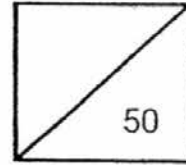




Rosyth School
Continual Assessment 1 for 2016
STANDARD SCIENCE
Primary 5



Name: _____

Total
Marks:

Class: Pr 5 _____ Register No. _____

Duration: 1 h 15 min

Date: 29 February 2016

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 14 in Part I, shade the correct ovals on the Optical Answer Sheet (OAS) provided using a 2B pencil.
5. For questions 15 to 22, give your answers in the spaces given in the Part II.

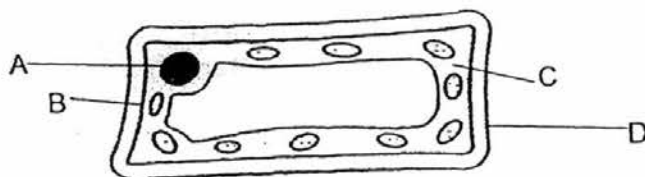
	Maximum	Marks Obtained
Part I	28 marks	
Part II	22 marks	
Total	50 marks	

* This booklet consists of 16 printed pages.

Part I (28 Marks)

For each question from 1 to 14, 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. The diagram below shows a cell.



Which part of the cell allows food and oxygen to move within it?

- (1) A
(2) B
(3) C
(4) D
2. Ang Xiang, Ben and Chandra recorded the parts of cells observed in the table as shown below.

	Parts of cells observed
Ang Xiang	cytoplasm, nucleus, cell wall
Ben	cytoplasm, nucleus, cell membrane
Chandra	cell membrane, chloroplasts, cytoplasm

Who could have observed animal cells?

- (1) Ang Xiang only
(2) Ben only
(3) Ang Xiang and Chandra only
(4) Ben and Chandra only

3. Which of the following statements about the cells is correct?

- (1) All cells have nucleus.
- (2) All cells have cell walls.
- (3) All cells have cytoplasm.
- (4) All cells have chloroplasts.

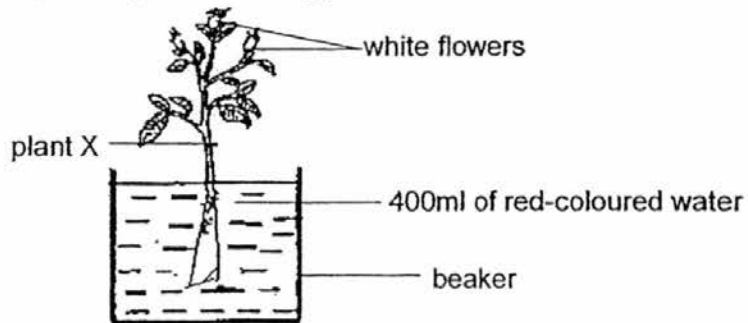
4. Which of the following are made of cells?

- A: Sun
- B: Elephant
- C: Chilli plant
- D: Plastic Chair

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

Read the following and answer questions 5 and 6.

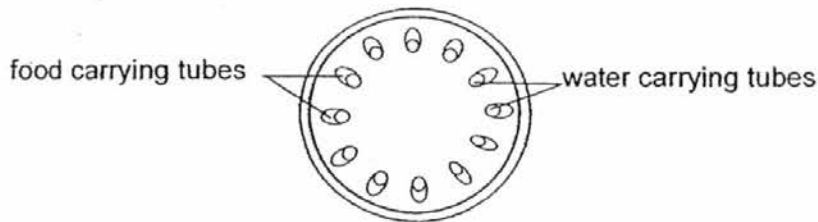
Yan Ching set up the experiment using plant X as shown below.



5. There was 400ml of red-coloured water in the beaker at the start of the experiment. What will her observation be after 2 days?

