



Nan Hua Primary School
Primary 5 Science
Term 1 Weighted Assessment 2021

| Marks | |
|---------------|------------|
| Section A: | /10 |
| Section B: | /10 |
| Total: | /20 |

Name: _____ ()

Class: Primary 5/ _____

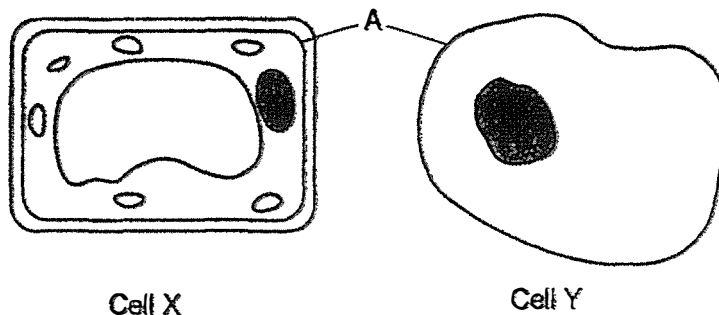
Date: 09/03/2021

Duration: 30 minutes

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 two cells, X and Y.



Cell X

Cell Y

Which of the following correctly shows the type of cell, X and Y, and the function of part A in both cells?

| | X | Y | function of part A |
|-----|--------|--------|--|
| (1) | Animal | Plant | controls the movement of substances in and out of the cell |
| (2) | Animal | Plant | gives the cell its shape |
| (3) | Plant | Animal | controls the movement of substances in and out of the cell |
| (4) | Plant | Animal | gives the cell its shape |

()

- 2 The diagram below shows how substances, X and Y, are transported through the different parts of the plant, E and F.



Key:

————→ direction of flow of substance X

←----- direction of flow of substance Y

What do E, F, X and Y represent?

| | E | F | substance(s) X | substance(s) Y |
|-----|------|------|----------------|----------------|
| (1) | stem | leaf | water | food |
| (2) | stem | leaf | food | water |
| (3) | leaf | stem | water | food |
| (4) | leaf | stem | food | water |

()

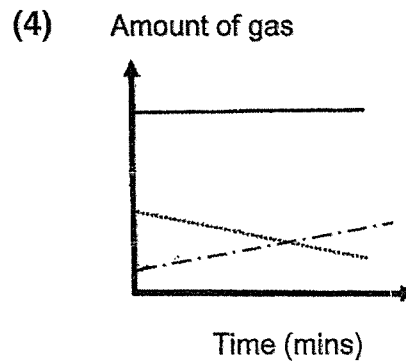
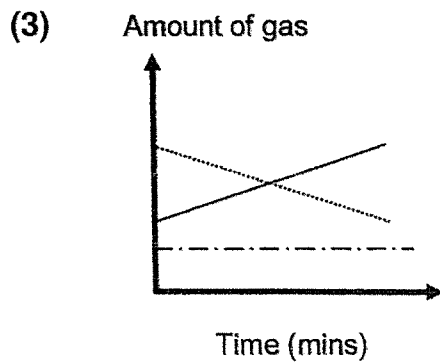
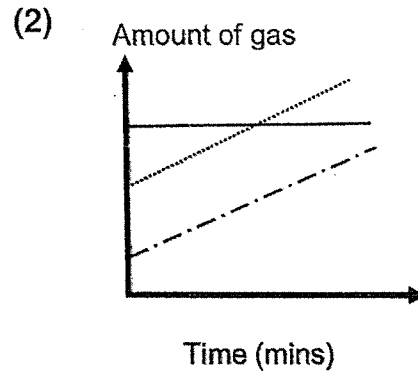
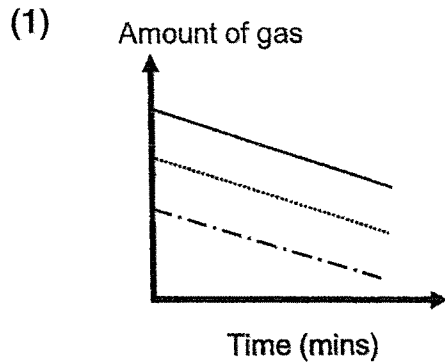
- 3 Three adults were trapped in a lift for an hour and there was no exchange of air from outside. Which of the following graphs shows the correct change in the composition of air in the lift?

