Catholic High School (Primary)
Primary 5 Science 2024
Weighted Assessment 3

Name: _____ ( )

MARKS	/ 30

Class: Pri. 5 - _____

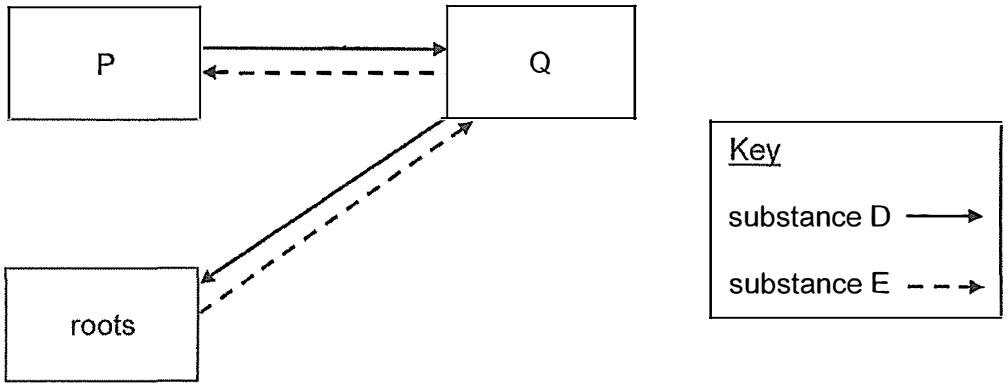
Date: 1 August 2024 Parent's Signature: _____

Booklet A (10 × 2 marks)

For each question from 1 to 10, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Write its correct number in the brackets provided.

(20 marks)

1 Study the diagram.

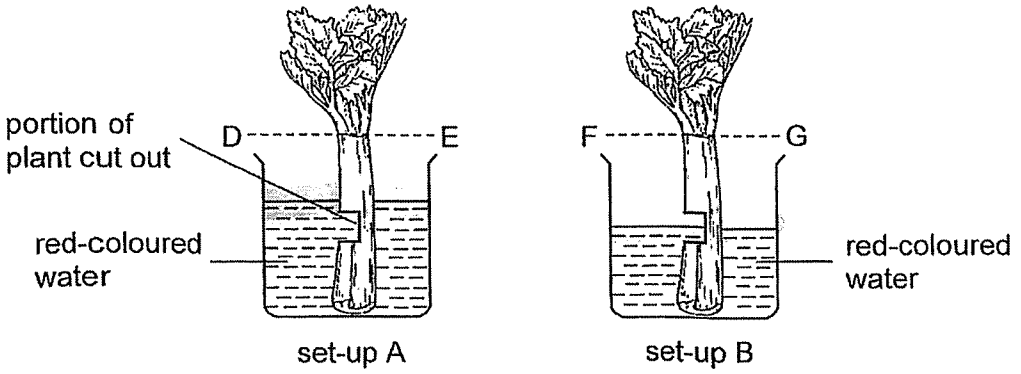


Which of the following correctly identifies parts P and Q and substances D and E?

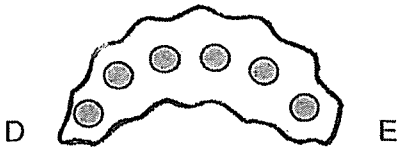
	P	Q	D	E
(1)	leaves	stem	water	food
(2)	leaves	stem	food	water
(3)	stem	leaves	water	food
(4)	stem	leaves	food	water

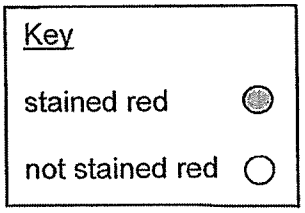
( )

2 Two similar stalks of a plant, each with a portion cut out, were lowered into two separate beakers with red-coloured water as shown.



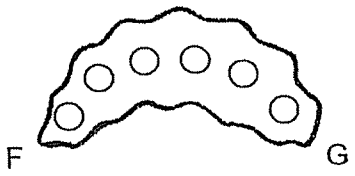
After several hours, the two stalks were cut at DE and FG respectively. The diagram shows the parts stained red in the cut at DE.



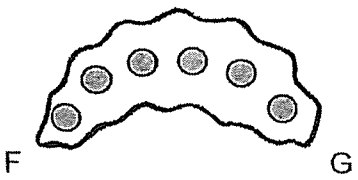


Which diagram would be observed in the cut at FG?

