



Anglo-Chinese School (Primary)

END-OF-YEAR EXAMINATION 2011
SCIENCE
PRIMARY THREE
BOOKLET A

Name: _____ ()

Class: Primary 3 _____

Date: 3rd November 2011

Duration of paper: 1 h 45 min

Parent's/Guardian's signature

INSTRUCTION TO CANDIDATES

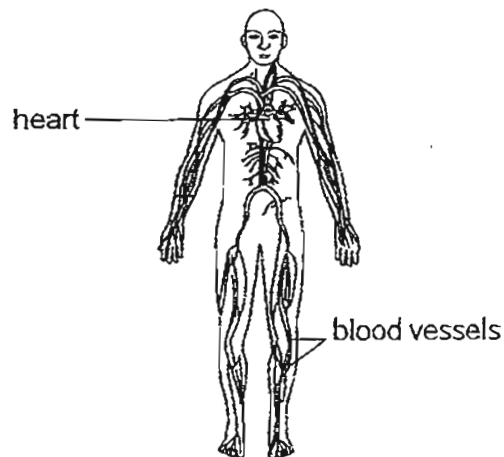
1. This question paper consists of **16** printed pages, including this cover page
2. Do not turn over this page until you are told to do so
3. Follow all instructions carefully
4. Answer all questions
5. Shade your answer on the Optical Answer Sheet (OAS) provided

For each of the following questions 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. [60 marks]

1 Which one of the following is not part of the digestive system?

- (1) Anus
- (2) Gullet
- (3) Windpipe
- (4) Large intestine

2 Study the diagram below carefully.



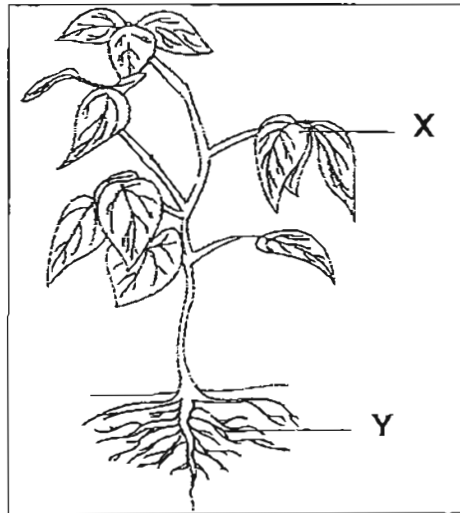
Which system does the above diagram represent?

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

3 Which two systems work together to enable our bodies to move?

- (1) Skeletal and digestive
- (2) Muscular and skeletal
- (3) Skeletal and circulatory
- (4) Muscular and circulatory

- 4 Study the diagram below.



Which one of the following correctly describes the functions of the parts labelled X and Y respectively?

	X	Y
(1)	Makes food for the plant	Transports water and food for the plant
(2)	Makes food for the plant	Absorbs water and nutrients from the soil
(3)	Absorbs water and nutrients	Supports branches
(4)	Absorbs water and nutrients	Makes food for the plant

- 5 Which one of the following item has been grouped **incorrectly**?

Storage root	Storage stem
Carrot	Ginger
Potato	Sugarcane

- (1) Carrot
 (2) Ginger
 (3) Potato
 (4) Sugarcane

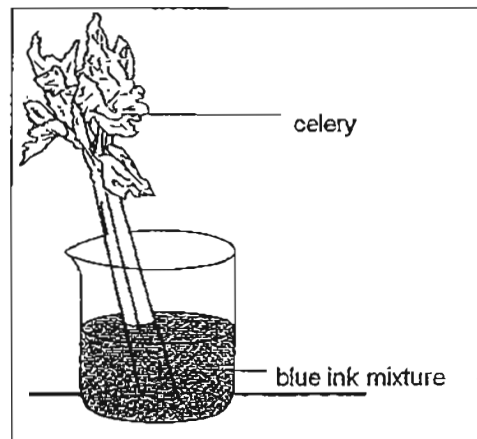
- 6 Study the diagram below carefully.



Which one of the following correctly describes the leaf above?

	Vein pattern	Leaf edge
(1)	Parallel	Lobed
(2)	Parallel	Toothed
(3)	Network	Lobed
(4)	Network	Toothed


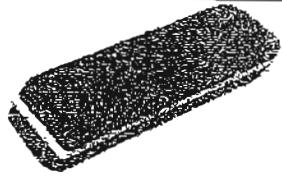

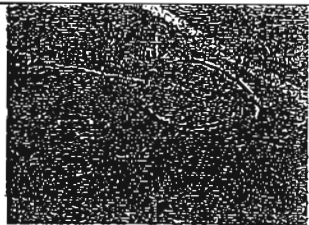
- 7 Christopher conducted an experiment as shown below. He left the set-up overnight.



What are the likely results of the experiment?

- A The leaves turned bluish.
 B The leaves remained green.
 C The amount of water at the end of the experiment remained the same.
 D The amount of water at the end of the experiment was less than the amount of water at the beginning of the experiment.
- (1) A and C only.
 (2) A and D only
 (3) B and C only
 (4) B and D only

8 Which of the following are **not** examples of a system?

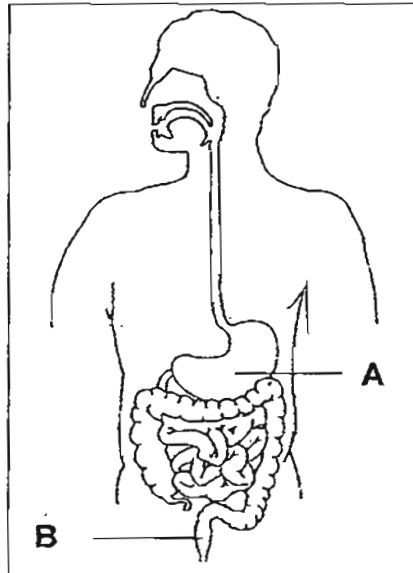
<p>A</p>  <p>torn shoes</p>	<p>B</p>  <p>eraser</p>
<p>C</p>  <p>rubber bands</p>	<p>D</p>  <p>broken racket</p>

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

9 Which one of the following statements is true when one experiences constipation (difficulty in passing out solid waste)?

- (1) Food is constantly digested making the waste hard.
- (2) There is too much solid waste in the large intestine.
- (3) Water is not absorbed from the waste in the large intestine.
- (4) Water continues to be absorbed by the large intestine making the waste hard.

Use the diagram below to answer questions 10 and 11.



