NANYANG PRIMARY SCHOOL

PRIMARY FIVE SCIENCE

CONTINUAL ASSESSMENT 2

2007

BOOKLET A

Date : 20 August 2007

Duration : 1 h ~~30~~ min

Name : _____ ( )

Class: Primary _____ ( )

Marks Scored:

Booklet A:		50
Booklet B :		30
Total :		80

Parent's signature: .....

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FOLLOW ALL INSTRUCTIONS CAREFULLY.

Booklet A consists of 16 printed pages including this cover page.

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Section A (25 x 2 marks = 50 marks)
For each question from 1 to 20, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). **Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet provided.**

1. An object P is brought near a bar magnet and its end marked Z is attracted to the south pole of the magnet as shown below.

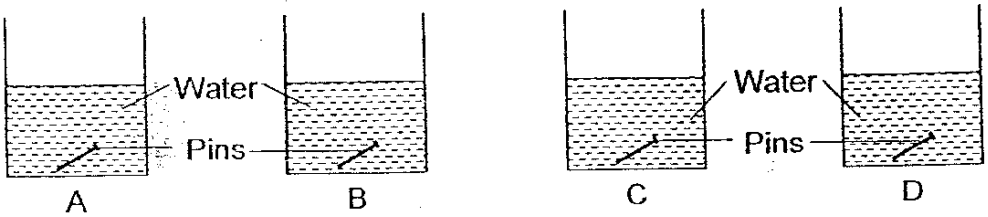
Object P Bar magnet

Based on the information given, object P could be a _____.

A. copper rod
B. nickel rod
C. magnet

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

2. Hassan tried to move the pin from the base of the containers A, B, C and D to their brims by pulling a bar magnet along the side of the containers.

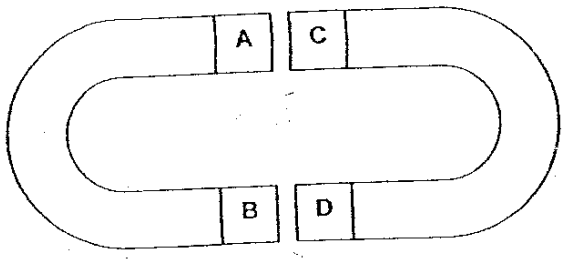


Glass container Plastic container Steel container Aluminum container

Hassan found that he could not move the pin in one of the containers. Which container was it?

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

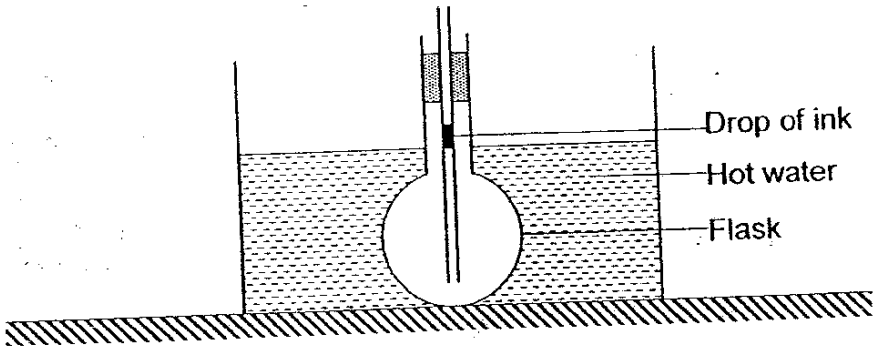
3. The diagram below shows 2 horseshoe magnets with ends labelled A, B, C and D.



When two horseshoe magnets were placed together, they pulled each other. Which of the following correctly shows the poles A, B, C and D?

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

4. When the flask was immersed in hot water as shown in the experiment below, the drop of ink in the tube dropped slightly before it rose.



What could have caused the ink to drop first before rising?

(1) The flask expanded first followed by the air in the flask.
(2) The water expanded first followed by the air in the flask.
(3) The drop of ink expanded first followed by the glass tube.
(4) The glass tube expanded first followed by the air in the flask.

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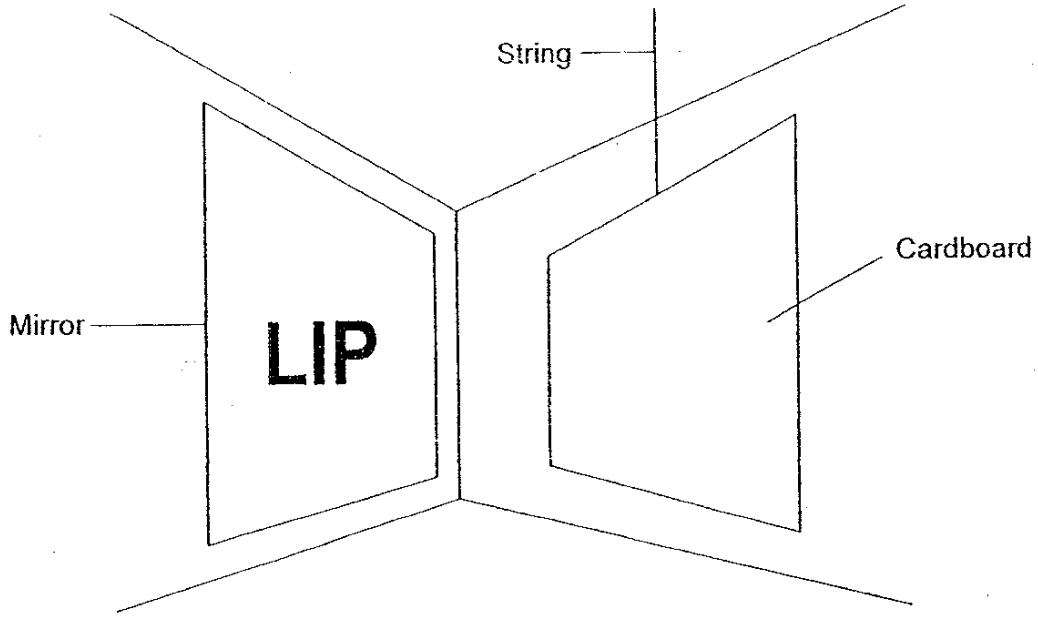
5. Alvin hangs a piece of cardboard, with a word written on it, in front of a mirror. The reflected image of the word is seen in the mirror as shown below.



Which one of the following below shows the word as printed on the cardboard?

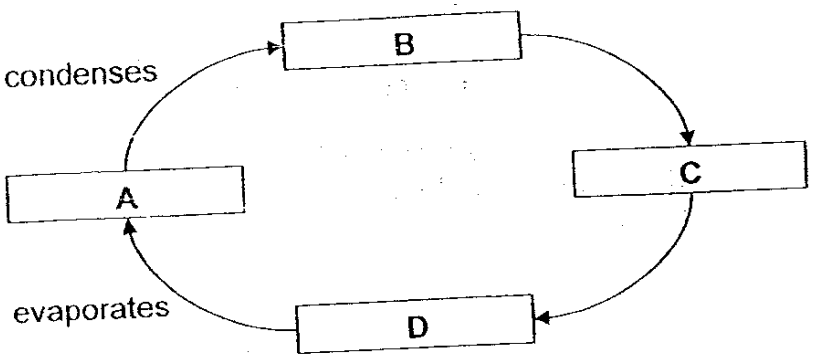
(1) LIP

(2) PIL

(3) ⅃Iꟼ

(4) ꟼI⅃

6. The diagram below shows the water cycle.



What do the letters A, B, C and D in the boxes stand for?

