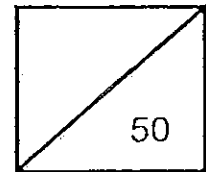




Rosyth School  
Continual Assessment 1 for 2013  
STANDARD SCIENCE  
Primary 5



Name: \_\_\_\_\_

Total  
Marks:

Class: Pr 5 \_\_\_\_\_

Register No. \_\_\_\_\_

Duration: 1 h 15 min

Date: 4 March 2013

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 19 pages.

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**Part I (30 Marks)**

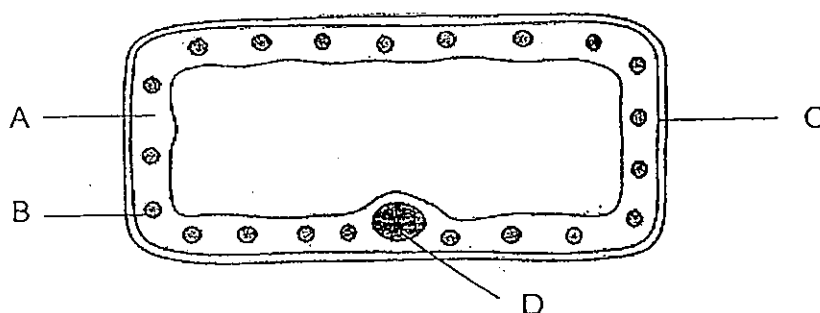
For each question from 1 to 15, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet.

1. Which of the following statements about cells are true?

- A: A cell is a basic unit of life.
- B: All living things are made up of many cells.
- C: Cheek cells cannot be seen by the naked eye.
- D: All cells contain a nucleus, cell membrane and chloroplast.

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

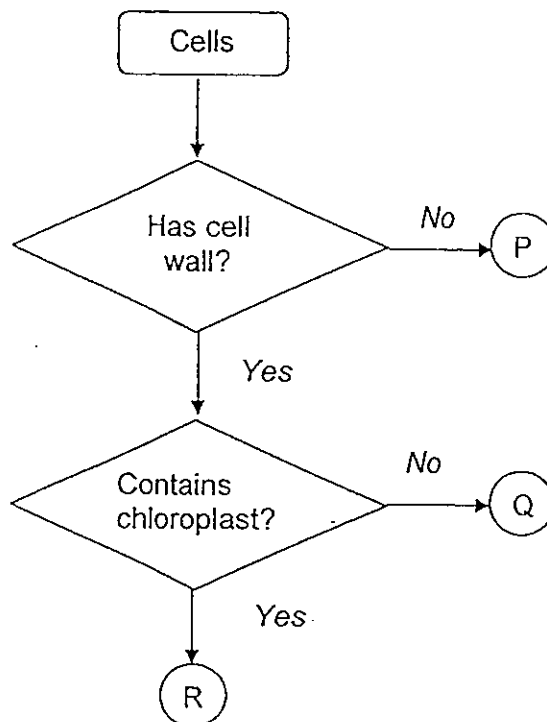
2. The diagram below shows a cell and some of its cell structures.



Which part of the cell is its function correctly described?

- (1) Part B controls all activities in the cell.
- (2) Part D has green pigment chlorophyll to help make food.
- (3) Part A keeps the cell firm which helps the plant to stand upright.
- (4) Part C allows only certain substances to enter and leave the cell.

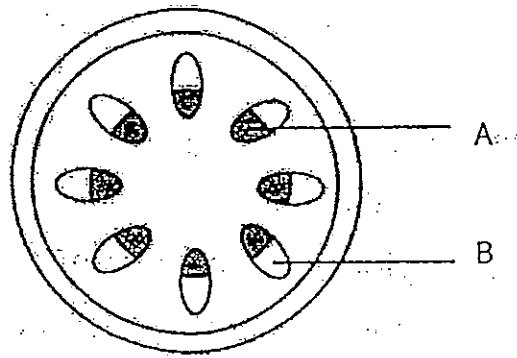
3. Study the flowchart below.



