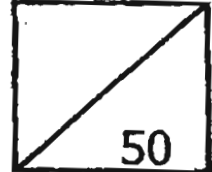




Rosyth School
Second Continual Assessment for 2011
STANDARD SCIENCE
Primary 5



Total
Marks:

Name: _____

Class: Pr 5 _____

Register No. _____

Duration: 1 h 15 min

Date: 25 August 2011

Parent's Signature: _____

Instructions to Pupils:

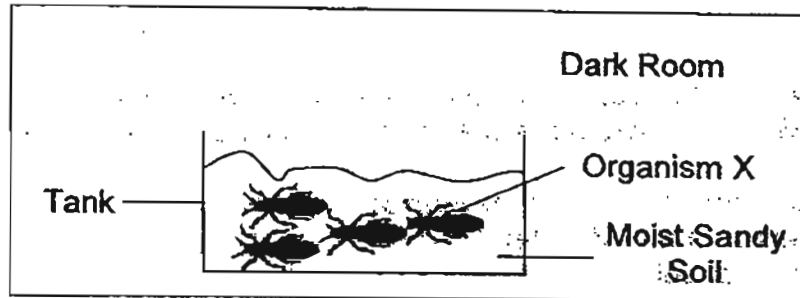
1. Do not open the booklet until you are told to do so.
2. Follow all instructions carefully.
3. This paper consists of 2 parts, Part I and Part II.
4. For questions 1 to 15, shade the correct ovals on the Optical Answer Sheet (OAS) provided using a 2B pencil.
5. For questions 16 to 23, give your answers in the spaces provided in Part II.

	Maximum	Marks Obtained
Part I	30 marks	
Part II	20 marks	
Total	50 marks	

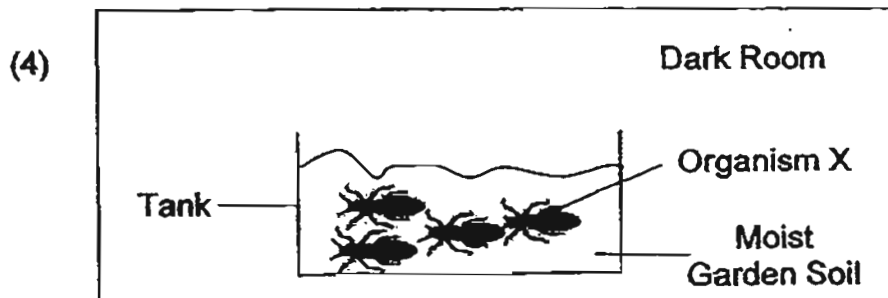
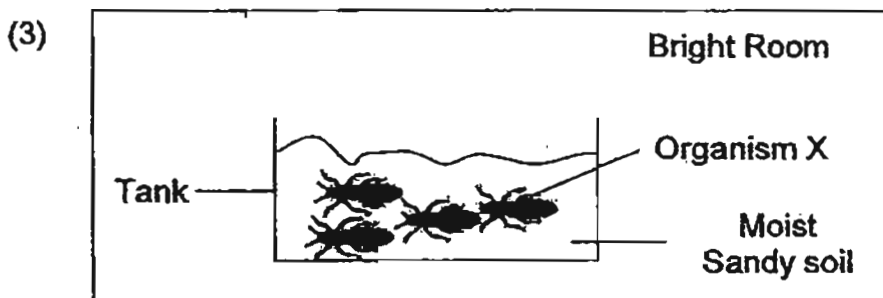
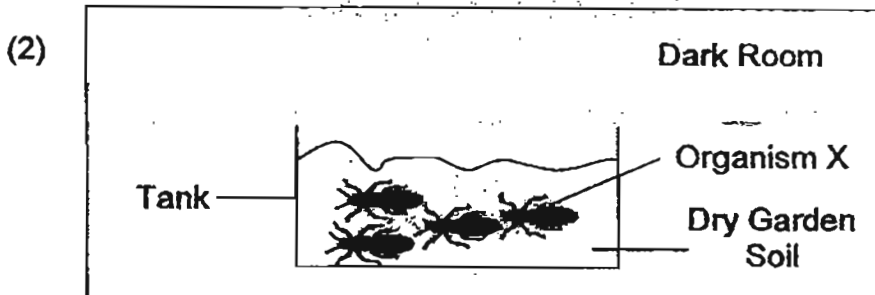
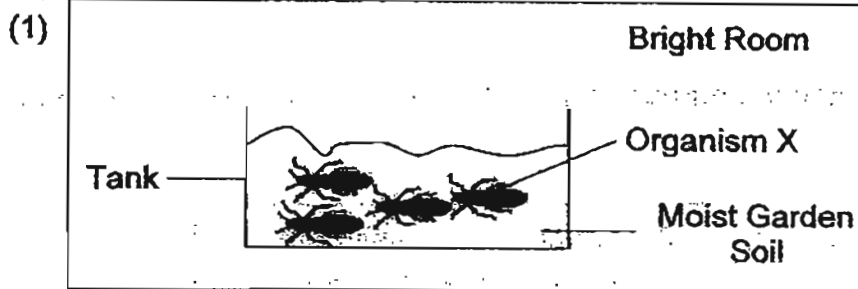
* This booklet consists of 17 pages.

