Nan Hua Primary School
Primary 5 Science
Term 1 Weighted Assessment 2020

Marks	
Section A:	/10
Section B:	/10
Total:	**/20**

Name: _____( )

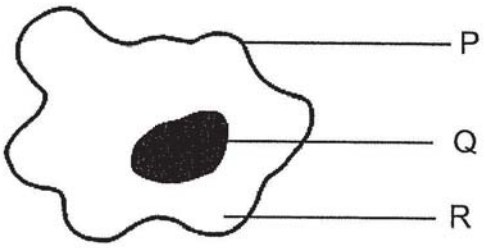
Class: Primary 5/_____

Date: _____

Answer all questions.

Section A: (5 x 2 marks = 10 marks)
For each question from 1 to 5, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and write your answer in the bracket provided.

1 The diagram below shows a cell.



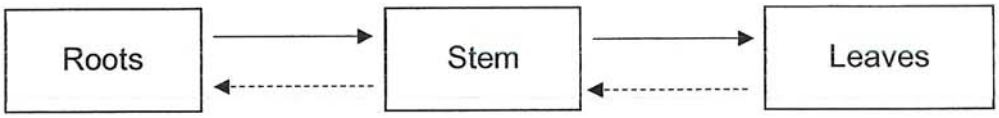
Which the following statements about the cell is/are correct?

A Part R controls cell activities.
B The cell is unable to make food.
C Part Q gives the cell a regular shape.
D Part P controls substances entering and leaving the cell.

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

( )

2 The flow chart below shows how substances T and U are transported in a plant.



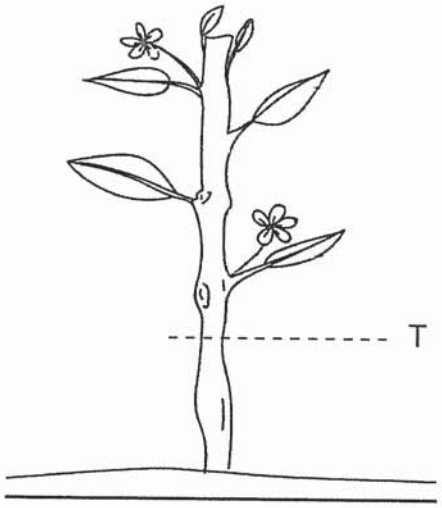
Key:
→ direction of flow of substance T
⇠ direction of flow of substance U

Which of the following represents the flow chart correctly?

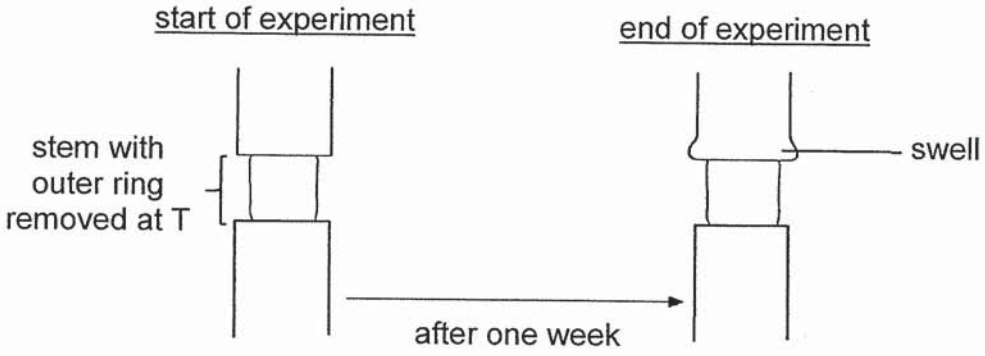
	water-carrying tubes	food-carrying tubes	substance(s) T	substance(s) U
(1)	→	⇢	water and dissolved mineral salts	food
(2)	→	⇢	food	water and dissolved mineral salts
(3)	⇢	→	water and dissolved mineral salts	food
(4)	⇢	→	food	water and dissolved mineral salts

( )

3 Malek removed the other ring of the stem of a plant in his garden at 'T' as shown in the diagram below.



He watered the plant daily. After a week, he noticed that the part of the stem above the ring swelled up as shown below.

