Which one of the following sets of organisms below could C, D and E be?

	C	D	E
(1)	Mudskipper	Penguin	Lobster
(2)	Lobster	Mudskipper	Penguin
(3)	Mudskipper	Lobster	Penguin
(4)	Penguin	Lobster	Mudskipper

3 The animals below can be classified into the same group.



In what way are they alike?

- (1) All of them have tails.
- (2) All of them live in water.
- (3) All of them have jointed legs.
- (4) All of them do not have bones.

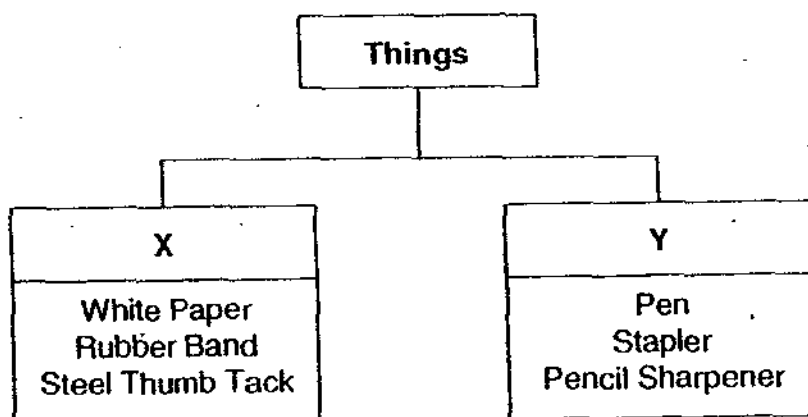
4 Adrian grouped the following organisms together.

Mushroom	Bacteria
Jew's Ear	Puff Balls

Which organism does not belong together with the rest of the organisms?

- (1) Bacteria
- (2) Puff Balls
- (3) Mushroom
- (4) Jew's Ears

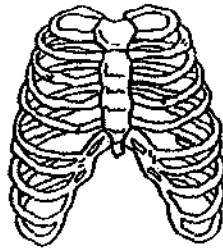
5 Study the classification table below.



Where would you put an electric fan?

- (1) X only
- (2) Y only
- (3) X and Y
- (4) None of the above

6 The diagram shows a human ribcage.

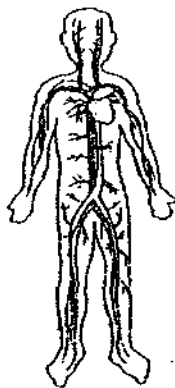


Which of the following organs does the ribcage protect?

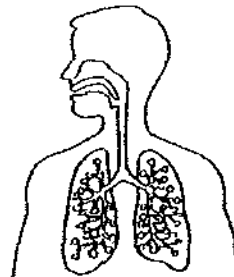
- A Heart
- B Lungs
- C Stomach
- D Intestines

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

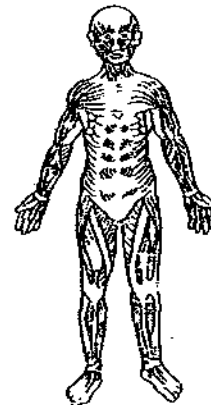
7 The diagrams below show the various systems found in human.



- A



B

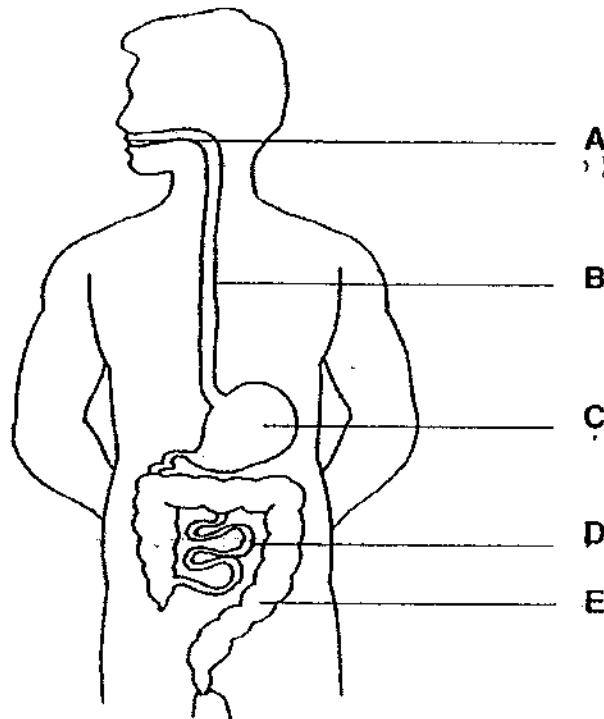


C

Which of the following shows the correct names of the systems represented by A, B and C ?

	A	B	C
(1)	Muscular	Respiratory	Circulatory
(2)	Respiratory	Muscular	Circulatory
(3)	Circulatory	Respiratory	Muscular
(4)	Respiratory	Circulatory	Muscular

8 Study the diagram of the digestive system.



Digestion occurs at parts _____.

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

9 Aziz, Betsy, Calvin and Devi made the following statements about the human digestive system.

Aziz : Saliva is a digestive juice that is produced by the mouth and the stomach.

Betsy : The gullet does not produce digestive juices.

Calvin : The tongue shapes food into a ball, making it easier to swallow.

Devi : The small intestine transports digested food to the other parts of the body.