	A	B	C	D
~~(1)~~	Rain	Water	Water vapour	Clouds
(2)	Water vapour	Clouds	Rain	Water
~~(3)~~	Water	Rain	Water vapour	Clouds
(4)	Water vapour	Water	Clouds	Rain

7. Kelly added a few tablespoons of salt to a beaker of ice cubes. What do you think would happen?

(1) The temperature of the ice would increase slightly.
(2) The ice would not melt until all the salt has been dissolved.
(3) The salt interacted with the ice causing it to melt more quickly.
(4) The salt would absorb heat from the ice causing it to melt more slowly.

8. Each one of the following options shows the names of three plants, classified according to the parts of the plant that are usually eaten. In which of the following options is the classification correct?

	Seed	Fruit	Stem
(1)	Pea	Tapioca	Onion
(2)	Spinach	Tomato	Potato
(3)	Red bean	Brinjal	Ginger
(4)	Rice	Banana	Sweet potato

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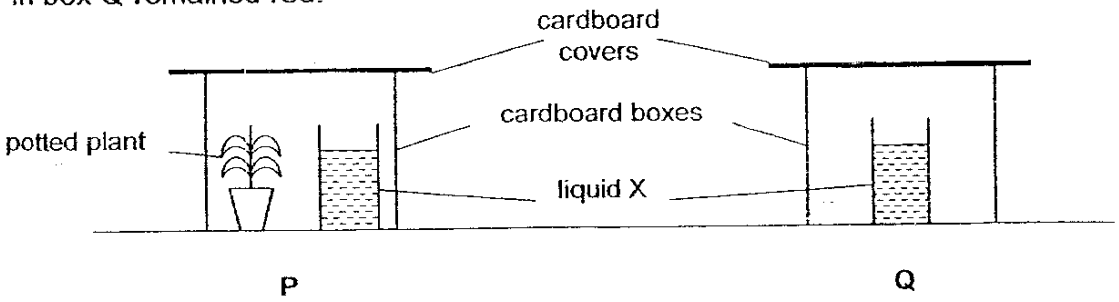
9. Wei Ming set up an experiment using two cardboard boxes, P and Q. A beaker containing liquid X is put into each box. Both boxes are then covered with a piece of cardboard.

Liquid X is red. It turns yellow when the amount of carbon dioxide increases.

He then placed a small potted plant in box P. The next day, he noticed that the beaker of liquid X in box P had turned yellow while the beaker of liquid X in box Q remained red.

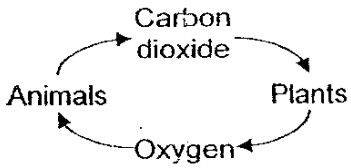


What had happened to cause the beaker of liquid X in container P to turn yellow?

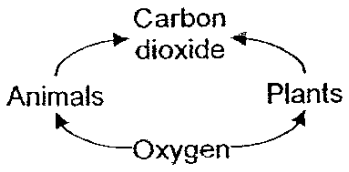
(1) The plant had respired.
(2) Evaporation had taken place.
(3) The plant had photosynthesised.
(4) Carbon dioxide had entered the container.

10. Which one of the following diagrams shows the exchange of gases between living things and their environment all the time?

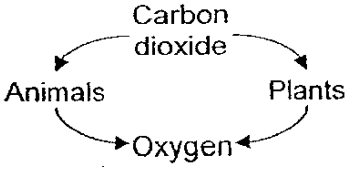
(1)



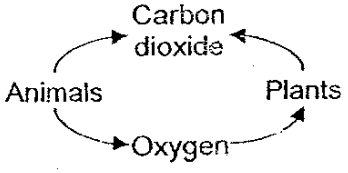
(2)



(3)



(4)



11. Study the two processes in the table below.

	Photosynthesis	Respiration
Raw materials needed	A	C
Products	B	D

Which of the following correctly represents A, B, C and D?

	A	B	C	D
(1)	Carbon dioxide Water	Oxygen Sugar	Food Oxygen	Carbon dioxide Water
(2)	Oxygen Water	Carbon dioxide Sugar	Oxygen Water	Carbon dioxide Food
(3)	Carbon dioxide Water	Food Oxygen	Oxygen Water	Carbon dioxide Sugar
(4)	Carbon dioxide Water	Carbon dioxide Water	Oxygen Sugar	Oxygen Sugar

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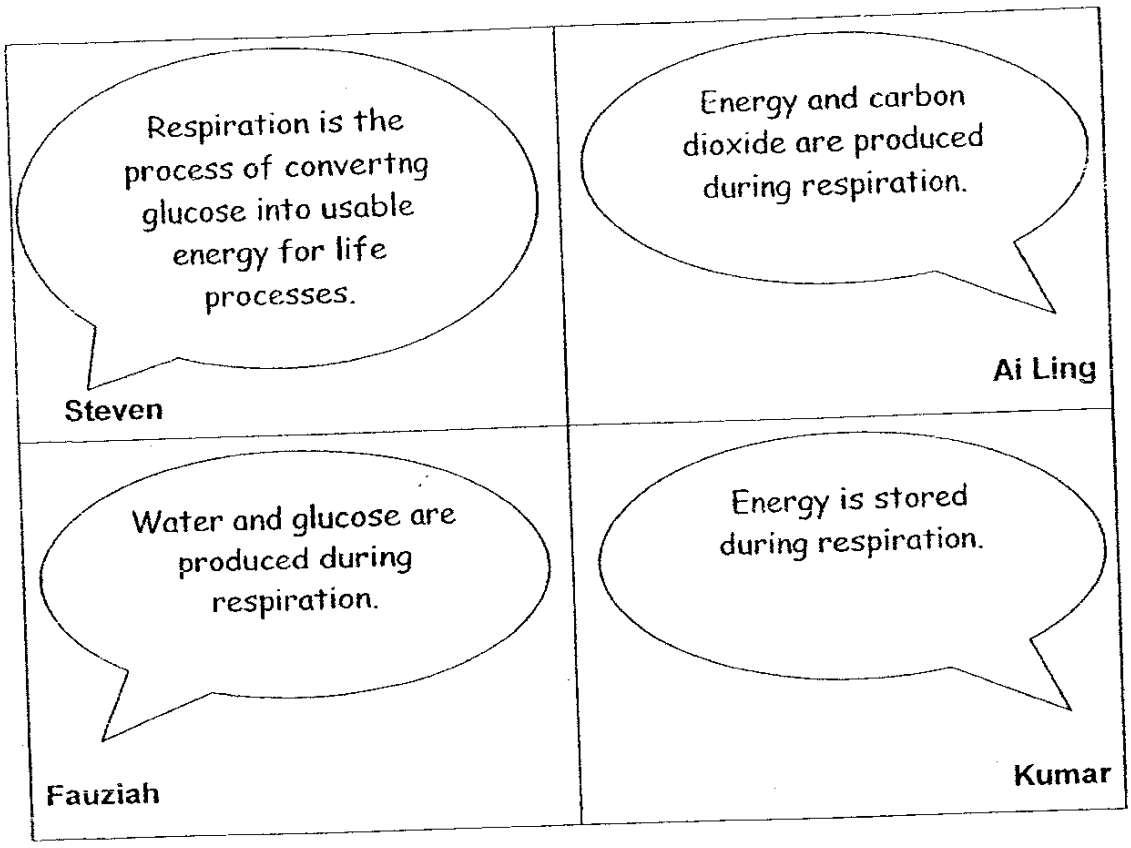
12. Four pupils made some statements on the process of respiration as shown below.



