PAYA LEBAR METHODIST GIRLS' SCHOOL (PRIMARY)
PRIMARY 6 SCIENCE THEMATIC PRACTICE
SYSTEMS A (LIFE SCIENCE)

Name: _____ (  )

| Section A | /32 |
|---|---|

Class: Primary 6 _____

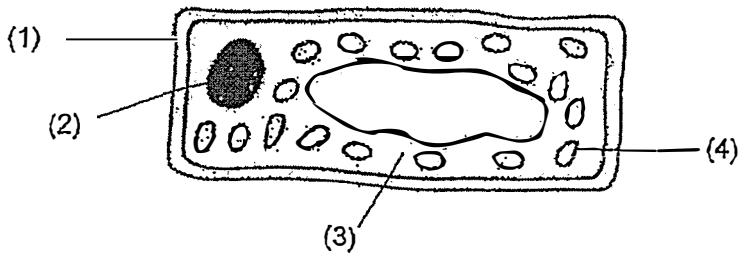
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**Section A (16 x 2 = 32 marks)**

For each question from 1 to 16, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4).

1. The diagram shows a leaf cell with parts labelled 1 to 4.
Which part uses sunlight to make food?




(  )

2. Which of the following shows the correct direction of food that is taken through the mouth?

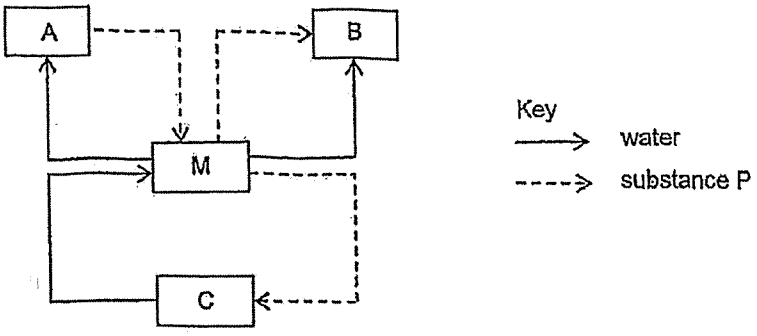
(1) stomach, small intestine, large intestine, gullet
(2) stomach, gullet, small intestine, large intestine
(3) gullet, stomach, large intestine, small intestine
(4) gullet, stomach, small intestine, large intestine

(  )



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3. The diagram shows how water and substance P flow through different parts, A, B, C and M of a plant.




What do A, B and C represent?

| | A | B | C |
|---|---|---|---|
| (1) | flower | stem | root |
| (2) | leaf | root | flower |
| (3) | leaf | flower | root |
| (4) | root | leaf | flower |

(  )

4. Fizah wrote some statements about humans, fish and plants.

The lungs and gills are part of the circulatory system.

B Oxygen and carbon dioxide are carried by the blood in humans and fish.

C Gaseous exchange takes place at the lungs, gills and stomata (tiny openings in leaves).

Which of her statement(s) is/are correct?

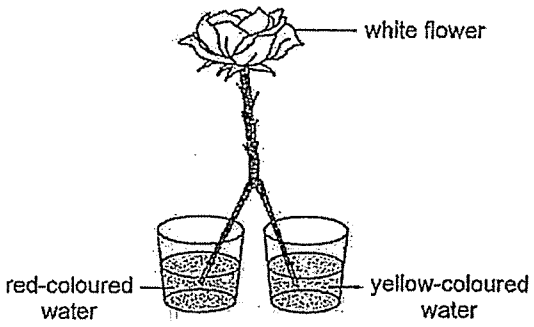
(1) C only
(2) A and B only
(3) B and C only
(4) A, B and C

(  )



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5. Lisa cut the lower stem of a white flower into two equal parts. She placed them into containers with different coloured water as shown.




After a short time, she observed that some parts of the flower turned red, some turned yellow, while the rest remained white.

Lisa made four statements.

A The food made by the plant was red and yellow in colour.

B The stem transported the different coloured water to the flower.

C No coloured water was transported to the flower parts that remained white.

D There were no water tubes in the flower parts that remained white.

Which statements can be concluded from her observations?

(1) A and D only

(2) B and C only

(3) B and D only

(4) B, C and D only

6. Which statement about the human digestive system is correct?

(1) Some food has been digested when it leaves the stomach.

(2) The large intestine does not absorb any substance.