	Colour of flowers	Amount of water left in the beaker
(1)	White	400ml
(2)	White	360ml
(3)	Red	400ml
(4)	Red	360ml

6. Yan Ching removes a cross section of the stem of plant X as shown below.



Which of the following correctly describes the result of her experiment?

	colour at water-carrying tube	colour at food-carrying tube
(1)	turned red	turned red
(2)	turned red	no change
(3)	no change	turned red
(4)	no change	no change

7. The diagrams P and Q shows the directions in which different substances are transported in the stems.

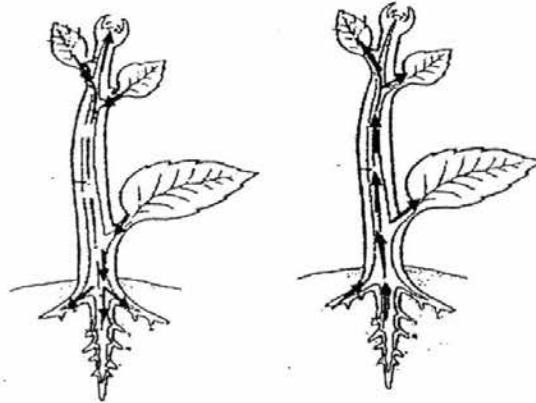


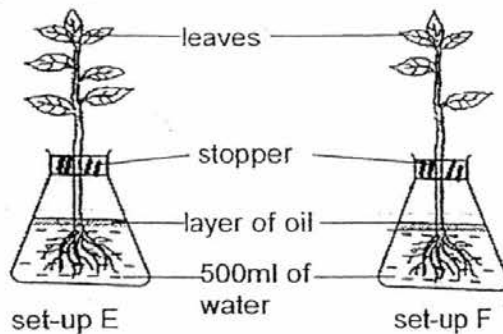
diagram P

diagram Q

Which of the following below correctly matches the substances with the direction of the arrows as shown in diagrams P and Q?

	P	Q
(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

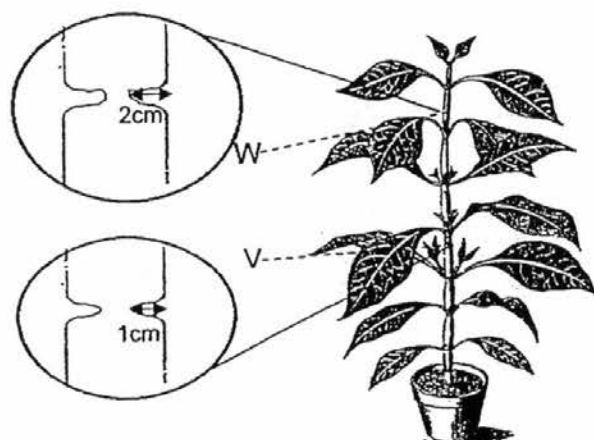
8. Alim set up an experiment as shown below.



What is the aim of the experiment?

- (1) To find out if roots take in water.
- (2) To find out if plants need water to survive.
- (3) To find out if the presence of oil affects the amount of water taken in by the plant.
- (4) To find out if the number of leaves affect the amount of water taken in by the plant.

9. Stella used a knife to cut away the outer ring of the stem at parts V and W of a plant as shown below.



After some time, only the parts of the plant above W withered.

Which of the following statements is/are correct?

- A: The water-carrying tubes at V were removed.
- B: The water-carrying tubes at W were removed.
- C: The food-carrying tubes at V were removed.

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

10. Rae wanted to find out how the type of soil will affect the growth of hibiscus plants. She planted 3 hibiscus plants in 3 pots G, H and K and placed them in the garden.

Which variables should Rae keep the same to carry out a fair experiment?