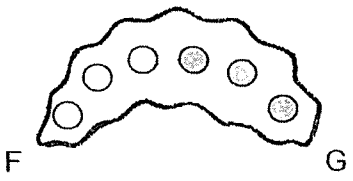
(1)



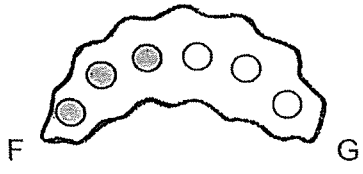
(2)



(3)

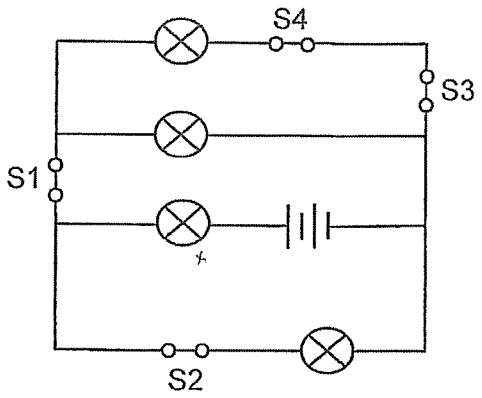


(4)



( )

3 Study the circuit.



All the bulbs were lit when all the four switches were closed. Which switch should be opened for the least number of bulbs to light up?

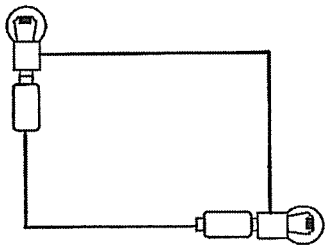
(1) S1
(2) S2
(3) S3
(4) S4 ( )

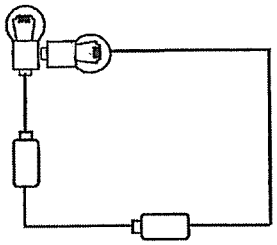
4 Which actions help to conserve electricity?

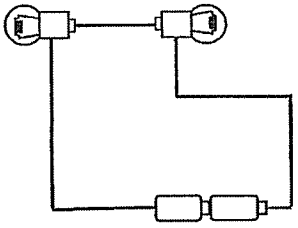
A Use energy-saving light bulbs
B Use the water heater only when needed
C Leave the air-conditioner turned on the entire day
D Switch off the electrical appliances when not in use

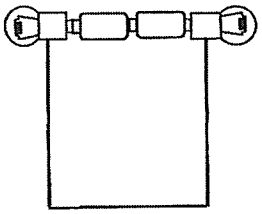
(1) A and D only
(2) B and C only
(3) A, C and D only
(4) A, B and D only ( )

5 Vicknesh set up four circuits using identical batteries and bulbs in working condition.


circuit A


circuit B


circuit C


circuit D

In which circuit(s) will the bulbs light up?

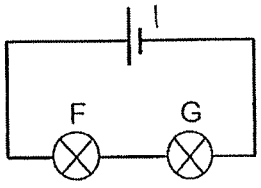
(1) A only

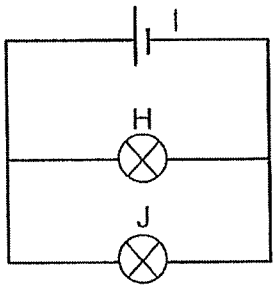
(2) B and C only

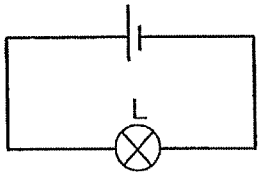
(3) B and D only

(4) A, C and D only ( )

6 Identical batteries and bulbs in working condition are used to set up the three circuits.







Which bulbs will most likely light up with the same brightness?

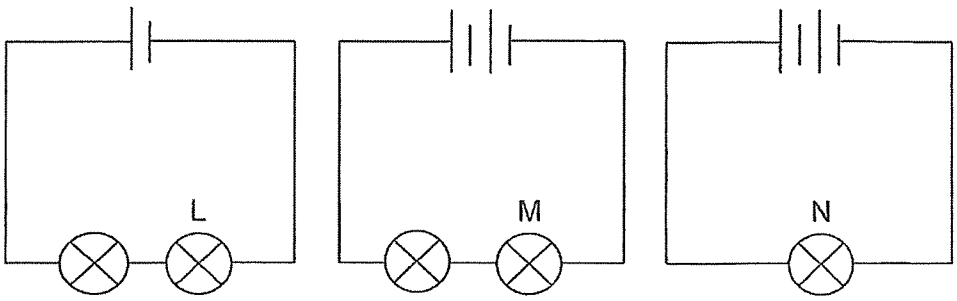
(1) H and L only

(2) F, G and L only

(3) H, J and L only

(4) F, G, H and J only ( )

7 Identical batteries and bulbs in working condition are used to set up the three circuits.

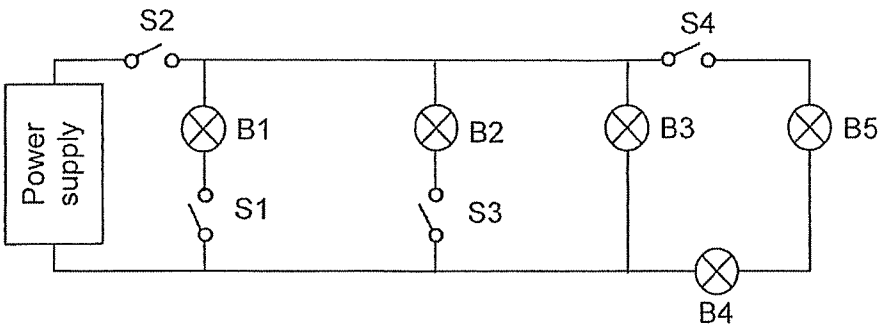


Arrange the bulbs from the brightest to the dimmest.