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- 3 Organism X can be found underground in a garden habitat. Nicholas wanted to find out if type of soil will affect the survival of organism X. He set up an experiment as shown below.



Which one of the following set-up should he use as a control set-up?



- 4 Haslinda visited the Science garden and observed different kinds of plants and animals in the pond habitat. She recorded the number of these organisms in the table below.

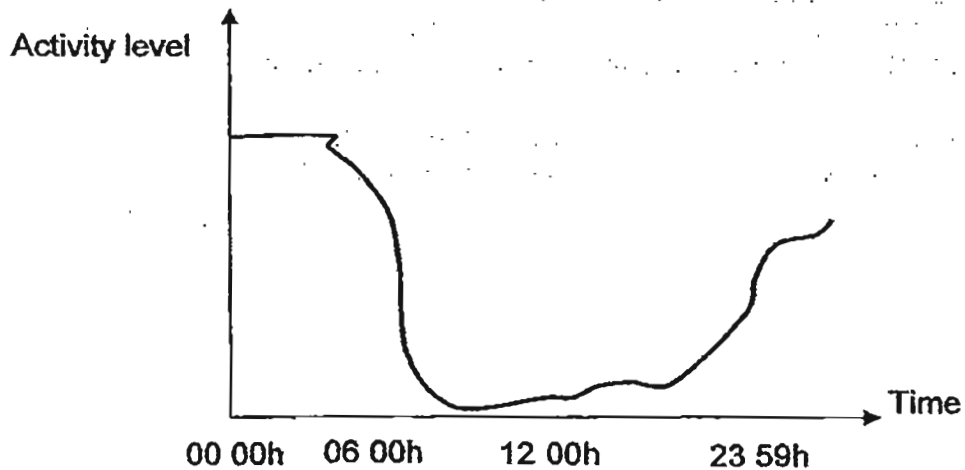
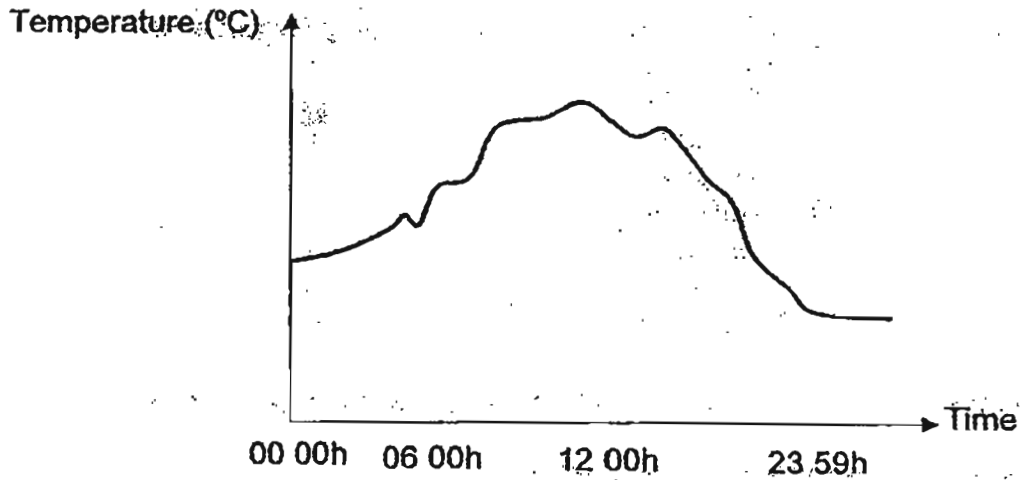
Organisms	Number of Organisms
Water lily	6
Tadpole	22
Cattail	4
Guppy	7
Damselfly nymph	10
Damselfly	3
Frog	5
Water beetle	11

Based on the information above, which of the following statements is/are true?

- A Frogs reproduce more than damselflies.
- B There are six populations in the pond habitat.
- C There are two producers and six consumers
- D All the above organisms can form a single food chain.

