Rosyth School
Continual Assessment 1 for 2014
STANDARD SCIENCE
Primary 5

Total Marks: 50

Name: _____

Class: Pr 5 _____ Register No. _____ Duration: 1 h 15 min

Date: 3 March 2014 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 in Part I, 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 given in the Part II.

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

*** This booklet consists of 16 pages.**

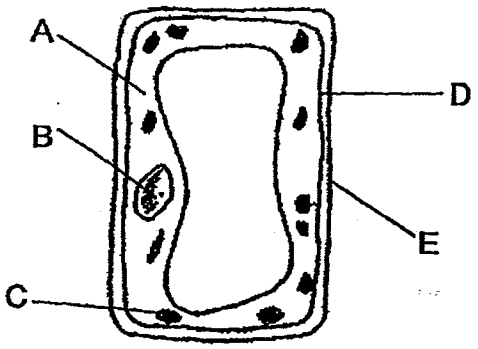
Part I (30 Marks)

For each question from 1 to 15, 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.**

1. Which one of the following is the basic unit of life for a hydrilla plant and a worm respectively?

	Hydrilla Plant	Worm
(1)	Cell	Cell
(2)	Cell Wall	Cell Membrane
(3)	Chloroplast	Cytoplasm
(4)	Nucleus	Nucleus

2. The diagram below shows a cell and some of its parts.



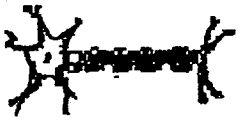
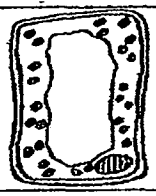
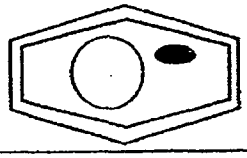
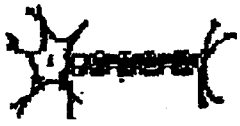
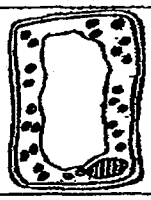
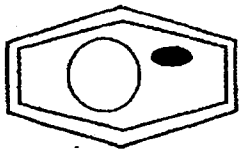
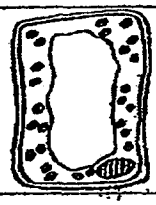
Which of the following headings best matches the cell parts A to E?

	It supports the cell	It contains genetic information	Parts that can be found in animal cells
(1)	E	C	A, B, C
(2)	D	A	A, B, E
(3)	A	C	C, D, E
(4)	E	B	A, B, D

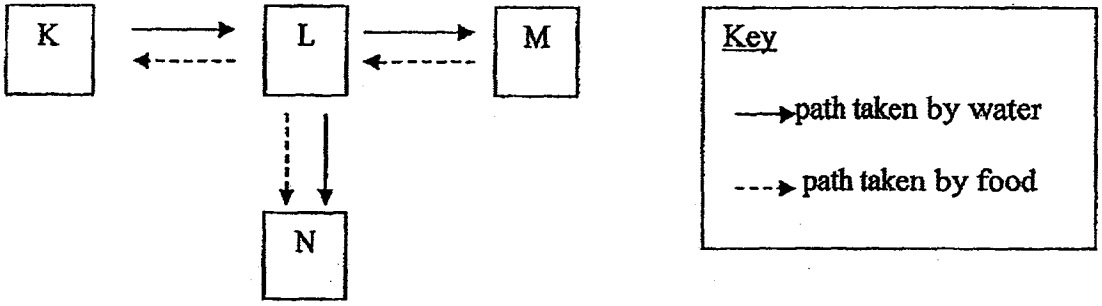
3. Study the table below. A tick (√) represents that the cell has the characteristic.

Characteristic of Cell	Cell P	Cell Q	Cell R
Has cell wall		√	√
Has cytoplasm	√	√	√
Has a nucleus	√	√	√
Has chloroplast		√	
Has cell membrane	√	√	√

Based on the information in the table above, which of the following show examples of cells, P, Q and R?