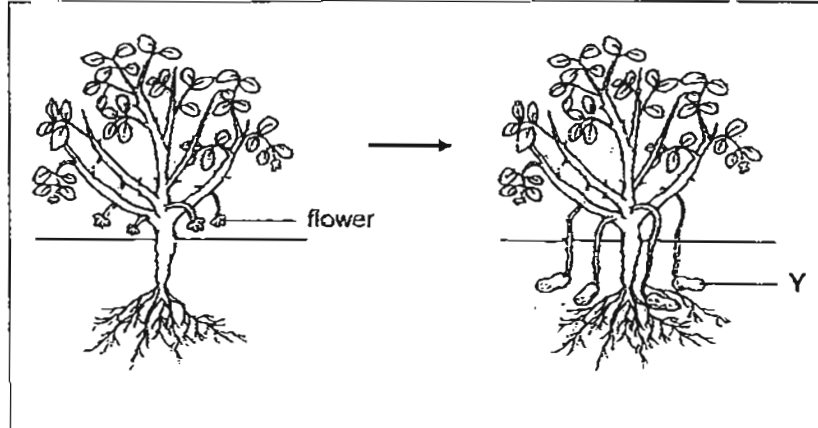
10 What is the function of **A**?

- (1) It removes undigested food.
- (2) It contains muscles to push the food into the small intestine.
- (3) It produces digestive juices to enable food to be swallowed easily.
- (4) It produces digestive juices to break down food into simpler substances.

11 What is the function of **B**?

- (1) It breaks down food.
- (2) It absorbs water and mineral salts.
- (3) It stores undigested waste materials.
- (4) It absorbs digested food and nutrients.

- 12 The diagrams below show the development of Y in a plant.

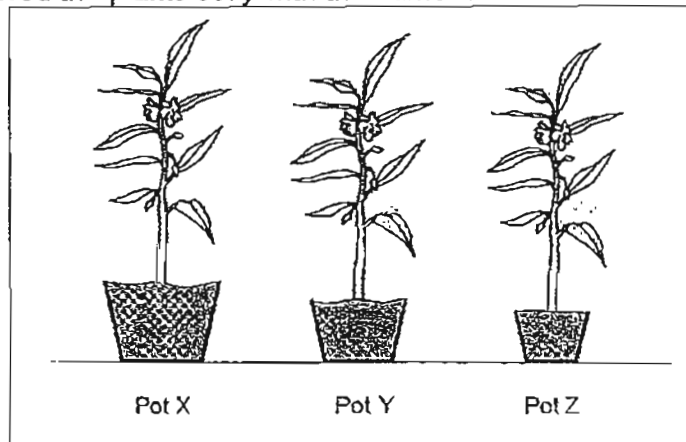


Which of the following statements are correct about Y?

- A It absorbs water.
- B It stores food.
- C It can reproduce.

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

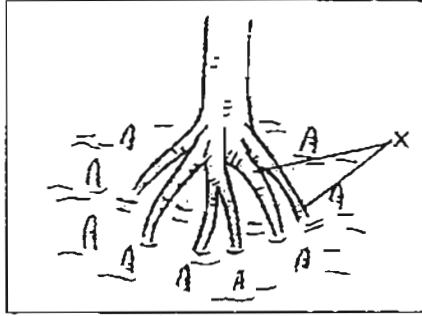
- 13 Jonathan wanted to find out what type of soil was suitable for growing balsam plants. He planted 3 balsam plants of similar size in three pots, X, Y and Z. The pots were all made of plastic. He watered the plants daily with the same amount of water.



The three plants were then placed in the garden.
Why was the experiment **not** a fair one?

- (1) The amount of soil in each pot was different.
- (2) The pots were all made of the same material.
- (3) The type of soil used in each pot was different.
- (4) The three pots were given the same amount of water.

- 14 The diagram below shows part of a plant that grows in a swamp.

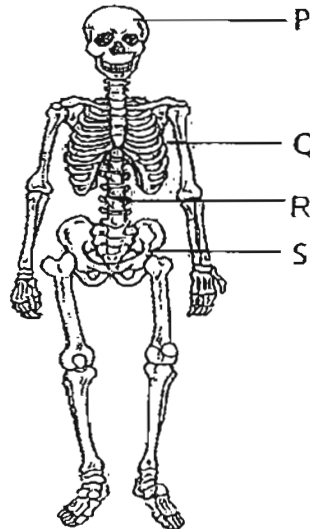


What are the functions of X?

- A Absorbs air
- B Makes food
- C Takes in water and nutrients
- D Holds the plant firmly to the ground

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

- 15 The diagram below shows a human skeletal system.

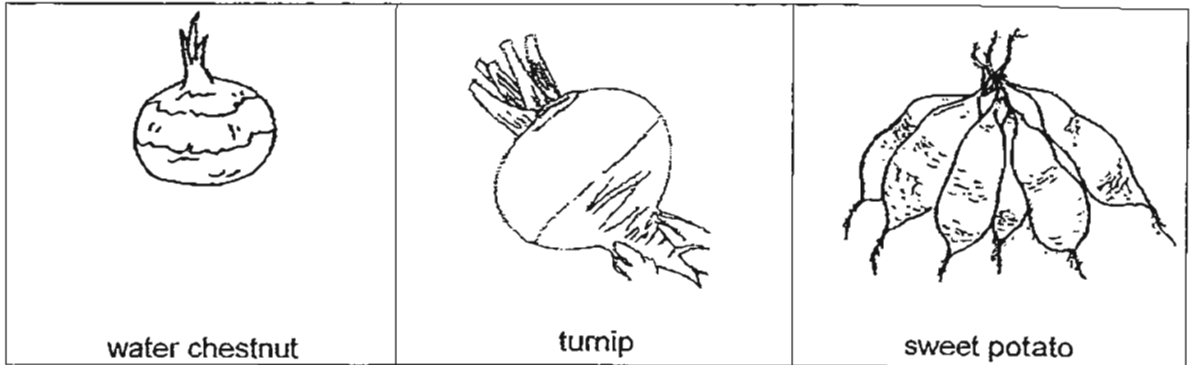


Which of the following statements about this system are true?

- A Q protects the heart and lungs.
- B R protects the small and large intestines.
- C S protects the stomach.
- D P, Q, R and S are made up of bones of different shapes and sizes.

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

16 The diagram below shows some plant parts.

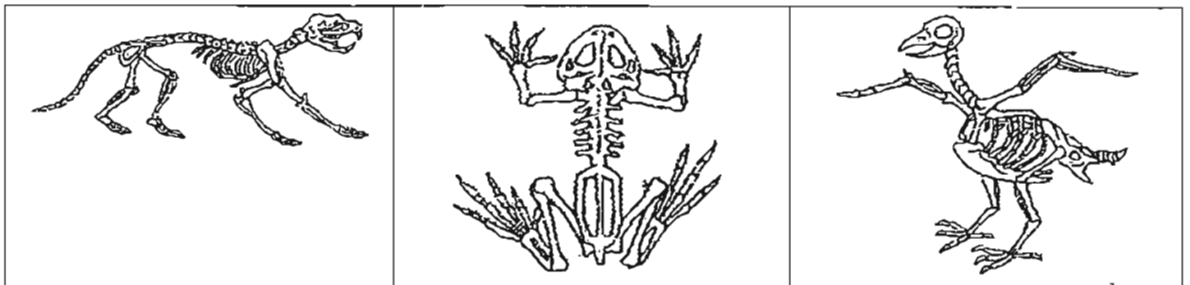


How are the plant parts similar?