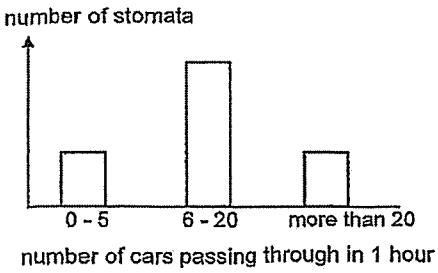
(3) The large intestine digests and absorbs food.

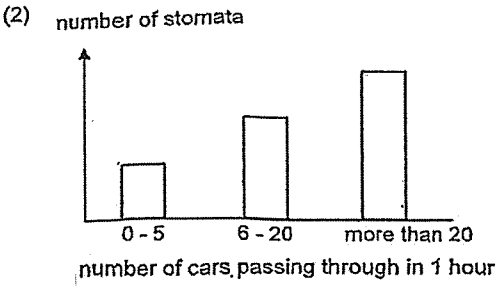
(4) The mouth does not digest food.

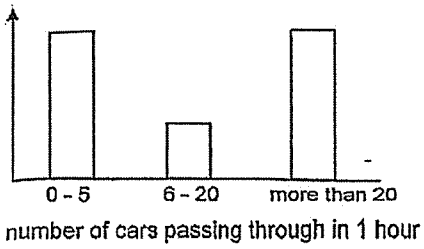


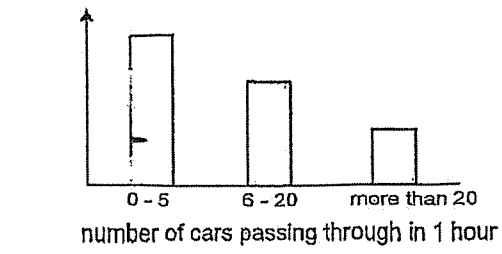
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7. Aidan predicted the greater the amount of carbon dioxide in a tower, the fewer the number of tiny openings called stomata found in a plant. Which of the following supports his prediction?

(1)


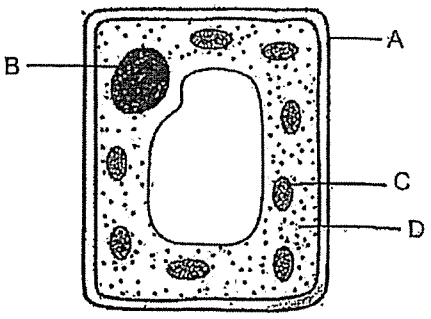

(2)



(3)



(4)



(

8. The diagram shows a plant cell.




Which parts are also found in an animal cell?

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

( )



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9. The table shows the types of gases in air that are taken in and given out by a human.

| Gas | Air taken in (%) | Air given out (%) |
|---|---|---|
| nitrogen | 78 | 78 |
| oxygen | 21 | 16 |
| carbon dioxide | less than 1 | 4 |
| water vapour | less than 1 | 2 |

Based on the information given, which statement is **not** correct?

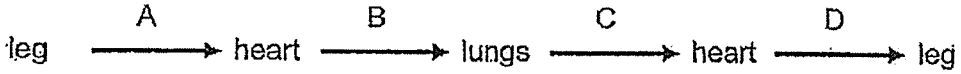
(1) Carbon dioxide produced by the body is released into the air.

(2) All the oxygen that enters the lungs goes into the blood.

(3) At least four types of gases enter the respiratory system.

(4) Water is lost through breathing.

10. Blood flows through blood vessels A to D as shown.




Which blood vessels transport blood richer in oxygen?

