



P5 Science Topical Revision Worksheet 2
Human Respiratory & Circulatory and Plant Transport System

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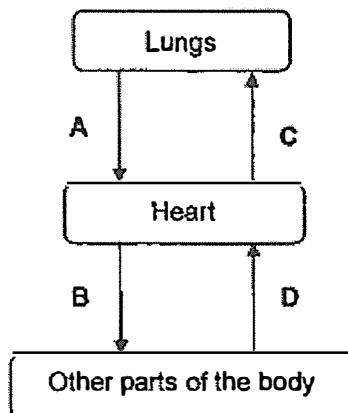
Name: _____ () Date: _____

Class: P5 _____

Section A: (10 x 2 marks)

Choose the most suitable answer and write its number (1, 2, 3 or 4) in the brackets provided.

1 In the diagram below, letters A, B, C and D represents blood vessels carrying blood to and from the lungs, heart and other parts of the body.



Which two blood vessels carry blood rich in oxygen?

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

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2 Which of the following statements about the air around us is true?

- (1) Most of it is oxygen.
- (2) It is made up of four gases only.
- (3) It has less carbon dioxide than nitrogen.
- (4) It has a fixed amount of water vapour and other gases.

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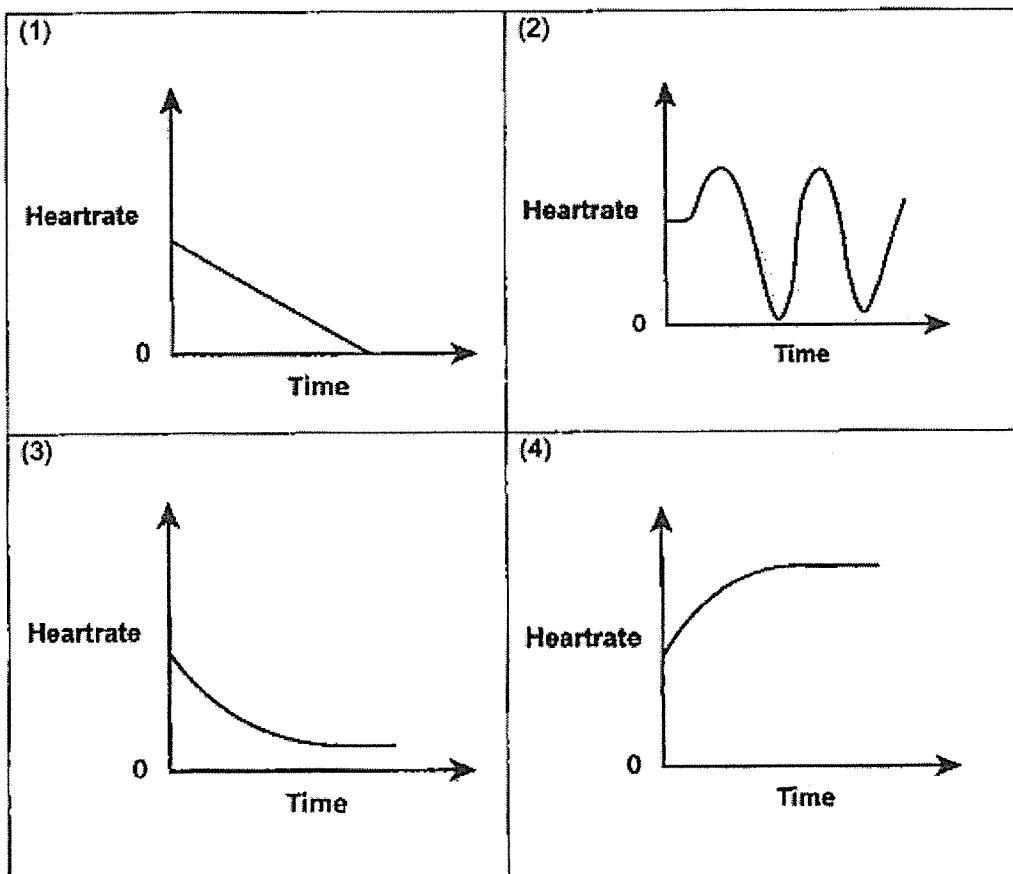
3 Which of the following statement(s) about the respiratory system is/are correct?