Which of the following classification is correct?

	P	Q	R
(1)	cheek cell	leaf cell	root cell
(2)	root cell	cheek cell	leaf cell onion
(3)	cheek cell	root cell	leaf cell
(4)	root cell	cheek cell	leaf cell

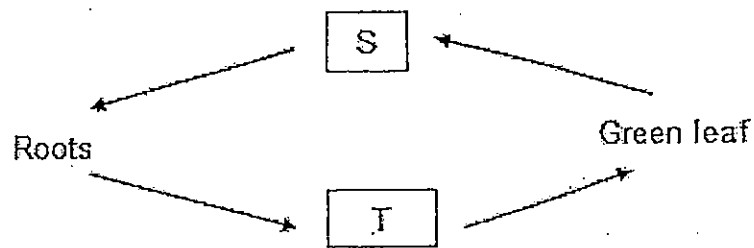
4. The diagram below shows the cross section of a stem.



Which substances are transported by parts A and B of the stem respectively?

	A	B
(1)	Food	Water and dissolved mineral salts
(2)	Water and dissolved mineral salts	Food
(3)	Food and carbon dioxide	Water and oxygen
(4)	Water and oxygen	Food and carbon dioxide

5. Study the diagram below.



Which of the following correctly represents S and T?

	S	T
(1)	Water-carrying tube	Water-carrying tube
(2)	Food-carrying tube	Water-carrying tube
(3)	Water-carrying tube	Food-carrying tube
(4)	Food-carrying tube	Food-carrying tube

6. A small plant is put into a beaker of red-coloured water. After a day, it was observed that the plant had turned red. What does this show?

- A The stem carries the water to other parts of the plant.
- B The water from the roots is carried all the way to the leaves.
- C The water-carrying tubes are present in the roots, stem and leaves.
- D The leaves are making food and transporting it to other parts of the plant

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

7. Why did the plant shown in the diagram below died after four days?



- (1) The roots cannot take in water
- (2) The leaves cannot trap the sunlight to make food.
- (3) The stem cannot hold the plant firmly to the ground.
- (4) The stem cannot transport the water from the roots to other parts of the plant.

8. Janice prepared an experiment with a flowering plant in four different set-ups containing water as shown in the table below.

Set-Up	Location of flowering plant	Presence of roots	Temperature of water
Set-up T	In Sunlight	Present	30°C
Set-up U	In Sunlight	Absent	30°C
Set-up V	In a dark cupboard	Present	30°C
Set-up W	In a dark cupboard	Absent	30°C

What is/are the possible aims of her experiment?

- A: To find out if the location of the flowering plant will affect the amount of water taken in.  
B: To find out if the presence of roots will affect the amount of water taken in.  
C: To find out if the temperature of water will affect the amount of water taken in.

(1) A only

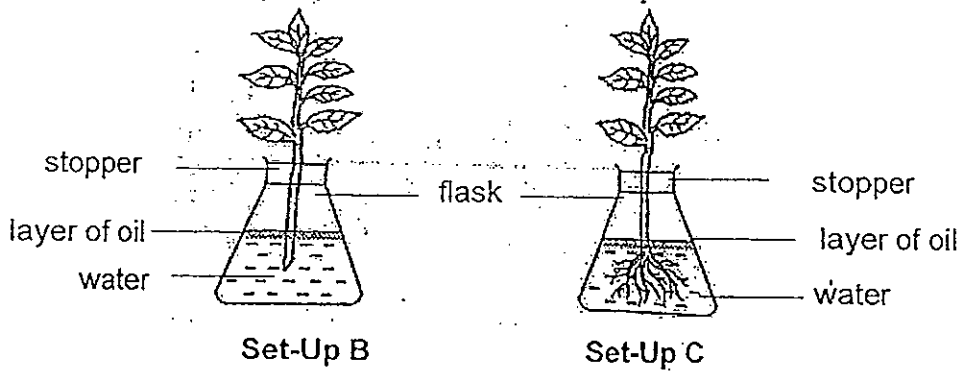
(3) A and B only

(2) B only

(4) A, B and C only.

