PEI CHUN PUBLIC SCHOOL

PRIMARY 5

TERM 2 WEIGHTED ASSESSMENT 2024

SCIENCE

Time: 40 min

Name: _____ ( )

Class: Primary 5 /( )_____

Date: 10 May 2024

Science Teacher: _____

Parent's Signature: _____ ___

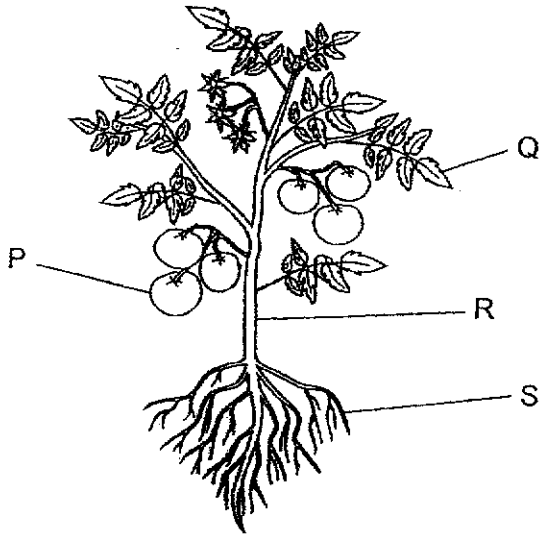
SECTION A	/16
SECTION B	/14
TOTAL	/30

INSTRUCTIONS TO CANDIDATES

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Write your answers in this booklet.

Section A (8 × 2 marks)
For questions 1 to 8, choose the most suitable answer and write its number (1, 2, 3 or 4) in the brackets provided.

1 Study the diagram below carefully.



Which of the following correctly shows where the water and food-carrying tubes can be found in a plant?

	Water-carrying tubes	Food-carrying tubes
(1)	S only	Q only
(2)	R only	R only
(3)	R and S only	Q and R only
(4)	P, Q, R and S	P, Q, R and S

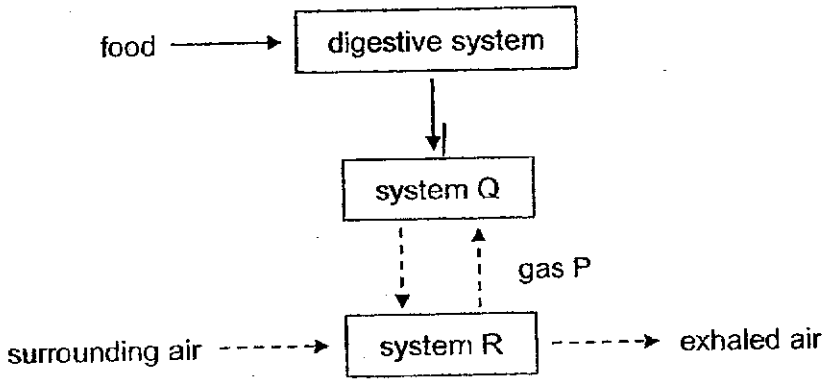
2 Some people were trapped in a lift where air could not enter or escape.

Which of the following best describes the amount of nitrogen and water vapour in the lift after an hour?

	Nitrogen	Water vapour
(1)	no change	no change
(2)	no change	increase
(3)	decrease	decrease
(4)	increase	no change

( )

3 The diagram below shows how food and various gases are transported in the human body.

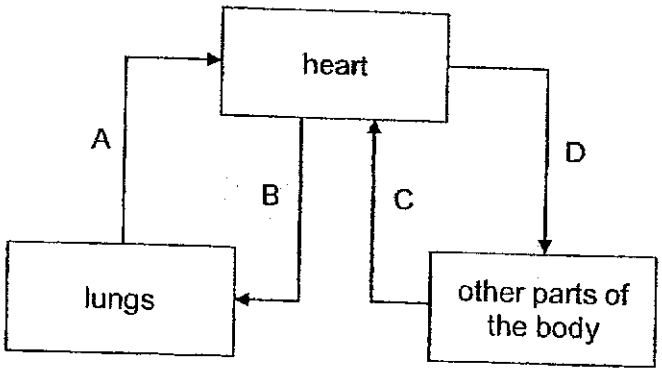


Which systems do Q and R represent and what is gas P?