Key:

— nitrogen

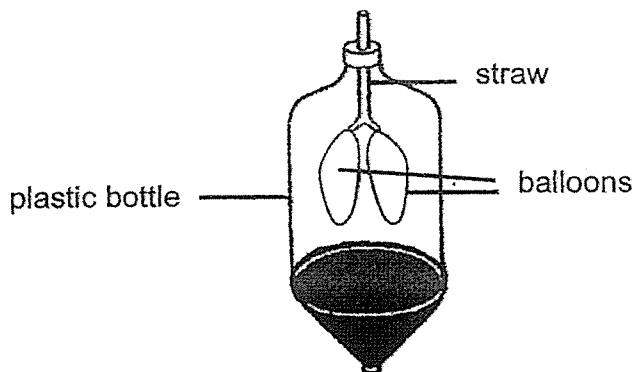
..... oxygen

- . - carbon dioxide



()

- 4 The diagram below shows a human respiratory model.



The table shows parts of the respiratory system represented by different parts of the model and their respective functions.

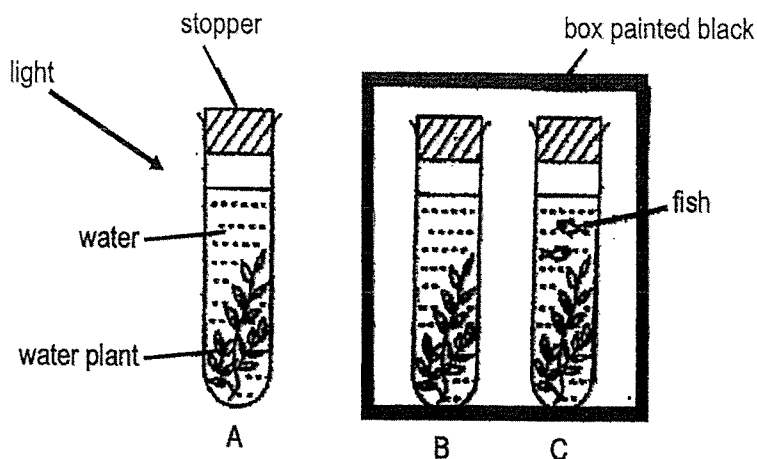
| | parts of the model | parts of the respiratory system | functions |
|---|--------------------|---------------------------------|---|
| A | balloons | lungs | to transport oxygen to all parts of the body |
| B | plastic bottle | nose | to take in oxygen and remove carbon dioxide from the body |
| C | straw | windpipe | to transport air to and from the lungs |

Which of the following is/are correct?

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

()

- 5 Sherwin conducted an experiment in a bright room with three set-ups, A, B and C, as shown below. The amount of carbon dioxide in the water in each set-up was 30 units at the start of the experiment.



Which of the following correctly shows the amount of carbon dioxide in the three set-ups after a few hours?

| Amount of carbon dioxide in the water after a few hours (units) | | | |
|---|----------|----------|----------|
| | Set-up A | Set-up B | Set-up C |
| (1) | 20 | 70 | 50 |
| (2) | 20 | 50 | 70 |
| (3) | 50 | 30 | 70 |
| (4) | 70 | 50 | 30 |

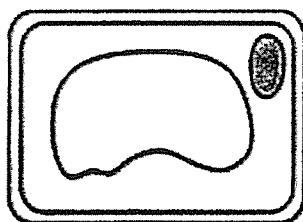
()

| | |
|---------------------------|----|
| 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 cell Q which is taken from a part of a plant.



cell Q

Two students observed cell Q using a microscope and made the following statements.

Student A : Cell Q is likely taken from the root of the plant.

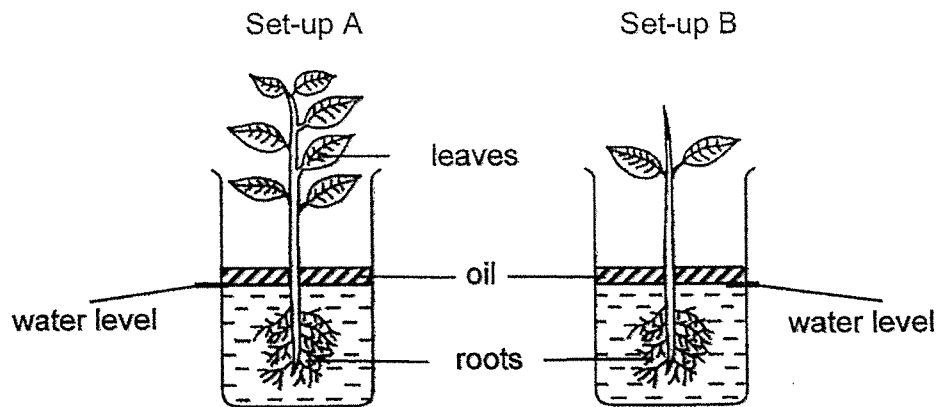
Student B : Cell Q is likely taken from the leaf of the plant.

