Nan Hua Primary School
Primary 5 Science
Term 2 Weighted Assessment 2022

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

Name: _____( )

Class: Primary 5S_____

Date: _____

Duration: 30 minutes

Parent's Signature

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 Which of the following gases are present in exhaled (breathed out) air?

A Oxygen
B Nitrogen
C Water vapour
D Carbon dioxide

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

( )

2 Which of the following identifies the part or organ through which air leaves a human, fish and plant?

	Human	Fish	Plant
(1)	mouth	mouth	tiny opening on leaves
(2)	mouth	gills	root hairs
(3)	nose	gills	tiny opening on leaves
(4)	nose	mouth	root hairs

( )

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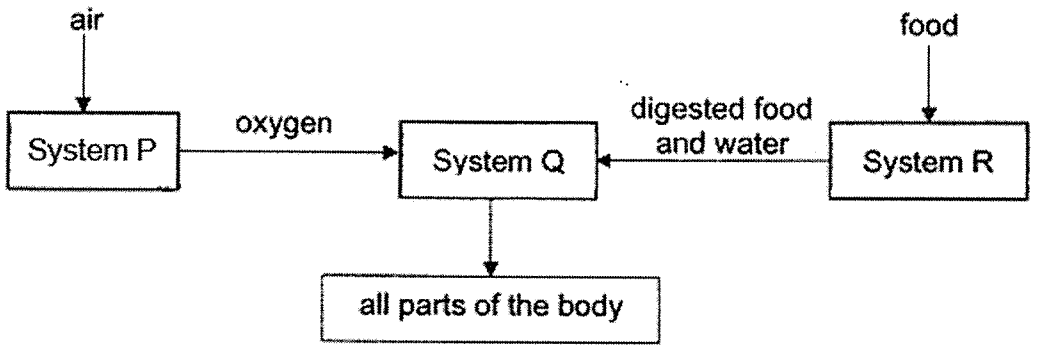
3 Study the three systems P, Q and R in a human body below.



Which of the following statements about the three human body systems are correct?

A System R breaks down food into simpler substances.
B System P pumps blood rich in oxygen to System Q and all parts of the body.
C System Q transports oxygen, digested food and water to all parts of the body.
D Systems P, Q and R do not depend on one another for the human body to stay healthy.

(1) A and B only
(2) A and C only
(3) B, C and D only
(4) All of the above

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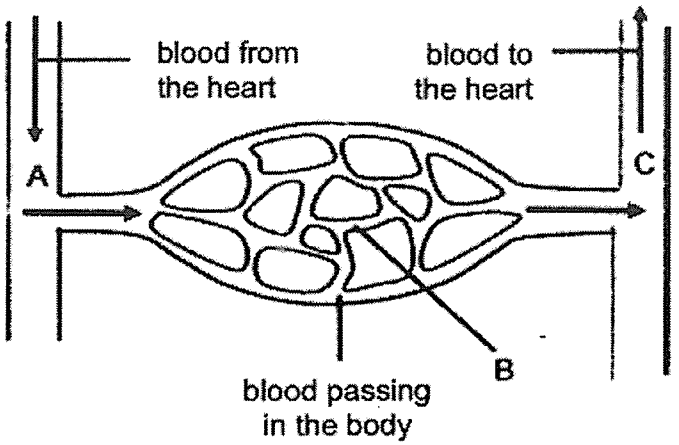
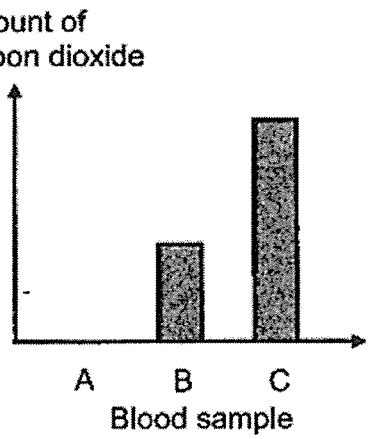
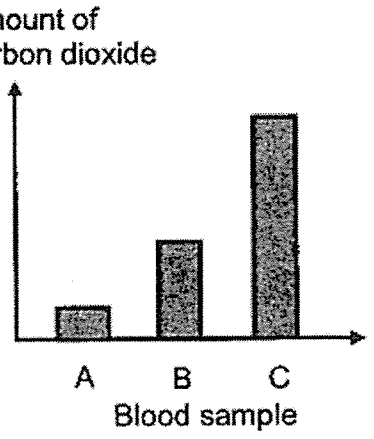
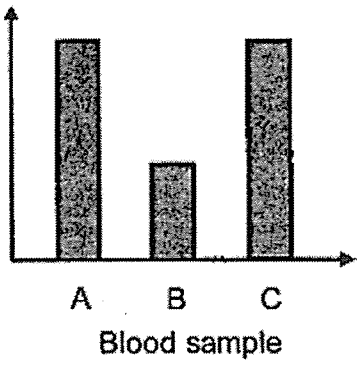
4 The diagram below shows the flow of blood in the human circulatory system.