	Q	R	P
(1)	respiratory	circulatory	oxygen
(2)	circulatory	respiratory	oxygen
(3)	respiratory	circulatory	carbon dioxide
(4)	circulatory	respiratory	carbon dioxide

( )

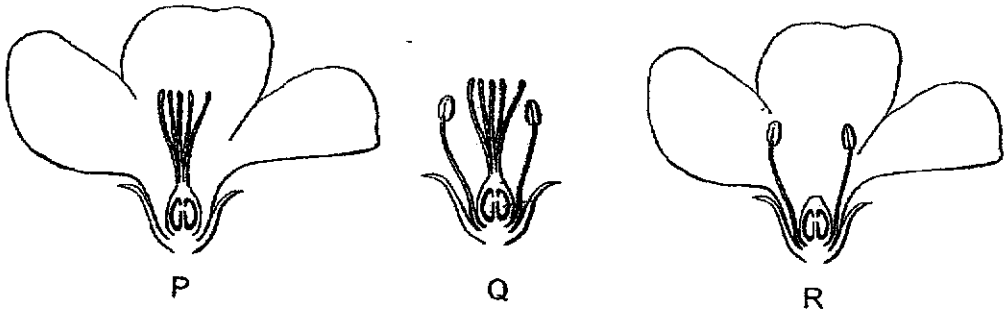
4 The diagram below shows how blood flows in certain parts of the body.



Which of the following statements is correct?

(1) The blood in B and C is rich in oxygen.
(2) The blood in A and D is rich in carbon dioxide.
(3) The blood in C has less oxygen than the blood in D.
(4) The blood in C has less carbon dioxide than the blood in D. ( )

5 Ali conducted an experiment with three similar flowers, P, Q and R, on the same plant. He removed one part from each flower as shown below.

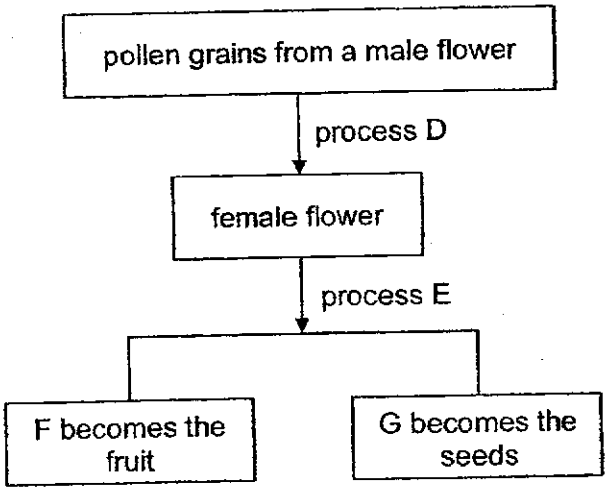


Which flower(s) can become a fruit?

(1) P only
(2) Q only
(3) P and Q only
(4) P, Q and R

( )

6 The diagram below shows the reproduction process in flowering plants.



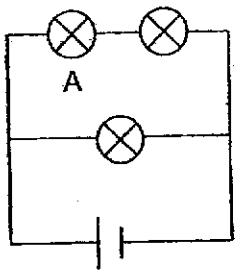
Which of the following correctly represents D, E, F and G?