- A: Type of soil
- B: Type of hibiscus plant
- C: Amount of soil
- D: Amount of water per day

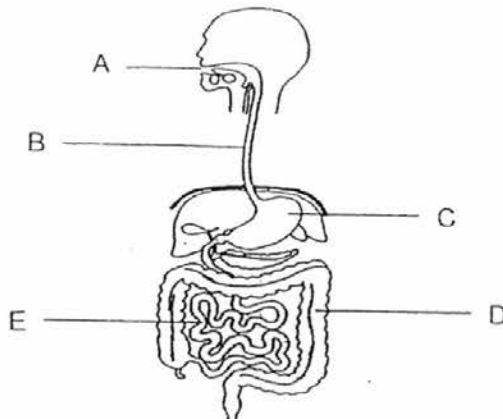
- (1) A and B only
- (2) C and D only
- (3) B, C and D only
- (4) A, B and D only

11. Wen Han wanted to find out how temperature would affect the amount of water taken in by plants. He placed four similar plants in containers with similar amount of water under different temperatures.

Plant	A	B	C	D
Temperature of water (°C)	20	25	30	35
Amount of water left after 10 hours (ml)	400	380	340	280

Based on the results table, what can he conclude?

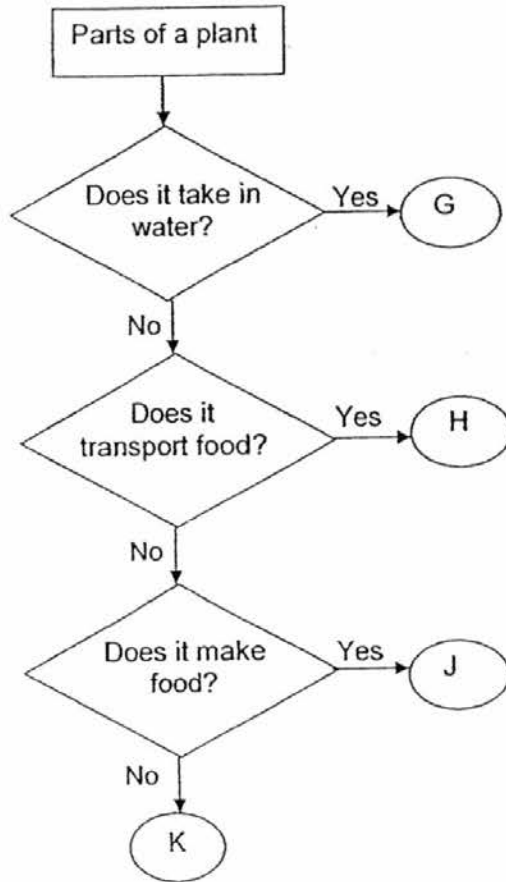
- (1) At 20°C, the plant takes in the most amount of water.
 - (2) The best temperature of water is 30°C for all plants to take in water.
 - (3) Temperature of water has no effect on the amount of water taken in by the plant.
 - (4) The higher the temperature of water, the greater the amount of water taken in by the plant.
12. Study the diagram below.



Which one of the following shows the correct pathway of food through the digestive system before it is absorbed into the blood stream?

- (1) A → B → C → E
- (2) A → B → C → D
- (3) A → B → C → E → D
- (4) A → B → C → D → E

13. Study the flowchart below.



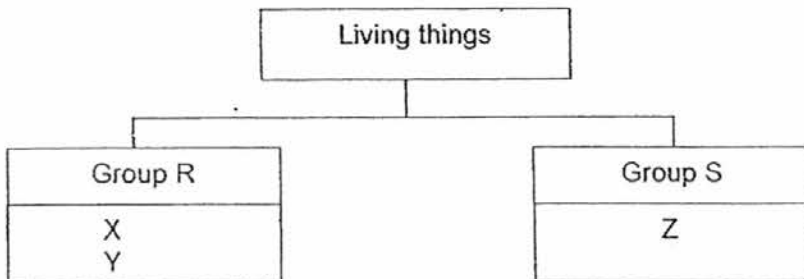
Which of the following identifies G, H, J and K?