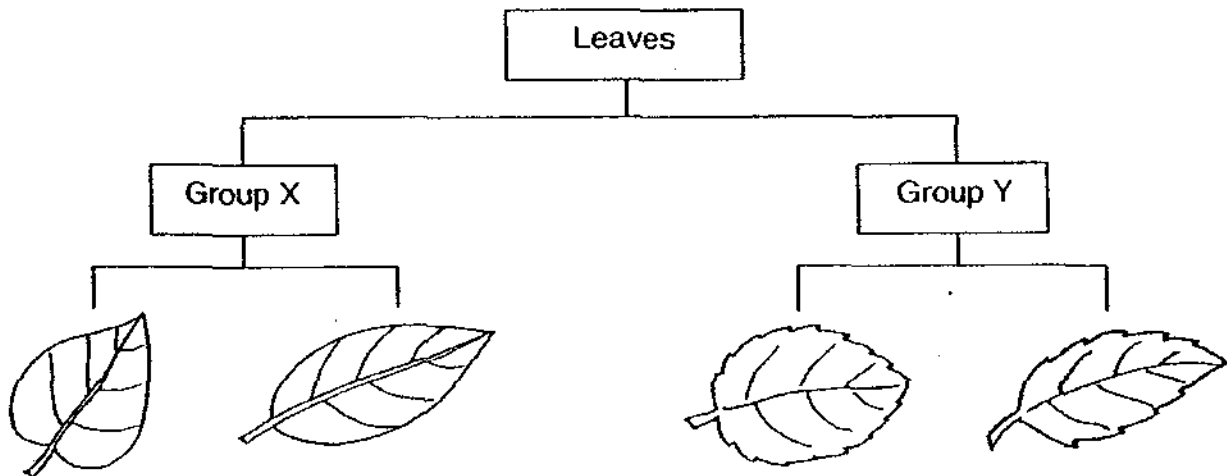
Which pupils made incorrect statements?

- (1) Aziz and Devi
- (2) Aziz and Betsy
- (3) Calvin and Devi
- (4) Betsy and Calvin

10 Trees do not fall easily even during a storm because the _____.

- (1) roots anchor the tree firmly into the ground
- (2) trunk enables the tree to stand upright firmly
- (3) branches spread out the weight of the wet leaves
- (4) leaves help to shield the tree from the wind and rain

11 Study the classification table below.



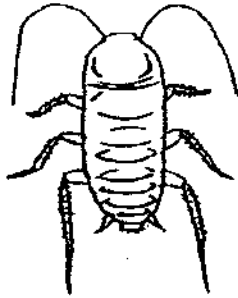
Which one of the following best describes Group Y?

- (1) Oval-shaped
- (2) Heart-shaped
- (3) Jagged-edged
- (4) Smooth-edged

12 Which of the following processes is not a cycle?

- (1) Day and night
- (2) Occurrence of the four seasons
- (3) A caterpillar growing into a butterfly
- (4) Using a magnet to attract paper clips

13 The diagram below shows how the young of some insects look like.



Cockroach Nymph



Caterpillar

Which of the following statements is true for the cockroach nymph but **false** for the caterpillar?

- (1) It eats a lot.
- (2) It moves around.
- (3) It resembles its adult.
- (4) It moults several times.

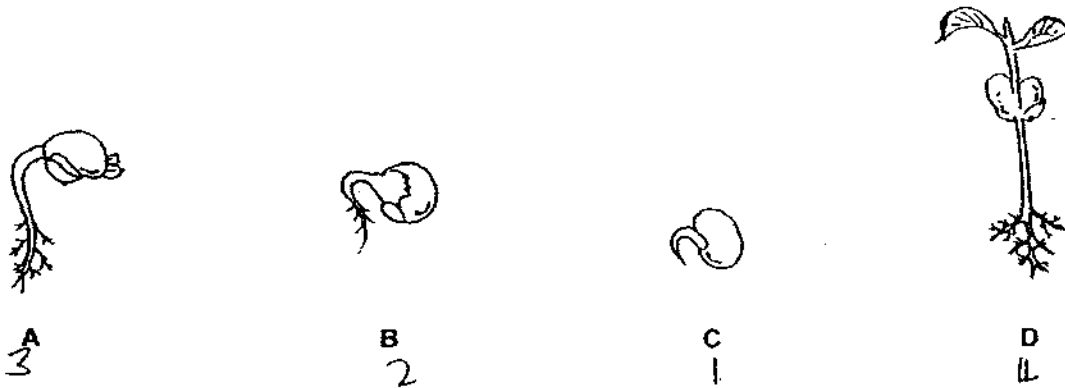
14 Helen did a study on two animals, P & Q. She drew a checklist and placed a tick (✓) in the box when she made the observation. At the end of her study, the completed checklist is as follows:

	Observation	Animal P	Animal Q
A	Lays eggs in water	✓	
B	Has wings at adult stage	✓	✓
C	Has 4 stages in its life cycle	✓	

Which of the following could be Animals P and Q?

	Animal P	Animal Q
(1)	Dragonfly	Rat
(2)	Mosquito	Sparrow
(3)	Dragonfly	Sparrow
(4)	Mosquito	Rat

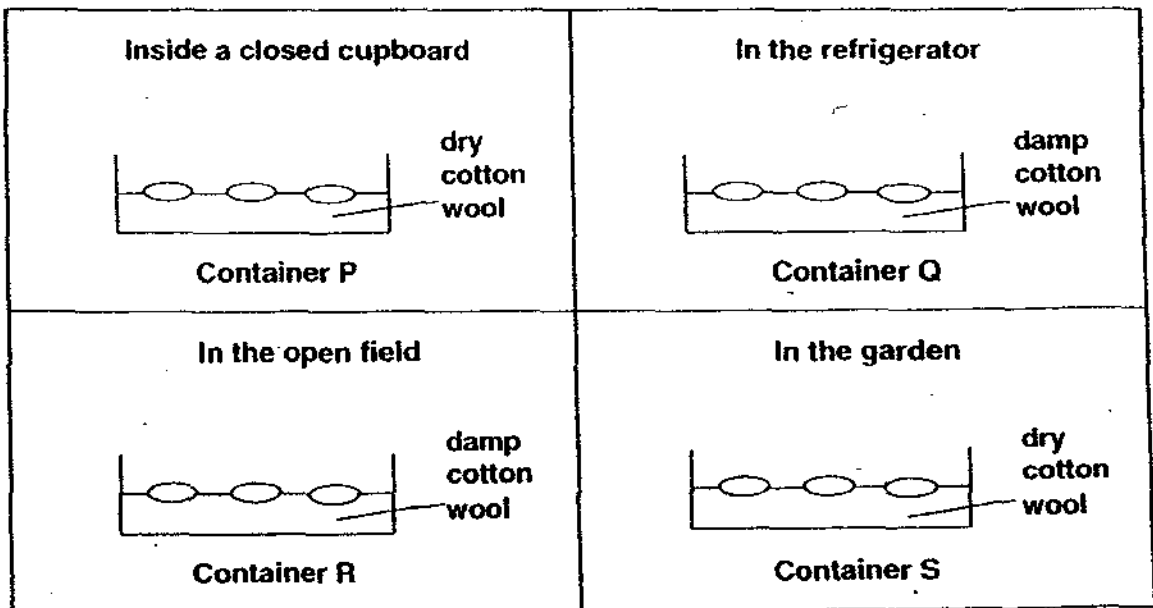
15 The diagram below shows the different stages in the growth of a seedling.