- A They store food.
- B They make food.
- C They grow underground.
- D They are fruits of the plant.

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

17 Each diagram below shows the same system of different animals.

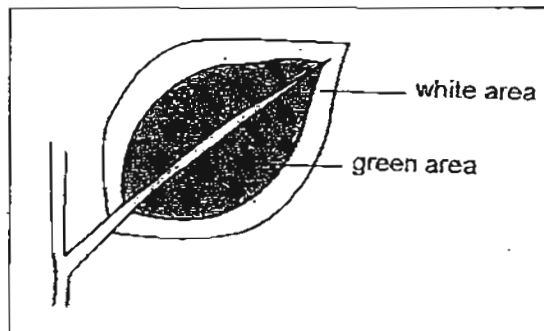


Which of the following statements about the three systems are true?

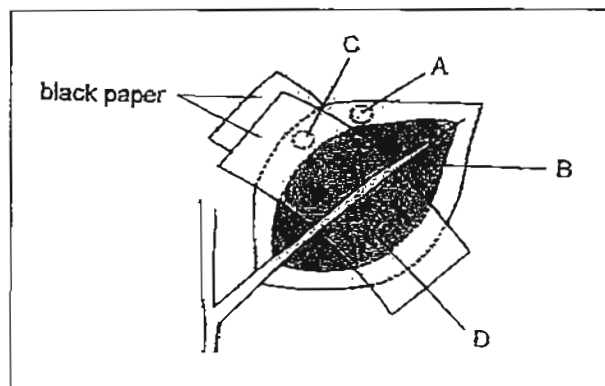
- A They support the body and gives the body its shape.
- B They absorb digested food and minerals to be used by the body.
- C They provide protection to some of the organs in the body of the animals.
- D They are the only systems that enable the different parts of the body to move.

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

- 18 The diagram below shows a leaf on a plant at the start of an experiment.



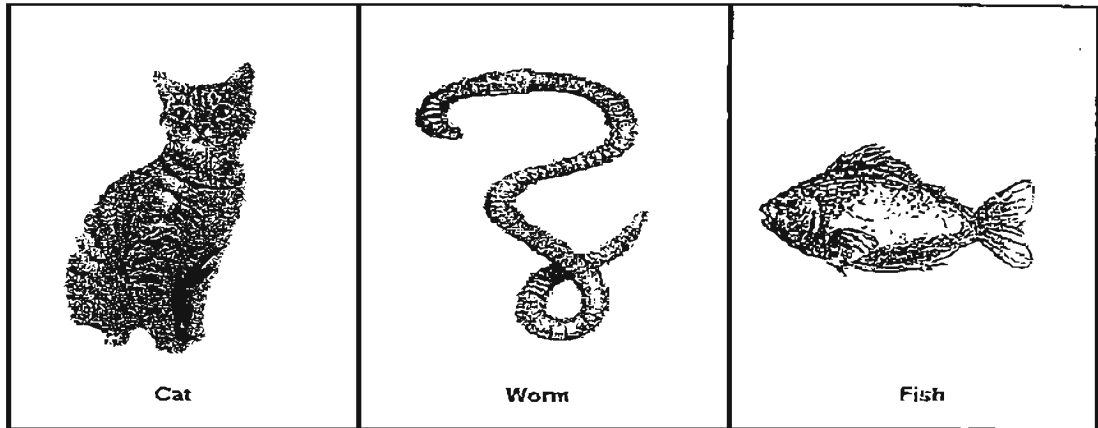
The leaf was then partly covered with black paper as shown below.



The plant was then placed in the sun. After a few hours, the leaf was plucked off and the black paper was removed. The leaf was tested for food. In which areas, A, B, C or D are food mostly found?

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

19 Look at the pictures below.



How are these living things similar?

- A They can reproduce.
- B They need sunlight to survive.
- C They have the same outer covering.
- D They can move about to look for food.

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

20 Which one of the following groups of objects has been correctly placed under the different headings?

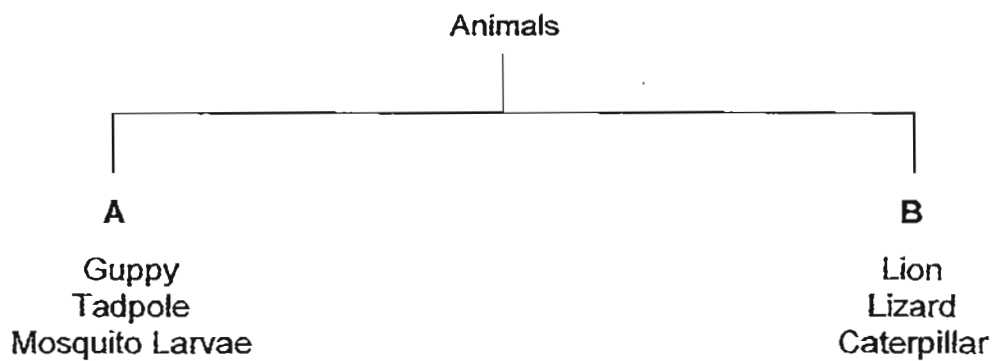
	Living things	Non-living things (Never alive)	Non-living things (Once alive)
(1)	Fungi	Metal spoon	Plastic cup <i>wooden table</i>
(2)	Toadstool	Metal spoon	Glass
(3)	Fungi	Plastic cup	Metal spoon
(4)	Toadstool	Wooden table	Glass

21 Which of the following characteristics are the same between a whale and a goldfish?

- A Both can swim.
- B Both have tails.
- C Both use gills to breathe.
- D Both give birth to their young alive.

