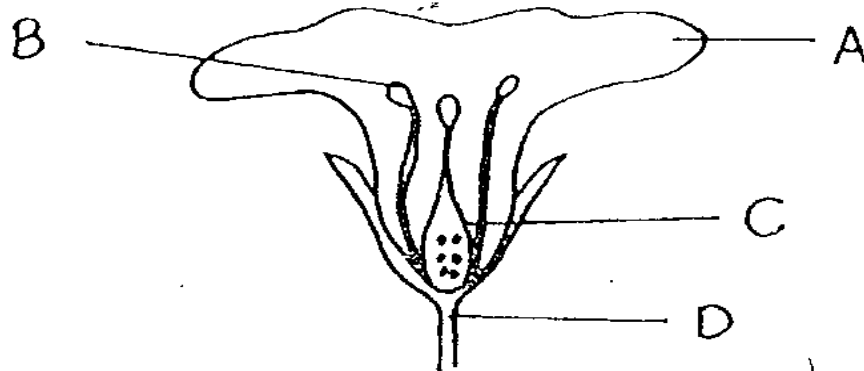


**Primary Six
Science
Continual Assessment Two**

Section A (30 x 2 marks)

For each question 1 to 30, four options are given. One of them is the correct answer. Make your choice (1,2,3 or 4). Write the correct answer in the box provided.

1. The diagram below shows a cross-section of a flower.



Which part of the plant will become a fruit?

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

2. Why are aquatic plants useful to aquatic animals in a lake?

- A: They keep the water clean.
B: They provide food to the aquatic animals.
C: They provide shelter for the animals.
D: They give off carbon dioxide when they respire.

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

3. Which one of the followings groups of food items would turn iodine dark blue?

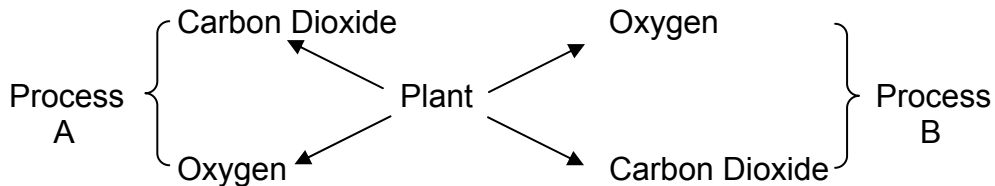
- (1) egg, tapioca, beef and liver
- (2) yam, turnip, ham and cabbage
- (3) biscuit, bread, sausage and broccoli
- (4) sweet potato, pancake, noodle and glutinous rice

4. Which of the following statements about plants are true?

- A: The chlorophyll of mushroom is hidden under the black pigment.
- B: Croton is a food producer.
- C: Bracket fungus and toadstool get their food from rotting plants.
- D: Copper leaf plant produces food with the help of its red pigment

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

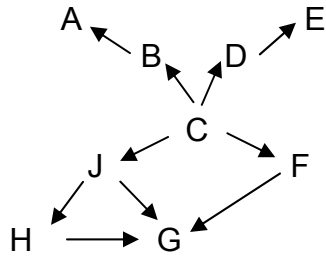
5. Study the diagram below.



Which one of the following correctly represents processes A and B?

	A	B
(1)	Respiration	Evaporation
(2)	Respiration	Photosynthesis
(3)	Photosynthesis	Digestion
(4)	Excretion	Transpiration

Refer to the food web shown below to answer Questions (6) and (7).



6. Which one of the following statements is true?

- (1) B, C and D are food producers.
- (2) A, E, G and H are carnivores.
- (3) J is both a predator and a prey.
- (4) Without F, G will die.

7. How many food chains are there in the whole food web?

- (1) four
- (2) five
- (3) six
- (4) seven

8. Study the food chain below.

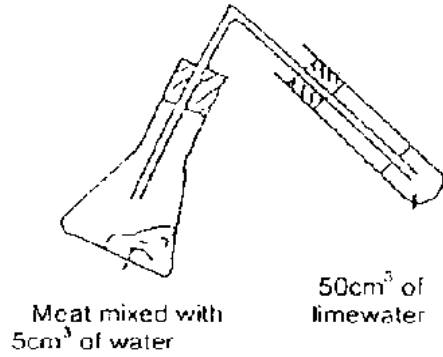
Corn → mouse → snake → eagle

Which of the following statements best describe the snake?