	G	H	J	K
(1)	water-carrying tubes	leaves	food-carrying tubes	flower
(2)	water-carrying tubes	food-carrying tubes	leaves	root
(3)	roots	food-carrying tubes	leaves	flower
(4)	roots	food-carrying tubes	flower	leaves

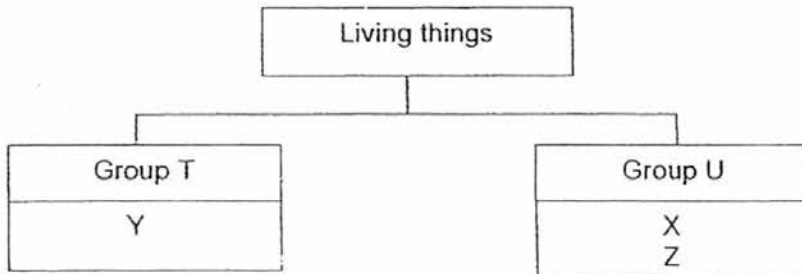
14. The table below provides some information on organisms X, Y and Z. A tick (✓) in the box indicates the presence of the characteristic.

Organism	It makes its own food	It reproduces by spores	It grows on land
X	✓	✓	✓
Y	✓		✓
Z		✓	✓

Using the information above, Ming Yi drew the following diagram to classify them.



Shi Min reclassified the organisms in the diagram below.



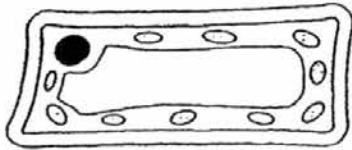
What would be the suitable headings for the groups?

	R	S	T	U
(1)	able to make food	not able to make food	land plant	water plant
(2)	land plant	water plant	ferns	fungi
(3)	ferns	fungi	flowering plants	non-flowering plants
(4)	able to make food	not able to make food	flowering plants	non-flowering plants

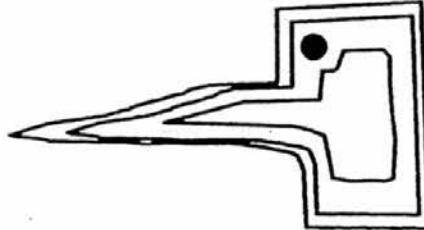
Part II (22 Marks)

For questions 15 to 22, write your answers in this booklet.

15. Study the two plant cells below.



cell L



cell M

(a) State a difference between the two cells. (1m)

(b) Which part of the above cells can be compared to a security guard in the school? Explain your answer. (1m)

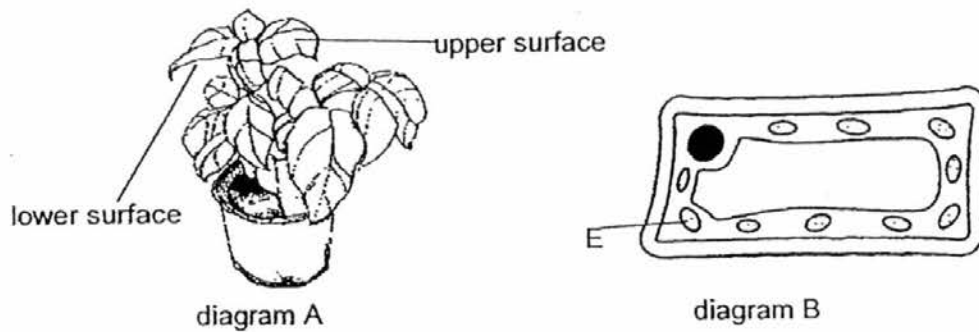
16. The table below shows parts of a cell that is present in cells S, T, U and V. A tick (✓) in the box indicates the presence of the characteristic.

parts of a cell	cell S	cell T	cell U	cell V
nucleus		✓	✓	✓
cell wall		✓		✓
cytoplasm	✓	✓	✓	✓
chloroplast		✓		
cell membrane	✓	✓	✓	✓

- (a) All the cells were soaked in four containers of equal amount of water. After sometime, two cells burst while the other two cells remained the same. Which two cells remained the same? Support your choice. (1m)