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

- 5 Animal M lives in the mangrove swamp. The graphs below show the relationship between the behavioural pattern of Animal M and the temperature changes of the mangrove swamp in a day.

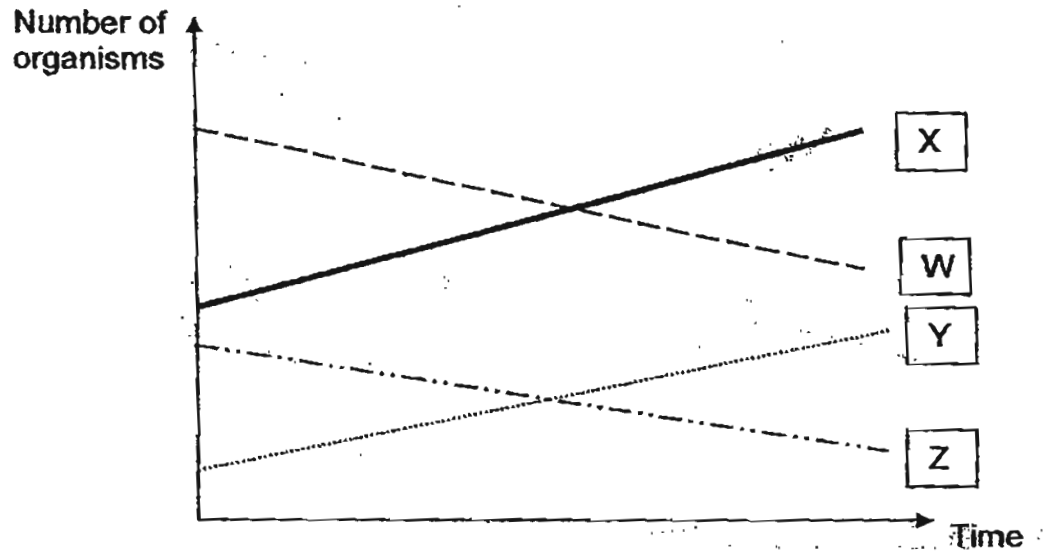


What conclusion can you make about Animal M based on the graphs?

- A It is likely to see well in darkness.
- B It hunts and is mostly active at night.
- C It is more active as the temperature increases.

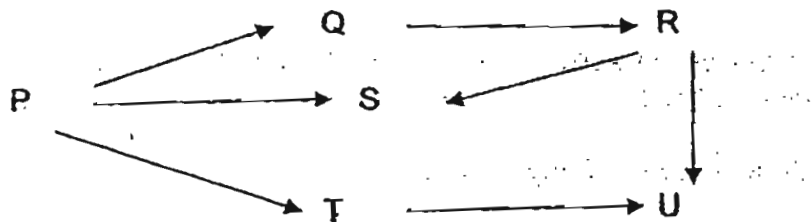
- (1) A only
- (2) A and B only
- (3) B and C only
- (4) A, B and C

- 6 The graph below shows what happens to the populations of organisms, W, X and Y when the population of organism Z decreases.



Based on the graph below, which of the following is the likely food chain of organisms, W, X, Y and Z?

- (1) $W \rightarrow X \rightarrow Y \rightarrow Z$
 - (2) $X \rightarrow W \rightarrow Y \rightarrow Z$
 - (3) $Z \rightarrow Y \rightarrow X \rightarrow W$
 - (4) $Y \rightarrow W \rightarrow Z \rightarrow X$
7. Study the following food web.



What can you deduce from the given food web?

- A S is a herbivore.
 - B Q is dependent on P for food.
 - C T eats plants and animals.
 - D U is indirectly dependent on P for food.
- (1) B only
 - (2) A and C only
 - (3) B and D only
 - (4) B, C and D only

8 Which of the birds shown below is most likely to have webbed feet?

(1)



(2)



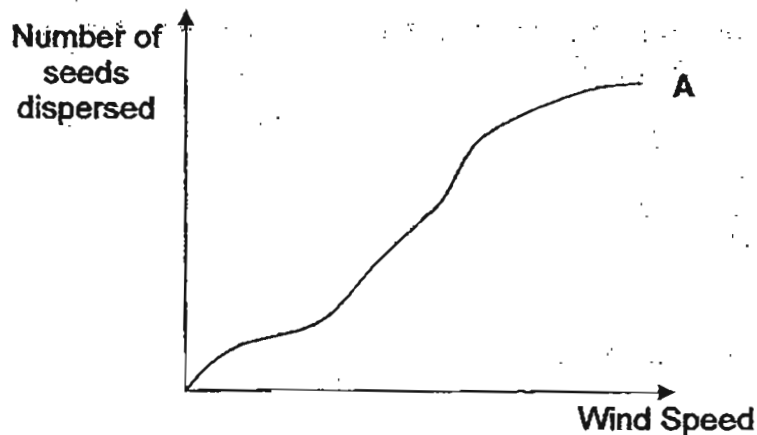
(3)



(4)



9 Study the graph below.



Based on the graph above, which of the following is likely to be the dispersal adaptations of Fruit A?