	Cell P	Cell Q	Cell R
(1)			
(2)			
(3)			
(4)			

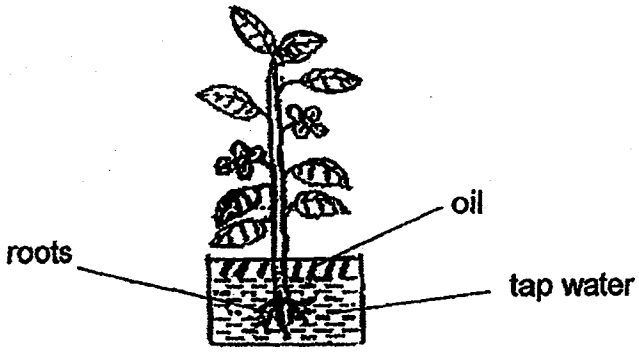
4. The diagram below shows the different paths taken by water and food in a plant Z. K, L, M and N represent the various parts of a plant.



Which one of the following best represents parts K, L, M and N?

	K	L	M	N
(1)	roots	leaves	flowers	stem
(2)	leaves	flowers	stem	roots
(3)	roots	stem	leaves	fruits
(4)	leaves	roots	stem	flowers

5. Pei Pei left a small plant in a beaker of water. After a day, she observed that there is less water in the beaker.



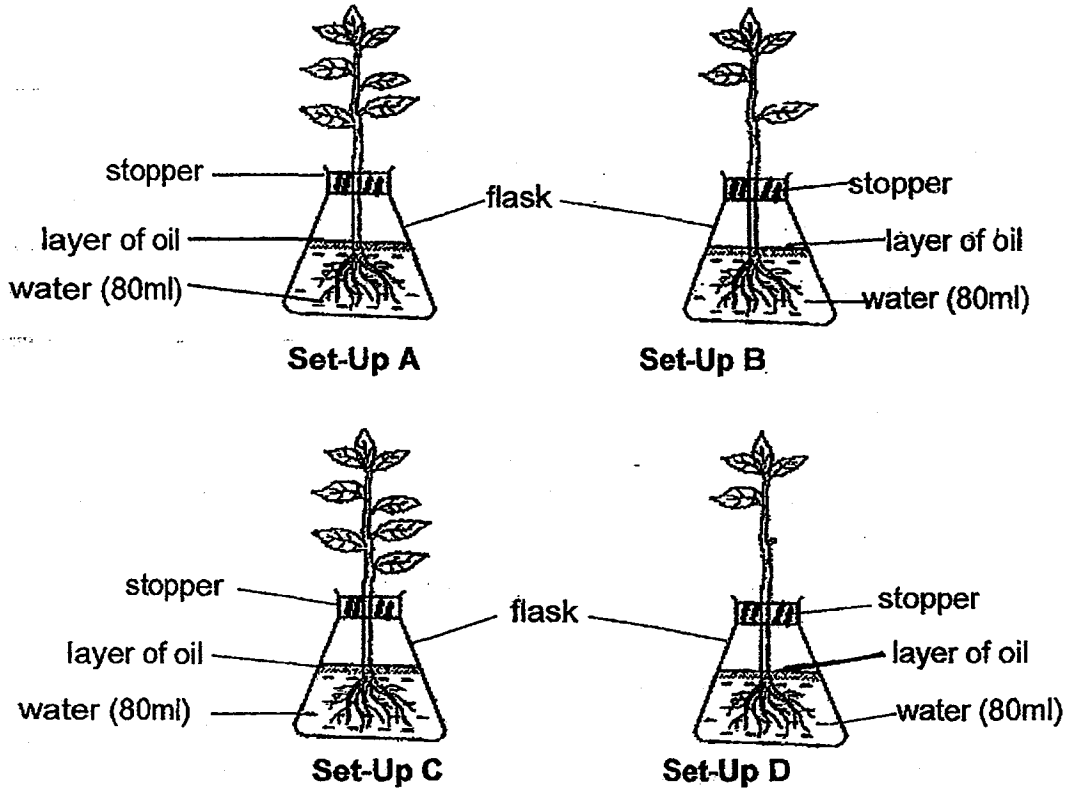
What can be the aim of her experiment?

A: To find out if roots are needed for plants to take up water
B: To find out if plants take in water.
C: To find out if there are water-carrying tubes in a plant.

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

Read the following and answer questions 6 and 7.

Halim prepared the following set-ups to do an experiment.