	D	E	F	G
(1)	pollination	fertilisation	ovules	ovary
(2)	fertilisation	pollination	ovules	ovary
(3)	fertilisation	pollination	ovary	ovules
(4)	pollination	fertilisation	ovary	ovules

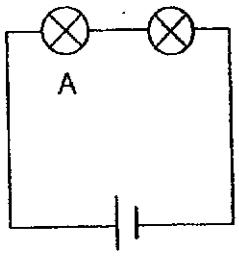
( )

7 In which circuit will bulb A be the dimmest?

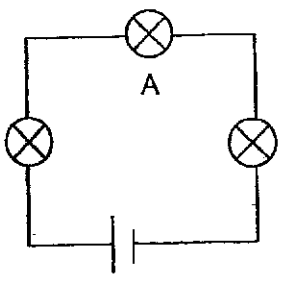
(1)



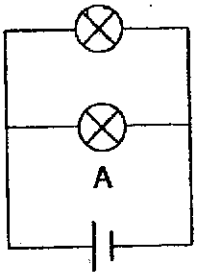
(2)



(3)

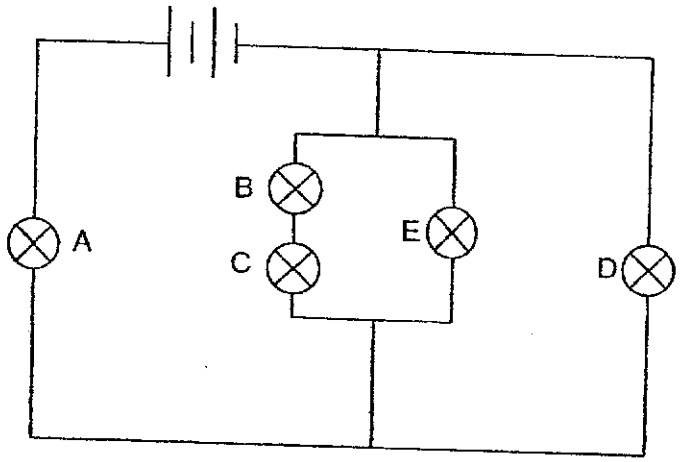


(4)



( )

8 Study the circuit below. The batteries and bulbs are all working properly.



Which of the following correctly states the number of bulbs that would still be lit when one or more bulbs are blown?

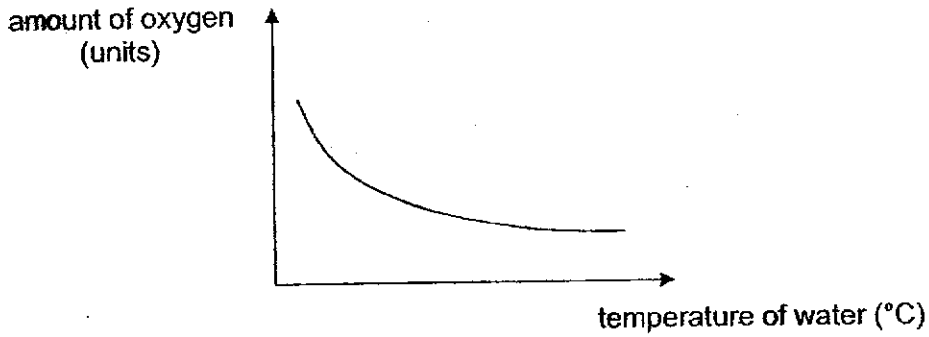
	Bulb(s) that is/are blown	Number of bulbs still lit
(1)	A	4
(2)	C	3
(3)	B and D	3
(4)	D and E	2

( )

End of Section A

Section B (14 marks)
For questions 9 to 12, write your answers in the spaces provided.

9 Mr Tan conducted an experiment to measure the amount of oxygen present in the water of his fish tank at different temperatures. His results are shown in the graph below.

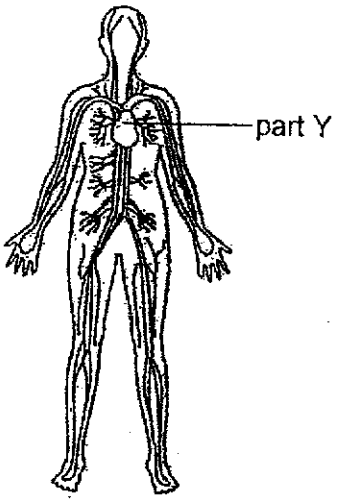


(a) Based on Mr Tan's results, state the relationship between the temperature of water and the amount of oxygen present in the water. [1]

(b) Mr Tan observed some fish in the tank. He noted that the breathing rate of the fish increased when the temperature of water in the fish tank increased.