Who had made the correct statements about respiration?

(1) Steven and Kumar
(2) Fauziah and Kumar
(3) Steven and Ai Ling
(4) Fauziah and Ai Ling

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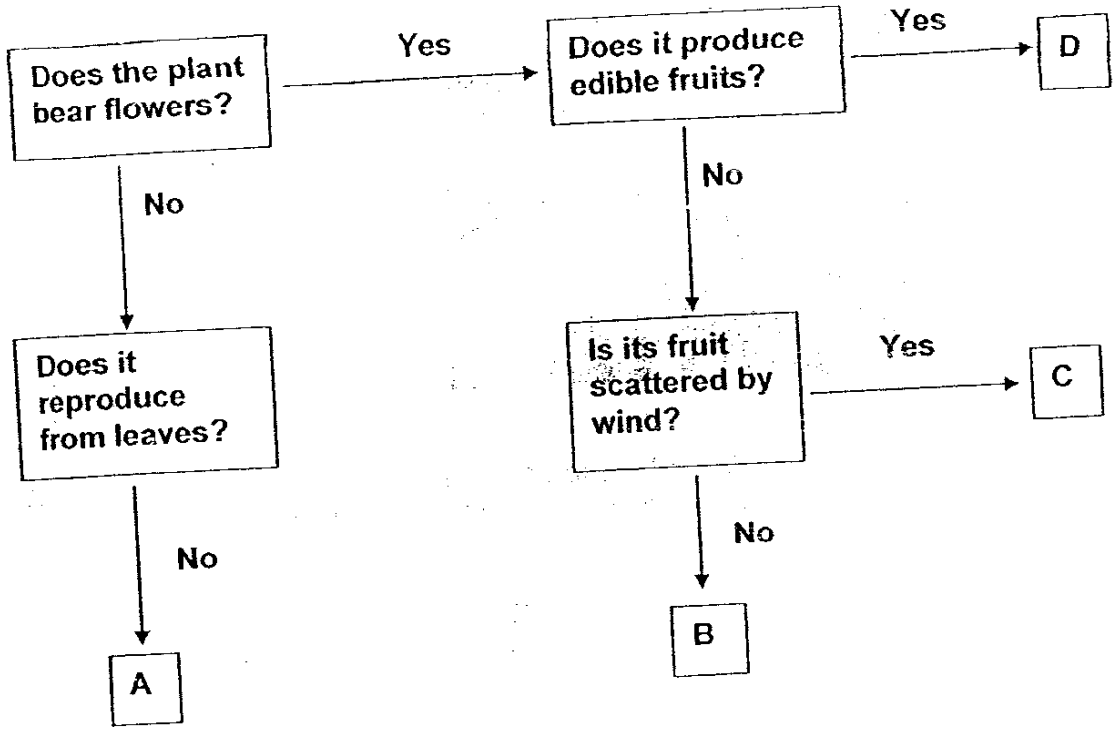
13. Study the flow chart below carefully.



Which one of the following plants has been classified correctly as A, B, C and D?

	A	B	C	D
(1)	Bryophyllum	Fern	Nipah	Pineapple
(2)	Moss	Mimosa	Shorea	Mango
(3)	Begonia	Balsam	Angsana	Banana
(4)	African Violet	Lalang	Ginger	Guava

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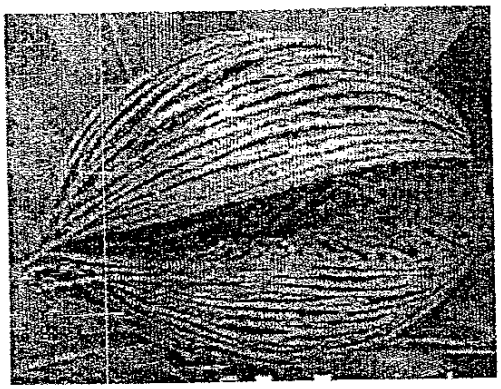
14. Sheila found a fruit as shown below in her garden.



She examined the fruit and concluded that it is dispersed by water. What is the characteristic of this fruit that helped Sheila to make this conclusion?

(1) big and juicy
(2) fibrous husk
(3) wing-like structure
(4) tiny bristle hairs

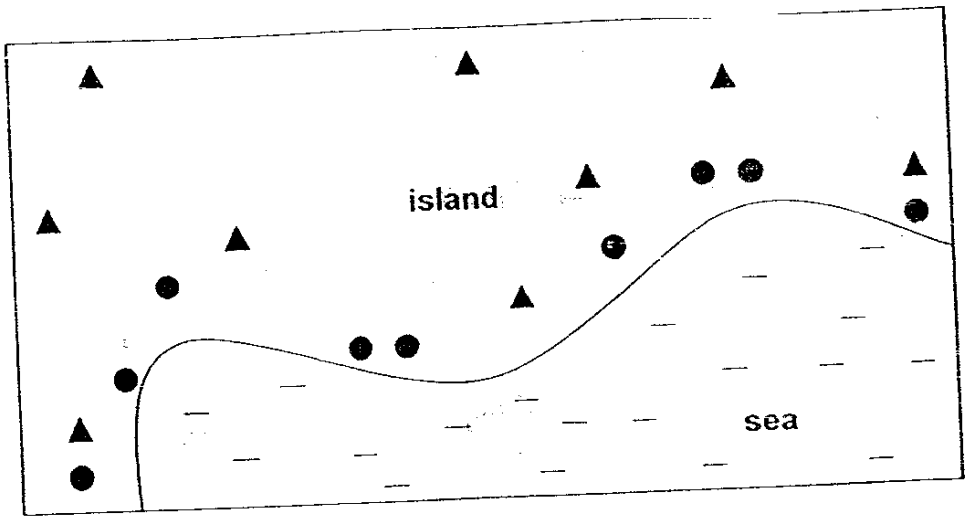
15. Sundra planted 4 pots of different types of plants W, X, Y and Z each in his garden. He counted the number of male and female flowers of each plant and recorded it in the table below.

	Number of male flowers	Number of female flowers
Plant W	0	7
Plant X	2	4
Plant Y	4	0
Plant Z	5	1

Assuming there is no cross pollination taking place, which of the above plant(s) is/are able to bear fruits?

(1) Plants X and Z only
(2) Plants W and Y only
(3) Plants W, X and Z only
(4) Plants W, X, Y and Z

16. The diagram below shows a part of an island where two types of plants (● , ▲) are growing.



How are the fruits or seeds of each type of plant most likely dispersed?