(1) A and B only

(2) A and D only

(3) B and C only

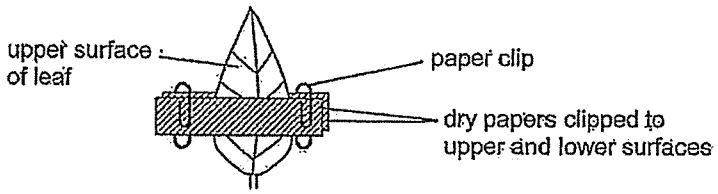
(4) C and D only

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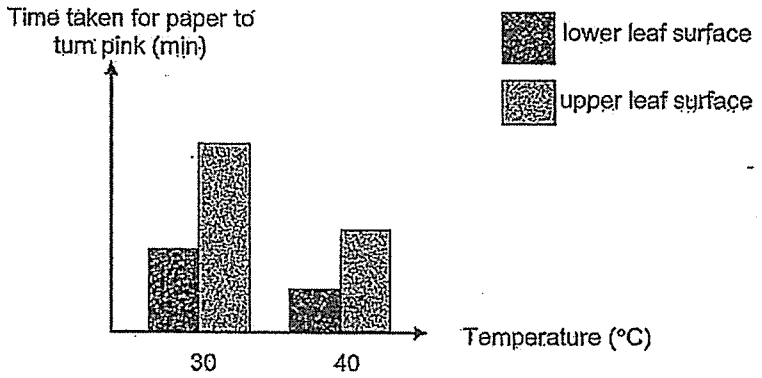


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11. Ken has two identical pots of plan P. He placed one plant in a room at 30 °C and the other at 40 °C. On each plant, he clipped dry pieces of a type of paper to the upper and lower surfaces of a leaf as shown. The paper turns pink when wet.




The graph shows the time taken for the paper to turn pink.




Based on the graph, which statement is a correct conclusion?

(1) Plant P at 30 °C lost more water.

(2) Plant P at 40 °C has fewer openings on its leaves.

(3) Plant P has more openings on the upper surface of its leaves.

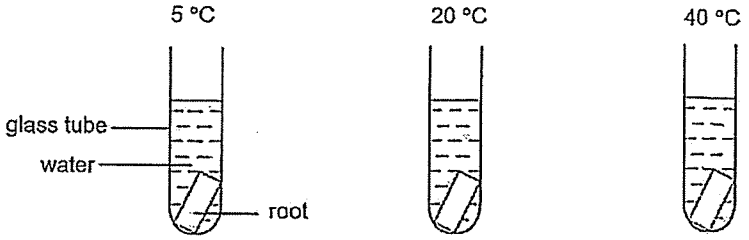
(4) Plant P lost water more quickly through the lower surface of its leaves.

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12. Kim cut a root into pieces of the same size. She placed each piece into a glass tube. Each tube was kept at a different temperature.




The root cells contained a red substance.

After some time, Kim observed the colour of the water in the tubes. The table shows her results.

| Temperature of water (°C) | Colour of water |
|---|---|
| 5 | light pink |
| 20 | pink |
| 40 | dark pink |

Which of the following explains her observation?

| | Temperature change | Effect on root cells |
|---|---|---|
| (1) | decreased | cell wall prevented more red substance from moving out |
| (2) | increased | cell wall prevented more red substance from moving out |
| (3) | decreased | cell membrane allowed more red substance to move out |
| (4) | increased | cell membrane allowed more red substance to move out |

(  )



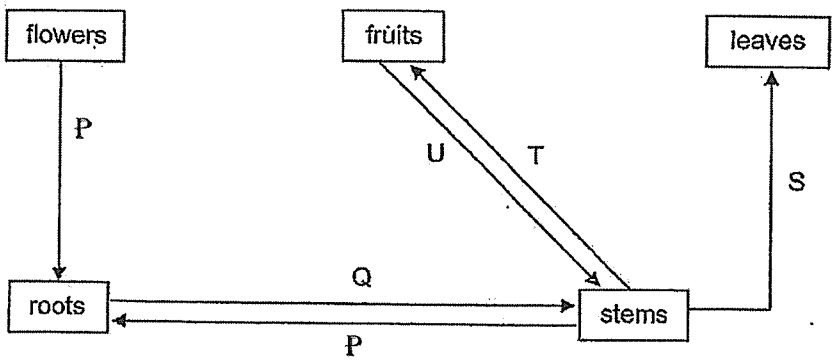
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13. Which gases are found in air?

A oxygen
B nitrogen
C carbon dioxide
D water vapour

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

14. Study the diagram.




Which arrows show the correct direction in which water moves in a plant?

(1) P, Q and T only
(2) Q R and S only
(3) Q, S and T only
(4) P, S and U only



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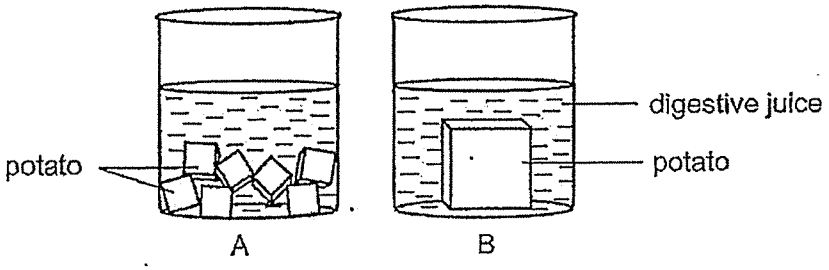
15. Substances are obtained from the water-carrying tubes and food-carrying tubes of a plant on a sunny day.