Using the results of his experiment, explain his observation. [1]

10 The diagram below shows a human body system.

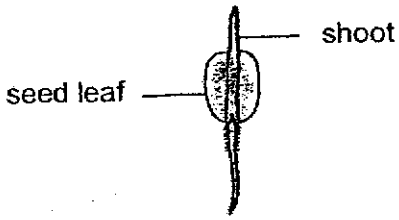


(a) Other than part Y, name two other parts of this system. [1]

(b) Hassan was resting before he started to run. He observed that his heart rate increased during exercise.

Explain why his heart rate increased during exercise. [2]

11 The diagram below shows a seed germinating.



(a) State the function of the seed leaf. [1]

(b) Sarah wanted to investigate the conditions needed for seeds to germinate. She placed some seeds on four plates, A, B, C and D, and varied the conditions as shown in the table below.

Plate	A	B	C	D
Number of seeds	15	5	5	15
Presence of water	Yes	Yes	No	Yes
Presence of light	Yes	No	No	No

State which plates must be compared to conclude about the effect of each variable on the germination of seeds. [2]

Variable	**Plates to compare**
Presence of light	
Presence of water	

(c) Sarah conducted a second experiment to find out the most suitable temperature for the germination of seeds of a plant. She put fifteen seeds in each of the four plates and placed them at different temperatures. She then added the same amount of water to each plate.

The results of her experiment after five days is as shown below.

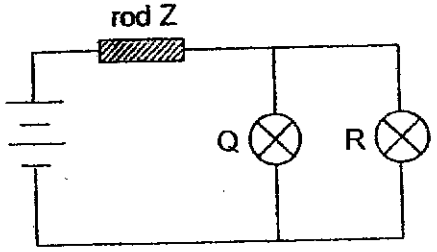
Temperature of surrounding (°C)	Number of seeds germinated
20	3
22	8
24	14
26	10

Based on Sarah's results, which temperature is the most suitable for the germination of the seeds of the plant? Give a reason for your answer. [1]

_____

_____

12 Roash set up an electrical circuit as shown in the diagram below. All the batteries and bulbs are working properly.



(a) Roash observed that all the bulbs lit up in the circuit.

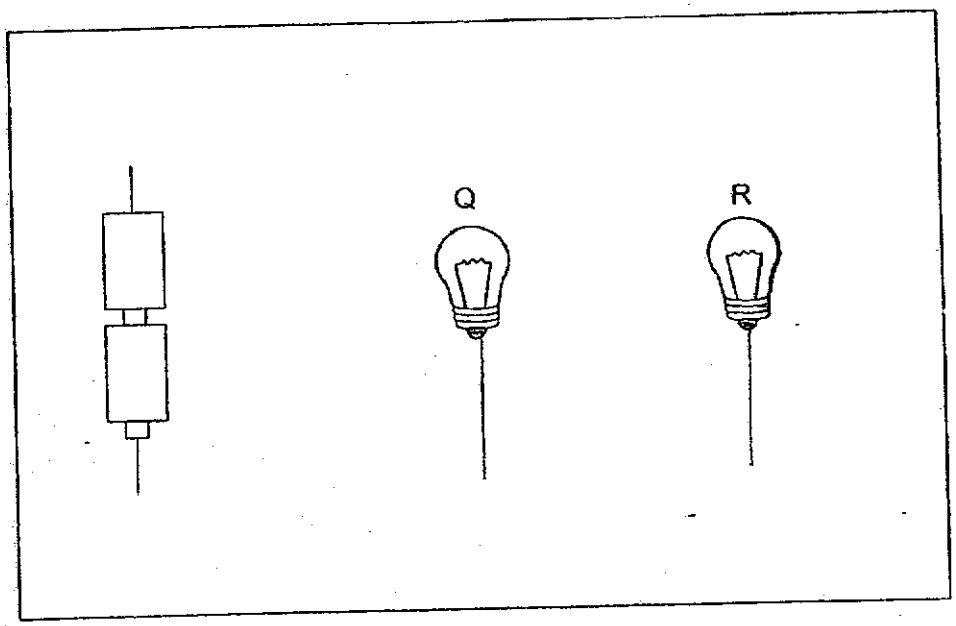
State a property of the material for rod Z. [1]

(b) State the effect on bulb R if bulb Q fuses. Explain your answer. [2]

(c) Roash removed rod Z. He added a switch to the circuit so that the bulbs work as described below:

1) When he closed the switch, both bulbs lit up.
2) When he opened the switch, only bulb Q lit up.