Which of the following shows the correct order of growth starting with the seed?

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

16 Mike placed four containers of seeds at different locations.



Which two containers should he use to compare if he wants to find out if warmth is necessary for germination?

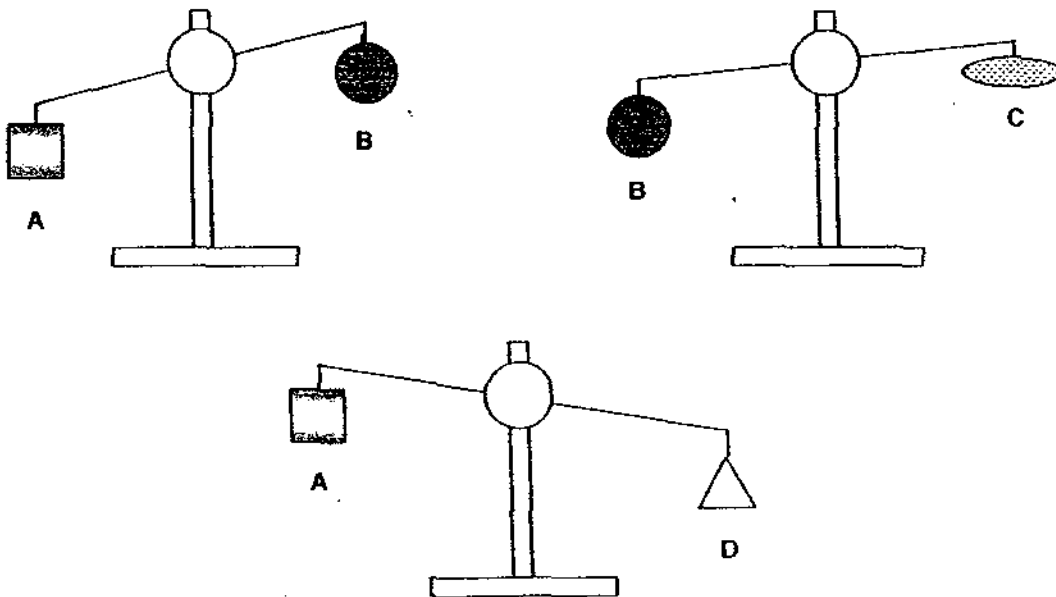
- (1) P and S
- (2) Q and R
- (3) P and Q
- (4) R and S

17 Eugene first moulded a piece of plasticine into a cube. He then re-shaped it into a ball. The ball and cube models of the plasticine shared the same _____.

- (1) mass
- (2) volume
- (3) mass and volume
- (4) shape and volume



18 The diagrams below show how heavy objects A, B, C and D are with respect to one another.



Arrange A, B, C and D, starting from the heaviest to the lightest.

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

19 Which one of the following groups has things that are in the same state?

- (1) oil, water and air
- (2) water, oil and pebble
- (3) plasticine, air and oil
- (4) paper, plasticine and pebble

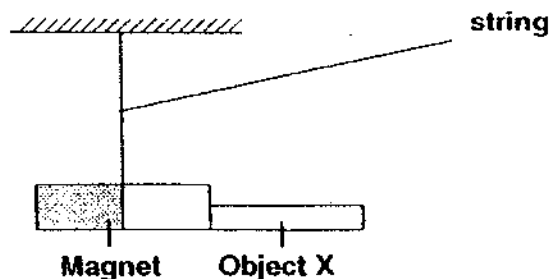
- 20 Samuel observed the properties of 3 substances, P, Q and R. He recorded his observations in the table below.

Properties	P	Q	R
Occupies space	Yes	Yes	Yes
Has a definite shape	Yes	No	No
Can be compressed	No	Yes	No

Which one of the following could P, Q and R be?

	P	Q	R
(1)		Oil	Carbon Dioxide
(2)	Oil		Carbon Dioxide
(3)		Carbon Dioxide	Oil
(4)	Oil	Carbon Dioxide	

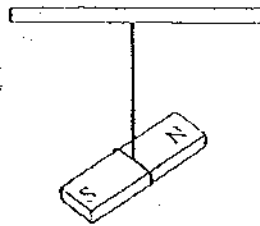
- 21 The diagram below shows Object X attracted to a magnet that is suspended on a string.



Which of the following materials can X be made of?