- A The nose hairs trap dust.
- B The respiratory system helps to remove carbon dioxide from the body.
- C The main organs in the respiratory system consist of the nose, gullet and lungs.

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

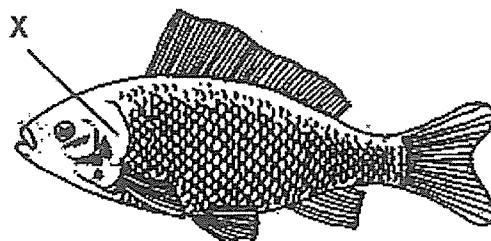
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4 Colin ran a 100-metre race. Which one of the following graphs shows the likely change in his heartrate during the race?



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5 What is the organ involved in gaseous exchange that is found at X?

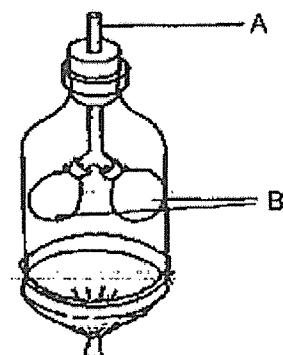


(1) Heart (2) Gills
(3) Lungs (4) Blood vessels

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6 The diagram below shows a model of the human respiratory system.

What do A and B represent?



	A	B
(1)	Air tube	Windpipe
(2)	Air sac	Lungs
(3)	Throat	Windpipe
(4)	Windpipe	Lungs

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7 Keith cut the outer ring of the stem of a plant as shown in Figure A.

outer ring has
been cut



Figure A

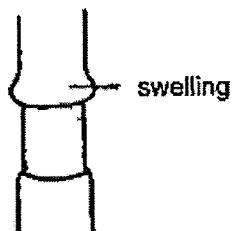


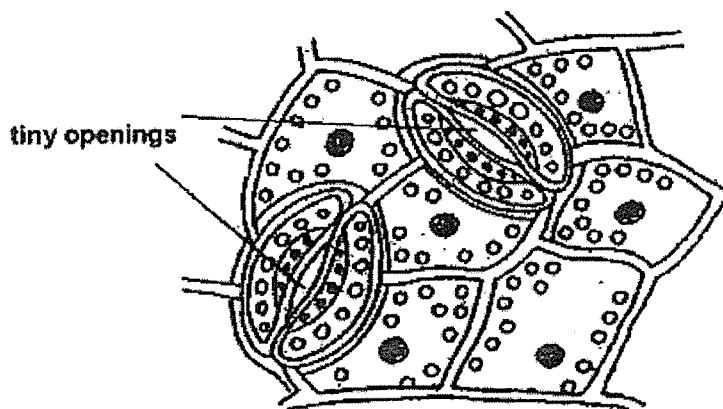
Figure B

Two days later, a swelling was observed only above the cut region as shown in Figure B. Which one of the following statements best explains the swelling?

- (1) Food had accumulated above the cut region.
- (2) Water had accumulated above the cut region.
- (3) Roots were starting to grow out from the swollen part.
- (4) The plant was injured more at the region above the cut region.

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8 John observed the underside of the leaf and saw many tiny openings as shown in the diagram.



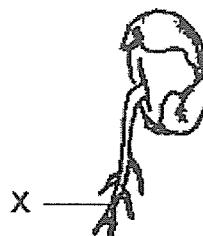
Which two of the following statement(s) below about these tiny openings are true?