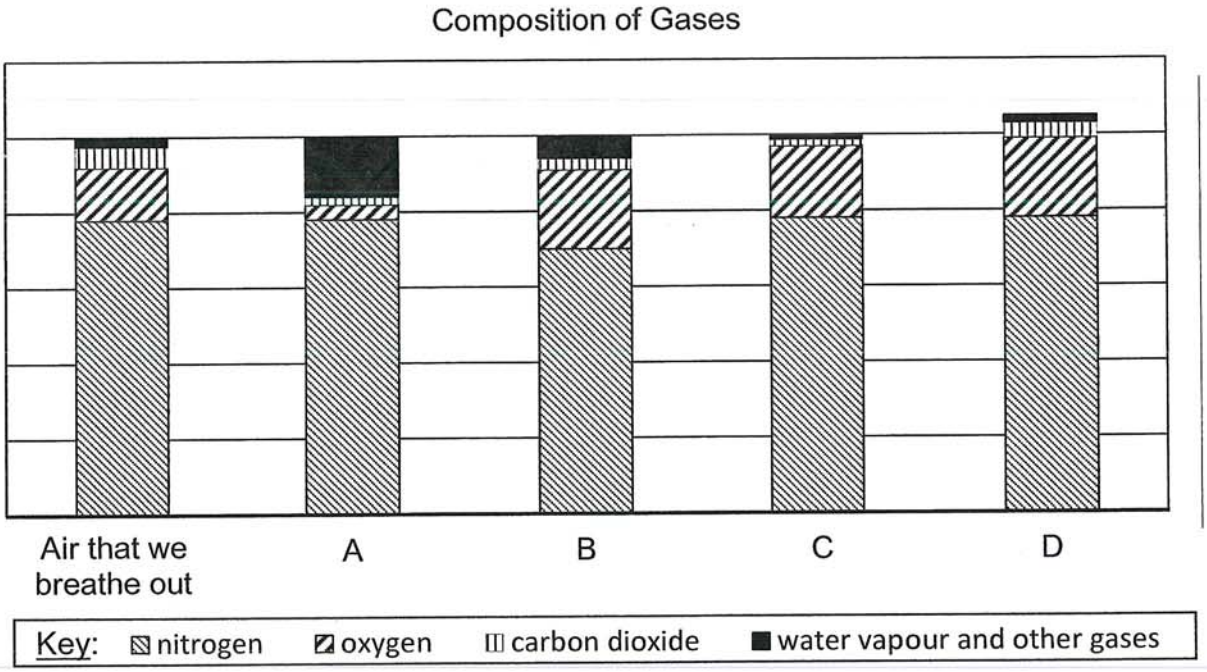


Which one of the following statements explains the swell correctly?

(1) Water travelled up the water-carrying tubes in the stem and is gathered above the ring.
(2) Water travelled down the water-carrying tubes in the stem and is gathered above the ring.
(3) Food travelled up the food-carrying tubes in the stem and is gathered above the ring.
(4) Food travelled down the food-carrying tubes in the stem and is gathered above the ring.

( )

4 The graphs below show different composition of gases compared to the air that we breathe out.

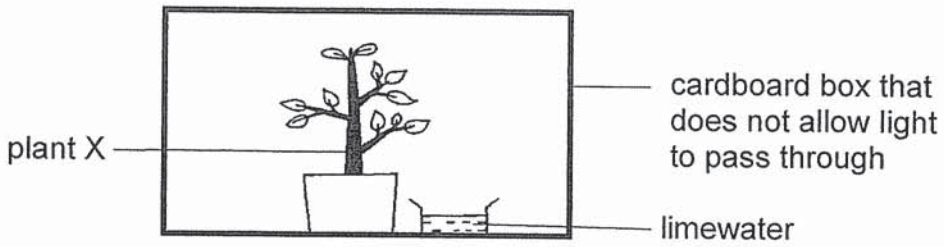


Which graph, A, B, C or D, best represents the composition of gases of the air we breathe in?

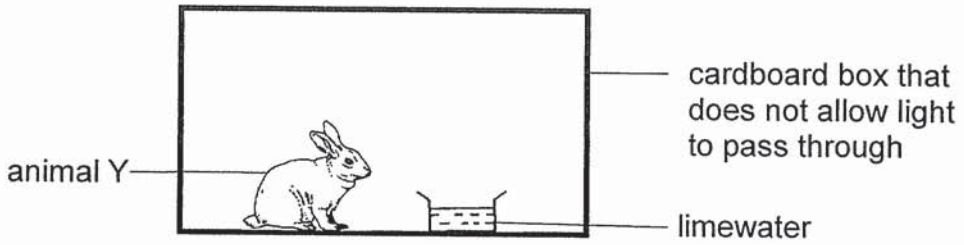
(1) A
(2) B
(3) C
(4) D

( )

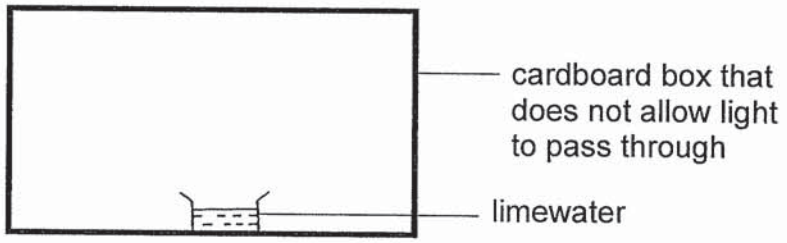
5 Sarah set up an experiment as shown below.