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

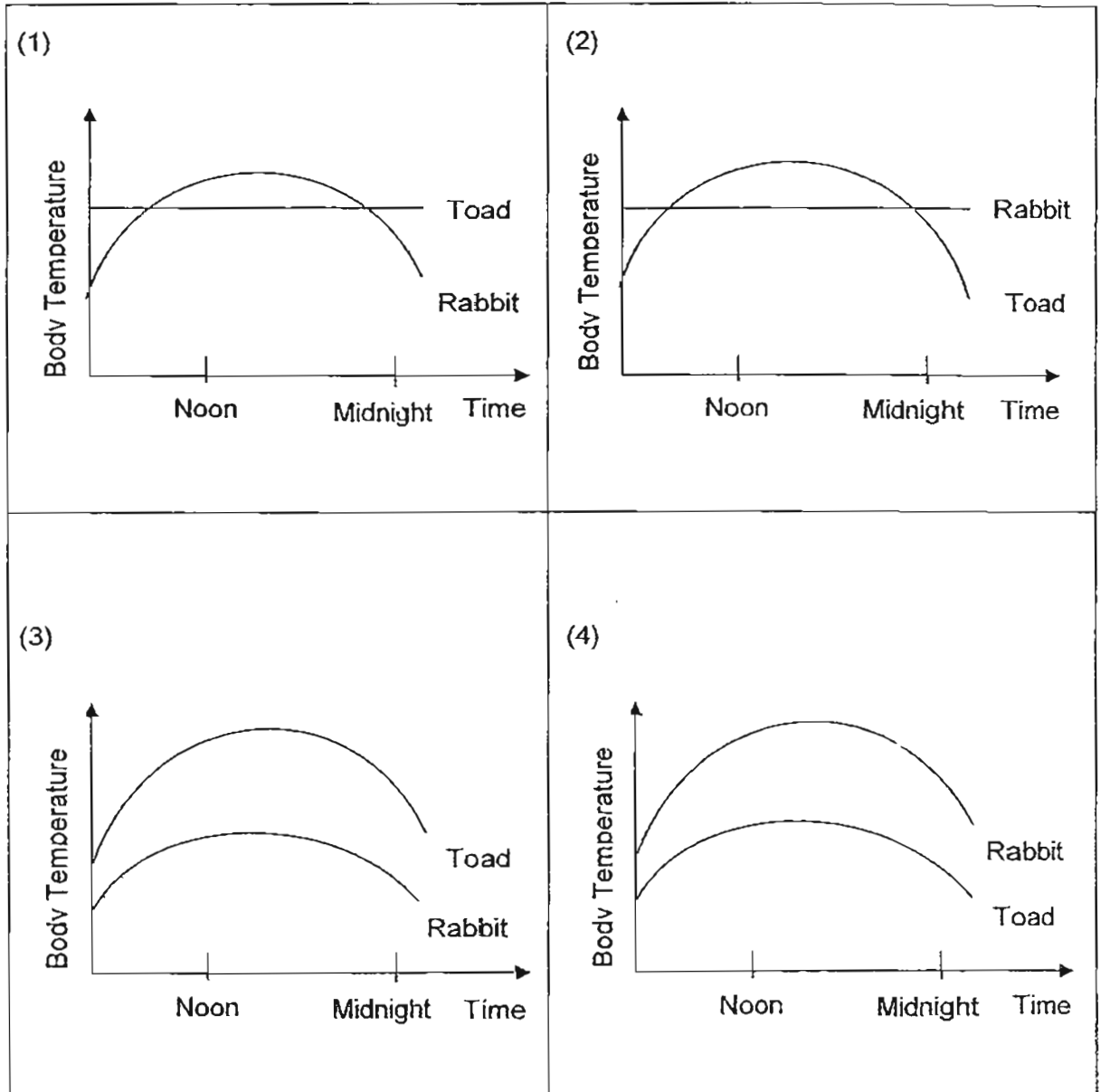
22 Study the classification diagram below.



How are the animals classified?

	A	B
(1)	Swim	Crawl
(2)	Lay eggs	Give birth to young alive
(3)	Live on land and water	Live on land
(4)	Plant eater only	Animal eater only

- 23 A group of pupils wanted to find out if animals with fur have a constant body temperature despite changes in the temperatures of their surroundings. They measured the body temperature of two animals (rabbit with fur and toad without fur) over a 12-hour period. Which one of the following graphs represents the temperature of the two animals correctly?



24 Which of the following statements below show that plants are living things?

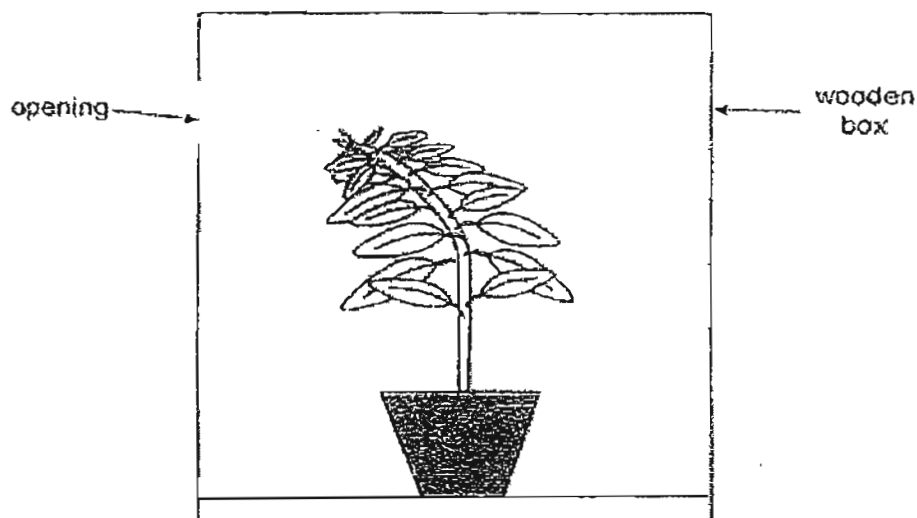
- A Plants grow towards light.
 B The leaves of the palm tree sway in the wind.
 C The leaves of the mimosa plant close when touched.

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

25 Which one of the set of plants are grouped incorrectly?

	Flowering Plants	Non-flowering Plants
(1)	Rose	Staghorn fern
(2)	Hibiscus	Moss
(3)	Morning glory	Birds' nest fern
(4)	Maidenhair fern	Grass

26 A pot of plant was placed in a wooden box with an opening and left in a bright room. After one week, the result was observed in the following diagram.



What can be concluded from the above experiment?

- (1) Plants need food to survive.
 (2) Plants need water to survive.
 (3) Plants depend on air to grow.
 (4) Plants grow towards light.

- 27 The following table shows how Angie, Benny, Celest and Dylan classify a group of organisms.

Angie	Benny	Celest	Dylan
Bacteria Palm tree Hibiscus plant	Ixora Mushroom Morning glory	Bacteria Bread mould Birds' nest fern	Mushroom Toadstool Bread mould

Who has grouped the organisms correctly by putting all fungi together in a common group?