- (b) What would eventually happen to cell U if the nucleus is removed? (1m)

17. The diagrams below show a plant and leaf cell respectively.

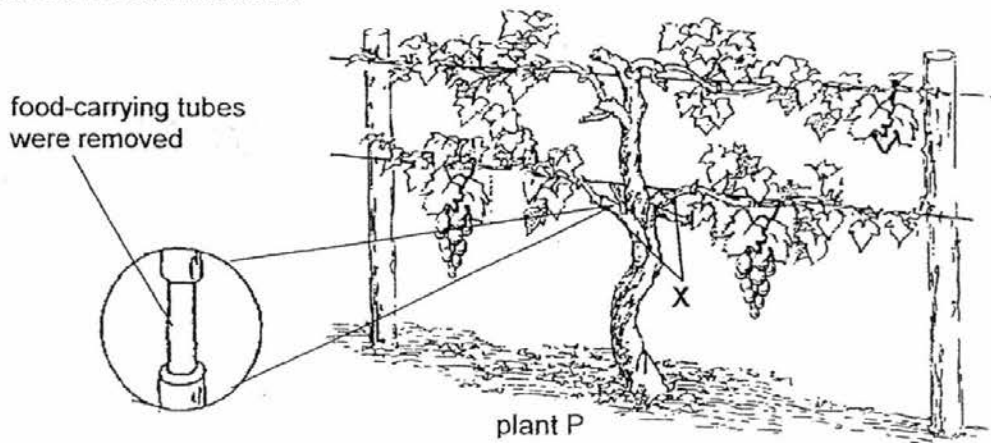


(a) Name the part labelled E in diagram B. (1m)

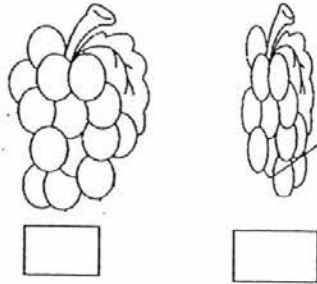
(b) Explain why the upper surface of the leaf in diagram A has more of 'E'. (1m)

(c) When the plant in diagram A grows taller, what happens to the cells in the plant? (1m)

18. Sue carried out an experiment with plant P. The food-carrying tubes at part X were removed as shown below.



- (a) Which of the following is likely to be the fruit of plant P after a few weeks? Choose your answer by putting a tick (✓) in the box below.



Explain your choice.

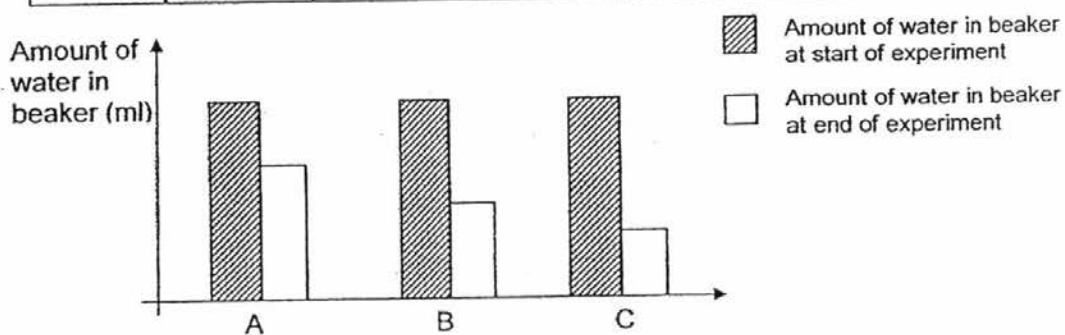
(1m)

- (b) Explain why the water-carrying tubes must not be removed from the plant P during the experiment. (1m)

- (c) Farmers use the above method to grow grapes. After some time the stem will recover. Why is this important to the roots? (1m)