Set-up A



Set-up B



Set-up C

Limewater turns chalky in the presence of carbon dioxide. Sarah placed the set-ups near the window. After two hours, she checked on the limewater of all the set-ups. She found that the limewater in set-up C did not turn chalky.

Which one of the following could be her observations for set-ups A and B?

	Set-up A	**Set-up B**
(1)	turned chalky	turned chalky
(2)	turned chalky	remained colourless
(3)	remained colourless	turned chalky
(4)	remained colourless	remained colourless

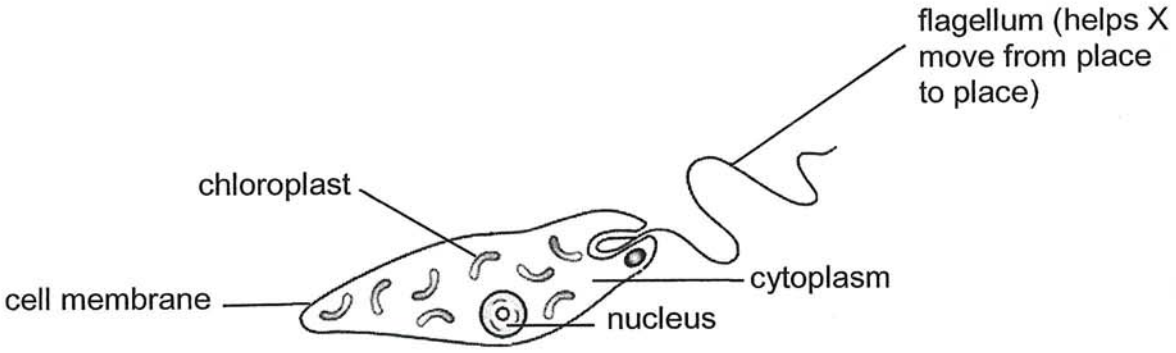
( )

Total marks for section A	/10

Section B: Structured questions (10m)

For questions 6 to 8, write your answers in the space provided. The number of marks available is shown in brackets [ ] at the end of each question or part question.

6 The diagram below shows a single-celled organism, X, which can be found near the top surface of both freshwater and seawater.



Using only the information given above, answer the following questions below.

(a)(i) Name one cell part in organism X which suggests that it could be a plant. [1]

_____

(a)(ii) State the function of the part mentioned in **(ai)**. [1]

_____

_____

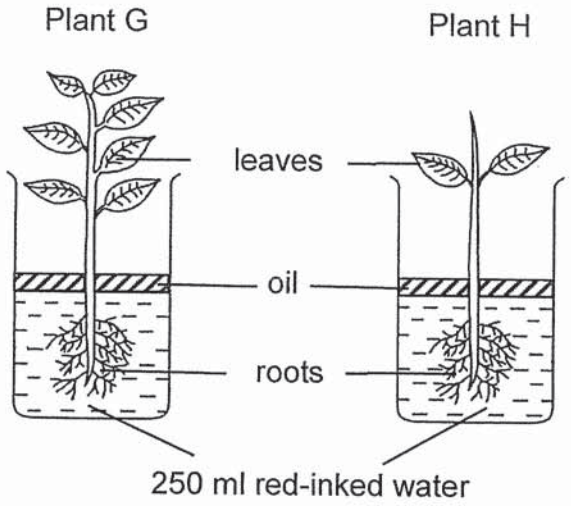
(b) The cell has a flagellum that enables it to move in water. Explain how this helps organism X survive better in water. [1]

_____

_____

Score	3

7 Mr Lim put two plants, G and H, in two similar beakers, each containing 250 ml of red-inked water as shown in the diagrams below.



(a) Mr Lim recorded the amount of water in the beaker at the start and end of the experiment. Based on the set-ups above, write down '**G**' or '**H**' in the boxes below. [1]