- | | |
|-----|--|
| (1) | Dull coloured, fluffy and light. |
| (2) | Brightly coloured, small with hooks. |
| (3) | Dull-coloured; hard with pod-like structure |
| (4) | Brightly coloured, fibrous covering with air spaces. |

- 10 Organism X is a carnivore and lives on Momo island. Momo island is surrounded by ice and the temperature ranges from 5°C in the day to -20°C at night. Most animals sleep underground at night as it is too cold. Small bushes and plants grow in Momo island and many small animals feed on these plants.

Which of the following adaptations would best describe Organism X?

	Structural	Behavioural
(1)	Broad and Padded feet Has sharp claws White skin covered with spikes	Hunts only at night
(2)	Hoofed feet Has a long spiky tongue Black skin covered with thick fur	Hunts in the day
(3)	Broad and Padded feet Has sharp claws Black skin covered with thick fur	Hunts in the day
(4)	Hoofed feet Has sharp claws White skin covered with spikes	Hunts only at night

- 11 An oil spill from a tanker covered a large area of water near the seashore.

Which of the following statements is/are true about why some seabirds were badly affected by the oil spill?

- A The fish in the sea were killed.
- B Their feathers were soaked with oil.
- C Sunlight cannot pass through the water.
- D The amount of bacteria increased in the sea.

(1) B only

(3) A and B only

(2) C only

(4) A, B and D only

- 12 The PSI (Pollutant Standard Index) values show the quality of the air in a particular location. The indication of the air quality with the associated range of PSI values are shown in the table below.

PSI Value	Air Quality
1 to 50	Good
51 to 100	Moderate
101 to 200	Unhealthy
201 to 300	Very unhealthy
Above 300	Dangerous

The PSI in country X was affected by a forest fire from a neighbouring country. The PSI was taken over five days and the values were shown below.

Day	PSI value
1	48
2	115
3	99
4	89
5	138

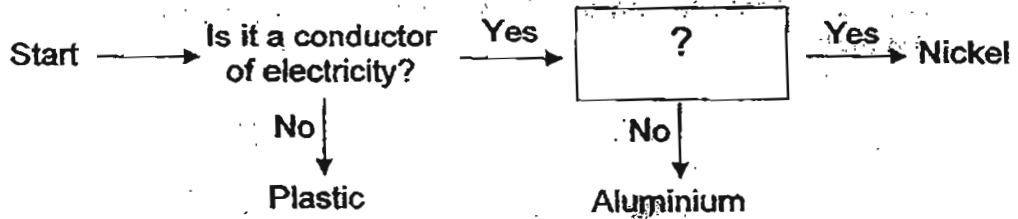
Which of the following could have caused a change in the air quality in country X over five days?

- A Wind speed
- B Direction of wind
- C Amount of heat
- D Amount of carbon dioxide

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

- (2) B and D only
- (4) C and D only

13 The diagram below shows a classification chart.

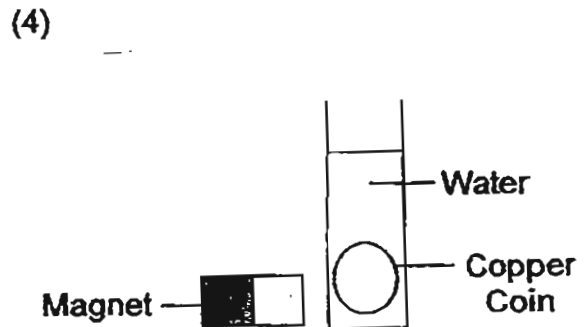
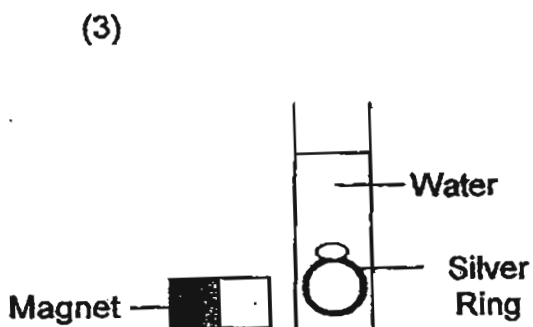
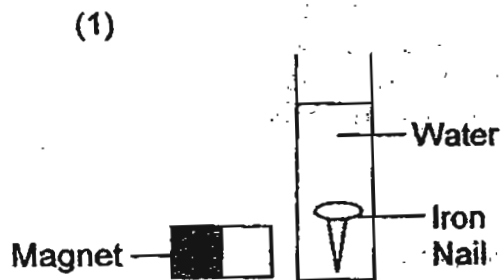


Which one of following(s) could be the missing question(s) in the box?