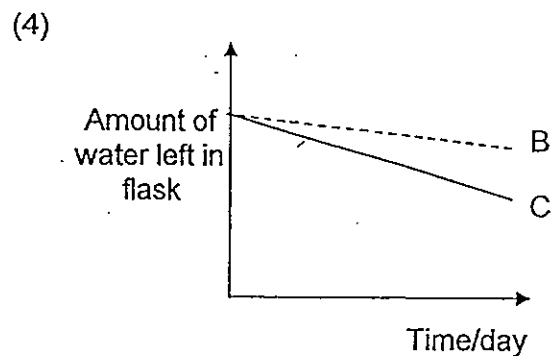
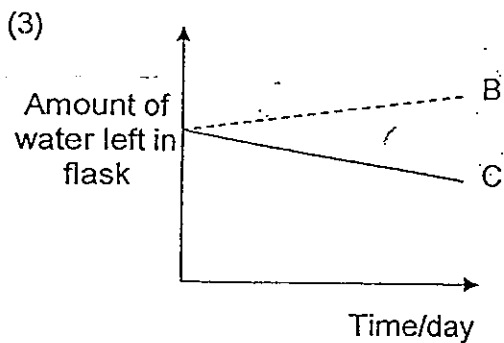
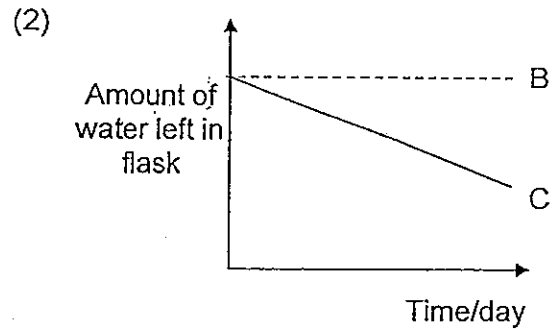
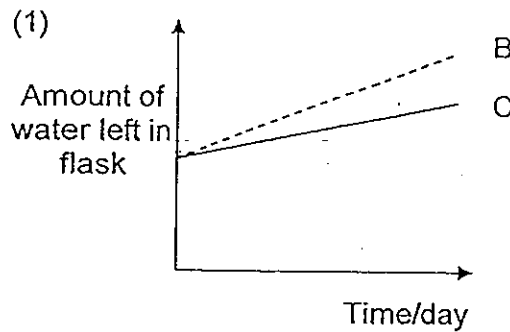
Read the following and answer questions 9 and 10.

Jerome wanted to find out if the presence of roots would affect the amount of water absorbed by a plant.



He recorded the amount of water in each set-up for five days. Based on the results, he plotted a line graph to represent his findings.

9. Which of the following graph is likely to represent the result of the experiment?



10. What could Jerome conclude from his experiment?

- (1) The plant with roots took in less water.
- (2) Water is transported through the stem.
- (3) The plant with roots took in more water.
- (4) Roots anchor the plants firmly to the ground.

11. Four pupils each made a statement about the functions of various human body systems.

Annie: It supports the body.

Bala: It gives out carbon dioxide.

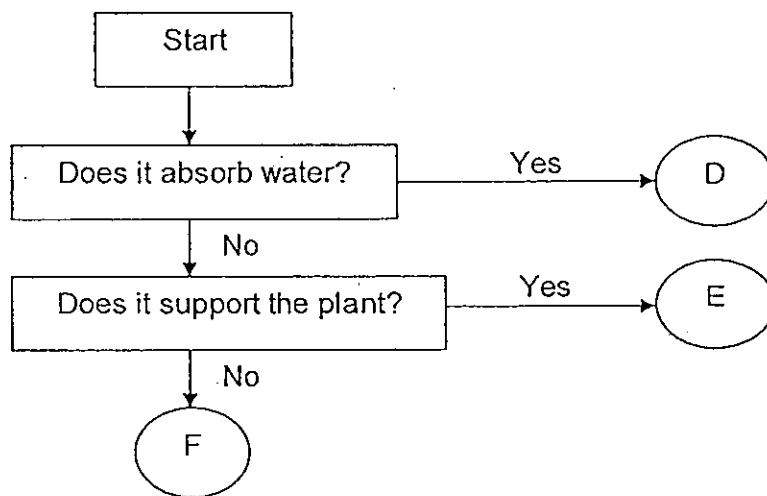
Cody: It protects the delicate organs in the body