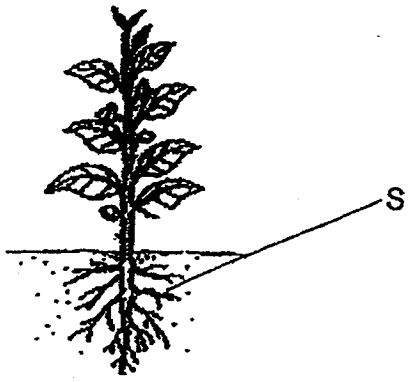
6. Arrange the four set-ups A, B, C and D in ascending order in terms of the amount of water left at the end of the experiment.

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

7. What other variable must he keep constant if he wants to find out how the number of leaves affects the amount of water taken in by the plant?

(1) The type of oil.
(2) The size of the flask.
(3) The amount of water in the beaker.
(4) The temperature of surrounding air.

8. Below is a diagram of a plant.



What is the function of part S of the plant?

A: To take in water for the plant.
B: To anchor the plant firmly to the ground.
C: To support the leaves in order to get as much sunlight.
D: To transport food from the leaves to the rest of the plant.

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

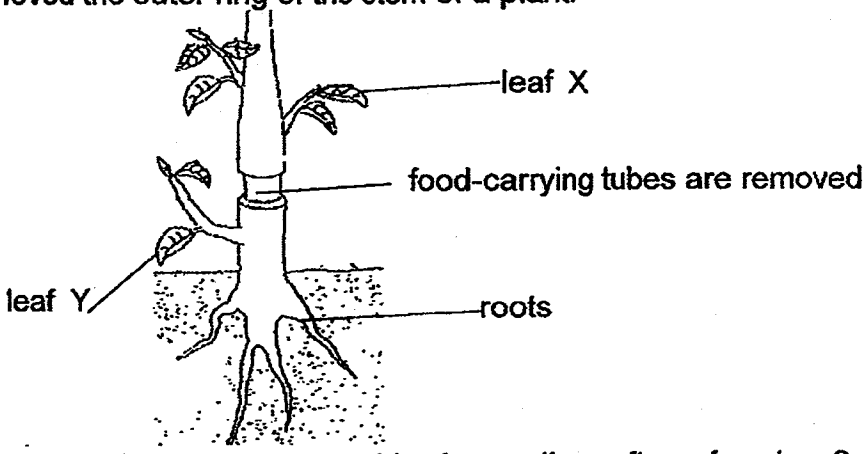
9. Regan wanted to find out if the amount of water given to the plant affects its growth.

Set-up	Amount of Water / cm^3 per day	Height of plant at beginning of experiment	Height of plant at the end of experiment
A	500	1m	1.5m
B	1000	1.2m	1.9m
C	1500	1.4m	2.1m

From his results, what can he conclude?

(1) The amount of water does not affect the growth of the plant.
(2) The lesser the amount of water, the lesser the growth of the plant.
(3) The more the amount of water, the greater the growth of the plant.
(4) The amount of water affects the growth of the plant to a certain extent.

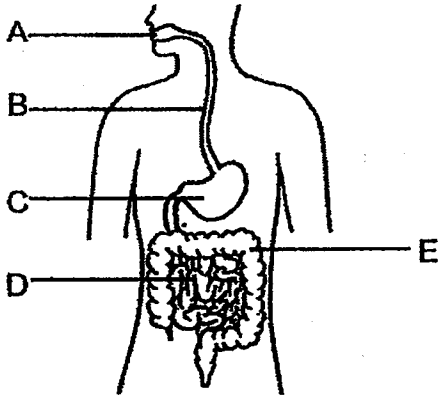
10. Henry removed the outer ring of the stem of a plant.



Which of the following correctly state his observations after a few days?

	X	Y
(1)	Remained green	Remained green
(2)	Turned yellow	Remained green
(3)	Turned yellow	Turned yellow
(4)	Remained green	Turned yellow