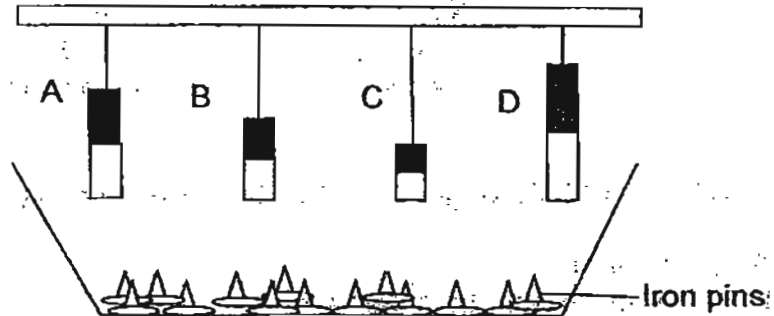
- A Is it a metal?
- B Is it a non-magnetic material?
- C Can it be attracted by a magnet?

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

14 Four different objects were contained in four glass tubes with some water. John wanted to remove the objects using a magnet. Which one of the objects would be successfully removed?



- 15 Four magnets of different lengths were hung from a pole over a tray of iron pins. The distance between the magnets and the iron pins was kept the same. Xiao Qi wanted to find out if the lengths of the magnets would affect its magnetism.



She observed the number of pins attracted by each magnet and recorded the results as shown below.

	Magnet A	Magnet B	Magnet C	Magnet D
Number of pins attracted	30	30	16	24

What can Xiao Qi conclude based on the results?

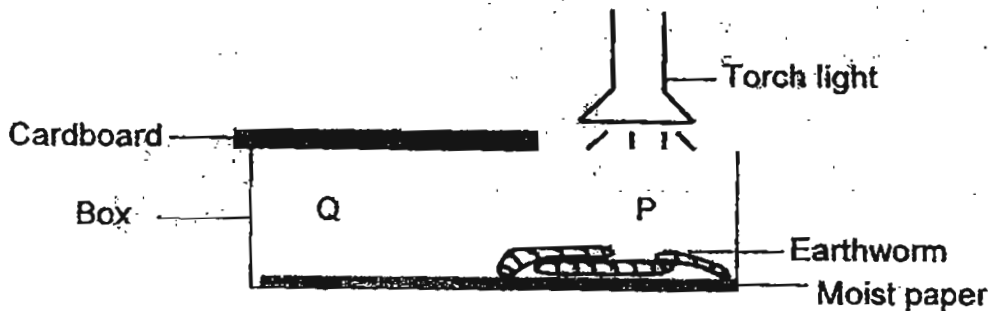
- (1) The longest magnet attracted the most pins.
- (2) Shorter magnets are stronger than longer ones.
- (3) Longer magnets are stronger than shorter ones.
- (4) The strength of a magnet does not depend on its length.

End of Booklet A

Part II (20 marks)

For questions 16 to 23, write your answers in this booklet. The number of marks available is shown in brackets [] at the end of each question or part question.

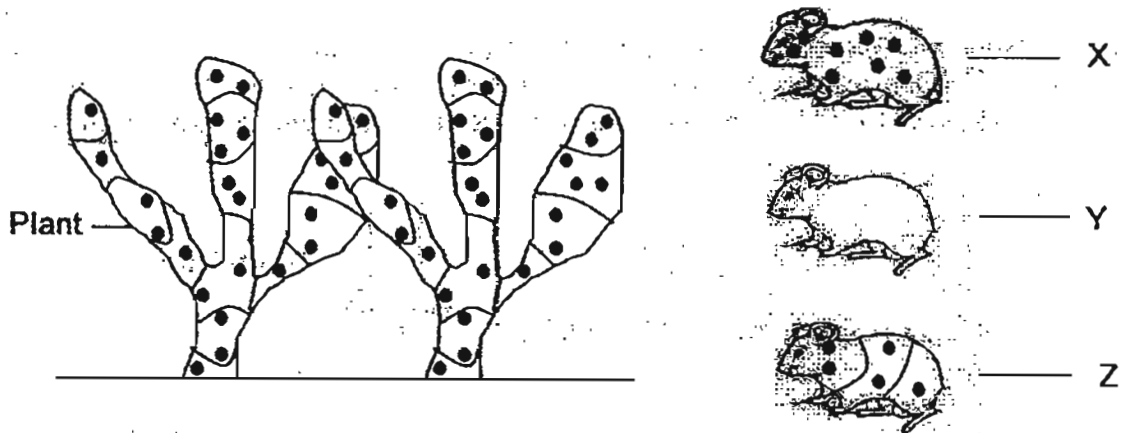
- 16 Sanjay conducted an experiment on an earthworm in a bright room as shown below. He placed the earthworm on side P of a box. He then shone a torch light on it for five minutes. After a while, the earthworm moved towards Q of the box.