	▲	●
(1)	Water	Wind
(2)	Wind	Water
(3)	Splitting action	Wind
(4)	Animals	Water

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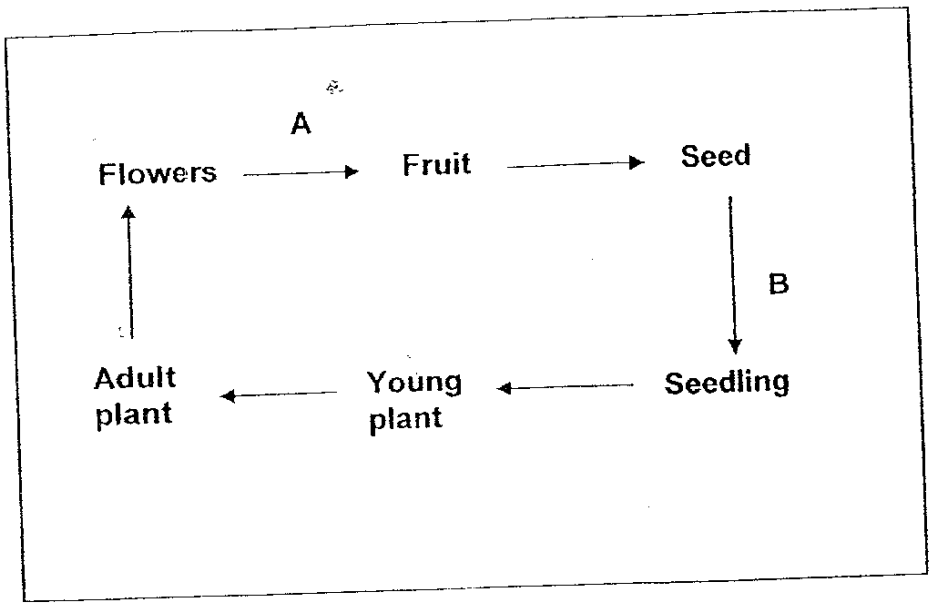
17. The following diagram shows the different stages in the life cycle of a flowering plant.

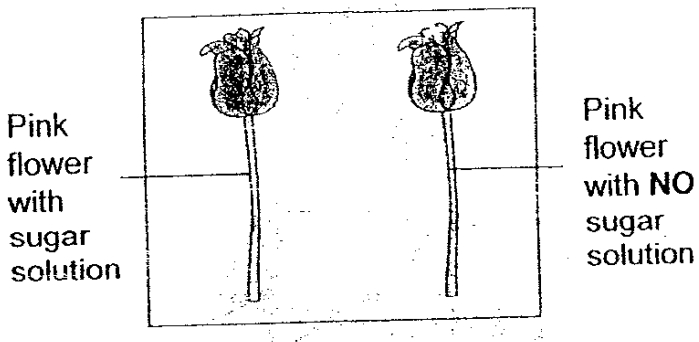


What are the processes taking place at A and B?

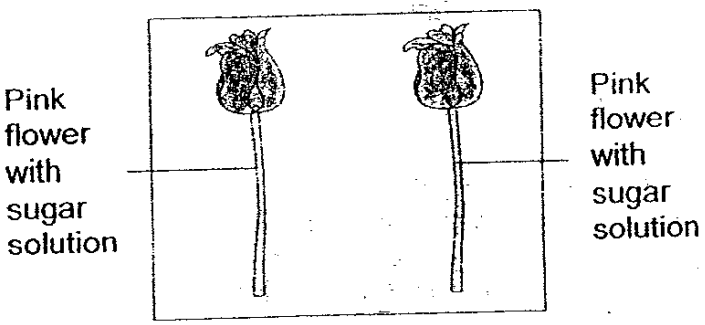
	A	B
(1)	Germination	Pollination and fertilisation
(2)	Pollination and fertilisation	Seed dispersal
(3)	Seed dispersal	Germination
(4)	Pollination and fertilisation	Germination

18. Taufik wanted to test if bees are attracted to sugar solution. He used 2 different coloured flowers made of silk in his experiment and sprayed some of them with $10cm^3$ of sugar solution. Which set-up should he use for his experiment?

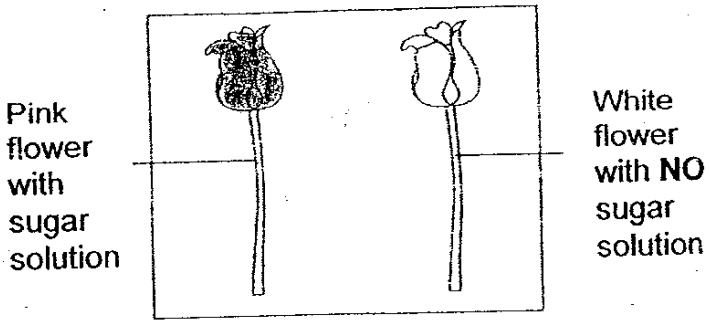
(1)



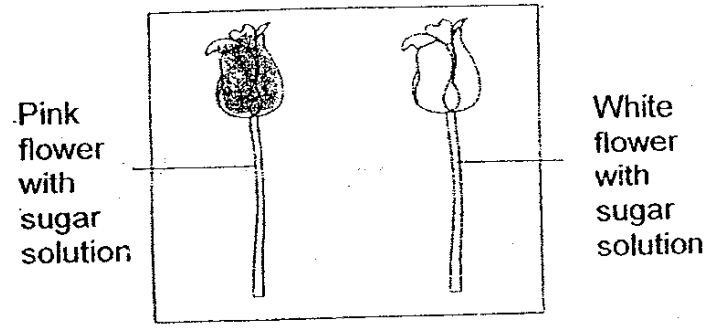
(2)



(3)



(4)



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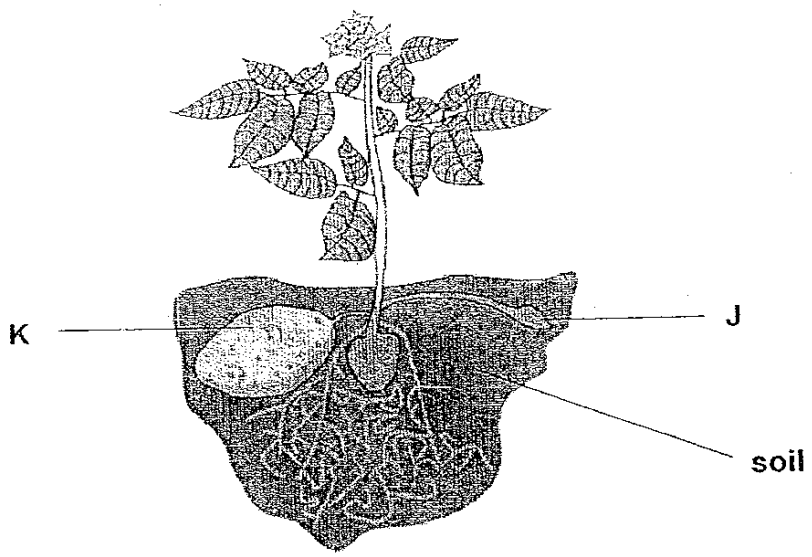
19. The diagram below shows a potato plant.



How does K obtain its food?

(1) The food is made by K itself.
(2) The food is transported from J.
(3) The food is absorbed from the soil.
(4) The food is transported from the leaves.

20. Which one of the following groups of living things obtains its energy directly from plants only?

(1) deer, butterfly and duck
(2) goat, caterpillar and squirrel
(3) rabbit, cow and praying mantis
(4) pitcher plant, zebra and earthworm

21. Which of the following systems breaks down food into the simplest form and transports it to all parts of the body?

A Digestive system
B Circulatory system
C Respiratory system

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

22. Which of the following statement(s) about saliva is/are true?

A Saliva helps to digest food.
B Saliva makes it easier for us to swallow food.
C Saliva helps food to be absorbed in the stomach.