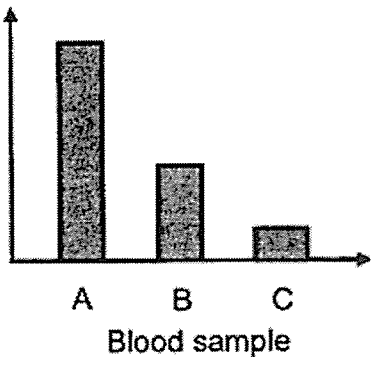


The same amount of blood samples was taken from A, B and C.
Which chart shows the correct comparison of the amount of carbon dioxide in the blood samples?

(1)


(2)


(3)


(4)


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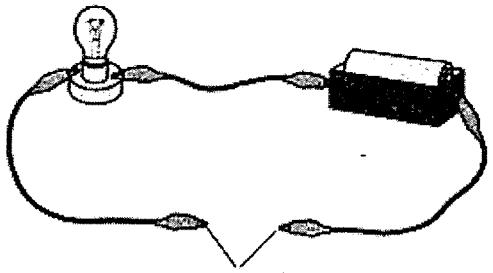
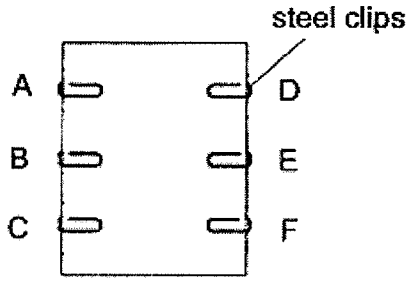
5 The set-up below shows a circuit tester and a piece of cardboard with six steel clips. The steel clips are connected to some copper wires at the back of the cardboard.



Circuit tester



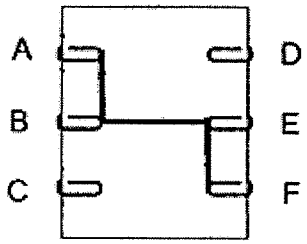
Front view of cardboard

The table below shows the results when the circuit tester is connected to the following pairs of steel clips.

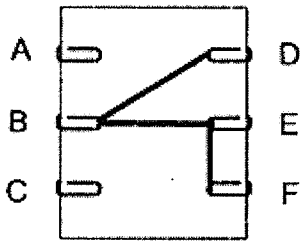
Steel clips	Does the bulb light up?
A and D	No
B and E	Yes
B and F	Yes
C and F	No
D and F	Yes

Which of the following is **not** a possible connection of copper wires to the steel clips at the back of the cardboard?

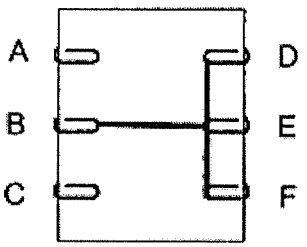
(1)



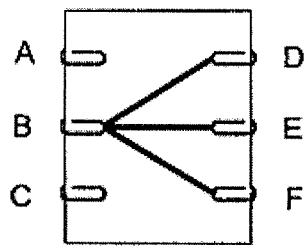
(2)



(3)



(4)