11. The diagram below shows the human digestive system.

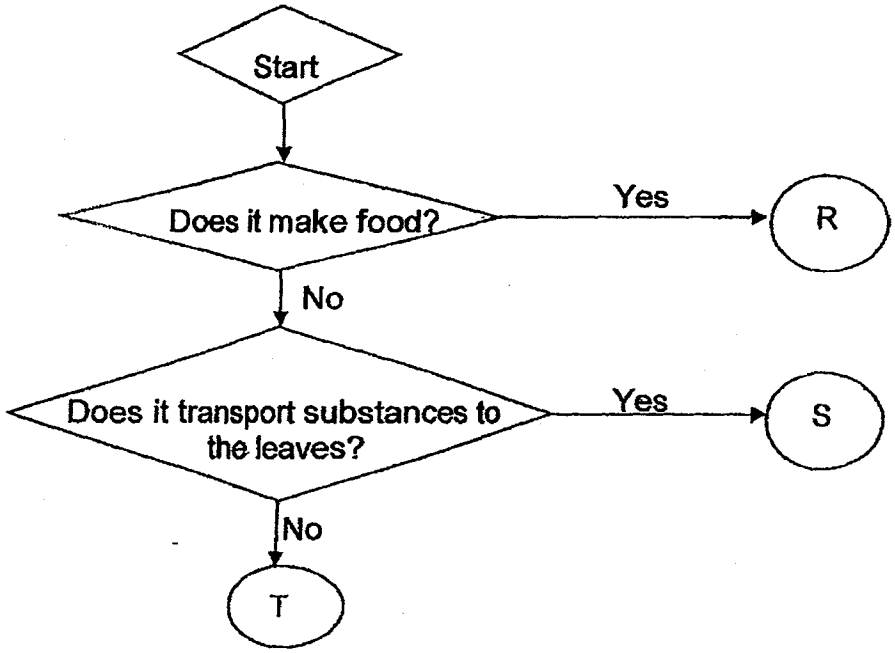


Which one of the following statements is correct about the digestive system?

A: Digestion does not take place at B.
B: Digestion begins at A and ends at E.
C: Digestive juices are found at A, C and D.
D: Digested food enters the blood stream at D.

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

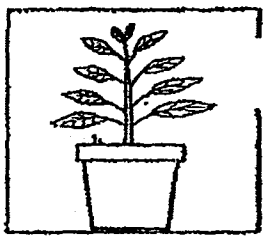
12. The flowchart below describes the functions of different parts of a plant.



Which of the following represents plant parts R, S and T?

	R	S	T
(1)	leaves	roots	stem
(2)	leaves	stem	roots
(3)	stem	leaves	stem
(4)	roots	stem	leaves

13. James put a plant inside a black box with a hole. He placed the set-up next to the window and watered the plant daily.



Day One

Day Ten

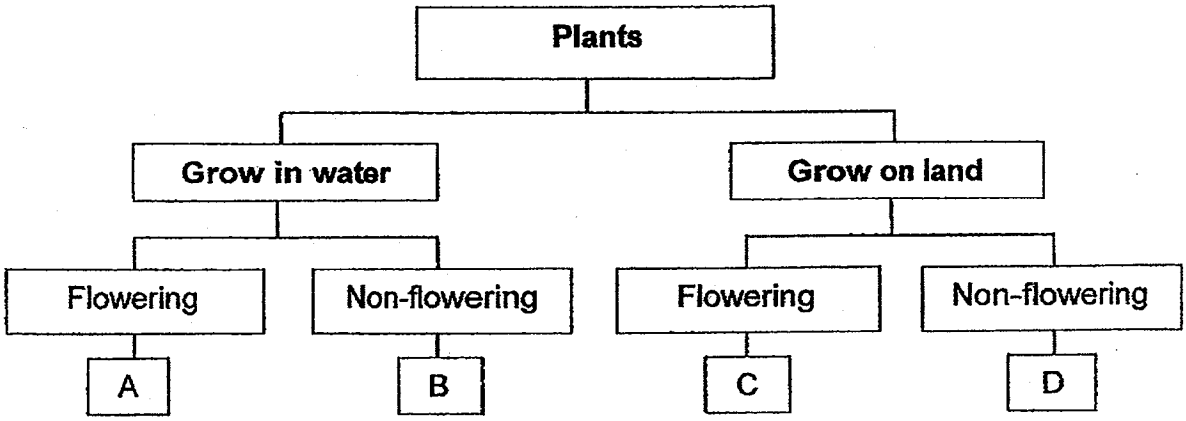
Which of the following characteristic can be used to explain the observation above?

(1) All living things die.
(2) All living things can grow.
(3) All living things respond to changes.
(4) All living things need food, water and air.