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

23. What is the function of digestive juices in our digestive system?

(1) Makes food soft
(2) Produces energy from food
(3) Breaks down food into simpler substances
(4) Transport food to various parts of the body

24. Tian Yu wanted to find the diet of 4 animals, A, B, C and D. He placed the animals into 4 cages and a certain amount of leaves, apples and meat in each cage. After 2 hours, he measured the amount of food left in the cages. The table below shows the results of Tian Yu's observation.

Animals	Leaves	Apples	Meat
A	15g	20g	19g
B	20g	10g	15g
C	20g	14g	20g
D	18g	16g	20g

Which variable must he keep constant in all the 4 cages for this experiment?

(1) Type of animals
(2) Size of the cages
(3) Type of food in each cage
(4) Amount of food before the experiment

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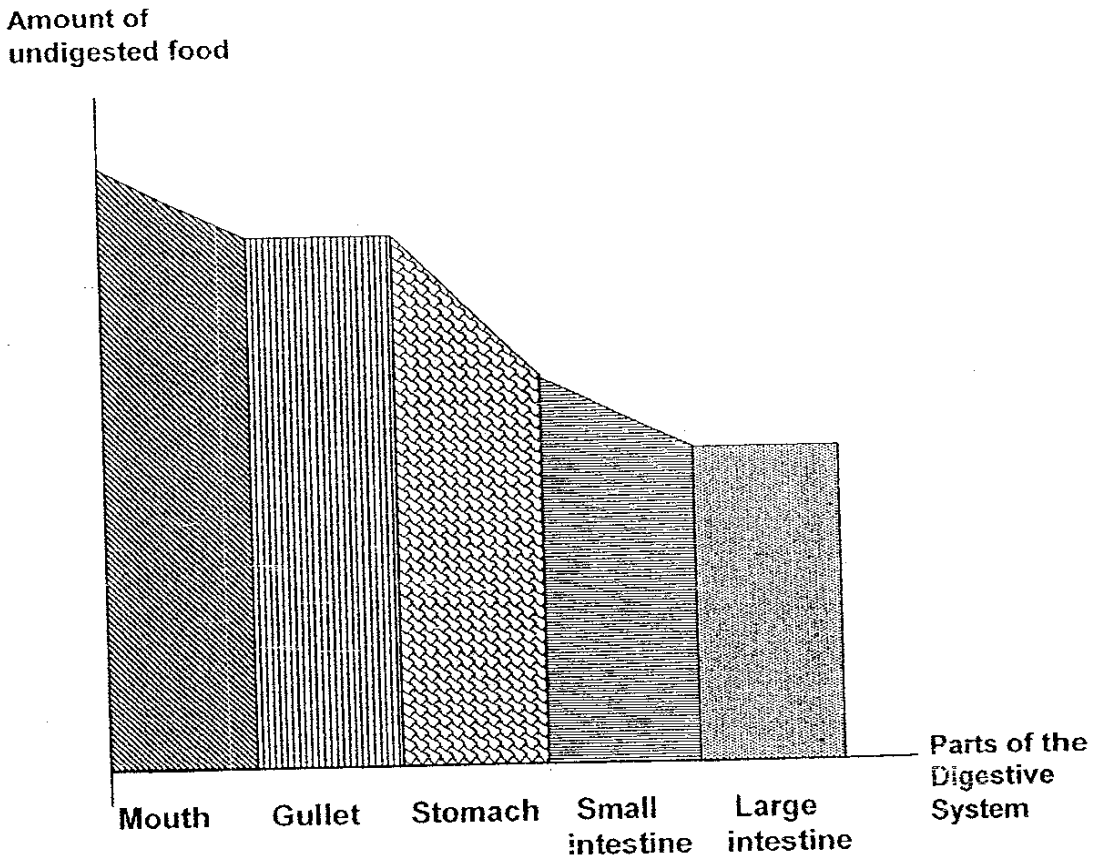
25. The graph below shows the amount of undigested food in Lily's digestive system.



What can you conclude from the graph above?

(1) Digestion starts in the stomach.
(2) Digestion ends in the large intestine.
(3) Digestion does not take place in the gullet and large intestine.
(4) Digestion takes place in the mouth, gullet, stomach and small intestine.

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PRIMARY FIVE SCIENCE

CONTINUAL ASSESSMENT 2

2007

BOOKLET B

Date: 20 August 2007

Duration : 1 h ~~30~~ min

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Class: Primary _____ ( )

Marks Scored:

Booklet A:		50
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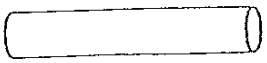
Booklet B consists of 12 printed pages including this cover page.

Section B (30 marks)

Write your answers to questions 26 to 36 in the spaces provided.
Marks will be deducted for misspelt key words.

26. Azizah was given a bar magnet and a metal rod by her teacher. She was asked to find out if the metal rod was also a magnet.

Bar magnet


Metal rod

Describe below the steps she should take to find out if the metal rod was also a magnet. (2m)

Step 1: _____

_____

_____

Step 2: _____

_____

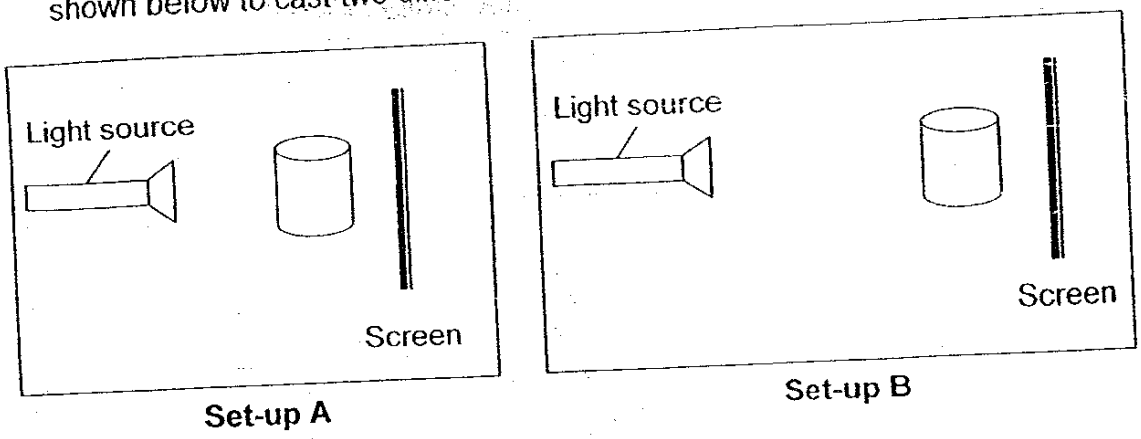
_____

Step 3: _____

_____

_____

27. A cylinder is arranged in two different ways in front of a light source as shown below to cast two different shadows on the screen.