David: It transports waste materials away from different parts of the body.

Which two pupils have made statements about the same human system?.

- (1) Annie and Bala
- (2) Annie and Cody
- (3) Bala and David
- (4) Cody and David

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



Which part of the following represents plant parts <sup>A E F</sup> ~~A, B and C~~?

	-Part D	Part E	Part F
(1)	<del>Leaves</del> Roots	<del>Roots</del> Leaves	Stem
(2)	Leaves	Stem	Roots
(3)	Roots	Leaves	Stem
(4)	Roots	Stem	Leaves



13. Sheryl grew two pots of balsam plants. Sheryl wanted to find out how the type of soil would affect the growth of the plants. She felt that there were other variables in her set-up that could affect the growth of the plants.

Which of the following variables is classified correctly?

(1)

Variable(s) that must be kept the same	Variable(s) that can be changed
Type of soil	Location of plants
Amount of water	

(2)

Variable(s) that must be kept the same	Variable(s) that can be changed
Amount of soil	Location of plants
Amount of water	Type of soil

(3)

Variable(s) that must be kept the same	Variable(s) that can be changed
Amount of soil	Type of soil
Amount of water	

(4)

Variable(s) that must be kept the same	Variable(s) that can be changed
Type of soil	Location of plants
Amount of soil	

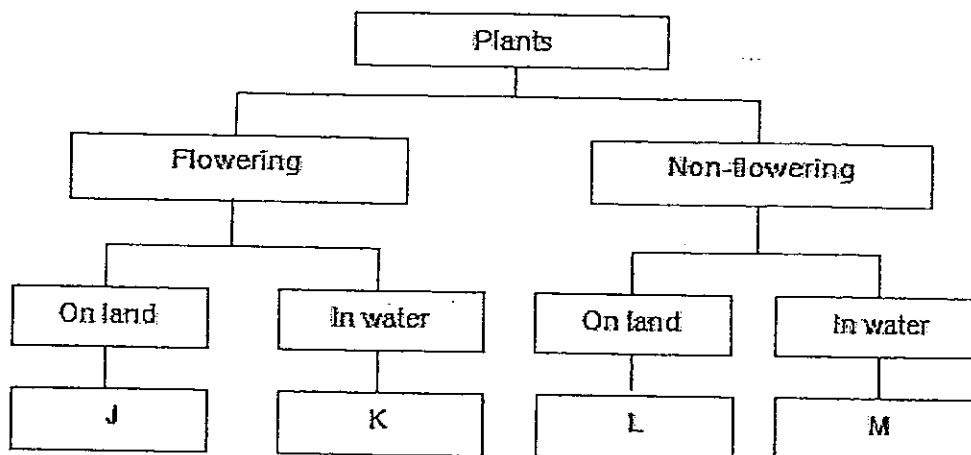
14. Jane recorded some observations of mushroom and fern in a table as shown below.

Characteristics		Mushroom	Bird Nest Fern
W	Is it able to bear fruits?	No	No
X	Does it make its own food?	No	Yes
Y	Is it able to respond to changes?	Yes	No
Z	Does it need sunlight to grow well?	Yes	Yes

However, Jane's teacher told her that only some of her recordings were correct. Which of the above characteristics were correctly recorded?

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

15. The classification chart below shows the characteristics of 4 plants J, K, L and M.



Another table was set up to classify the 4 plants. A (✓) tick was used to represent the presence of a characteristic of the plant. Which table below shows the characteristics of plants correctly?