14. The following table shows some characteristics of two plants M and N.

	Plant M	Plant N
Does it grow on land?	Yes	No
Does it bear fruit?	Yes	No

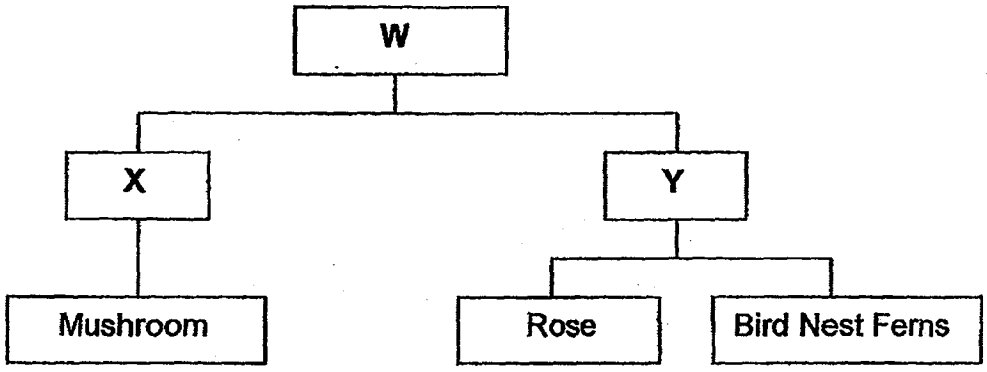
Use the classification chart to find Plant M and N.



Which group A, B, C and D do Plant M and Plant N belong to?

	Plant M	Plant N
(1)	A	C
(2)	A	D
(3)	C	B
(4)	D	C

15. Study the classification chart below.



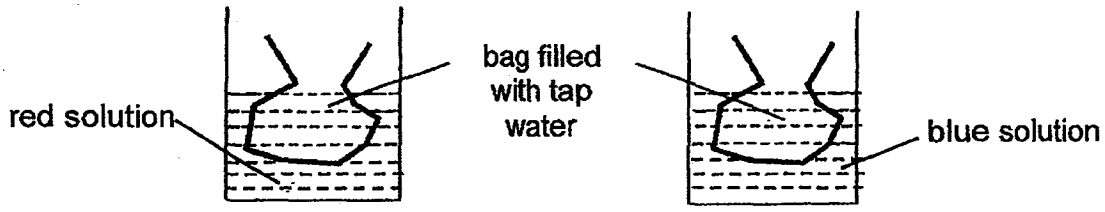
Which of the following are suitable headings for W, X, and ?

	W	X	Y Y
(1)	Plants	Non-Flowering Plants	Flowering Plants
(2)	Plants	Cannot make food	Can make food
(3)	Living Things	Cannot make food	Can make food
(4)	Living Things	Non-Flowering Plants	Flowering Plants

Part II (20 Marks)

For questions 16 to 23, write your answers in this booklet.

16. The diagram below shows two set-ups.



Set-up A Set-up B

XinYi put two similar bags made of material Q into coloured solutions as shown in the above set-ups. After ten minutes, she recorded her observation in the table below.

Set-up	Colour of tap water
A	Remains the same
B	Blue

(a) Which part of the cell represent material Q? Explain your answer. (1m)

_____

_____

Refer to the pictures below. The dog has increased in size after a year.

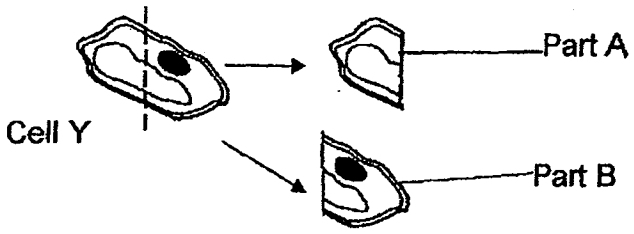
At first After a year

(b) State the change in the cells that has caused the dog to increase in size. (1m)

_____

_____

17. Francis cut a plant cell Y into two parts, A and B as shown in the diagram below.



He observed that one part of the cell shrunk and died but the other part continued to grow.