(a) How is the shadow formed in set-up A different from that formed in set-up B? (1m)

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

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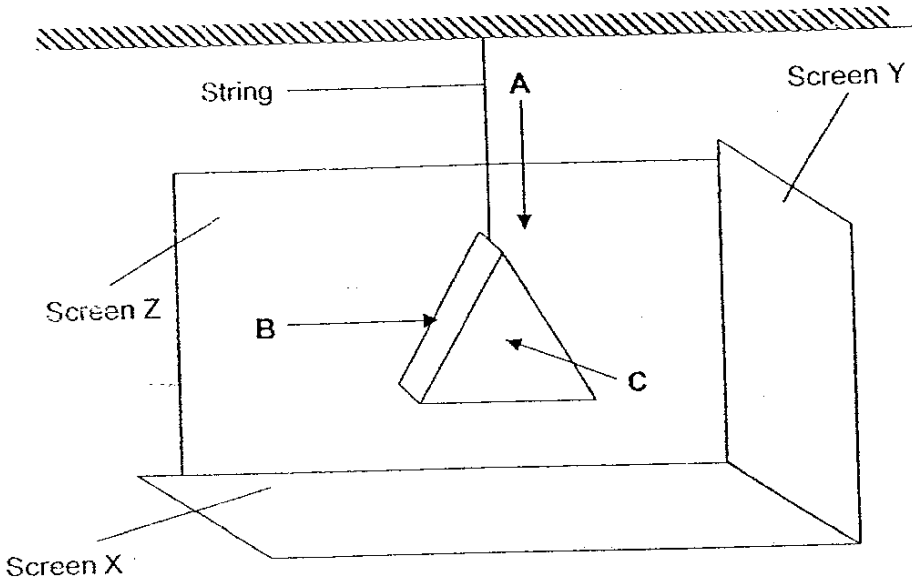
28. Sufri shone a torch at an object from three different directions A, B and C as below.



a) Draw the shadows, as seen by Sufri when the torch was shone in the directions A and B, in the table below. The shadow Sufri saw for direction C has been drawn for you. (2m)

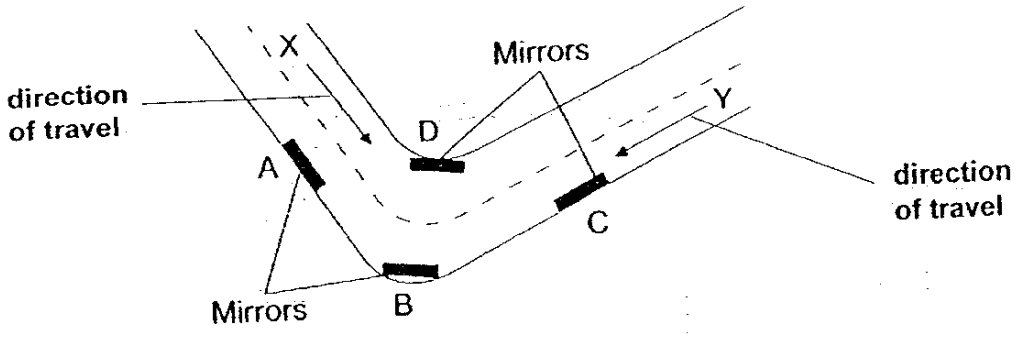
Direction	Shadow on Screen X
A	
	Shadow on Screen Y
B	
	Shadow on Screen Z
C	

b) What is the important property of the material that the object is made of for formation of shadow? (1m)

81

_____

29. The diagram below shows a sharp bend along a 2-way road.



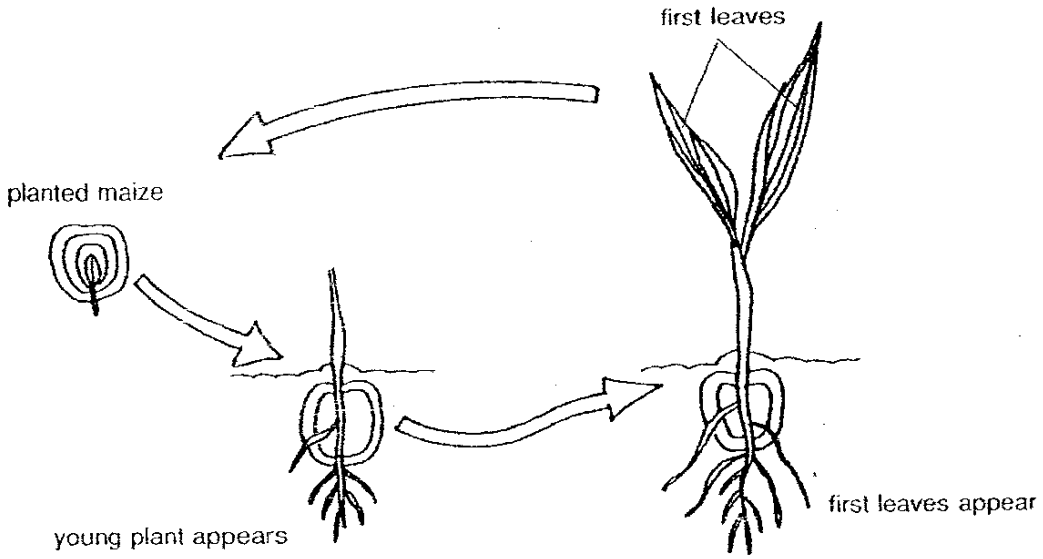
(a) Which mirror, A, B, C or D, will enable motorists at X and Y to see each other before they meet? (1m)

_____

(b) Explain how the mirror enables motorists to see each other before they meet.

(c) State the property of light which allows this set-up to work. (1m)

30. The diagram below shows the growth of a maize seed.



(a) Fill in the blanks below. (1m)

In germination, the part that grows out from the seed first is the

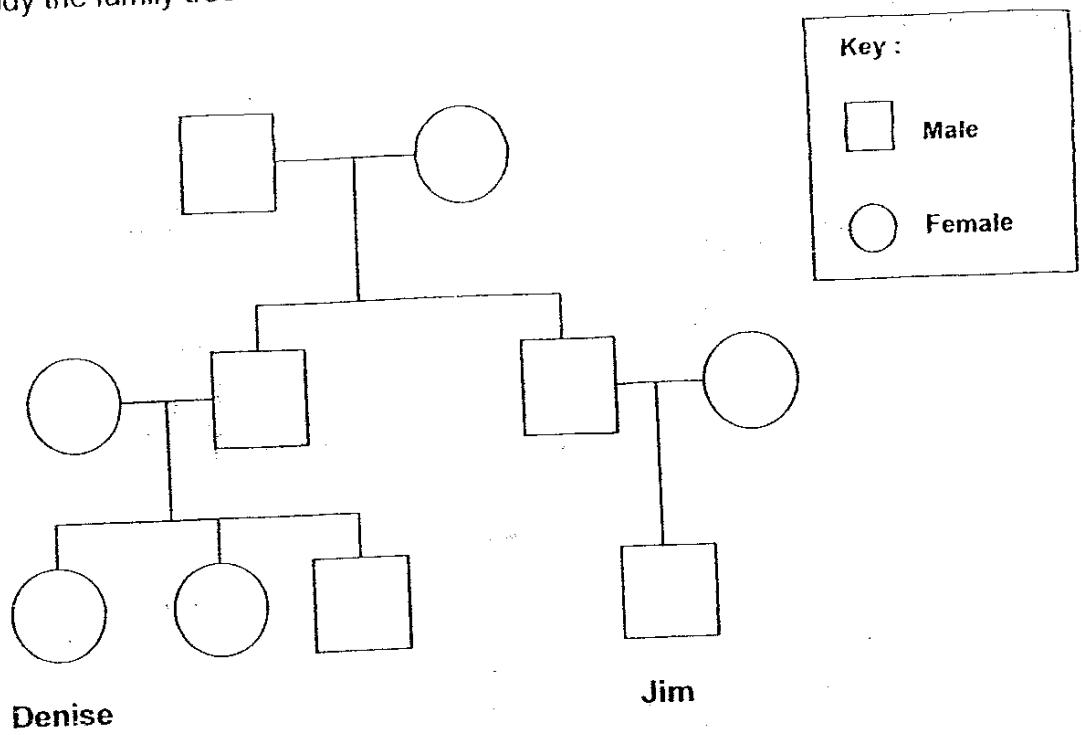
followed by the

(b) Where does the seedling get its food from? (1m)

(c) At which stage is the maize plant able to make its own food? (1m)

(d) List the 3 conditions that are necessary for the germination of the maize seed. (1m)

31. Study the family tree below.



(a) How is Jim related to Denise? (1m)

_____

(b) It is observed that if only 1 parent could roll his or her tongue, all their children could roll their tongues.