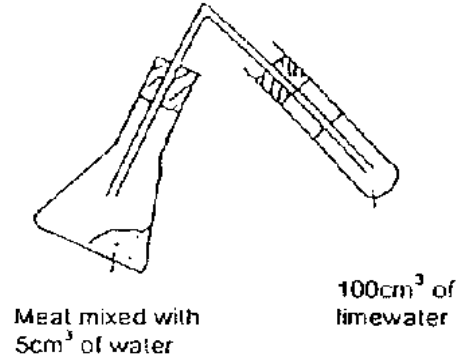
- A: It is a prey
 - B: It is a predator
 - C: It is a carnivore
-
- (1) A and B only
 - (2) A and C only
 - (3) B and C only
 - (4) A, B and C

9. Terry wants to find out how the amount of moisture in a piece of meat affects the rate of decomposition. Study the five set-ups below carefully.

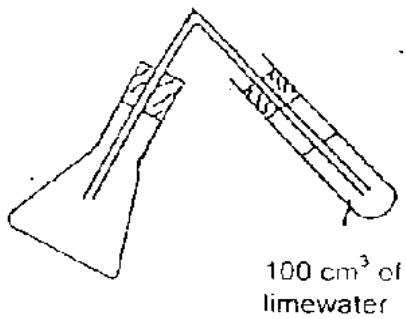
Set-up A.



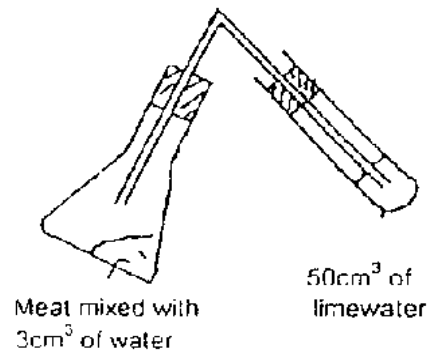
Set-up B.



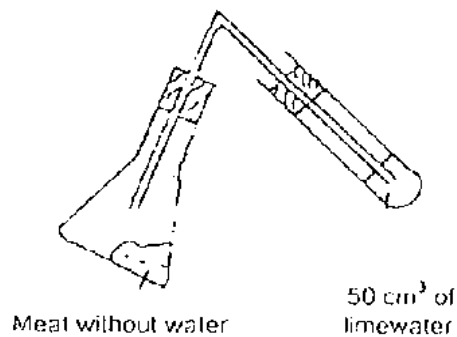
Set-up C.



Set-up D.



Set-up E.



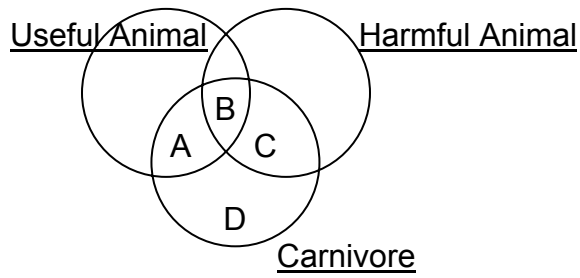
12. The table below shows some information about plants X, Y and Z.

Plant Description	X	Y	Z
• Provides food	√		
• Have Poisonous Parts			
• Is a Source of material	√		√
• Provides shade		√	

Which one of the following correctly represents plants X, Y and Z.

	X	Y	Z
(1)	Oak Tree	Rain Tree	Croton Plant
(2)	Coconut Tree	Rain Tree	Croton Plant
(3)	Sunflower Plant	Rain Tree	Papaya Tree
(4)	Rice Plant	Croton Plant	Rain Tree

13. Study The Venn diagram.



Which one of the following letters could represent a crocodile?

- (1) A
(3) C

- (2) B
(4) D

14. Mr Tan brought his students to a nature park to observe the plants there. The next day, some students were found to suffer from skin irritation. When questioned, they said that they had plucked the leaves of some plants. Which of the following plants in the park could have caused this skin irritation?

- A: Oleander
- B: Lantana
- C: Poinsettia
- D: Ping Pong

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

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

15. Eric found that there were many wigglers in his ornamental pond which had water lilies growing in it. What should he do to get rid of the wigglers?

- A: Introduce fish into the pond
- B: Grow water hyacinth in the pond
- C: Clean the pond more often.
- D: Spray insecticide over the water.

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

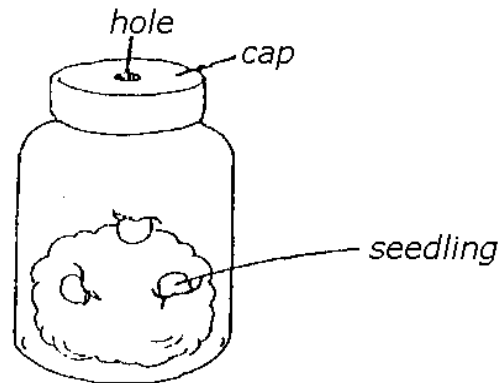
- (2) B and C only
- (3) B and D only

Section B (20 marks)

Write your answers for each question 16 to 23 in the blank spaces provided.