- A Iron
 - B Nickel
 - C Copper
 - D Aluminium
- (1) A and B
 (2) A and D
 (3) B and C
 (4) C and D

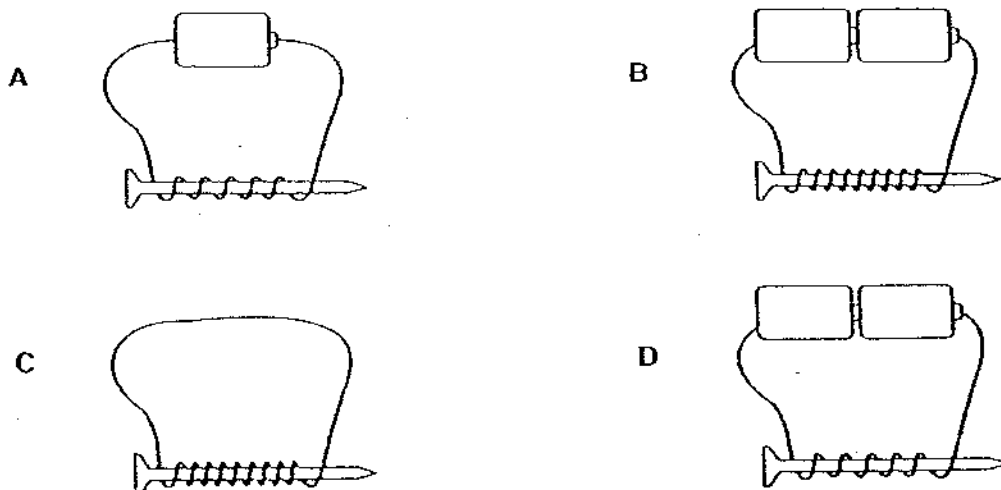
22 A bar magnet is suspended freely on a string as shown in the diagram.



What will happen to the bar magnet after a few minutes?

- (1) It will spin slowly round and round.
- (2) It will point in a East - West direction
- (3) It will point in a North - South direction.
- (4) It will point towards the direction of the Sun.

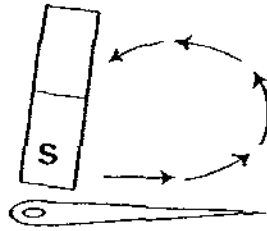
23 Jack wanted to find out whether the number of batteries affected the strength of the electromagnet.



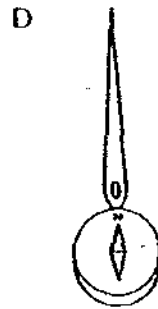
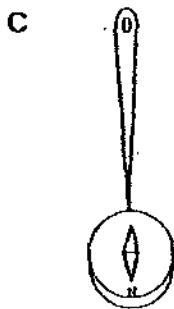
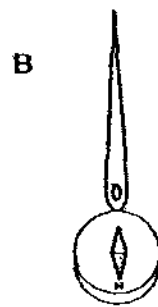
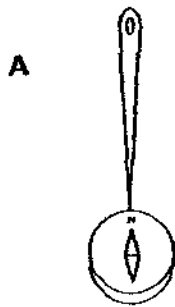
Which of the following set-ups should he use to make the comparison?

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

24 Benedict used the stroking method to change a needle into a temporary magnet.

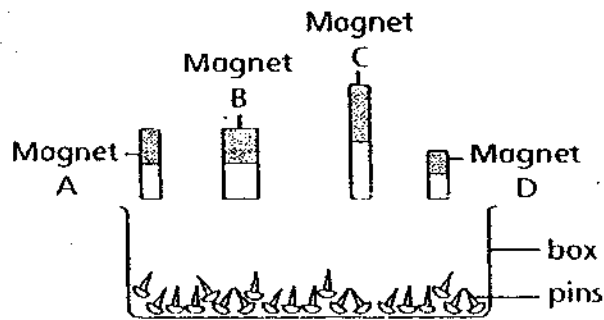


He then brought the magnetised needle close to a compass. Which of the following correctly shows how the compass needle will interact with the magnetised needle?



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

- 25 Tom had four magnets. He brought the magnets close to a box of pins as shown. All magnets were placed equal distance away from the box of pins.



He observed the number of pins that each magnet was able to attract and tabulated his findings in the table below.

	Magnet A	Magnet B	Magnet C	Magnet D
Number of pins attracted	4	6	2	8

From the results in the table, Tom can conclude that _____.

- (1) small magnets are stronger than big magnets
- (2) big magnets are stronger than small magnets
- (3) the strength of a magnet is dependent on its size
- (4) the strength of a magnet is not dependent on its size

ANGLO-CHINESE SCHOOL
(JUNIOR)



SEMESTRAL ASSESSMENT 1 (2009)
PRIMARY 4
SCIENCE
BOOKLET B

Friday 15th May 2009

1 hour 30 minutes

Name : _____ ()

Class : P4 _____

INSTRUCTIONS TO PUPILS

DO NOT TURN OVER THE PAGES UNTIL YOU ARE TOLD TO DO SO

Follow all instructions carefully.

There are 16 questions in this booklet.

Answer **ALL** questions.

INFORMATION FOR PUPILS

The number of marks is given in brackets [] at the end of each question or part question.

The total marks for this booklet is 40.

The total time for Booklets A and B is 1 hour 30 minutes.

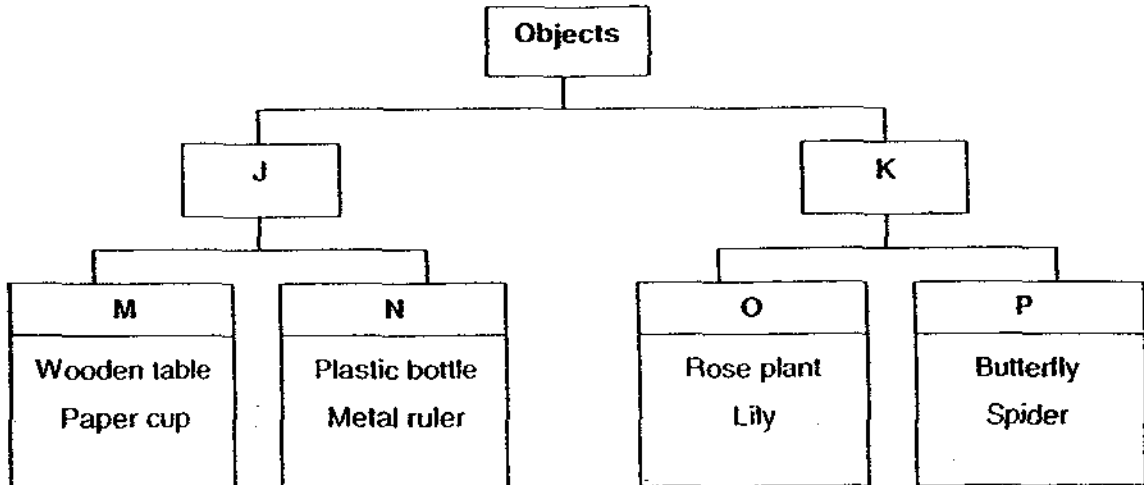
This question paper consists of 13 printed pages. (Inclusive of cover page)