(1)

Characteristics	Plant			
	J	K	L	M
It bears fruits.		✓	✓	
It grows on land.	✓			✓

(2)

Characteristics	Plant			
	J	K	L	M
It bears fruits.	✓	✓		
It grows on land.	✓		✓	

(3)

Characteristics	Plant			
	J	K	L	M
It bears fruits.		✓	✓	
It grows on land.	✓		✓	

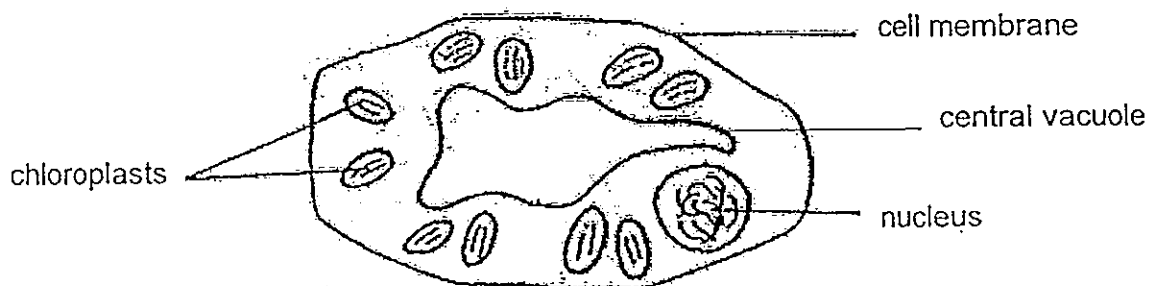
(4)

Characteristics	Plant			
	J	K	L	M
It bears fruits.		✓	✓	✓
It grows on land.	✓			

**Part II (20 Marks)**

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

16. Study the cell taken from an organism below. A part of the cell has been removed.



(a) Which part of the cell has been removed? (1m)

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(b) Explain what will happen to the organism if all the chloroplasts were removed after two days. (1m)

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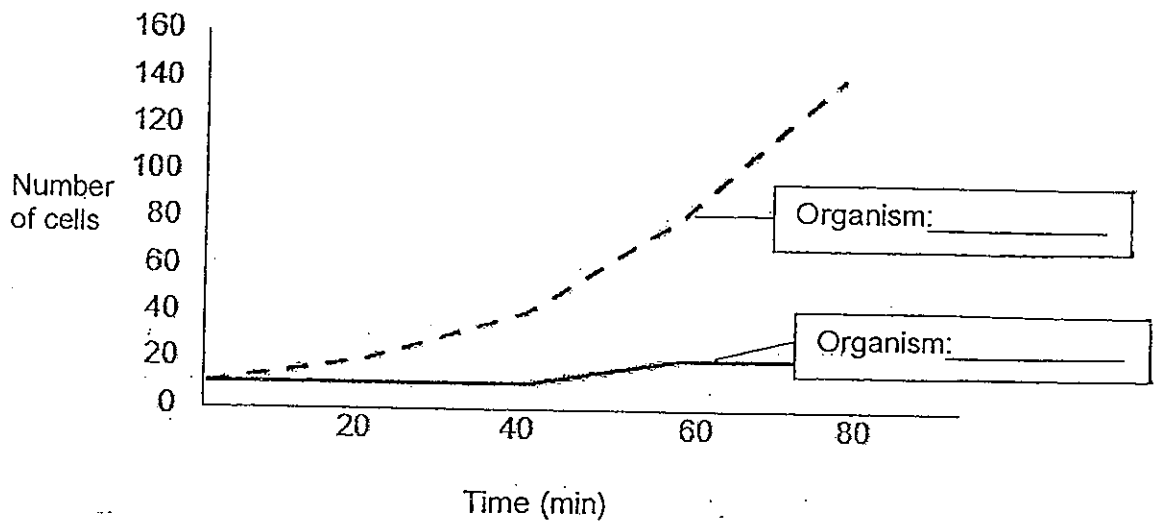
17. Rozana wanted to study the yeast cell and bacteria cells for her Science project.