- (a) Based on his observations, state one characteristic of the earthworm's habitat. [1]

- (b) If he moved the cardboard to side P, describe what he would observe after five minutes. [1]

- 17 The diagram below shows three different types of animals. They are X, Y and Z. The animals live in a desert.



- (a) A predator of animals X, Y and Z is introduced into the ^{desert} garden. Which type of animal, X, Y or Z would ~~least likely to decrease in number~~ least likely to decrease in number? Explain your choice. [2]

- (b) Would Animal X be able to survive in the snowy mountains? Explain your answer. [1]

18 Chee Fung wanted to conduct an experiment to find out if woodlice prefer to live in bright or dark areas. He had the following materials for the experiment.

- An open box
- A piece of black cloth
- Soil
- 20 woodlice
- Decaying leaves
- A beaker of water

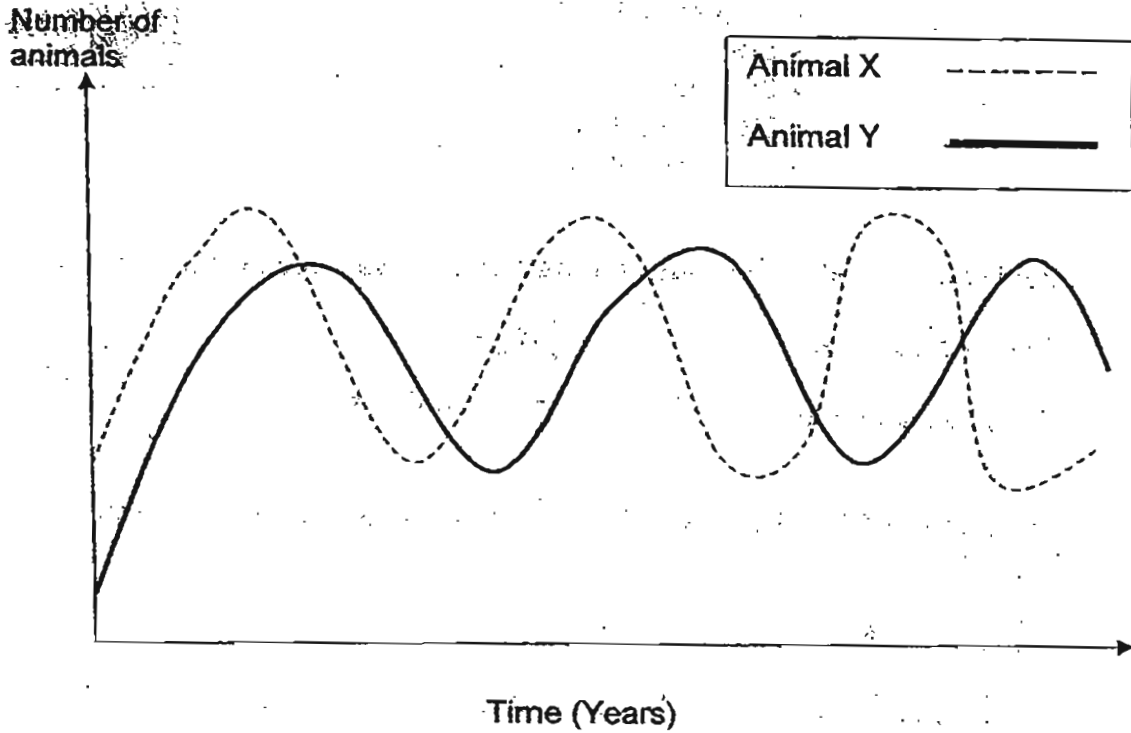
(a) Identify the variable that was changed and the variable that was measured. [2]

Changed variable: _____

Measured variable: _____

(b) Do you think Chee Fung should spread the decaying leaves evenly in the box? Explain your choice. [1]

- 19 The graph below shows the change in the population size of two animals, X and Y in a habitat over a period of time.