Booklet	Question Numbers	Possible Marks	Marks Obtained
A	1 - 25	50	
B	26	3	
	27 - 28	5	
	29 - 30	5	
	31 - 32	4	
	33	3	
	34 - 35	4	
	36	3	
	37	3	
	38	3	
	39 - 40	5	
	41	2	
Total for Booklets A & B		90	
Parent's Signature / Date:			

Section B (40 marks)

For questions 26 to 41, write your answers in this booklet. The number of marks is shown in the brackets [] at the end of the question or part question.

26 Study the classification table below.



(a) Give suitable headings for Groups M, N, O and P. [2]

Group M: _____

Group N: _____

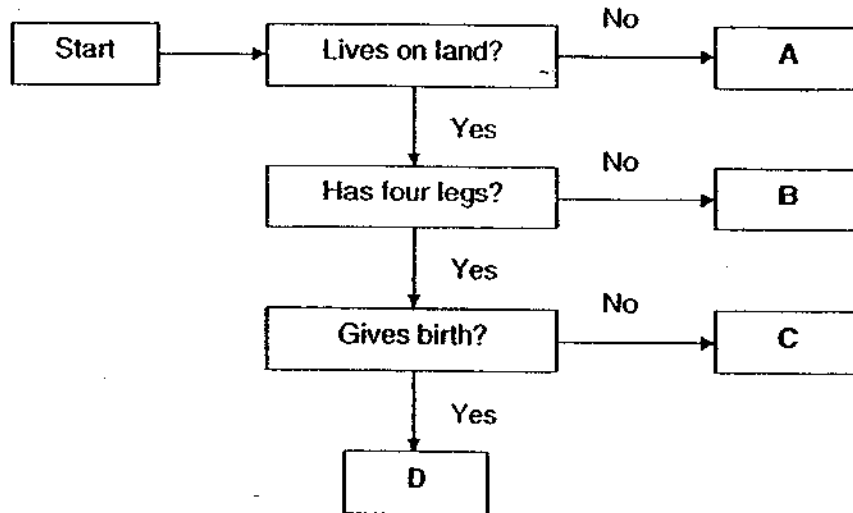
Group O: _____

Group P: _____

(b) Give one characteristic of the objects in Group K. [1]

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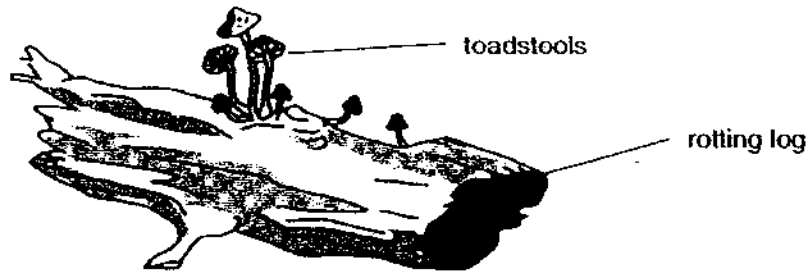
27 Look at the flow chart below.



Which animals are most appropriately represented by letters A to D? Write the letters in the space provided. [2]

Shark : _____ Spiny Anteater : _____
 Deer : _____ Cobra : _____

28 The picture below shows toadstools growing on a rotting log.



- (a) Which group of organism does the toadstools belong to? [1]

- (b) How does the toadstool reproduce? [1]

- (c) In what way is the rotting log important to the toadstools? [1]

29 The table below shows the life cycle of three animals, J, K and L.

Animal	Stages in life cycle	Moultng
J	3	Yes
K	4	Yes
L	3	No

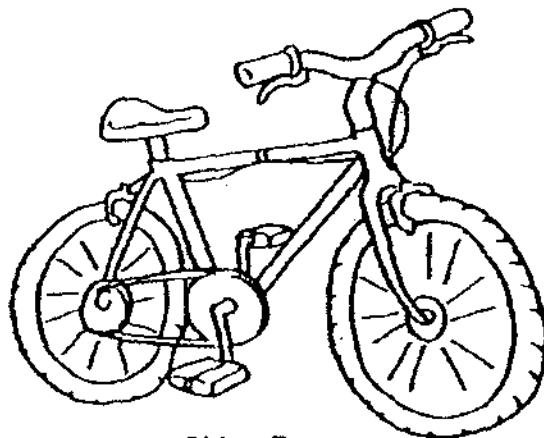
Use the information in the table to fill in the blanks.

[3]

The mealworm beetle is most likely to be animal _____.

It eats a lot and moults several times during its _____ stage. After that, it develops into a _____ where it undergoes changes to become the adult beetle.

30 Study the two objects P and Q shown in the diagram.



Object P



Object Q

(a) Which object is a system?

[1]

(b) Explain your choice.

[1]

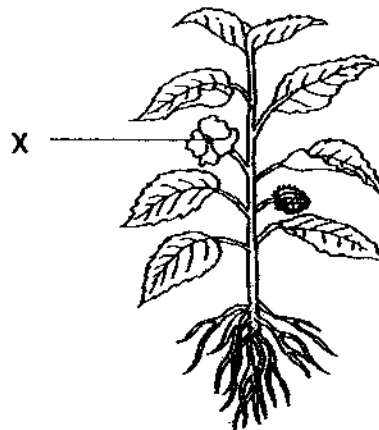
31 Study the diagram shown below.