She placed some yeast and bacteria cells on two separate petri dishes. She counted the number of yeast and bacteria cells under a microscope and recorded the numbers every ~~two~~ <sup>twenty</sup> minutes. She recorded the numbers in the table below.

Time (min)	0	20	40	60	80
No. of yeast cells	10	10	10	20	20
No. of bacteria cells	10	20	40	80	140

(a) Identify the organism in the graph.

(1m)



(b) Which type of cells reproduce at a faster rate?

Based on the table, give a reason for your choice.

(1m)

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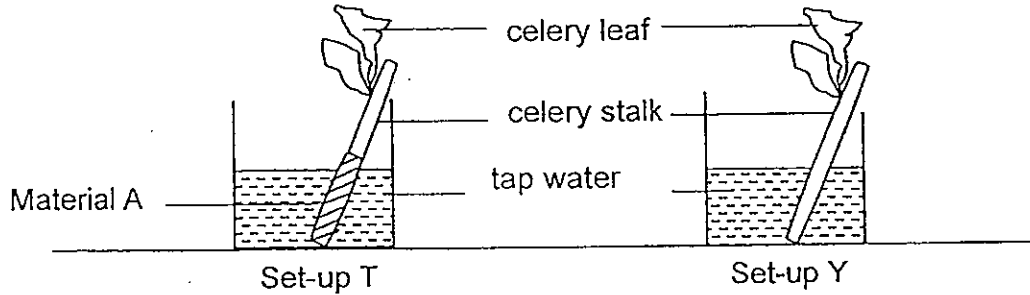
(c) Why do single cell organisms divide?

(1m)

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18. Dolly set up an experiment as shown below.

The base of the celery stalk in Set-up T was wrapped with a material A before placing it into the beaker of tap water. The celery stalk in Set-up Y was also placed in a beaker of tap water.



	Set-up T	Set-up Y
Observations	Leaves were yellowish and wilted	Leaves were green and firm

(a) Explain why the leaves in Set-Up T turned yellowish and wilted? (1m)

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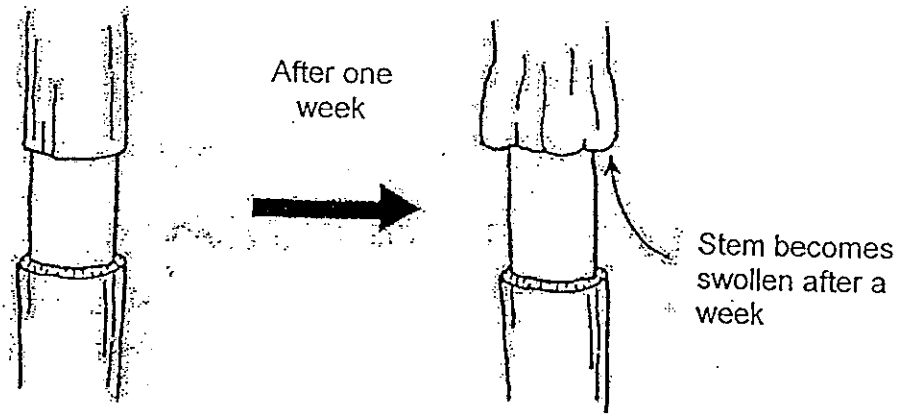
(b) Explain how ~~water is~~ transported in the celery? (1m)

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19. Harris wanted to carry out an experiment on a plant. He removed the outer ring of the stem from a plant as shown below. One week later, the stem above the cut-out area became swollen as shown below.