Based on the above family tree, in the first and second generations, **only** two males could roll their tongues. How many people in the family tree **can** roll their tongues? (1m)

_____

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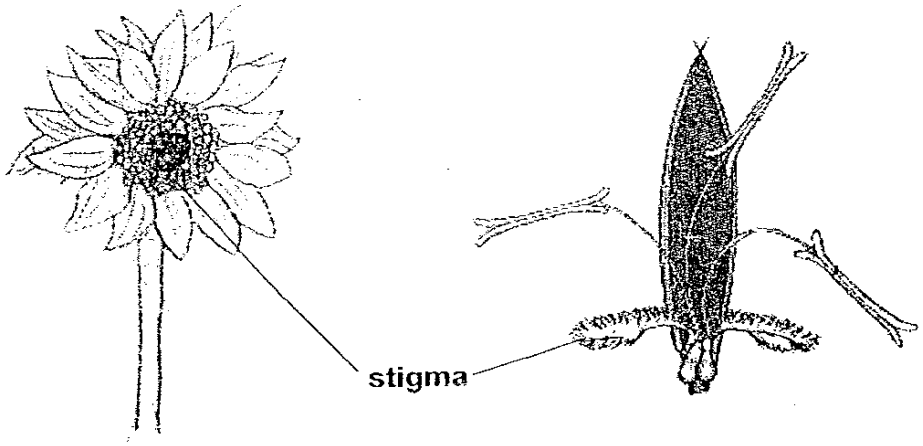
32. Observe the pictures below carefully.



Flower A Flower B

(a) Based on the pictures above, state one similarity between Flower A and Flower B. (1m)

_____

_____

(b) State one difference between the two species of flowers. (Do not compare size or shape) (1m)

_____

_____

(c) Which species of flower is most likely to be wind-pollinated? (1m)

_____

(d) Give a reason for your answer in (c). (1m)

_____

_____

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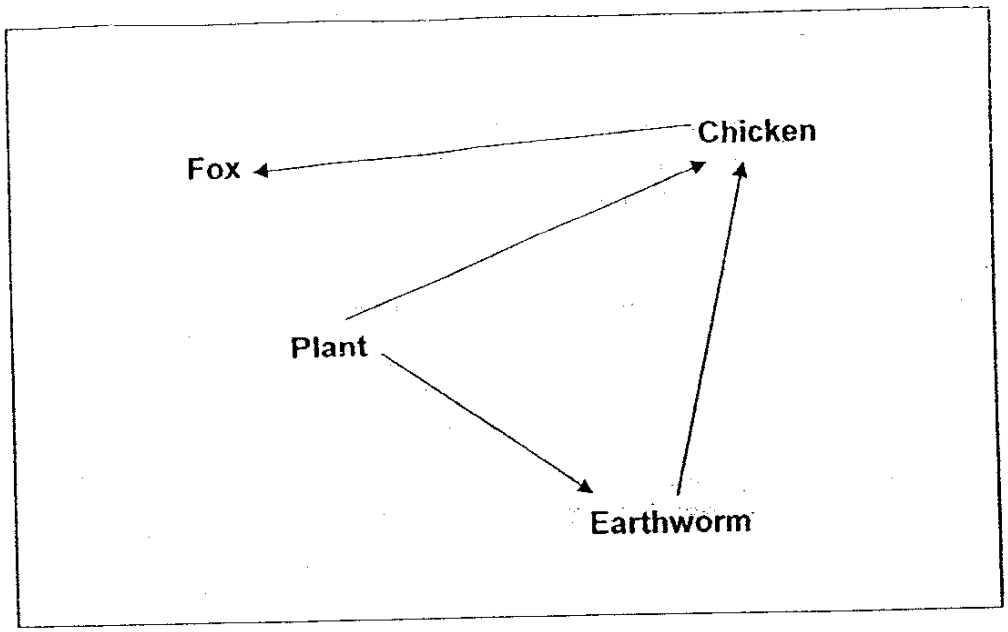
33. The diagram below shows a food web.



Based on the food web above, state 2 complete food chains. (2m)

(i) _____

(ii) _____

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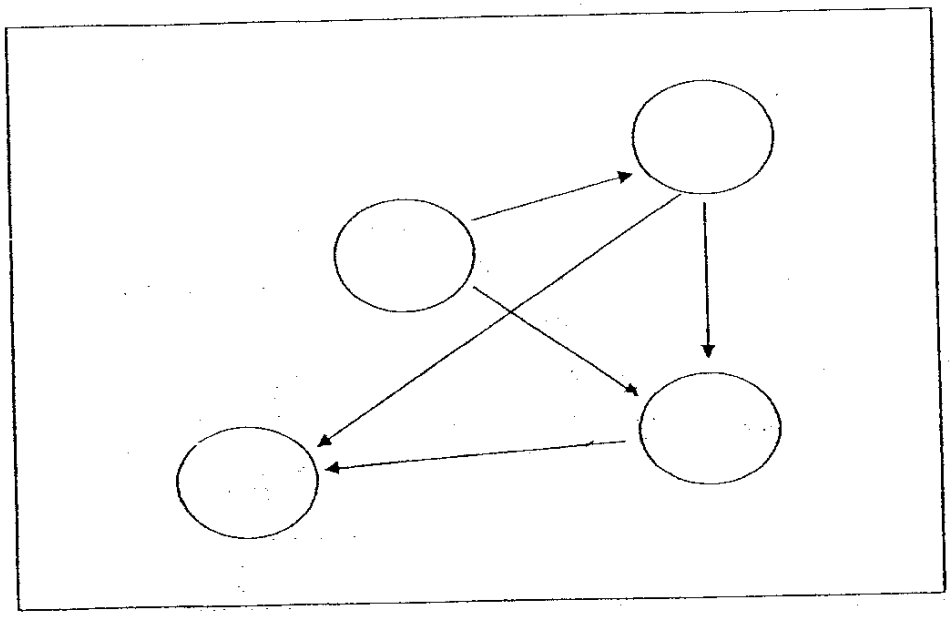
34. J, K, L, and M represent 4 different groups of organisms. Their food relationships are shown below:

- Group J has chlorophyll.
- Group K feeds only on Group J.
- Group L feeds on Groups J and K.
- Group M feeds on Groups K and L.