(a) Identify the organ shown. [1]

(b) What is the function of this organ? [1]

32 The diagram shows a plant.

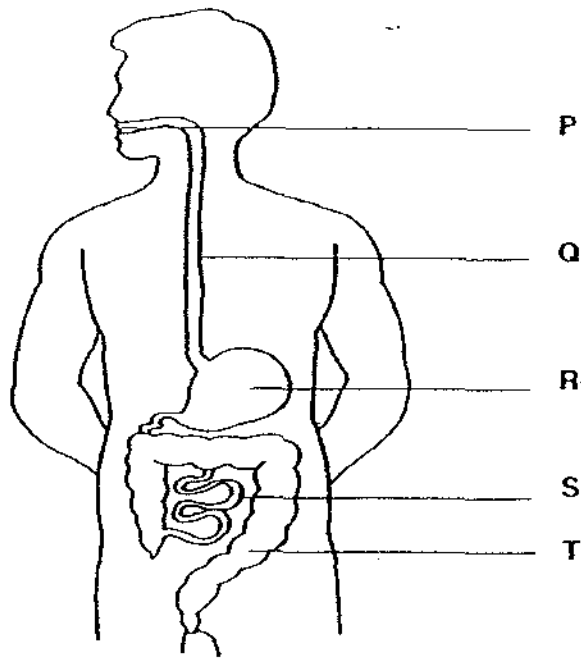


a) Name the part labelled X. [1]

(b) What is the function of X? [1]

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33 The diagram shows the human digestive system.



(a) Name the following parts: [1]

R: _____

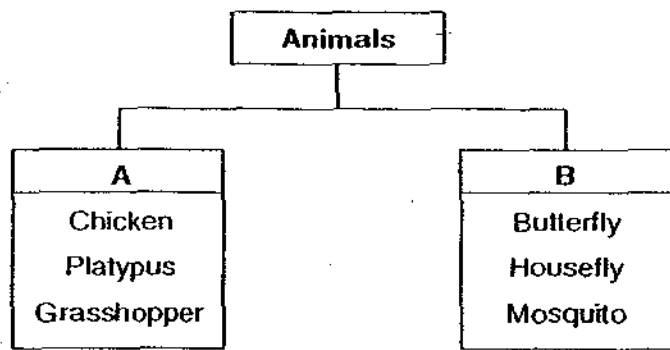
T: _____

(b) What happens to the food at part S? [1]

(c) Name the system that works with the digestive system to ensure that digested food reaches all parts of the body. [1]

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34 Look at the classification table below.

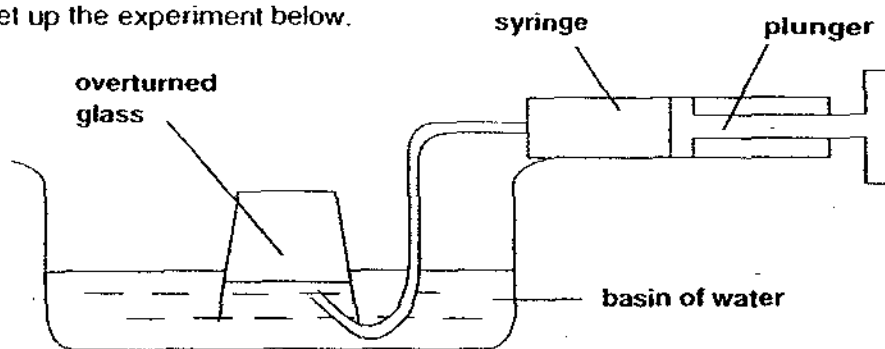


(a) How are the animals classified? [1]

(b) In which group will you place the "moth" and the "lizard"? [1]

Moth : _____ Lizard : _____

35 Alex set up the experiment below.

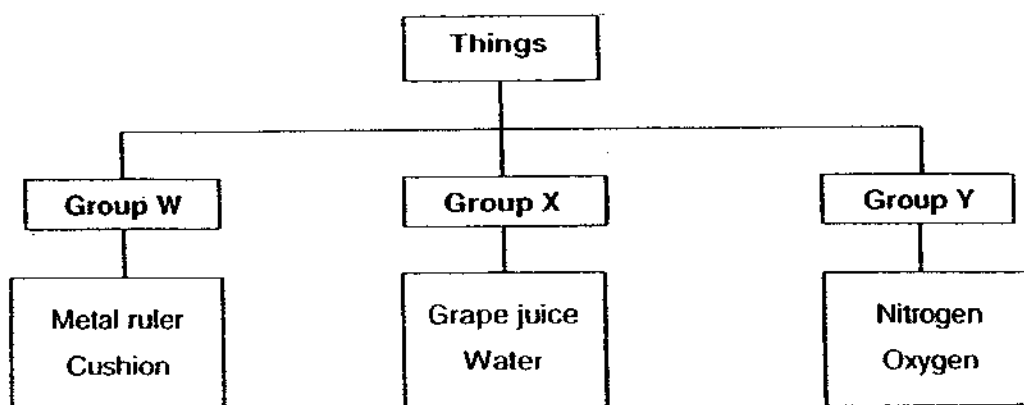


(a) What will happen to the water level in the glass when Alex pushes the plunger of the syringe? [1]

(b) What property of air does this experiment show? [1]

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36 Peter drew the classification table below.

