Nan Hua Primary School
Primary 5 Science
Term 2 Weighted Assessment 2024

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

Name: _____ ( )

Class: Primary 5S_____

Date: _____

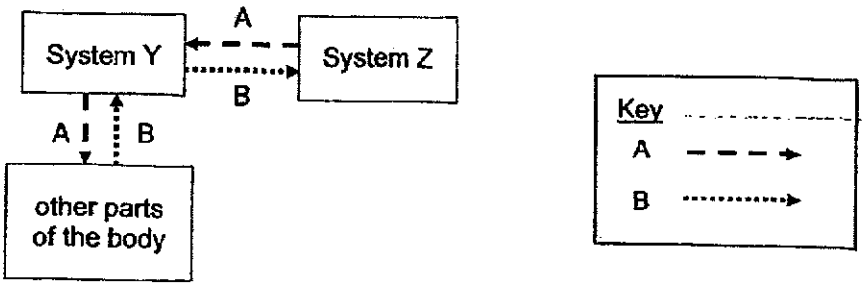
Duration: 30 minutes

_____
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 brackets provided.

1 The diagram below shows how substances A and B are transported in the human body.



What are systems Y and Z and substances A and B?

	System Y	System Z	Substance A	Substance B
(1)	respiratory	circulatory	oxygen	carbon dioxide
(2)	respiratory	circulatory	carbon dioxide	oxygen
(3)	circulatory	respiratory	oxygen	carbon dioxide
(4)	circulatory	respiratory	carbon dioxide	oxygen

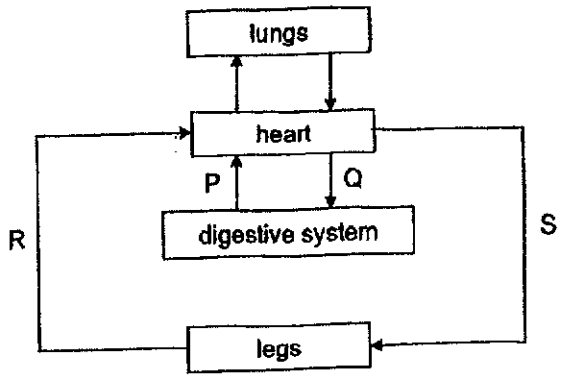
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2 The diagram below shows the flow of blood through blood vessels P, Q, R and S in the human circulatory system.



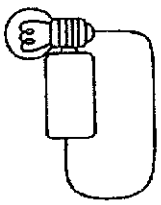
Which blood vessels transport blood richer in oxygen?

(1) P and Q
(2) P and R
(3) Q and S
(4) R and S

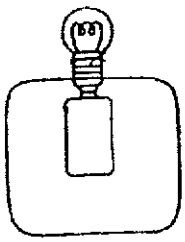
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3 The diagram below shows four circuits. In which circuit will the bulb light up?

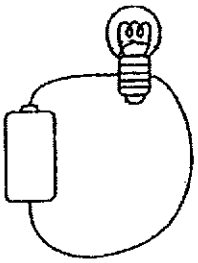
(1)



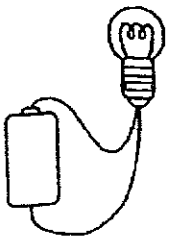
(2)



(3)



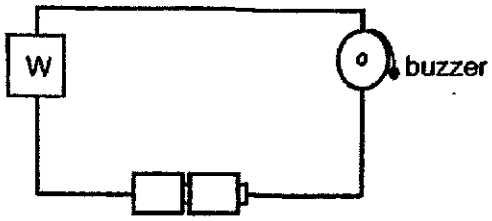
(4)



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4 Sally set up the circuit as shown below.



Which of the following object(s) can be placed at position W to allow the buzzer to ring?

A an eraser
B an aluminium foil
C a piece of paper
D a steel paper clip

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

( )

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5 Four metal pins, A, B, C and D, were fixed onto a wooden board as shown in Figure 1 below. Figure 2 shows a battery and a bulb connected to two wires X and Y.

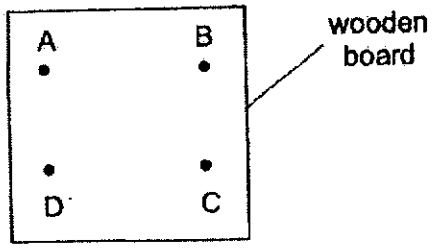


Figure 1

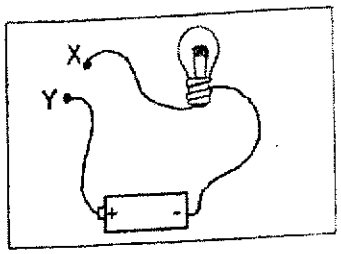


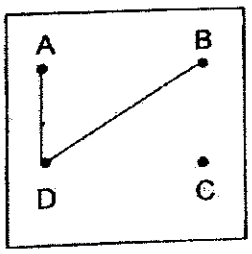
Figure 2

John connected some but not all pins on the wooden board in Figure 1 with wires. He then connected X and Y across different pairs of pins in turn. He recorded his results in the table below.

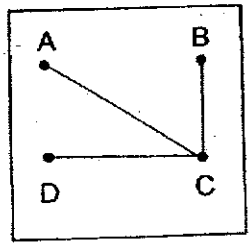
Pin connected to X	Pin connected to Y	Did the bulb light up?
A	B	yes
B	C	yes
C	D	no
D	A	no

Which of the following correctly shows the connections made by John?