19. Pei Ling carried out an experiment using the three set-ups A, B and C.

set-up	A	B	C
number of leaves on the plant	15	25	35

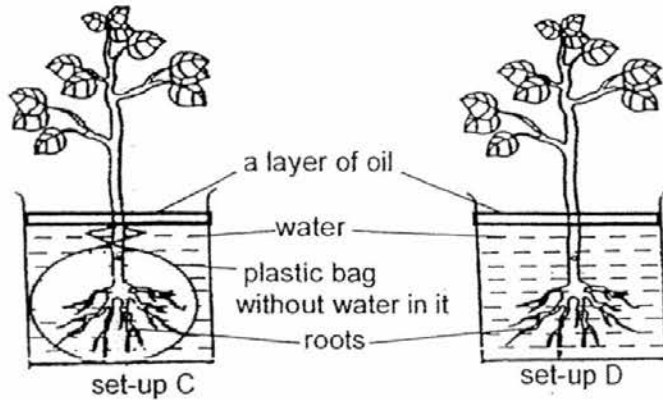


(a) What is the variable that was changed in this experiment? (1m)

(b) What conclusion can be made based on the results shown in the graph? (1m)

(c) It was observed that most of the leaves of a plant dropped off during the hot and dry months, leaving only some of the leaves on the plant. Explain how this helps the plant to survive during the hot and dry months. (1m)

20. Jasmine set up the following experiment as shown below and left them indoors.



She recorded her observation in the table below.

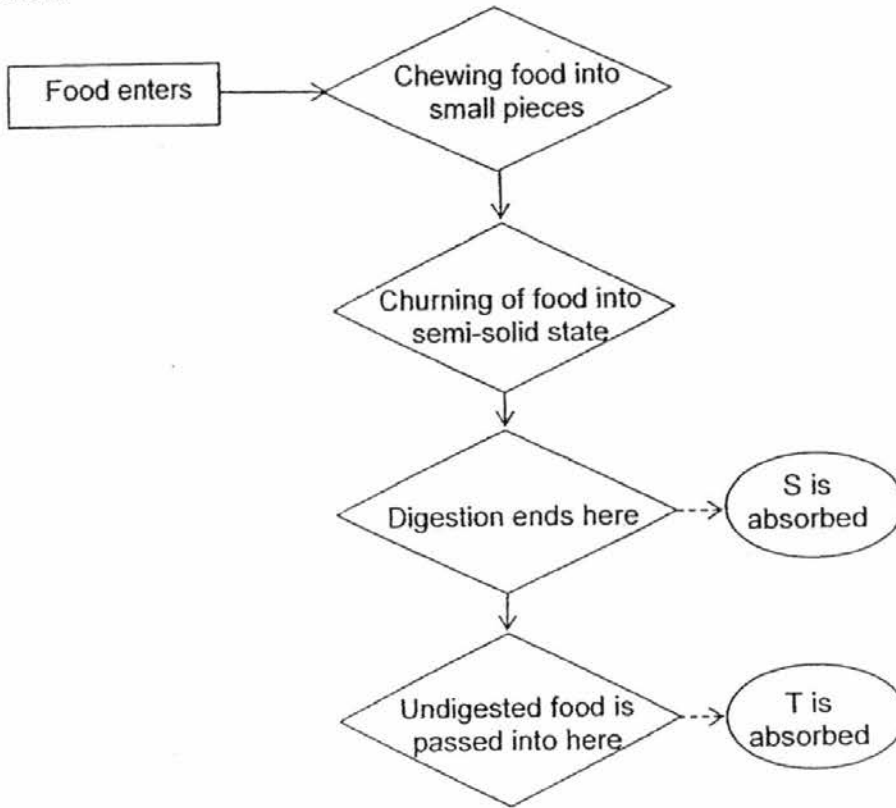
Set-up	Amount of water at the start of the experiment	Amount of water at the end of the experiment
C	500ml	500ml
D	500ml	470ml

(a) What is the aim of her experiment? (1m)