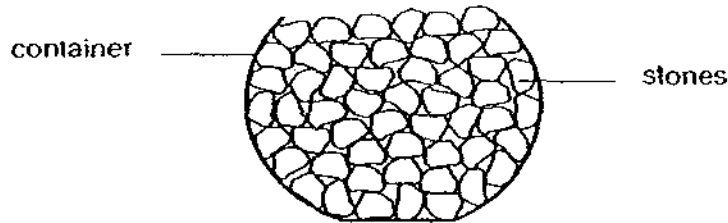


(a) In which group (W, X or Y) should Peter place "sand"? Why? [1]

(b) Suggest what Peter can do to "water" so that he can classify it together with the things in Group W. [1]

(c) In what way are the things in Group X different from those in Group Y? [1]

37 Melissa wanted to find out the volume of the air in a container. She filled it to the brim with 250cm^3 of stones.



(a) Tick (✓) the box that shows the most likely volume of the container. [1]

Volume of Container	Tick (✓) the correct volume
Less than 250cm^3	
Is equals to 250cm^3	
More than 250cm^3	

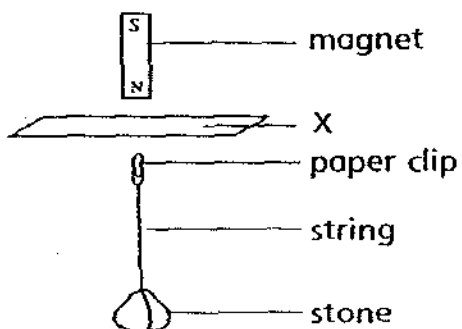
(b) Explain your answer in (a). [1]

(c) Melissa's teacher then gave her 250ml of water and a measuring cylinder. Tick (✓) the steps that Melissa should take to get a more accurate measurement of the volume of the air in the container. [1]

Steps to be taken	Tick (✓) the suitable steps
Remove all the stones in the container.	
Pour water into the container filled with stones.	
Use a measuring cylinder to measure the volume of the water in the container.	
Add the volume of the stones and the volume of the water.	
Find the difference between the volume of the stones and the volume of water.	

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38 Alvin set up the experiment below.



(a) Name a material which X could be made of. [1]

(b) Based on the result of the experiment, what can Alvin conclude about X? [1]

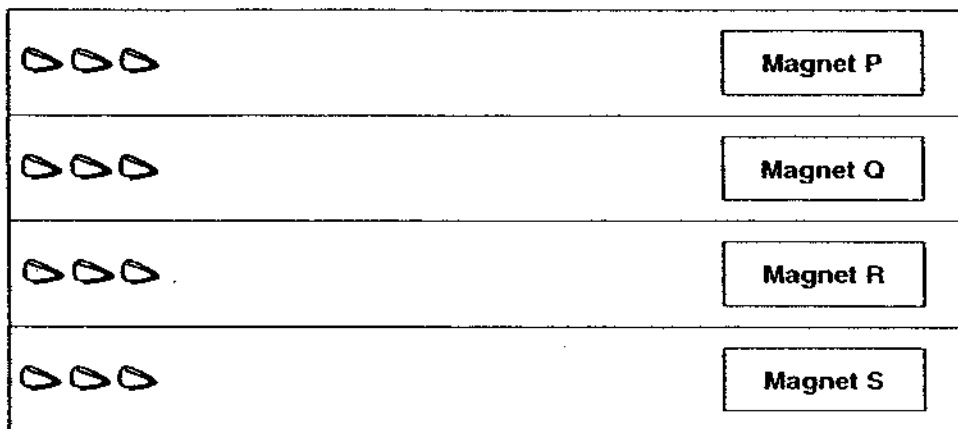
(c) Without removing anything from the set-up, suggest what Alvin can do to cause the paper clip to fall. [1]

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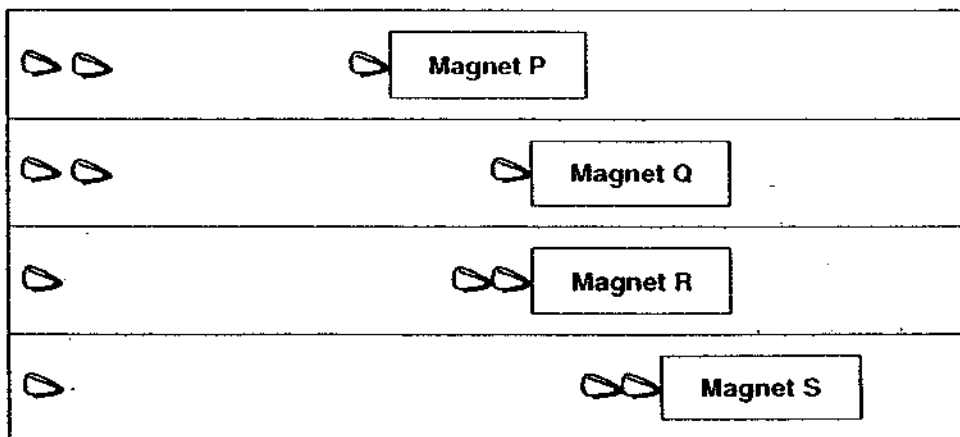
- 39 Timothy set up an experiment to find out the magnetic strength of 4 magnets. He first placed the magnets at equal distances away from the steel paper clips. He then moved each magnet slowly towards the paper clips and measured the greatest distance between the paper clips and each of the magnets at the instance when the magnets were first able to attract the paper clips.

The diagrams below show the start and the end of Timothy' experiment.