- A It allows gaseous exchange in the day only.
- B It allows water vapour to escape the leaves.
- C It allows gaseous exchange in the day and night.
- D It allows water vapour to enter for photosynthesis.

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

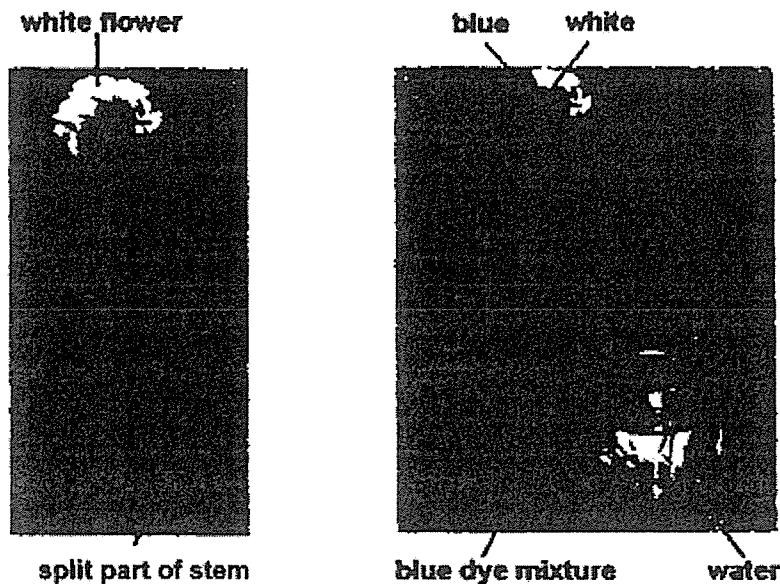
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9 The diagram shows a growing seedling.
The structure marked X always grows in the direction where there is _____.



(1) light (2) food
(3) soil (4) water ()

10 Alvin set up an experiment as shown. Firstly, he split part of a plant stem in half. Then, he put one half of it in a beaker of water mixed with blue dye and the other half in a beaker of water.



After some time, half of the flower turned blue.

Which of the following is/are also transported to the rest of the plant by tubes in the plant's stem that caused half of the flower to turn blue?

A food
B oxygen
C mineral salts
D carbon dioxide

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

Section B (10 marks)

Read each question carefully and write your answer in the space provided.

11 State the function of:

(a) food-carrying tubes in the stem of the plants.

[1]

(b) water-carrying tubes in the stem of the plants.

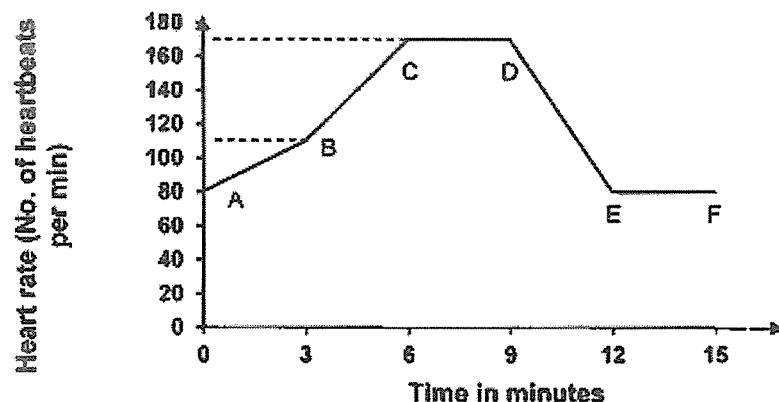
[1]

12 Several people were trapped in a lift which does not have good ventilation.

Indicate whether each of the statements below is 'True' or 'False' regarding the amount of gas in the lift. Put a tick (✓) in the correct box. [2]

Statement	True	False
The amount of nitrogen increased.		
The amount of carbon dioxide remained the same.		
The amount of water vapour increased.		
The amount of oxygen decreased.		