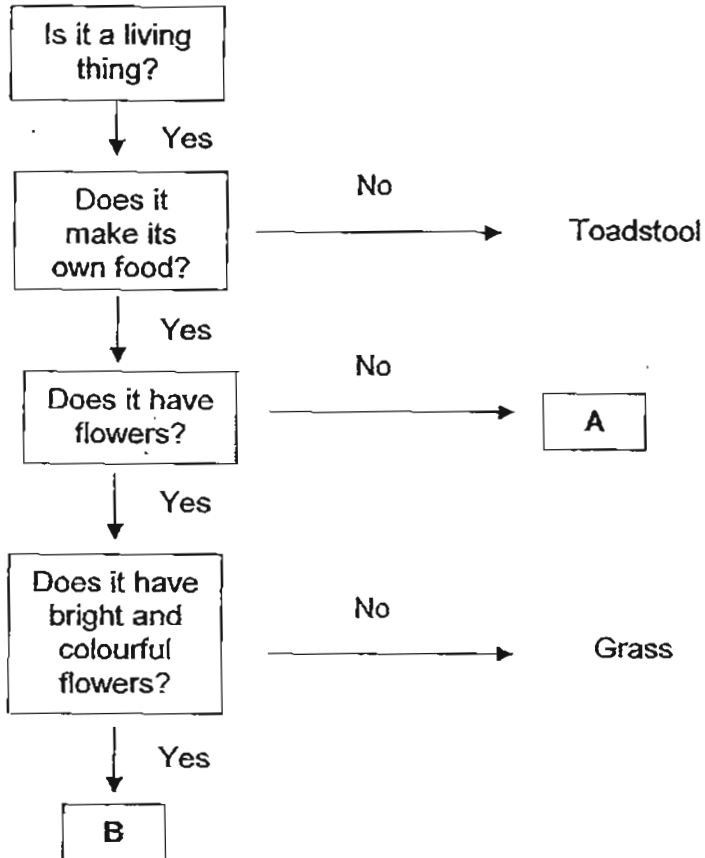
- (1) Angie
(2) Benny
(3) Celest
(4) Dylan
- 28 Marcus grouped a metal rod and plasticine together. What characteristic was used to group the objects?
- (1) Strength
(2) Flexibility
(3) Hardness
(4) Ability to sink in water
- 29 Alice wanted to compare the hardness of three materials, X, Y and Z. She used one material to scratch the other two and observed how deep the scratches were. She recorded her findings in the table below.

Material used	Scratches found on X	Scratches found on Y	Scratches found on Z
X	-	Deep	No
Y	No	-	No
Z	Slight	Deep	-

How should she arrange the materials from the hardest to the least hard?

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

30 Study the flowchart below.



Which one of the following statement best describes A and B?

	A	B
(1)	A is not a plant.	B is a plant.
(2)	A does not have leaves.	B has leaves.
(3)	A does not need sunlight.	B needs sunlight.
(4)	A is a non-flowering plant.	B is a flowering plant with bright and colourful flowers.

END OF BOOKLET A

Check your answers carefully



Anglo-Chinese School (Primary)

END-OF-YEAR EXAMINATION 2011
SCIENCE
PRIMARY THREE
BOOKLET B

Name: _____ ()

Class: Primary 3 ____

Date: 3rd November 2011

Duration of paper: 1 h 45 min

Parent's/Guardian's signature

INSTRUCTION TO CANDIDATES

1. This question paper consists of 12 printed pages including this cover page.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write your answers in this booklet.

Booklet	Maximum marks	Marks obtained
A	60	
B	40	
Total	100	

For questions 31 to 44, write your answers in the spaces provided in this booklet. The number of marks available is shown in brackets [] at the end of each question or part question. [40 marks]

- 31 Draw lines using a ruler and pencil to match the organs of the circulatory system to its function correctly. [1]

Organ of circulatory system		Function of the organ
Heart	↔	Contains red blood cells that carries oxygen
Blood vessels	↔	Pumps blood to all parts of the body
Blood	↔	Tubes that transport blood

- 32 Unscramble the words and read the clues to find the answer. Write your answer in the boxes provided. [2]

	Words	Clues	Answer
(a)	liavas	Food is mixed with this to make it soft enough to swallow.	
(b)	uetigl	This tube connects the mouth to the stomach. It has muscles that move food into the stomach.	
(c)	lamsl neestinit	The useful bits of food eaten are absorbed here by blood vessels and taken to different parts of the body.	
(d)	nusa	After water is removed from the undigested food, it is passed out of the body through this opening.	

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SCORE	3
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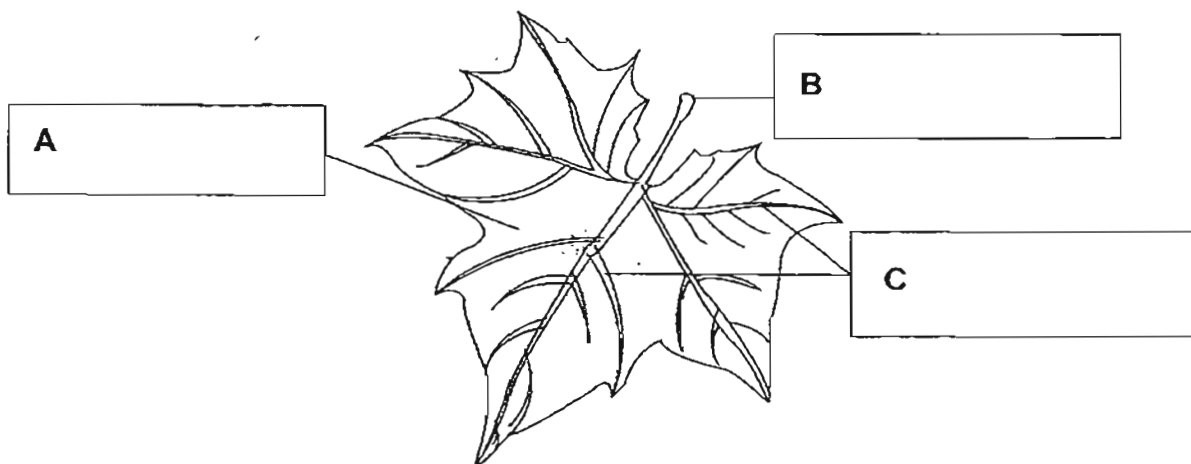
- 33 (a) You have been assigned a task to find out if leaves are needed for plants to survive. [2]
Listed below are the procedures that have to be carried out.
Number the procedures accordingly. The first and the last steps have been written for you.

Step	Procedures
	Plant the 2 plants into similar pots containing the same amount of soil.
1	Get 2 plants that are similar.
	Pour the same amount of water in both pots daily.
	Place the 2 pots of plants under sunlight.
	Remove all the leaves from one plant only.
6	Record observations for a week.