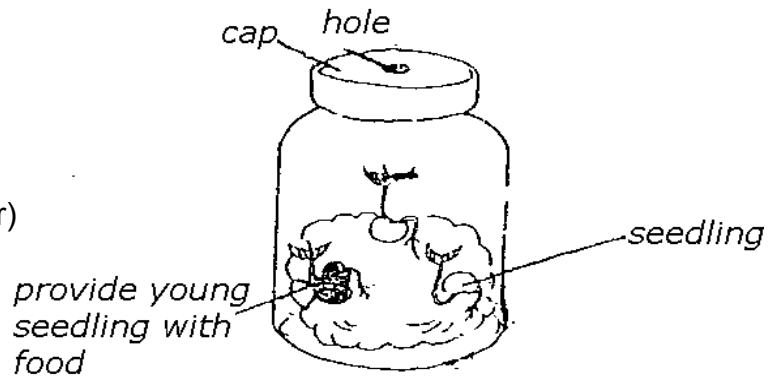
16. A group of pupils took three young seedlings and placed them in a jar with damp cotton wool as shown in set-up A. They left the seedlings in the jar for a week. They added water to cotton wool regularly to ensure that it was always damp.

Set-up A
(at the start of experiment)



After one week, the pupils observed the results as shown in the picture below.

Set-up A
(one week later)



- a. What can you conclude about the direction of growth of the shoots and the roots of young seedlings from the experiment? (1m)

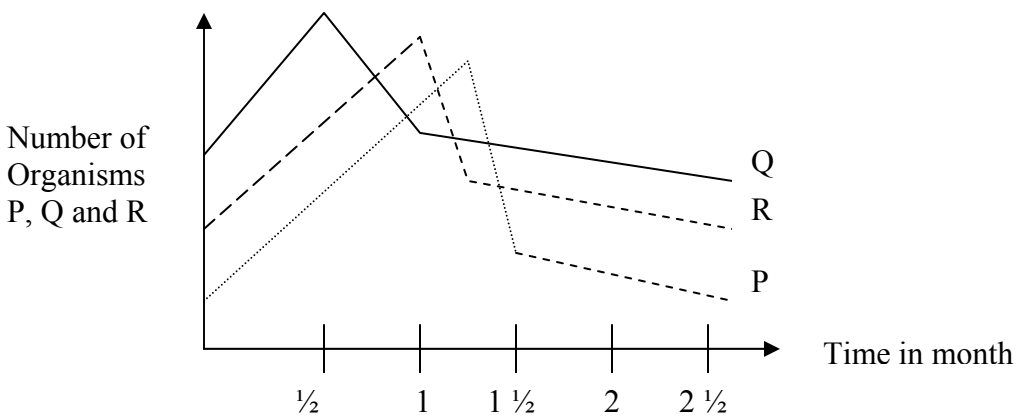
(i) direction of growth of shoots

(ii) direction of growth of roots

b. Which part of the seed provides the young seedling with food as the seedling grows? (1m)

c. State the 3 conditions for a seed to grow into a seedling. (1m)

17. Sarah studied 3 water organisms P, Q and R which she found in a small pond situated near a farm. She counted the number of each of the water organisms found and plotted the graph shown below.



a. Which organism (P, Q, R) is most likely to be a food producer? (1m)

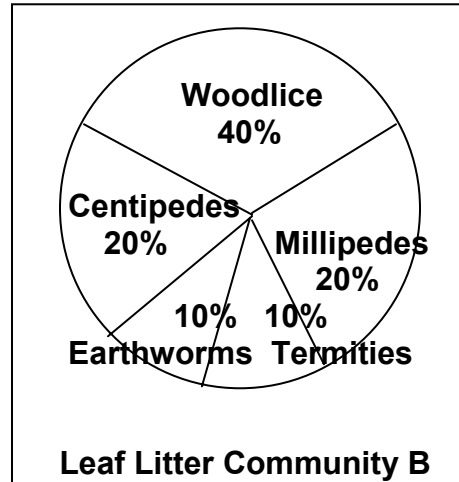
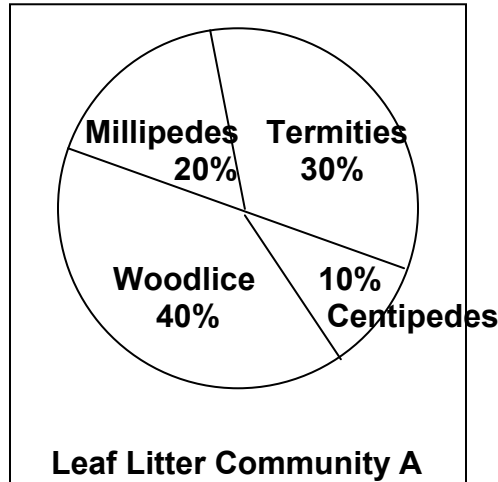
b. From the graph, describe the change in the population of R within the first 2 months. (1m)

c. Sarah found out that the sudden decrease in the population of P was due to some activities carried out by the farmer.