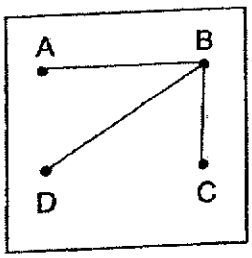
(1)



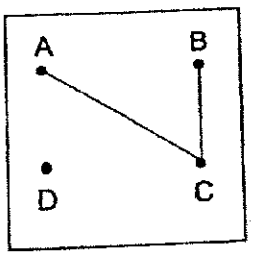
(2)



(3)



(4)



( )

Total score for section A	/ 10

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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 Study the two diagrams below. Diagram 1 shows the movement of water in a plant and diagram 2 shows the direction of blood flow in some parts of the human body.

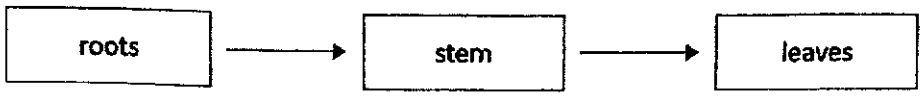


Diagram 1

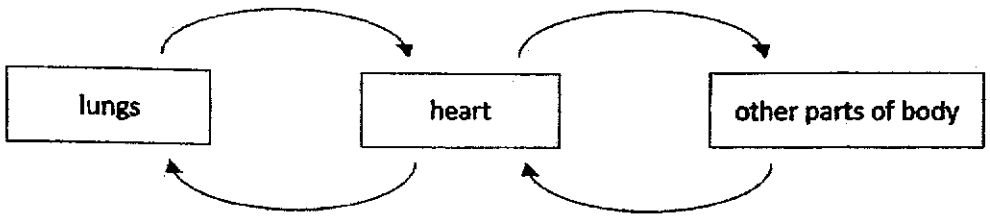


Diagram 2

(a) State one difference between the direction of movement of water in plants and the direction of movement of blood in the human body. [1]

_____

_____

(b) Other than the heart, name the other two parts of the human circulatory system. [1]

_____

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Score	/2

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7 Alan carried out an experiment by measuring his heart rate when he is taking part in different activities. He repeated his experiment two more times and recorded the average results in the table below.

Activity	Heart rate (beats per min)
resting	67
walking	98
running	160

(a) Explain, in terms of substances transported, why Alan's heart rate is slower when he is walking instead of running. [2]

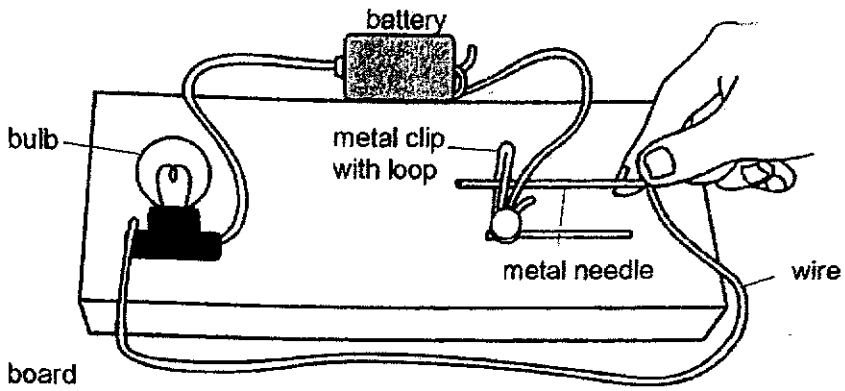
(b) Give a reason why Alan repeated his experiment two more times. [1]

(c) What is the relationship between the heart rate of a healthy person and his/her breathing rate? [1]

Score	/4

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8 The setup below shows a game where players try to move a metal needle through a metal clip without touching it. The bulb lights up when the needle touches the clip in the setup. The bulb and the metal clip are fixed to the board.

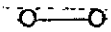


(a) Identify the parts of the set-up that functions like a switch. [1]

_____

(b) Based on the game setup above, complete the circuit below using only the symbols for the bulb, battery, and wires. [2]

switch



(c) Explain why the bulb lights up when the needle touches the clip. [1]

_____

_____

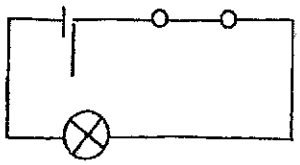
End of Paper

Score	
	4

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Nan Hua Primary School
Primary 5 Science
2024 Term 2 WA
ANSWER KEY

No.	
1	3
2	3
3	1
4	4
5	4
6a	The water **moves in one direction** from the roots up to the leaves in plants but blood circulates around the body **in two directions/two loops** in the human body.
b	Blood and blood vessels
7a	**Less energy** is needed so the **heart pumps slower** to **transport blood with less oxygen ,digested food and water to the body** [1/2] and to **remove less carbon dioxide.**
b	To ensure that the **results are reliable.**
c	When the **heart rate increase/decrease**, his **breathing rate increase/decrease.** or When his **breathing rate increase/decrease**, his **heart rate increase/decrease.**
8a	**metal clip** (with loop) **and metal needle**
B	
c	When the metal needle touches the metal clip, **electric current can flow through the circuit** and the bulb will light up. or When the metal needle touches the metal clip, it is a **closed circuit** and the bulb will light up.

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