- (b) State the variable that must be changed. [1]

- (c) What do you think will be the results of the experiment above? [2]

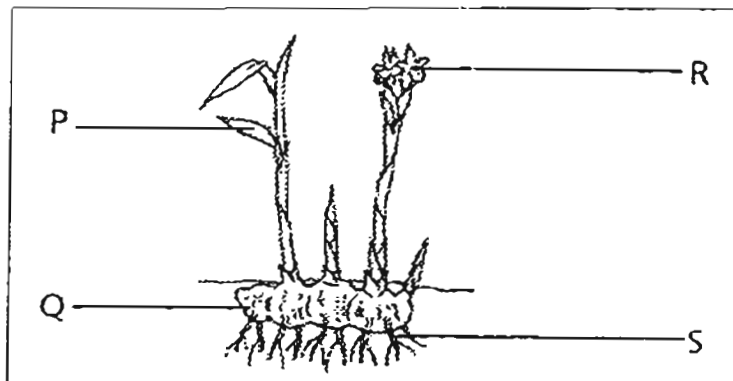
- 34 Name the parts of the leaf labelled A, B and C. [3]



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SCORE	
	8

35 The diagram below shows a ginger plant.

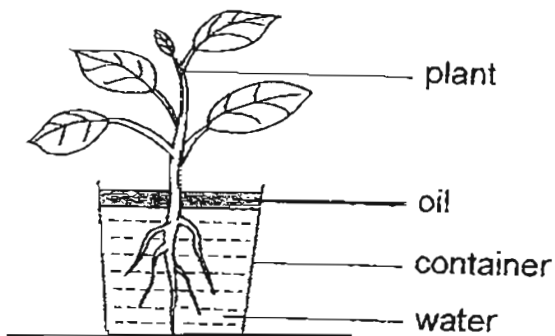


Name the plant parts P, Q, R and S.

[4]

P	
Q	
R	
S	

36 Jack set up an experiment as shown below. He placed a healthy plant in a container of water and added a layer of oil.



(a) What will happen to the level of water after a few days?

[1]

.....

(b) Give a reason for your answer in part (a).

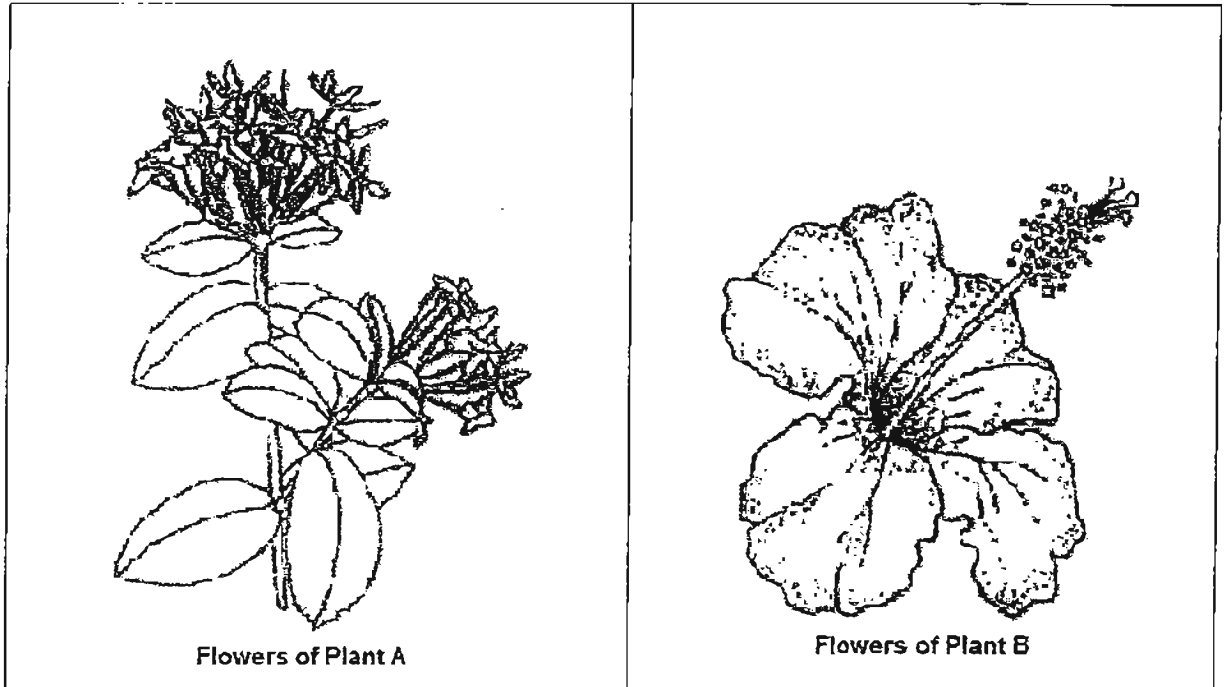
[1]

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SCORE	
	6

37 Study the 2 pictures below.

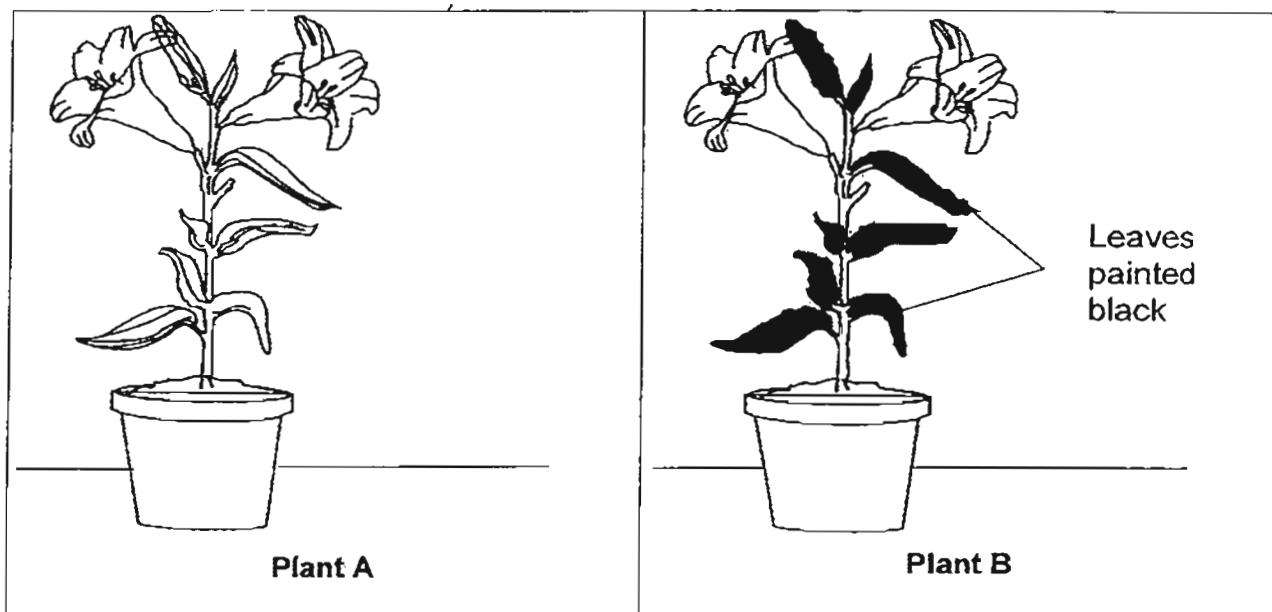


Based on your observation only, state one difference between the two flowers. Do not mention size and colour. [2]

(Go on to the next page)

SCORE	
	2

- 38 John prepared 2 similar potted plants as shown in the diagram below. He painted all the leaves of Plant B black.
 For one week, both plants were given the same amount of water each day and the growth of the plants was observed.
 After one week, Plant A continued to live while Plant B died.