(a) Which group of organisms represents an omnivore? (1m)

(b) Label the groups J, K, L and M in the box below to show the energy transfer between the organisms above. (2m)



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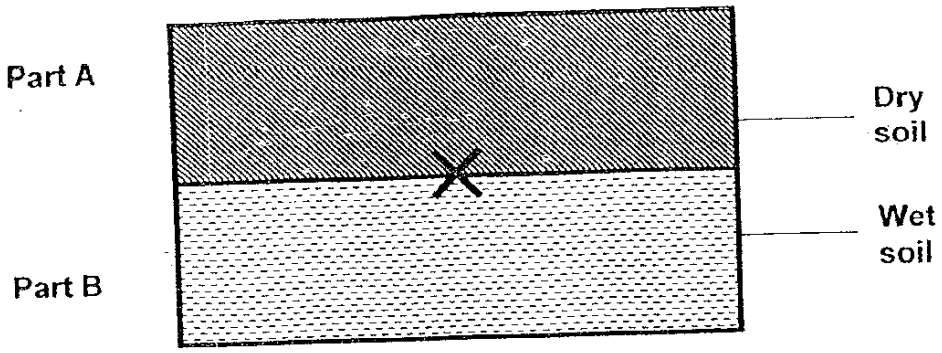
35. Nurul wanted to find out the suitable living conditions for organism P. She used a tray consisting of two parts, A and B as shown below. She filled part A with dry soil and part B with wet soil.



She placed a number of organisms, P, in the middle of the tray in the area marked "X". After two hours, most of the organisms P were found in part B.

(a) Based on the results, state the living condition suitable for organism P (1m)

_____

(b) Organism Q can survive well in dry soil. Nurul predicts that organism Q may prefer dark conditions.

Given a piece of black cloth and an identical tray with dry soil, how can she carry out an experiment to find out if organism Q prefers dark conditions? (1m)

_____

_____

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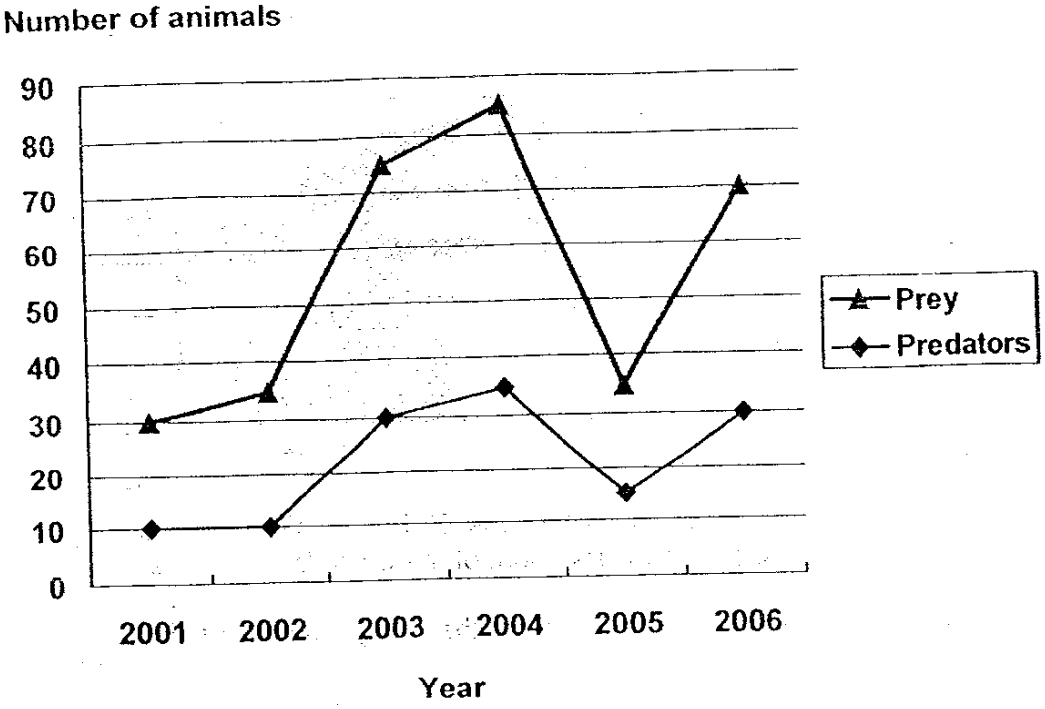
36. Study the following line graph.



(a) What was the number of predators recorded for 2003? (1m)

_____

_____

(b) _____ prey increased even though the number of predators also increased. Give a reason why this could have happened. (1m)

_____

_____

(c) Over these 6 years, there was a period of drought. Which **period** did the drought occur? (1m)

_____

_____

----------END OF PAPER----------

Setters: Mrs Nancy Lum
Mrs Tan Yoke Cheng

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Nanyang Primary School

Primary 5 Science CA2 Exams (2007)

Answer Keys

SECTION A : (60 MARKS)

Qn no.	Ans
1	2
2	3
3	3
4	1
5	4
6	2
7	3
8	3
9	1
10	2

Qn no.	Ans
11	1
12	3
13	2
14	2
15	1
16	2
17	4
18	1
19	4
20	2

Qn no.	Ans
21	3
22	2
23	3
24	4
25	3

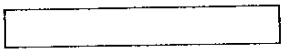
SECTION B (40 MARKS)

26. **Step 1)** **Put the magnet near to the metal rod.**
Step 2) **Try using the north and south pole of the magnet to attract one end the metal rod.**
Step 3) **if one of the ends make the rod and the bar magnet repel , the metal rod is a magnet.**

27a. **The shadow of the cylinder that appeared on the screen of set-up A would be bigger than the shadow of the cylinder in set-up B**

27b. **The shadow of the cylinder in set-up A is bigger because the nearer the light source is to the cylinder, the bigger the shadow of the object it will be.**

28a.

A : 

B : 

28b. **The material must be opaque.**

29a. **Mirror B**

29b. **The reflect of X will appear on mirror B when he is near the curve and when Y is near the curve, his reflection would also show on the mirror so both of them can see each other before they meet.**

29c. **Light travels in a straight line.**

30a. Root, shoot

30b. The seedling gets its food from the seed leaves.

30c. It is at the stage where its first leaves appear.

30d. The three conditions are oxygen, warmth and water.

31a. Jim is Denise's cousin.

31b. 7 people.

32a. Flower A and B both have stigmas.

32b. Flower A has many petals but flower B has only one petal.

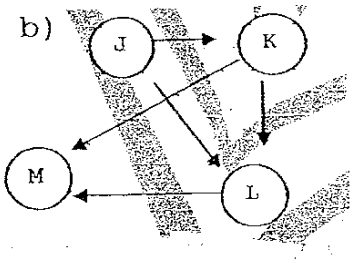
32c. The hanging stigma and anthers allow the pollen grains to be easily pollinated by wind.

33 (i). Plant ⟶ chicken ⟶ fox.

33 (ii). Plant ⟶ earthworm ⟶ chicken ⟶ fox.

34a. Group L.

34b.



35a. The living condition for organism P should be wet or damp.

35b. Use the black cloth to cover half of the tray, and place Q in the middle of the tray, if Q prefers dark conditions it would have been found in the side of the tray that was covered by the cloth.

36a. The number of predators recorded for 2003 is 30.

36b. The preys reproduce faster than the predator.

36c. It occurred from 2004 to 2005.