(b) Describe how the leaves obtain water from the plant. (1m)

(c) Why must the number of leaves on the plant be kept the same? (1m)

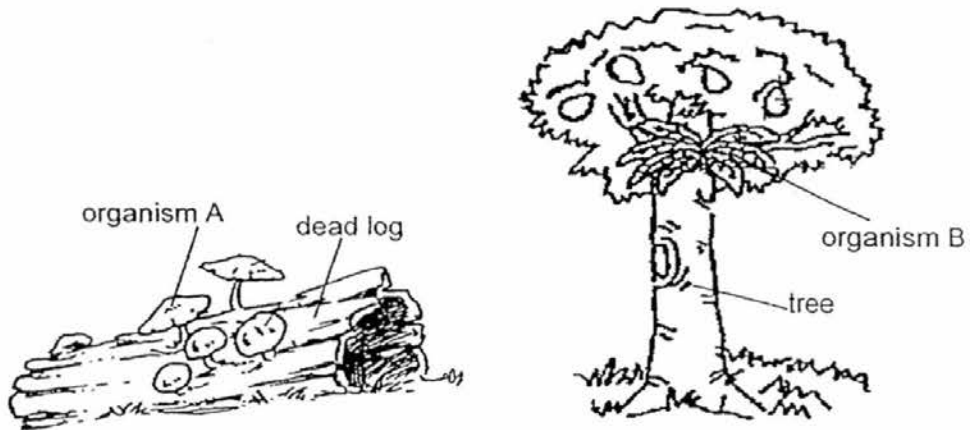
21. The flow chart below shows the processes involved in the human digestive system.



Based on the information given in the flow chart, state what are S and T in the blanks below. (2m)

(a)	S	
(b)	T	

22. The diagram below shows organism A growing on a dead log and organism B growing on a tree.



- (a) State a similarity and a difference between the organisms A and B. (2m)

Similarity (in terms of reproduction of the organisms) :

Difference (in terms of how the organisms obtained food) :

- (b) Both organisms A and B are found growing on another plant. State the reasons for the organisms to grow on another plant. (2m)

i) Organism A: _____

ii) Organism B: _____

End of Paper

YEAR : 2016
LEVEL : PRIMARY 5
SCHOOL : ROSYTH
SUBJECT : SCIENCE
TERM : CA1

PART I

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

PART II

Q15a Cell L have chloroplasts but cell M does not have chloroplasts.

Q15b Cell membrane. Cell membrane is like the security guard which controls substances going in and out of the cell.

Q16a Cell T and V as they have cell walls to protect the cell.

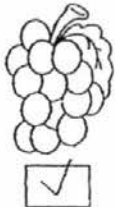
Q16b Cell u will eventually die.

Q17a Chloroplast

Q17b The chloroplast help the plant to capture more sunlight so it would make more food.

Q17c The cells in the plant has multiply.

Q18a



More food is stored in the fruit as the food from the leaves cannot be transported down to the rest of the plants.

Q18b The plant needs to make food to survive.

Q18c The roots would have more food to absorb water for the plant.

- Q19a The number of leaves on the plant.
- Q19b The greater the number of leaves, the greater the amount of water taken in by the plant.
- Q19c The lesser the number of leaves, the lesser amount of water lost through the leaves.
- Q20a To find out if roots take in water.
- Q20b The root of the plant absorbs the water from the beaker and the water-carrying tubes carries the water to the rest of the plant.
- Q20c The number of leaves are kept the same as they affect the amount of water taken in by the plant which affects the result of the experiment.
- Q21a S – Nutrients from the digested food.
- Q21b T – Water from the undigested food.
- Q22a Similarity : Both organisms reproduce by spores.
Difference : Organism A feeds on the dead log while organism B uses photosynthesis to make food.
- Q22b i) Organism A: Feeds on the dead log.
ii) Organism B: B are found on another plant so that it will have more sunlight to make more food.

End