- (a) Explain why the stem above the cut out area became swollen. (1m)

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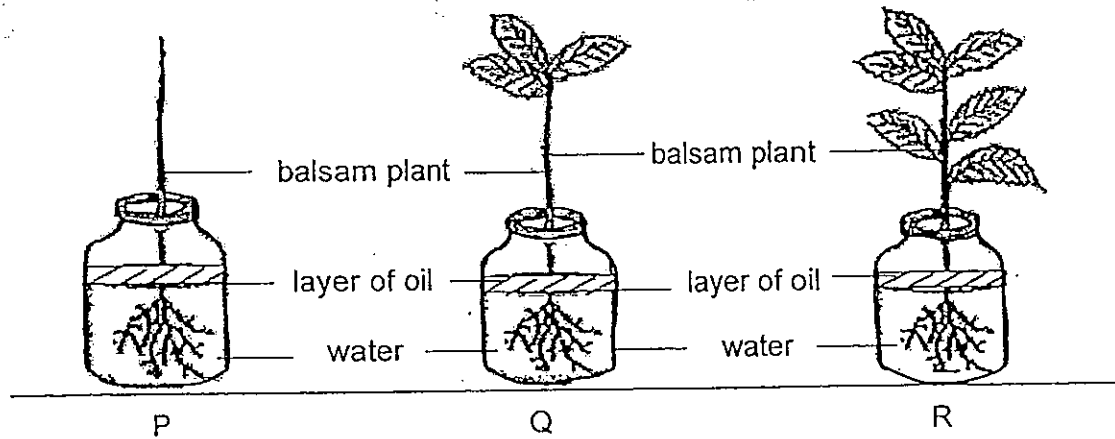
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- (b) After sometime, Harris observed that the roots began to die. Explain why. (1m)

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20. Ronald placed three similar balsam plants in 3 similar jars with water. He cut off all the leaves from the plant in jar P and some leaves from the plant in jar Q as shown in the diagram below.



After two days, he measured the amount of water left in each beaker. His results are shown below.

Set-Up	Number of leaves	Amount of water at the start of experiment/ml	Amount of water at the end of experiment/ml
P	0	500	480
Q	3	500	400
R	6	500	360

- (a) What was the aim of Ronald's experiment? (1m)

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- (b) From his results, what is the relationship between the number of leaves the amount of water taken in by the plant? (1m)

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21. Isaac wants to conduct an experiment to find out whether the balsam or spinach plant takes in more water. He prepared two beakers of water and he then placed the balsam plant and a spinach plant in each beaker. He added a layer of oil and left the beakers for three days.

(a) Which of the following variables must they keep the same or change to make the experiment a fair one? (2m)

Put a tick in the correct boxes.

Variables	Keep the same	Change
The temperature of the water		
The type of plant		
The amount of water		
The location of the experiment		

After three days, Isaac concluded that the spinach takes in more water.

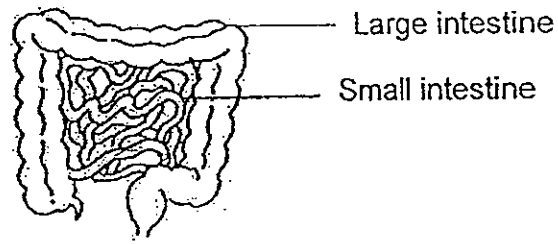
(b) The water level in both beakers decreased after three days. Why did the water level decrease? (1m)

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



(a) What happens in the small intestine during digestion? (1m)

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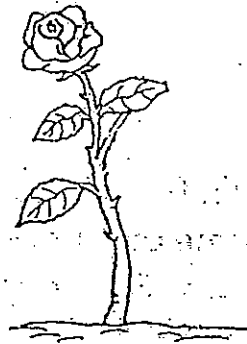
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(b) Jim had diarrhea and passed out watery stools. What could have happened in his large intestine to cause the watery stools? (1m)

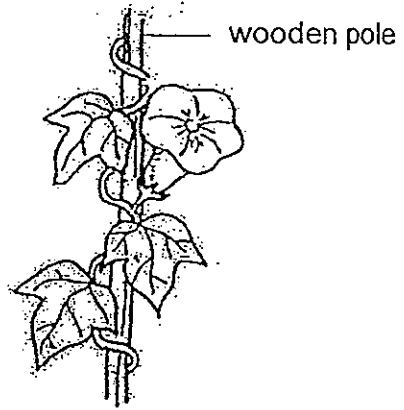
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23. Siti went for a learning journey to the Singapore Botanical Gardens to study the plants there. Her teacher told her to examine Plant S and T carefully.