At the beginning of the experiment

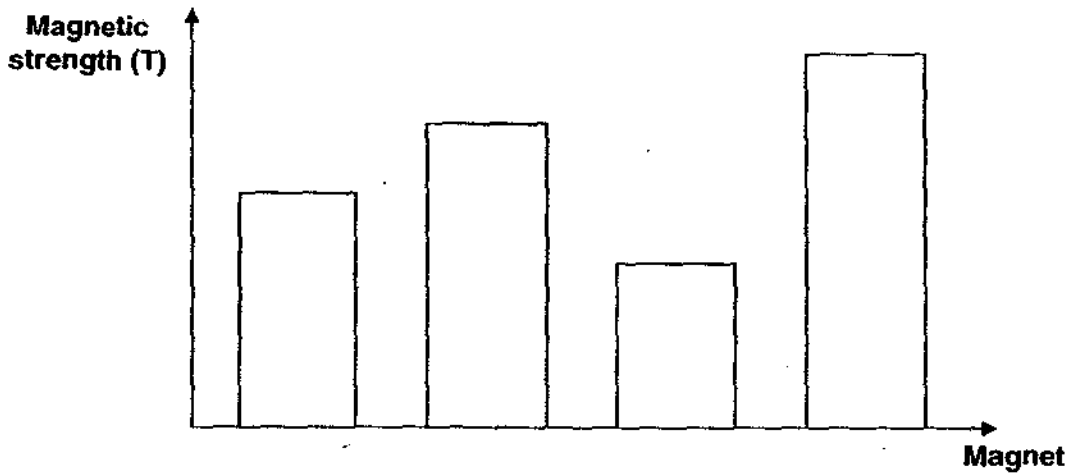


At the end of the experiment



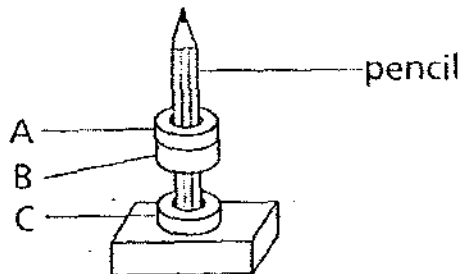
(continue on next page)

- (a) On the graph below, label the bars by writing P, Q, R and S to represent Timothy's observation. [2]



- (b) Suggest what Timothy can do to Magnet R so that it will attract the same number of paper clips as Magnet Q. [1]

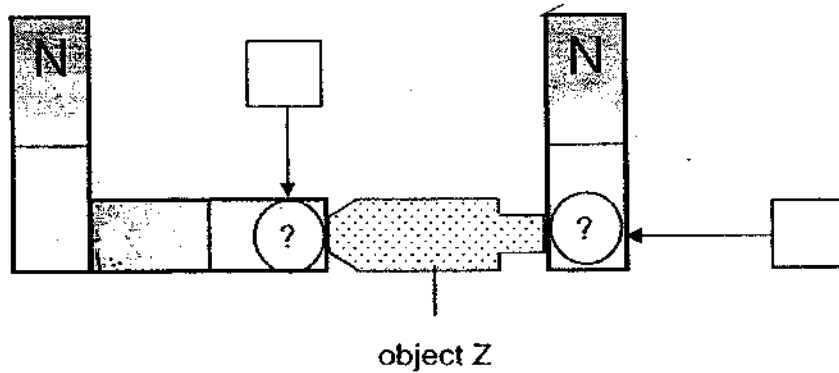
40 Three metal rings, A, B and C, are put through a pencil as shown in the diagram.



- (a) Based on the results of the experiment, metal rings _____ and _____ are definitely magnets [1]
- (b) Give a reason for your answer. [1]

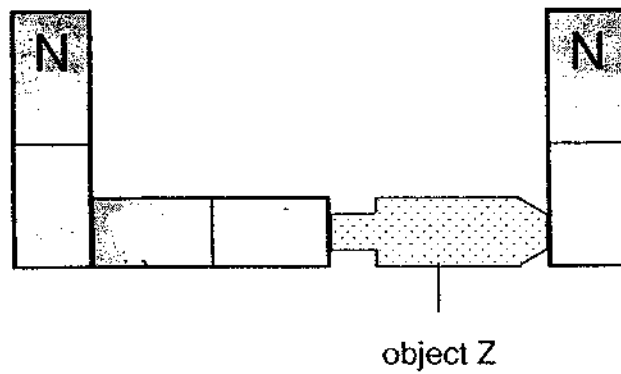
41 Study the arrangement of the magnets and object Z below.

Diagram 1



- (a) Identify the poles in diagram 1 by writing 'N' or 'S' in the boxes provided. [1]

Diagram 2



- (b) Object Z is flipped as shown in diagram 2. It was observed that it was still attracted at both ends to the magnets. Do you think Z is a magnet? Explain your answer. [1]

ANSWER SHEET

EXAM PAPER 2009

**SCHOOL : ACS PRIMARY
SUBJECT : PRIMARY 4 SCIENCE**

TERM : SA1

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

Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25
1	4	3	1	3	2	4	4

26)a)M: once alive N: never alive O: Plants P: animals
b)They can respond to the changes in their surrounding.

27)Shark: A Deer: D Spiny Anteater: C Cobra: B

28)a)Fungi
b)It reproduces by spores.
c)To feed on them.

29)K, larva , pupa

30)a)Object P.
b)It has many parts to perform a function.

31)a)Heart.
b)To pump blood to all parts of the body.

32)a)Flower.
b)To enable reproduction.

33)a)R: Stomach T: large intestine
b)Digestion ends here and the digested food get transport to the rest of the body.
c)Circulatory system.

34)a)A has animals with a 3 stage life cycle while B has animals with a 4 stage life cycle.

b)B, A

35)a)The water level will decrease.

b)Air occupies space.

36)a)Group W. Because that group has items which are solid and sand is a solid.

b)He can Freeze it until turns into ice.

c)Group X has items which are liquids while group Y has items which are gaseous.

37)a)More than 250cm³

b)There are spaces in between the stones.

c)Use a measuring cylinder to measure the volume of the water in the container.

38)a)Paper.

b)Magnetic force can pass through non-magnetic materials.

c)He could put a sheet of iron between the paperclips and magnet.

39)a)Q, R, P, S

b)He could hammer it several times.

40)a)B and C

b)Only magnets can repel and they are repelling each other.

41)a)S,S

b)No. Because only magnet can repel but when object Z was flipped to both sides none of it repelled. Thus, object Z is not a magnet.