Which of the following is correct?

| | Main substances present in | |
|---|---|---|
| | **water-carrying tubes** | **food-carrying tubes** |
| (1) | water and mineral salts | sugar and mineral salts |
| (2) | water, sugar and mineral salts | sugar |
| (3) | water and mineral salts | sugar |
| (4) | water, sugar and mineral salts | water and mineral salts |

(  )

16. A and B are similar beakers containing the same volume of digestive juices. Equal amounts of potato are placed in the beakers.




The potato in beaker B took a longer time to digest because it has a _____.

(1) larger volume

(2) smaller volume

(3) larger exposed surface area

(4) smaller exposed surface area



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PAYA LEBAR METHODIST GIRLS' SCHOOL (PRIMARY)
PRIMARY 6 SCIENCE THEMATIC PRACTICE
SYSTEMS B (LIFE SCIENCE)

Name: _____ (  )

| Section B | /20 |
|---|---|

Class: Primary 6 _____

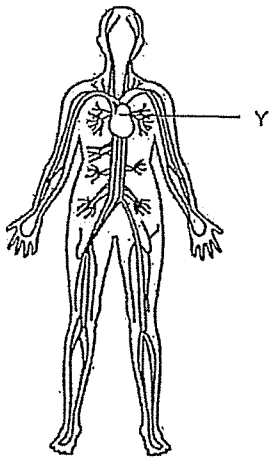
Date: _____ Parent's Signature: _____

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**Section B: 20 Marks**

For questions 17 to 22, write your answers in the spaces provided.
The number of marks available is shown in brackets [ ] at the end of each question or part question.

17. The diagram shows a human body system.




(a) Identify the system and state the function of this system. [2]

_____

_____

(b) Name Y. [1]

_____

(c) Other than Y, name another two parts of this system. [1]

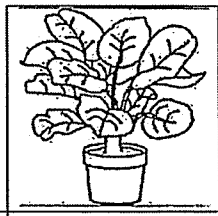
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18. Ravi wanted to investigate the conditions needed for leaf growth using three types of soil. Four pots of identical plants were placed in the same area within a garden. The diagram shows the four pots of plants after two weeks.

| |  |  |  |  |
|---|---|---|---|---|
| **Pot** | P | Q | R | S |
| **Type of soil** | garden soil | garden soil | sandy soil | clayey soil |
| **Availability of water** | Yes | No | Yes | Yes |

(a) State which pots must be compared to conclude about the effect of each variable on leaf growth. [2]

| **Variable** | **Pots to compare** |
|---|---|
| Type of soil | |
| Availability of water | |

Ravi conducted a second experiment to find how the amount of fertiliser affects leaf growth. He conducted a fair test, planting the same number of plants in five big pots, V, W, X, Y and Z. The pots are filled with garden soil.

The results of his experiment are as shown.

| **Pot** | **V** | **W** | **X** | **Y** | **Z** |
|---|---|---|---|---|---|
| Amount of fertiliser (g) | 0 | 5 | 10 | 15 | 20 |
| Average surface area of a leaf after two weeks ($cm^2$) | 20 | 30 | 36 | 20 | 14 |

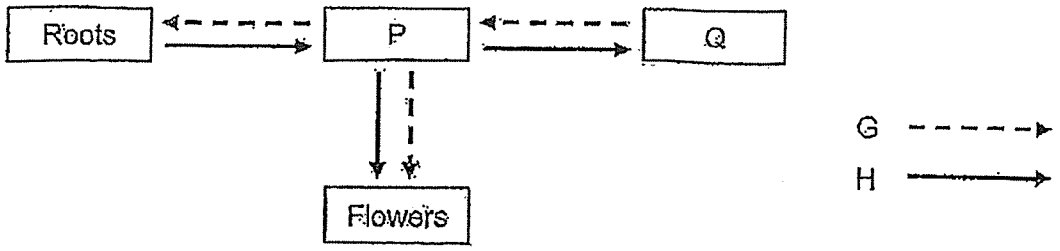
(b) What can Ravi conclude about the effect of fertiliser on leaf growth? [2]

(c) Explain why the results of Ravi's second experiment cannot be used to improve the leaf growth in pot S from his first experiment. [1]



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19. The diagram shows how substances are transported in a plant. P and Q represent different parts of the plant. The arrows represent the movement of substances G and H.