(a) Which part, A or B continued to grow? Explain your answer. (1m)

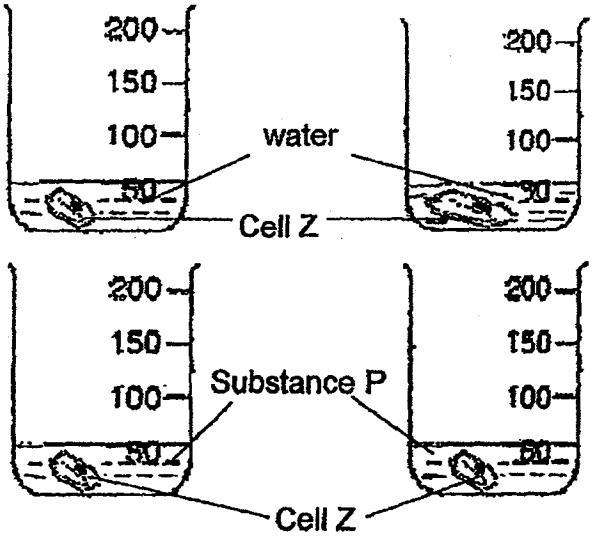
_____

_____

(b) State a part of the plant where Cell Y is likely to be found. Give a reason for your answer. (1m)

_____

_____

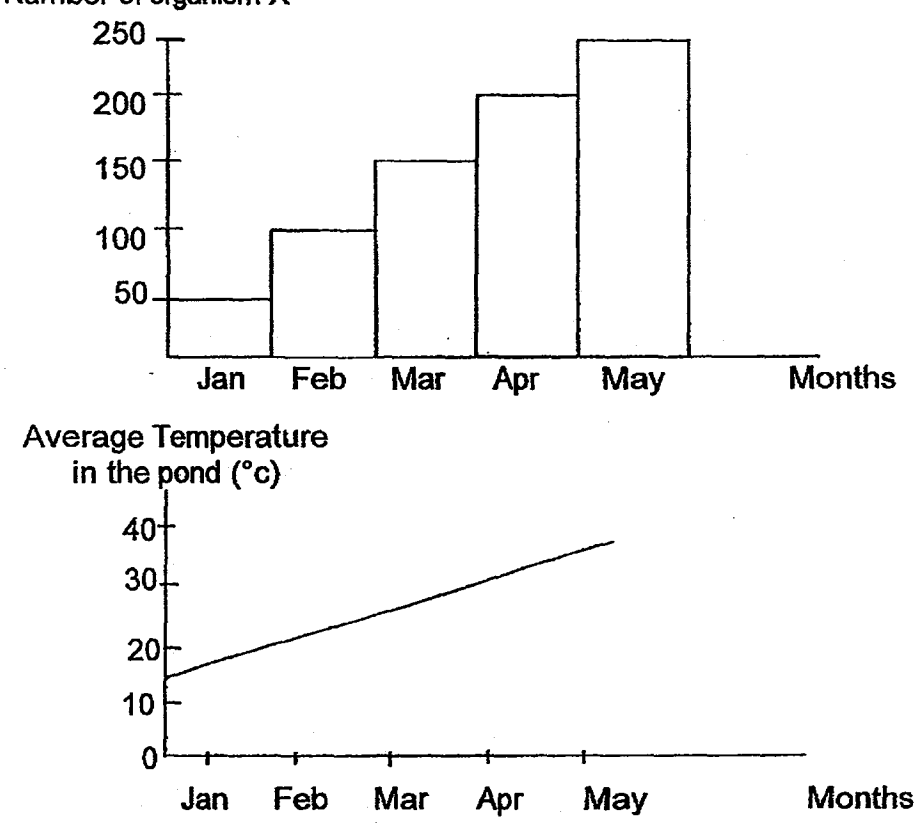


(c) Cell Z was placed in a beaker of water, the cell became bigger. However when cell Z was placed in substance P, it did not become bigger. What is a possible reason the cell did not change in size when placed in substance P? (1m)

_____

_____

18. The bar graph below shows the number of organism X reproduced in a pond over a period of time. The line graph shows the average temperature in the pond.



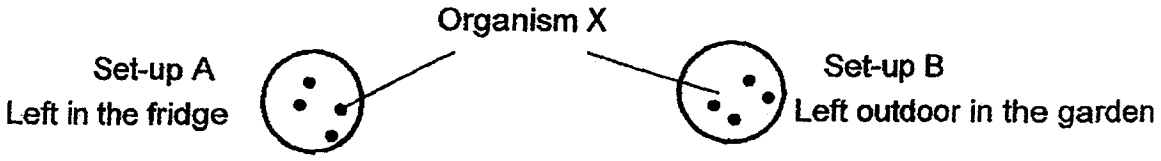
(a) Based on the graphs shown above, what is the relationship between the number of organism X reproduced and the average temperature in the pond? (1m)

_____

_____

Question 18(b) and 18(c) continues on page 13

Penny put some organism X in two similar petri dish as shown in the diagram below. She counted the number of organism X at the end of the experiment.