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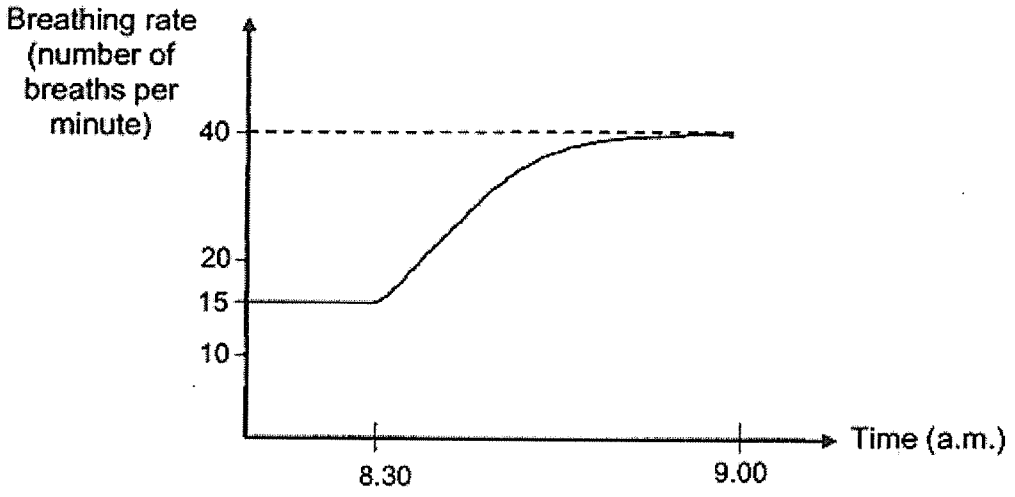
Total marks for section A	10

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 Timothy went jogging from 8.30 a.m. to 9.00 a.m. He wore a fitness tracker to monitor his breathing rate before and during his jog. The graph below shows his breathing rate.



(a) Explain the change in Timothy's breathing rate before and during his exercise. [1]

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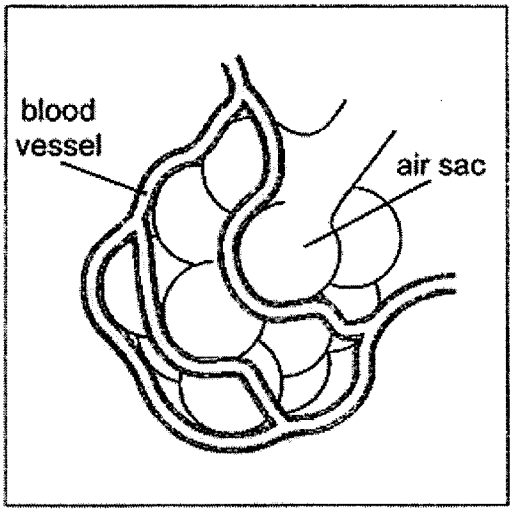
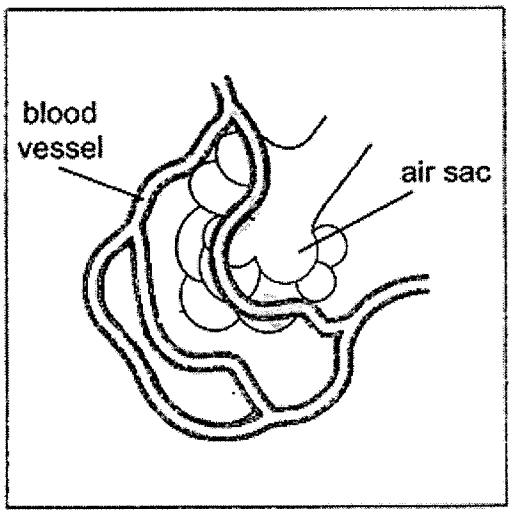
Air sacs are found at the end of the tiny branches of air tubes in the lungs and surrounded by blood vessels.

Timothy fell ill with a lung disease a month later. The disease caused some of his air sacs to shrink as shown in the diagrams below.

Before illness



After illness



(b) Based on the diagrams, explain how the damaged air sacs led to a decrease in oxygen level in his blood. [2]

Score	3

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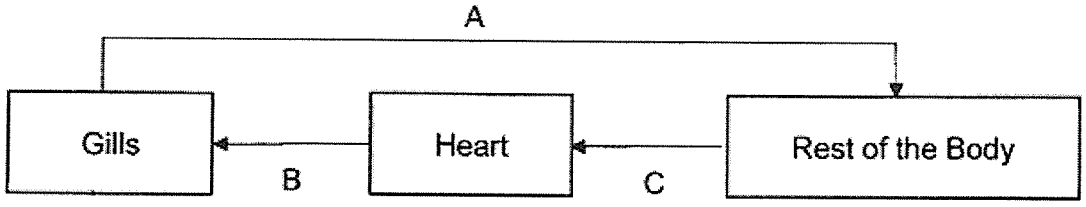
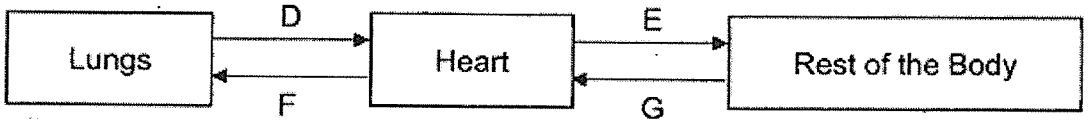
7 The diagrams below show how gases are transported in the circulatory systems of a fish and a human. A, B, C, D, E, F and G are blood vessels in the different parts of the bodies. The arrows represent the movement of blood.