The diagram below shows part of Roash's circuit. Use a pencil to complete the circuit so that it will work as described. [2]



End of Section B

Name: _____ ( )

Class: P5/ ( )

Date: ___ May 2024

PEI CHUN PRIMARY

Term 2 Weighted Assessment - 2024
Primary 5 Science Corrections

Section A

1) 4	2) 2	3) 2	4) 3	5) 3	6) 4	7) 3	8) 2

Section B

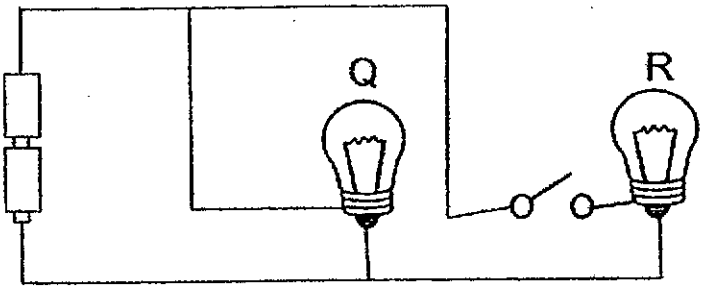
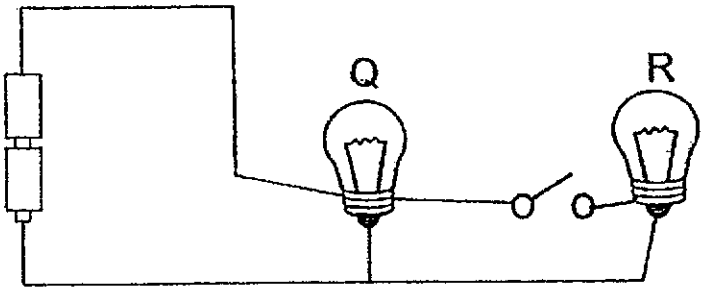
9 a)	*Concept: Interpreting data from graph/tables, identifying relationship between variables* As the temperature of water increases, the amount of oxygen present in the water decreases. / As the temperature of water decreases, the amount of oxygen present in the water increases.
b)	Concept: *Breathing rate increases for the body to take in more oxygen.* As the temperature of water increased, there was less oxygen in the water, so the fish breathed faster to take in more (or enough) oxygen.

10 a)	*Concept: Parts of the circulatory system* Blood and blood vessels
b)	*Concept: Effect of exercising on heart rate* The heart pumps blood faster to transport more oxygen and digested food to all / different / various parts of the body to produce more energy. The blood also transports carbon dioxide and other waste materials away from the various parts of the body faster for removal.

11 a)	*Concept: Function of seed leaves* To provide food for the seedling (or shoot).
b)	*Concept: Fair test*

Variable	Plates to compare
Presence of light	A and D
Presence of water	B and C

c)	*Concept:* Draw conclusion from results 24°C. The greatest number of seeds germinated at 24°C.

12 a)	*Concept: Electrical conductors allow electric current to flow through easily, e.g. metal* Rod Z is an electrical conductor.
b)	*Concept: When bulbs are arranged in parallel, the rest of the bulbs will still light up if one bulb fuses.* Bulb R will still light up. Electric current can still flow through bulb R.
c)	*Concept: Metal tip and metal casing of the bulbs must be connected for the bulb to light up.* Notes: 1) Switch is arranged in series with bulb R only. 2) Both bulbs Q and R are arranged in parallel. 3) The metal tip and metal casing of bulbs Q and R are connected to the rest of the circuit.  

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END