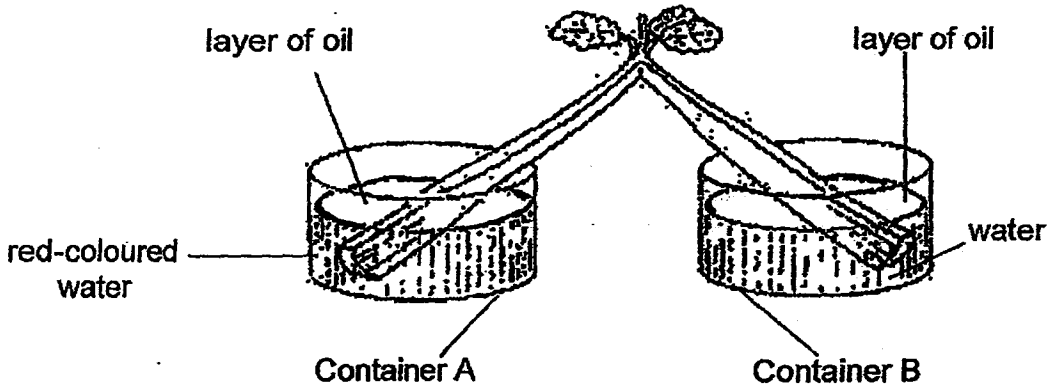
(b) What do you think is the aim of her experiment? (1m)

_____

(c) Name a variable that she must keep constant in the above set-up. (1m)

_____

19. The diagram below shows a plant.



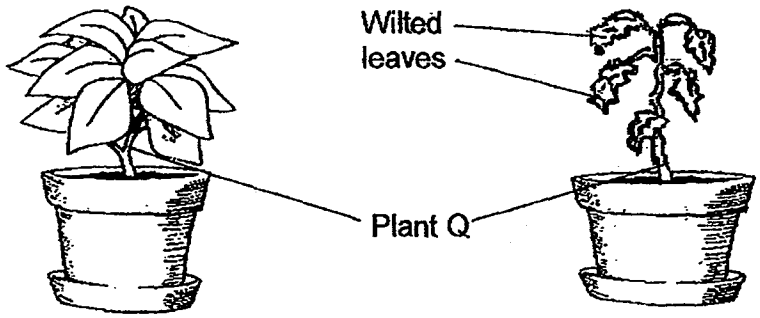
(a) Halim set up his experiment by placing the stem of a plant in two containers. He left the set-ups in an open area for a day. What would be the results observed for the leaves? (1m)

_____

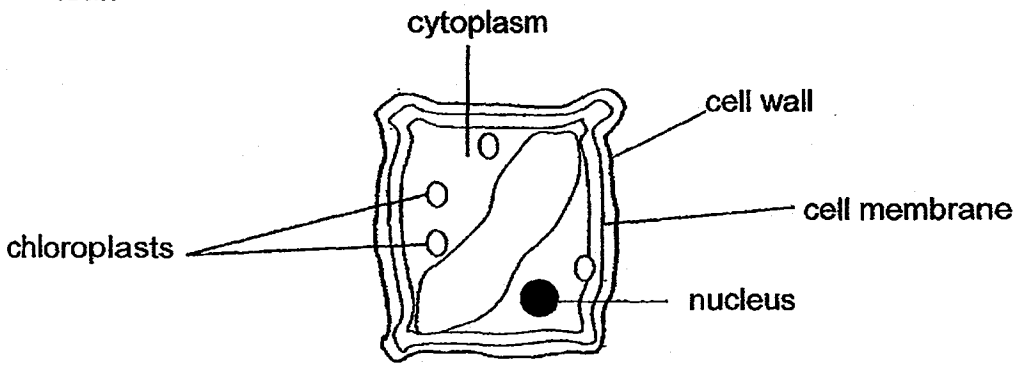
(b) What would Halim do to show that the stem takes in water? (1m)

_____

20. The diagram below shows Plant Q at the start of the experiment and after four days.



Alicia took a section of the leaf from Plant Q at the start of the experiment and examined it under a microscope. The diagram below shows one cell from the leaf.