- (a) What is the relationship between animals X and Y? Support your answer. [1]

- (b) If a fatal disease wiped out the total population of X, what can Animal Y do in order to survive? [1]

20 The pictures below show an apple and some love grass.



Seed

Apple



Hooks

Love grass

(a) Name the seed dispersal method of the two fruits. [1]

(b) State one feature of the seeds of each fruit that helps them in their dispersal. [1]

Apple: _____

Love Grass: _____

21 The diagram shows a plant. It has waxy leaves and a deep and widespread root system to help it survive in its habitat.



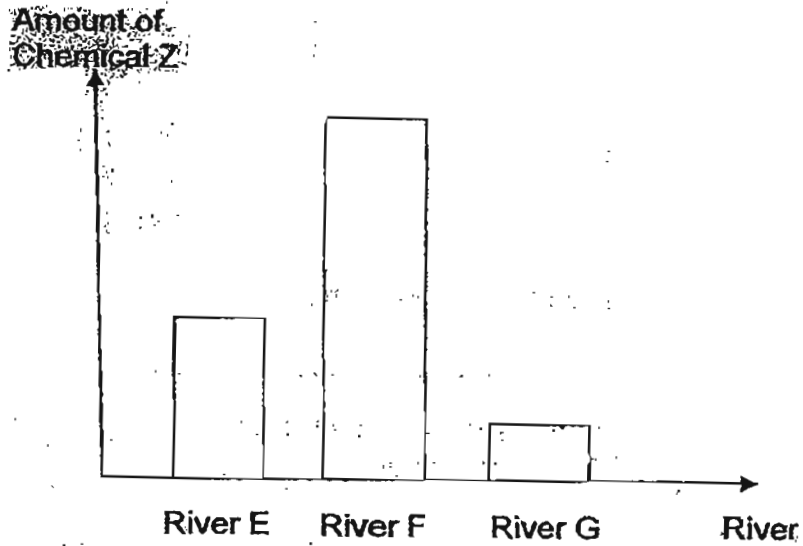
(a) Name the natural habitat where the plant is likely to be found. [1]

(b) Explain how the characteristics of the plant help it to adapt in its habitat. [2]

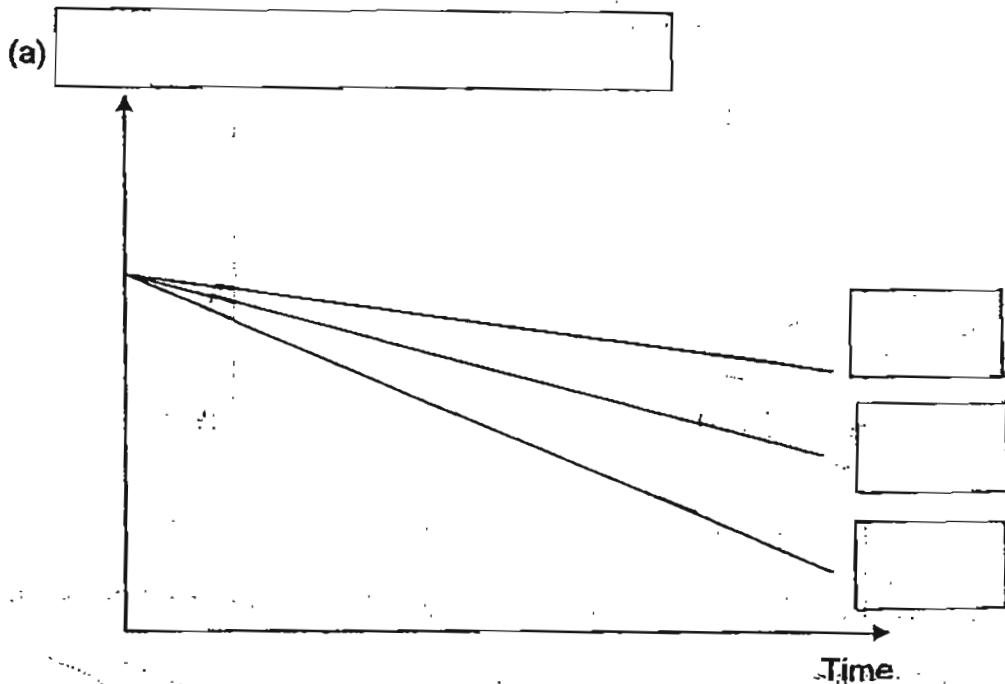
Root system: _____

Waxy leaves: _____

- 22 A small amount of water from 3 rivers, E, F and G was collected and tested for Chemical Z. Chemical Z is poisonous and harmful to living things. The results for the test was shown in the graph below.