(a) Identify parts P and Q. [1]

P _____

Q _____

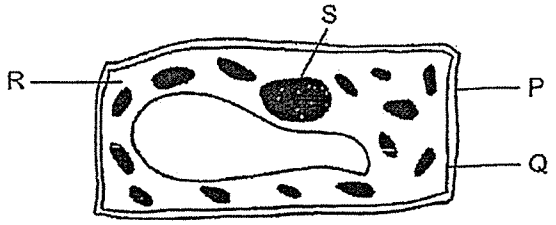
(b) Identify substances represented by H and describe how these substances move in the plant. [2]

_____

_____

_____

20. The diagram shows a plant cell.




(a) Name parts R and S. [1]

R _____

S _____

(b) State the functions of parts P and Q. [2]

P _____

Q _____



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21.

(a) State the function of the human respiratory system. Include in your answer the gases involved. [1]

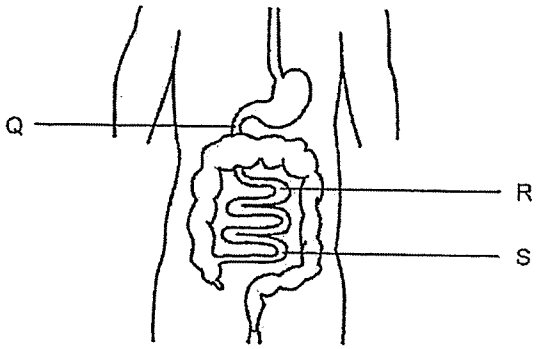
(b) Name three parts found in the human respiratory system. [1]

(c) Describe how the respiratory system works together with the circulatory system in our body. [2]

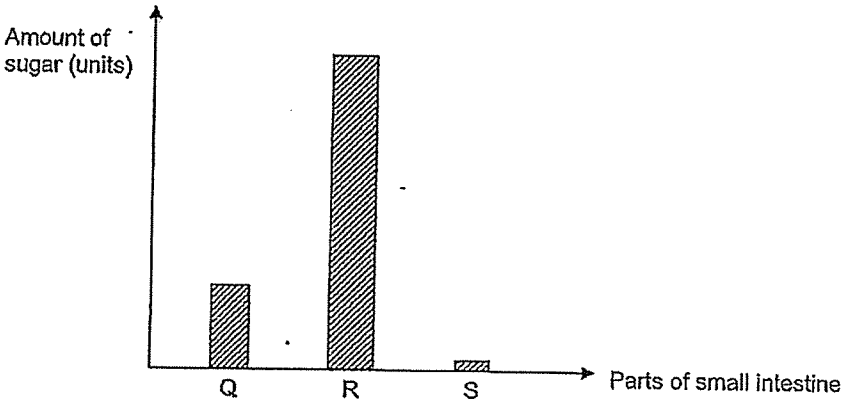


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22. Ali ate a bowl of rice. Rice is digested into sugar.
After three hours, the doctor measured the amount of sugar in different parts of the small intestine.




The chart shows the amount of sugar at various parts of the small intestine.




(a) The amount of sugar increased from Q and R. Explain why. [1]

(b) The amount of sugar decreased from R and S. Explain why. [1]

(c) Undigested food enters an organ after leaving the small intestine.
Name this organ and state its main function. [1]



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**SCHOOL : PAYA LEBAR METHODIST GIRLS' SCHOOL**
**LEVEL : PRIMARY 6**
**SUBJECT : SCIENCE**
**TERM : 2025 PRACTICE**

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 |
|---|---|---|---|---|---|---|---|---|---|
| 4 | 4 | 3 | 3 | 2 | 1 | 4 | 3 | 2 | 4 |
| Q11 | Q12 | Q13 | Q14 | Q15 | Q16 | | | | |
| 4 | 4 | 4 | 3 | 3 | 4 | | | | |

| | |
|---|---|
| | blood to the lungs out of the body. |

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| | |
|---|---|
| Q22(a) | More food was digested. |
| Q22(b) | Some of the sugar entered the bloodstream in between R and S. |
| Q22(c) | Large intestine. Absorbs water from undigested food. |

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