13 The graph shows the heartrate of Wen Kai as he was running on the treadmill.



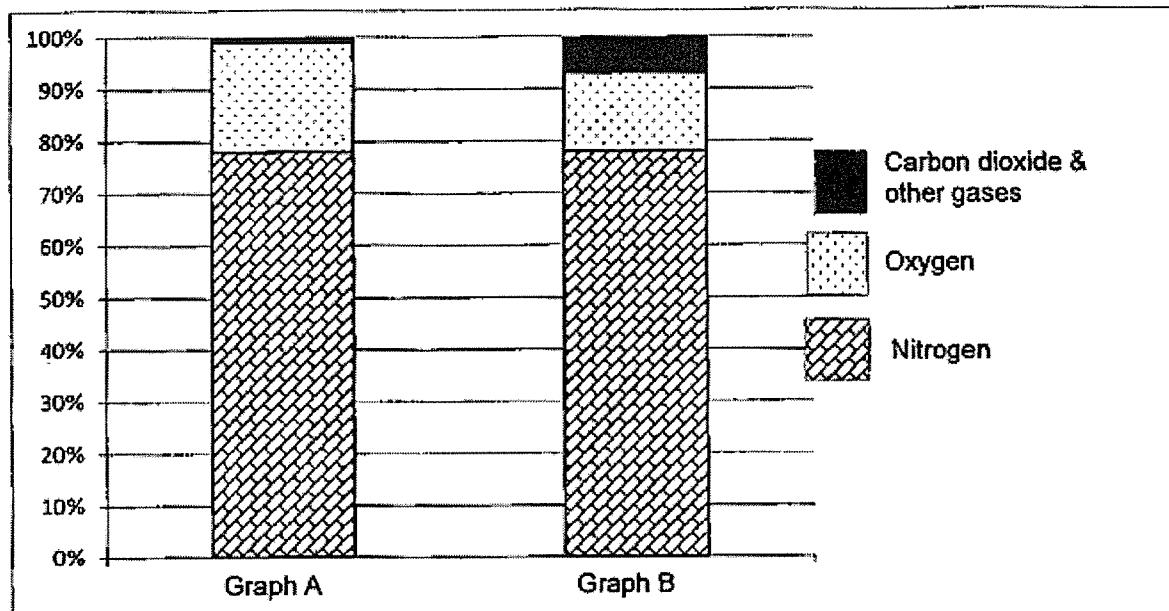
(a) How long did it take for Wen Kai to reach his maximum heartrate? [1]

(b) Explain why Wen Kai's heartrate increased while he was running. [2]

(c) Which line (AB, BC, CD, DE or EF) showed that Wen Kai had most likely slowed down his running? [1]

Line _____

14 The bar graphs show the composition of inhaled and exhaled air.



(a) Which bar graph, A or B, best represents the composition of inhaled air? Explain your choice by comparing graphs A and B. [1]

(b) State one other difference between inhaled and exhaled air that is not shown in the graph. [1]

SCHOOL : ACS PRIMARY SCHOOL
LEVEL : PRIMARY 5
SUBJECT : SCIENCE
TERM : 2023 TOPICAL REVISION WORKSHEET 2

SECTION A

Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
1	3	2	4	2	4	1	3	4	1

SECTION B

Q11a	Transports food from the leaves to all parts of a plant.
Q11b	Transports water and minerals salts from the roots to all parts of the plant.
Q12	False, False, True, True
Q13a	6 minutes
Q13b	When Wen Kai was running, his body needed more energy. His heart rate increases as his heart beats faster to transport more digested food and oxygen to his body to release more energy, while transporting more carbon dioxide that is produced for removal.
Q13c	DE
Q14a	A. Since the body uses oxygen and produces carbon dioxide during respiration, the graph for inhaled air should have less carbon dioxide and more oxygen than the graph for exhaled air. Graph A fits this criteria.
Q14b	Inhaled air is cooler than exhaled air.