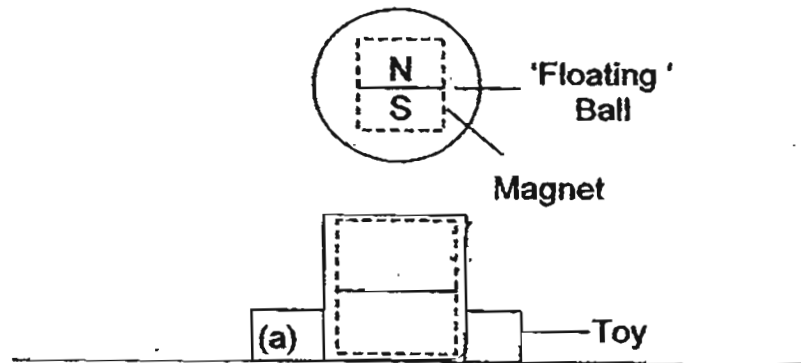
- (a) Based on the results above, identify the correct graphs for the populations of the organisms living in the respective rivers by writing the letters, E, F and G in the boxes provided. Label the Y-axis of the graph clearly. [2]



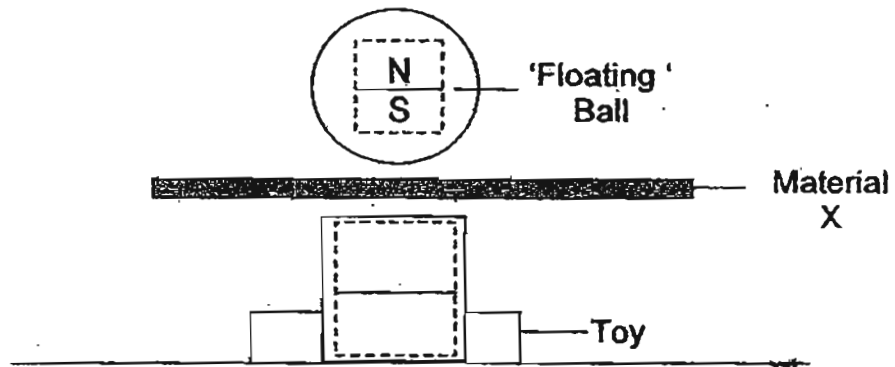
- (b) What is the relationship of the amount of Chemical Z and the populations of organisms over time? [1]

23

The diagram below shows a toy. There are magnets inside the toy and the ball. The ball appears to be 'floating' in the air.

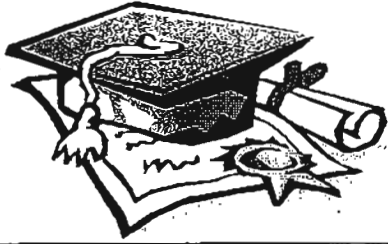


- (a) Label the poles of the magnet in the toy above so that the ball is able to 'float' in the air. [1]



- (b) When material X was placed between the floating ball and the toy, the ball drops to the ground. Explain why this happens. [1]

End of Paper

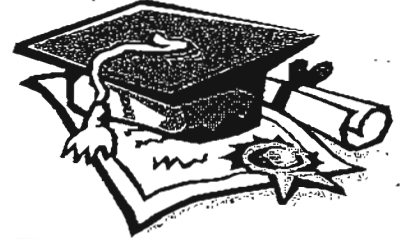


ANSWER SHEET

EXAM PAPER 2011

SCHOOL : ROSYTH
SUBJECT : PRIMARY 5 SCIENCE

TERM : CA2



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

16)a)Earthworm's live in a dark habitat.

b)He would observe that the earthworms have move towards P of the box.

17)a)It has stripes and spots on its body which is similar to the plants. This allow it to camouflage with its surrounding.

b)No. The animal does not have thick fur for it survive in the extreme cold weather of a snowy mountain.

18)a)Presence of light.

Number of woodlice in each area.

b)Yes. The decaying leaves are food for the woodlice and should be spread evenly, so it will not affect the number of woodlice in each area.

19)a)X is a prey (Y and feeds on X). When the population of X increases, the population of Y also increases, the population Y also increases and as the population X decreases.

b)Animal Y can migrate to a different place.

20)a)They are dispersed by animals. Animal dispersal.

b)Apple: hard/small/cannot be digested.

Love Grass: it has hooks.

21)a)Desert habitat.

b)Root system: To get as much water as possible for the plant.

Waxy leaves: It reduce water loss.

22)a)Number of organism

River G River E River F

b)When the amount of Chemical Z has decreased, the populations of organism over time will increase.

23)a)S, N

b)Material X is a magnetic object. Thus, magnetic cannot pass through material XZ and repel the ball as it is now attracting material X.