(a) What difference would she observe in the cell on Day Four compared to Day One? (1m)

_____

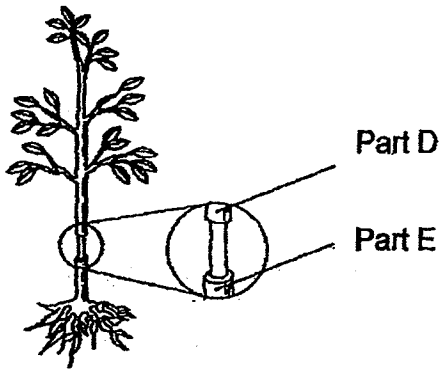
_____

(b) How is the function of the nucleus similar to the function of a teacher in a class? (1m)

_____

_____

21. Wei Ming cut a cross- section of the stem from the plant in the set-up below.



(a) He measured and recorded the thickness of the stem in the table below. Based on his data in the table, write D or E in the space provided to show the correct part of the plant he had observed. (1m)

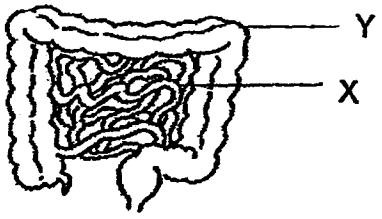
Part	Day One	Day Four	Day Eight
	15cm	12cm	10cm
	16cm	18cm	20cm

(b) Explain your answer in (a). (1m)

_____

_____

22. The diagram below shows two parts of the digestive system.



(a) State one similarity between the function of X and Y. (1m)

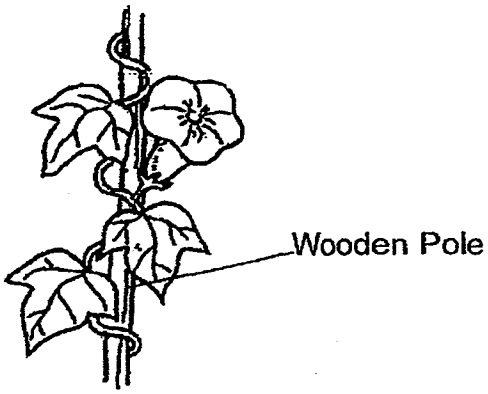
_____

(b) Describe the functions of part X. (2m)

_____

_____

23. Mickey make some observations of the Plant W below.



(a) Explain why the plant needs the wooden pole in the above diagram. (2m)

_____

_____

Mickey classified three other plants, A, B and C as shown in the table below.

	Plants		
Characteristics	A	B	C
▪ Grow on land	Yes	Yes	Yes
▪ Has fruits	No	Yes	Yes
▪ Has strong stem	No	No	Yes

(b) Which group can he classify Plant W in the table? Explain your answer. (2m)

_____

_____

End of Paper

EXAM PAPER 2014
SCHOOL : ROSYTH
PRIMARY : P5
SUBJECT : SCIENCE
TERM : CA1

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

16)a)Cell membrane as it controls what enters or exits the cell.
b)The number of cells increased/mulitplied.

17)a)Part B, it has the nucleus to replace damaged cells.
b)Root. Cell Y does not have chloroplast and thus if found in parts that does not contain chloroplast.
c)The cell membrane blocked out the substance P and did not allow it to enter Cell Z.

18)a)The higher the Temperature of the pond, the more amount Number of organism X.
b)To see if the temperature of its surroundings will affect the number of Organism X.
c)The same number of organism X at the start of the experiment.

19)a)The leaves would turn red.
b)Measure the amount of water left at the end of the experiment compared to the start.

20)a)The cytoplasm has struck.
b)The nucleus controls all activities in the cells like what the teacher instructs what the pupils do in the class.

21)a)E, D

b)He would observe Part D would be swollen with food as food cannot be transported downwards and Part E would be smaller as food would be used up.

22)a)Both allows subs substance to be absorbed.

b)X compete digestion of food and absorb of digested food.

23)a)The plant has weak stem and need the pole as a support to hold itself upright to obtain more sunlight.

b)B. As the plant has a weak stem, has fruit and it grow on land, thus it matches all of the statements in B.