Which student made the correct statement? Explain why. [2]

| | |
|-------|---|
| Score | 2 |
|-------|---|

- 7 Daniel set up an experiment as shown below to find out whether the amount of water taken in by a plant is affected by its number of leaves.

He placed 2 similar plants with different number of leaves near a window and marked the water level of each set-up at the start of the experiment.



After several days, he found out that the water level in set-up A was lower than the water level in set-up B.

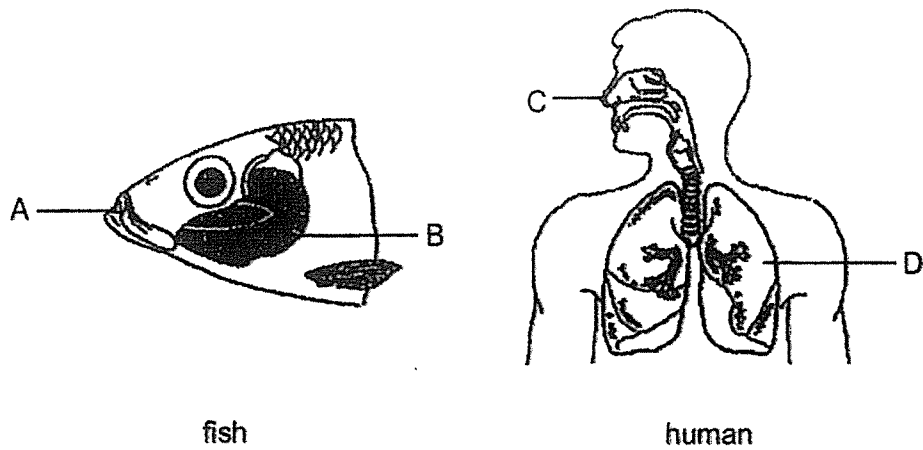
- (a) State the changed variable in Daniel's experiment. [1]

- (b) Why was the water level lower in set-up A than set-up B? [1]

- (c) Explain clearly why oil was added to the surface of the water. [2]

| | |
|-------|---|
| Score | 4 |
|-------|---|

- 8 The diagrams below show the different parts in the respiratory systems of a fish and a human.



- (a) At which part, A, B, C or D, does gaseous exchange take place in a fish and human? [2]

Fish : _____

Human : _____

- (b) Explain clearly how the fish gets oxygen for its survival. [2]

| | |
|-------|---|
| Score | 4 |
|-------|---|

End of Paper

ANSWER KEY

YEAR : 2021
 LEVEL : PRIMARY 5
 SCHOOL : NAN HUA PRIMARY SCHOOL
 SUBJECT : SCIENCE
 TERM : TERM 1 WEIGHTED ASSESSMENT

SECTION A

| | | | | | | | | | |
|----|---|----|---|----|---|----|---|----|---|
| Q1 | 3 | Q2 | 1 | Q3 | 4 | Q4 | 1 | Q5 | 2 |
|----|---|----|---|----|---|----|---|----|---|

SECTION B

| | | | |
|----|---|---|--|
| Q6 | Student A. Cell Q does not have chloroplast to trap light and make food by photo synthesis. If Cell Q was taken from the leaf, it would have chloroplast to trap light | | |
| Q7 | a) | The number of leaves in each plant | |
| | b) | Set-up A has more leaves to make more food, hence it will require more water as leaves require water to make food. | |
| | c) | To ensure that any decreases in water level is not due to water evaporating into the surrounding air but by the plant taking in water through the roots. | |
| Q8 | a) | Fish: B | |
| | | Human: D | |
| | b) | Most fish get their oxygen from water when it enters their bodies through their gills. Although a small amount of oxygen may also be taken in through their skin. | |

1
2/1/2