- (a) Why did Plant B die after a week? [1]

- (b) Name two other variables that must be kept the same for the experiment conducted to be a fair test. Do not mention type of plant and amount of water. [2]

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SCORE	3
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- 39 Observe the plant below. The plant has a weak stem so it cannot stand upright on its own.



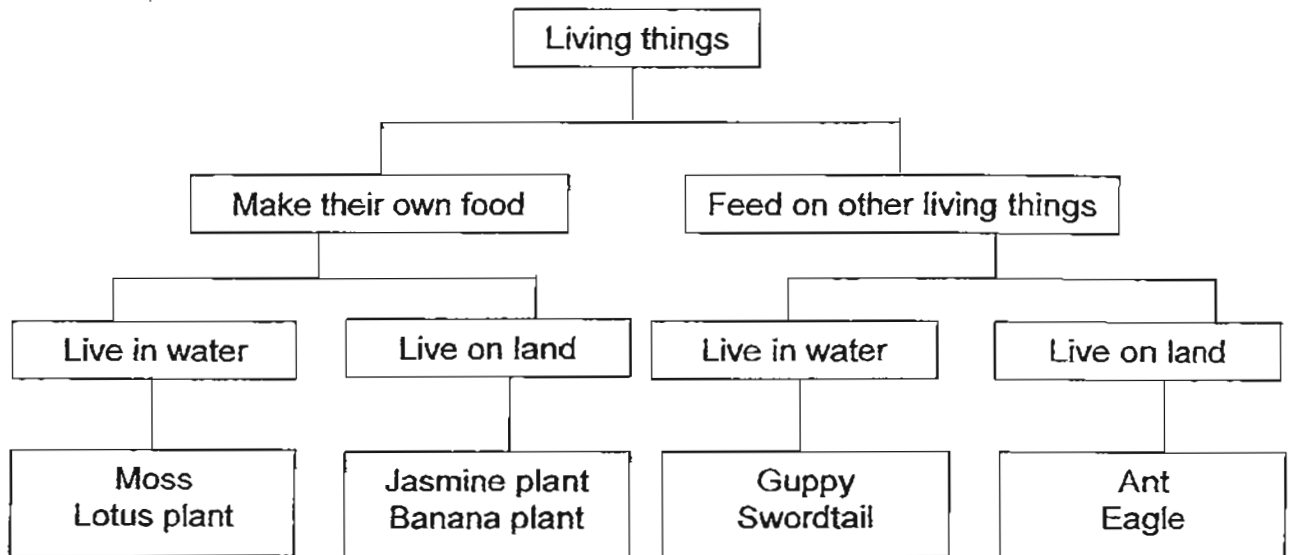
- (a) If you were to grow the plant in a pot, what could you do to help the plant stand upright? [1]

- (b) Why should the plant stand upright?

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SCORE	
	2

- 40 Study the classification flow chart below.



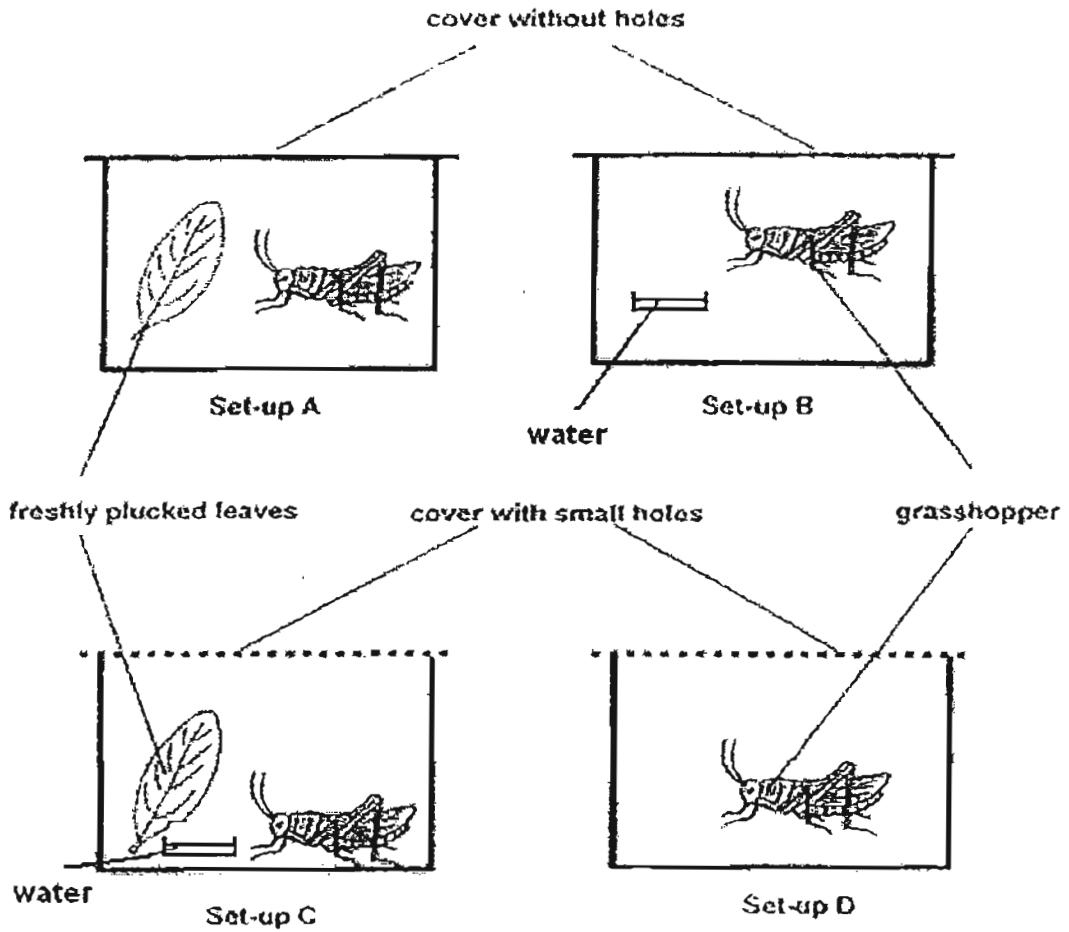
- a) Based on the classification chart above, how is the lotus plant different from the swordtail? [2]

- b) Based on the classification chart above, how is the banana plant similar to the eagle? [1]

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SCORE	3
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- 41 An experiment was conducted to find out about the conditions in which grasshoppers need to survive as shown below.