Plant S



Plant T

Referring to the diagram only, identify one similarity and one difference between plant S and T.

(a) Similarity: (1m)

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(b) Difference: (1m)

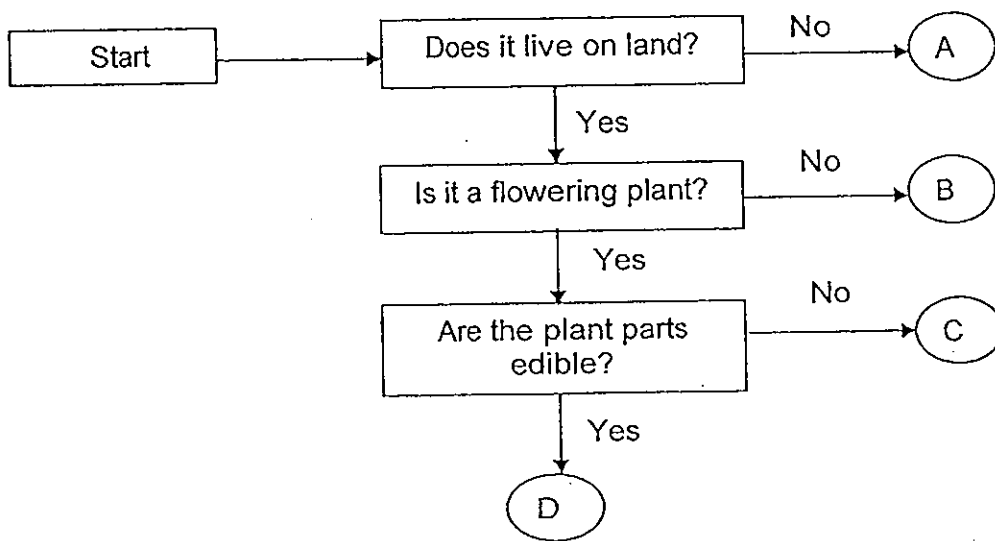
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(c) Siti made other observations of the plants she saw and recorded them in the table below.

No.	Description	Letter
1.	A plant that reproduces by spores.	
2.	Chrysanthemum is used for brewing tea.	
3.	Duckweed has roots just below the water surface.	
4.	The pong pong fruit is used as rat poison as it is poisonous.	

Using the flow chart, which letter best represents the things listed below. (2m)



End of Paper

# ANSWER SHEET

**EXAM PAPER 2013**

**SCHOOL : ROSYTH**

**SUBJECT : PRIMARY 5 SCIENCE**

**TERM : CA1**

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

16)a)Cell wall.

b)Without the chloroplast, the plant will not be able to trap sunlight.

17)a)bateria cell

Yeast cell

b)Bateria cell, the number of yeast cells doubled after sixty minutes.

c)To reproduce move cells to be extinct.

18)a)Material A did not allow water to pass through thus the celery was notable to take in water causing the leaves to turn yellow and wilt.

b)Water is absorbed and passes through the water-carrying tube to the stem. The water carrying tubes in the stem transports to the leaves.

19)a)The leaf can't transport the food to the roots.

b)The root can't receive the food from the leaves dying out of food.

20)a)To find out number will affect the amount of water absorbed by the plant.

b)As the number of leaves increases, the amount of water taken in by plant increase.

21)a) ✓

✓

✓

✓

b)As the plant roots took in the water for the plant to survive.

22)a)Digestion completed and digested food is absorbed through the blood vessels.

b)The large intestine did not absorb enough water from the undigested food.

23)a)Both are flowering plant.

b)Plant S have strong stem while plant T has weak stem.

c)1)B

2)D

3)A

4)C