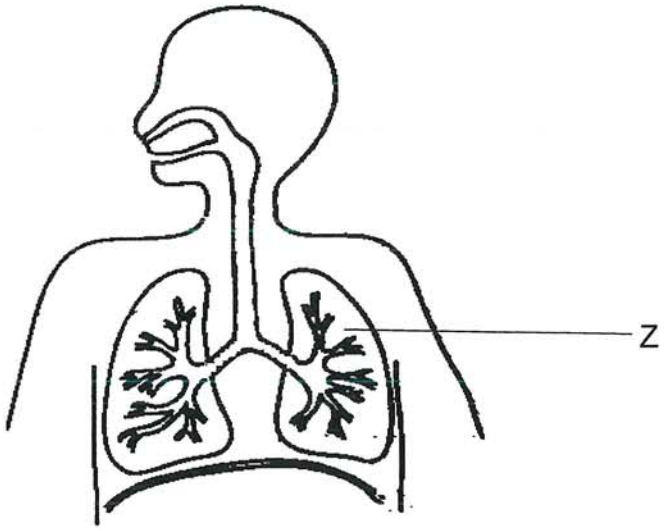
Plant	**Amount of water (ml)**	
	At first	**After 3 hours**
	250	230
	250	215

(b) Explain clearly why oil is added to the surface of the water. [2]

(c) Based on the results that Mr Lim has recorded above, what can he conclude from the experiment? [1]

Score	
	4

8 The diagram below shows the respiratory system of a human.

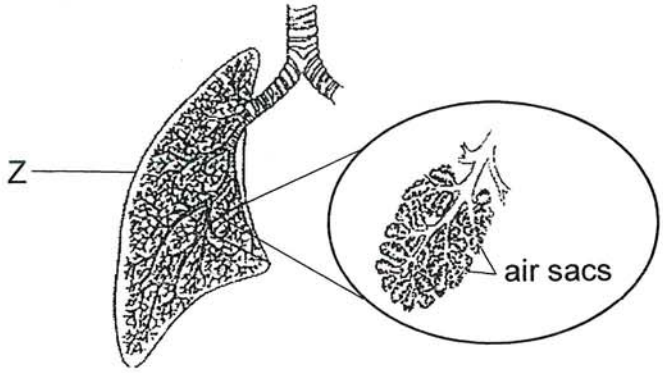


(a) State the function of part Z. [1]

_____

(b) Using arrows (⟶), trace the pathway of air from the surrounding to part Z in the diagram above. [1]

(c) Part Z contains many air sacs shown in the diagram below.



The air sacs are surrounded by many tiny blood vessels. Explain how having many air sacs help to speed up gaseous exchange. [1]

_____

_____

_____

End of Paper

Score	
	3

NHPS P5 Science TERM 1 WEIGHTED ASSESSMENT 2020
ANSWER KEY

SECTION A

Qn	Answer
1	2
2	1
3	4
4	3
5	1

SECTION B

<table>
<tr><th>Qn</th><th>Answers</th></tr>
<tr><td>6(ai)</td><td>chloroplasts</td></tr>
<tr><td>6(aii)</td><td>It traps light to make its own food.</td></tr>
<tr><td>6(b)</td><td>The flagellum helps X to move nearer to the water surface to trap more light in order to make more food.</td></tr>
<tr><td>7(a)</td><td>
<table>
<tr><th rowspan="2">Plant</th><th colspan="2">Amount of water (ml)</th></tr>
<tr><th>At first</th><th>After 3 hours</th></tr>
<tr><td>H</td><td>250</td><td>230</td></tr>
<tr><td>G</td><td>250</td><td>215</td></tr>
</table>
</td></tr>
<tr><td>7(b)</td><td>The oil is to prevent loss of water in the beaker through evaporation and to ensure that the decrease in the amount of water is only due to the plants taking in water.</td></tr>
<tr><td>7(c)</td><td>Plant (G) with more leaves take in more water/ lose more water through the leaves and vice versa.

OR

Plant (H) with less leaves take in less water/ lose less water through the leaves.</td></tr>
<tr><td>8(a)</td><td>Part Z allows gaseous exchange to take place.</td></tr>
</table>

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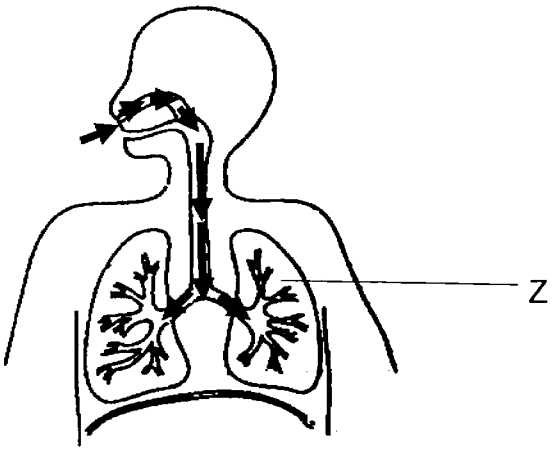
8(b)	
8(c)	Having many air sacs <u>increase the surface area of contact</u> between the <u>blood vessels/blood</u> and the <u>air</u> so that gaseous exchange can take place at a faster rate. OR increase the (exposed) surface area in contact with blood vessel so there is greater exchange of gases to take place

2N D