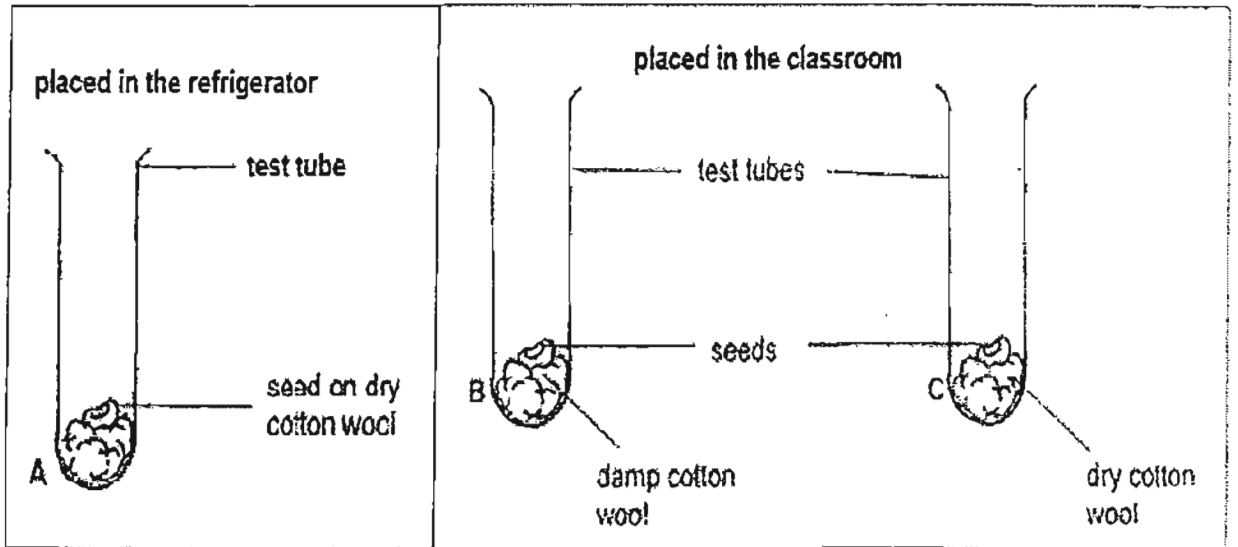
- a) In which set-up would the grasshopper survive the longest? [1]

- b) Explain your answer in (a). [2]

(Go on to the next page)

SCORE	
	3

- 42 Dylan placed a seed each in 3 identical test tubes, A, B and C, as shown in the diagrams below.



- a) In which of the tube(s), A, B and C, would the seed(s) be able to germinate? [1]

- b) Explain your answer in (a). [2]

(Go on to the next page)

SCORE	3
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- 43 Candy conducted an experiment with four slices of fresh bread of the same size. She sprinkled different amounts of water on each slice of bread and placed each of them on the table. She observed and recorded her findings as shown in the table below.

Bread Slice	Amount of water (in teaspoons)	Number of days before bread slice turned mouldy
A	X	5
B	1	4
C	2	3
D	3	3

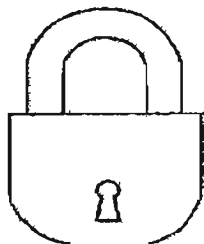
- a) Based on the findings in the table ^{above}~~below~~, what should be the amount of water sprinkled on bread slice A, represented by the letter X be? [1]

- b) What is the aim of the experiment? [2]

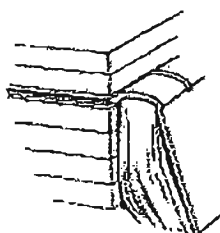
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SCORE	3
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44 Alice found the following objects.



lock



books



toothbrush



water bo

- a) The table shows three types of materials, plastic, paper and metal. Classify the objects that Alice has found in the table below. [2]

Made of paper	Made of plastic	Made of metal

- b) Which material is the strongest and hardest? [1]

- c) Describe what you would do to find out which materials is the strongest? [1]

(End of Paper)

END OF BOOKLET B

Check your answers carefully

SCORE	
	4

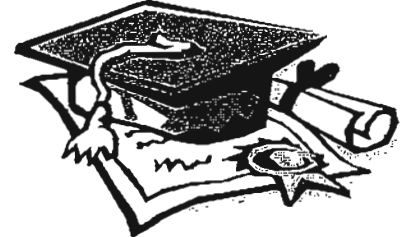


ANSWER SHEET

EXAM PAPER 2011

**SCHOOL : ACS
SUBJECT : PRIMARY 3 SCIENCE**

TERM : SA 2



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

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

Booklet B

- 31) Heart - Pumps blood to all parts of the body
Blood Vessels - Tubes that transport blood
Blood - Contains red blood cells that carries oxygen

- 32) a) Salive (b) gullet (c) small intestine (d) anus

- 33a) (33b) The number of leaves on the plants.

Step
2
1
5
4
3
6

33c) the plant with no leaves would have withered and died whereas the plant with leaves would be healthy.

34) A: leaf blade B: Leaf stalk C: leaf vein

35) P : leaf Q : Stem R : Flower S: Roots

- 36) a) The level of water would have decreased after a few days.
b) Plants absorbs water through their roots and the plant shown in the diagram above absorbed water through its roots.

37) The flowers of plant A grow in clusters whereas the flowers in Plant B grow singly.

38 a) Its leaves could not make food through the black colour.
b) the size of the pot and the location.

39 a) I would put a stick next to it.
b) To reach out for more light.

40 a) The lotus plant makes its own food whereas the swordtail feeds on other living things.
b) They both lives on land.

41 a) set-up C
b) It has air, food and water.

42 a) Tube B
b) A seed needs air ,water and warmth to germinate and grow into a plant.

43 a) The letter X should be 0 teaspoons.
b) To find out how the amount of water on the bread affects the growth of the mould.

44 a)

Made of Paper	Made of plastic	Made of metal
Books	water bottle	lock
	toothbrush	

(b) Metal

(C) the material that requires the greatest amount of force before it breaks is the strongest material.



-- end of paper ---