Circulatory System of a Fish



Circulatory System of a Human



(a) Name the blood vessels, A, B, C, D, E, F or G, containing the most amount of oxygen in the fish and in the human. [1]

(i) In the fish: _____

(ii) In the human: _____

(b) Using the diagrams above, describe clearly how carbon dioxide produced by the cells of a human is removed from his body. [2]

_____

_____

_____

(Go on to the next page)

(c) Write 'True' or 'False' beside each statement below. [1]

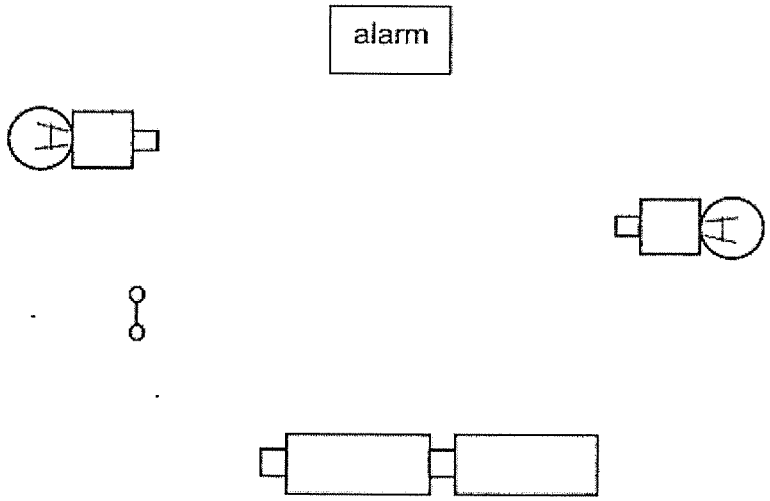
Statement	True or False
(i) Blood rich in oxygen that leaves the gills goes straight to all parts of the fish's body.	
(ii) Plants, like human, have tubes in their circulatory system to transport digested food to all its cells.	

(Go on to the next page)

Score	4

8 The diagram below shows a toy police car. When it is switched on the bulbs light up and the alarm sounds off at the same time.

(a) Complete the circuit diagram below to show the arrangement of the wires in the toy car when the bulbs are lit and alarm sounds off. [2]



(b) Will the alarm still produce the sound when one of the bulbs fuses? [1]
Explain your answer.

_____

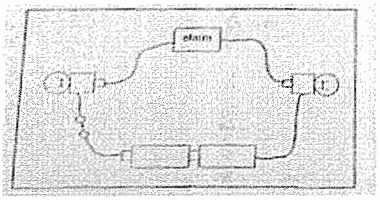
_____

~ End of Paper ~

Score	
	3

SCHOOL : NAN HUA PRIMARY SCHOOL
LEVEL : PRIMARY 5
SUBJECT : SCIENCE
TERM : 2022 WA2

Q 1	Q2	Q3	Q4	Q5
4	3	2	2	1

Q6)	a) During exercise, Timothy's breathing rate increased / became faster to take in more oxygen (and remove more carbon dioxide) for a faster rate of respiration / to release more energy. b) The shrunken / damaged air sacs reduced the exposed surface area of the oxygen in contact with the blood in the blood vessels. Hence less oxygen can enter / pass / be absorbed into the blood. OR As air sacs shrunk, the lungs' capacity / volume decreased. Less oxygen is present in the lungs. Hence less oxygen can enter / pass / be absorbed into the blood.
Q7)	a) i) A ii) D b) Carbon dioxide leaves the cells and enters into the blood / bloodstream. Carbon dioxide in the blood is then transported to the heart and pumped to the lungs. At the lungs, carbon dioxide is exhaled / removed from the body. c) i) True ii) False
Q8)	a)  b) The alarm will not sound. When a bulb fuses, there is an open circuit / a gap in the circuit. Electric current cannot flow through the alarm to sound it.