Suggest a possible activity that could have resulted in the sudden decrease in the population of P. (1m)

18. Study the diagrams below.

The two pie charts shows the number of animals in percentages in two leaf litter communities A and B.



Study the statements in the following table carefully and decide whether they are “TRUE”, “FALSE” or “NOT POSSIBLE TO TELL”. Put a tick (✓) in the correct column against each statement. (2m)

	TRUE	FALSE	NOT POSSIBLE TO TELL
(a) In leaf litter community A, there are more woodlice than the combined total of the other groups of animals.			
(b) Leaf litter community A has a higher percentage of termites than the leaf litter community B.			
(c) Leaf litter community B has the same number of millipedes as leaf litter community A			
(d) Leaf litter community B has more groups of animals than leaf litter community A.			

19. Dave carried out an experiment to study the effects of temperature of the surrounding air on the decomposition of vegetables. He recorded the results in the table below.

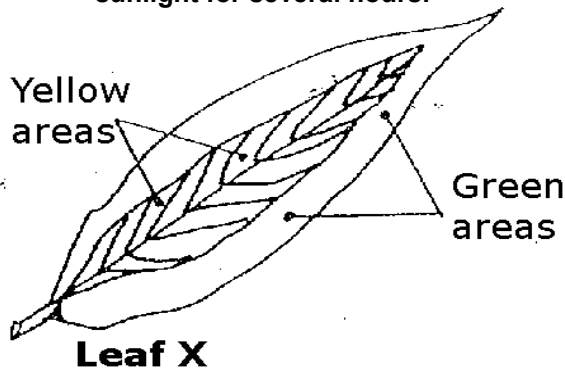
Temperature (°C)	10	15	20	25	30
Approximate time taken for the vegetable to start decomposing (hours)	20	16	12	8	4

- (a) According to the results, what conclusion can be made about the rate of decomposition in relation to the temperatures of the surrounding air? (1m)

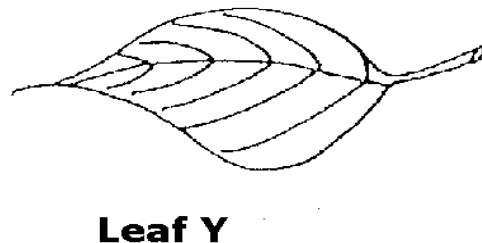
- b. Suggest one way in which vegetables can be kept fresh. (1m)

20. The diagram below shows two leaves.

Leaf X is a variegated leaf with green and yellow areas on the leaf. Leaf X was plucked after receiving sunlight for several hours.



Leaf Y is a totally green leaf plucked from a plant which had been left in a dark room for several days.



- (a) The leaves were submerged in boiling water and then decolourized with alcohol. What would be observed after iodine solution was dropped onto the two leaves? (1m)

Leaf X:

Leaf Y:

(b) Explain the results observed for Leaf Y. (1m)

(c) What do all green plants produce in order to ensure that they continue to live and grow? (1m)

21. The pictures below show some animals that can be found near or in homes.



housefly



rat



mosquito



silverfish



hornet

a) Which two of the above animal are harmful to us in a similar way? (1m)

b) How are the animals mentioned in (a) harmful to us? (1m)

22. A farmer heard that a certain type of ladybird would help to remove aphids in his fruit plantation effectively. He carried out the following experiment to find out which type of ladybirds, P, Q or R is the most effective.

Step 1: Put 25 Ladybird P in the first cage.

Step 2: Put 25 Ladybird Q in the second cage.

Step 3: Put 25 Ladybird R in the third cage.

Step 4: Put 200 aphids in each of the three cages.

After one week, the farmer counted the number of aphids left in each cage.

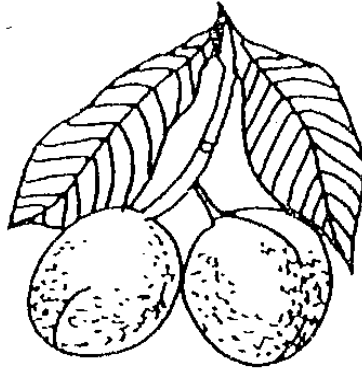
Cage with	Number of aphids left
Ladybird P	99
Ladybird Q	28
Ladybird R	73

- (a) Which ladybird do you think he should use to remove the aphids in his fruit plantation? (1m)
-

- (b) Which ladybird do you think he should use to remove the aphids in his fruit plantation? (1m)
-

- (c) Suggest one way aphids can be harmful to plants. (1m)
-

23. The picture below shows 2 pong pong fruits.



The pong pong fruit is both harmful as well as useful to man. State one example how it can be harmful and useful. (2m)

Harmful:

(1m)

Useful:

(1m)