	Brightest bulb ⟶		Dimmest bulb
(1)	L	M	N
(2)	L	N	M
(3)	N	M	L
(4)	N	L	M

( )

8 Study the circuit.



Which of the following is correct?

	Switch(es) open	Switch(es) closed	Bulb(s) that will light up
(1)	S1 and S3	S2 and S4	B4 and B5
(2)	S4	S1, S2 and S3	B1, B2, B4 and B5
(3)	S2 and S1	S3 and S4	B2, B3, B4 and B5
(4)	S3	S1, S2 and S4	B1, B3, B4 and B5

( )

9 Four identical paper clips, R, S, T and U, were fixed onto a cardboard as shown in diagram 1. Diagram 2 shows a battery and a bulb connected to two wires W and Y.

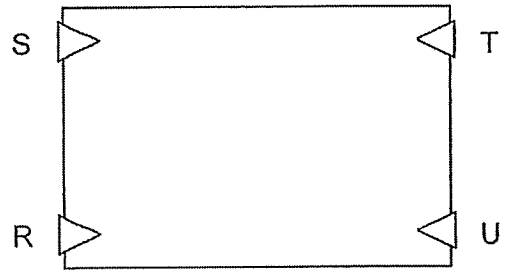


diagram 1

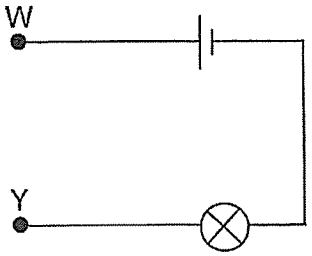


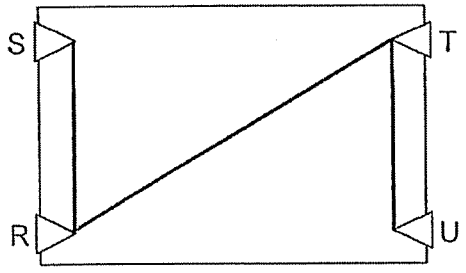
diagram 2

Hafiz connected some of the paper clips on the cardboard in diagram 1 with wires. He then connected W and Y across different pairs of paper clips. His results are as shown.

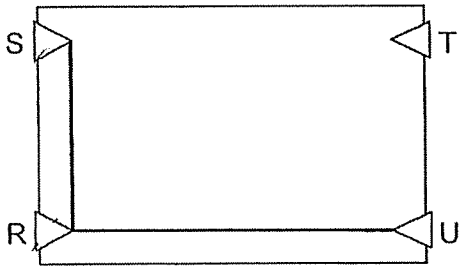
Clip connected to W	Clip connected to Y	Did the bulb light up?
R	S	yes
U	T	no
S	U	yes

Based on the information, which of the following correctly shows the connections?

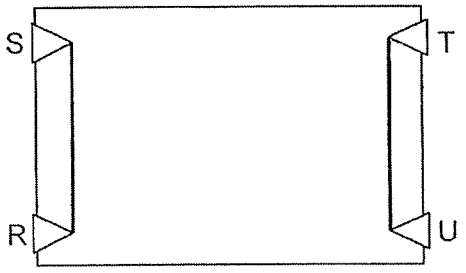
(1)



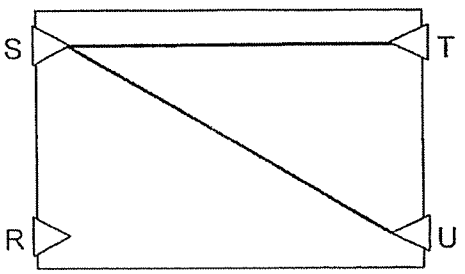
(2)



(3)

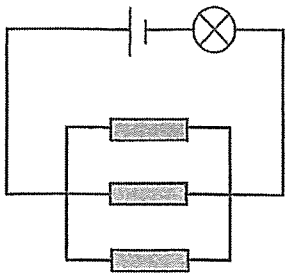


(4)

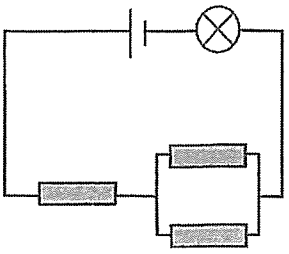


( )

10 Each of the circuits has an iron rod, a wooden rod and a plastic rod.



circuit A



circuit B

In which of the circuits will the bulb light up?

(1) A only

(2) B only

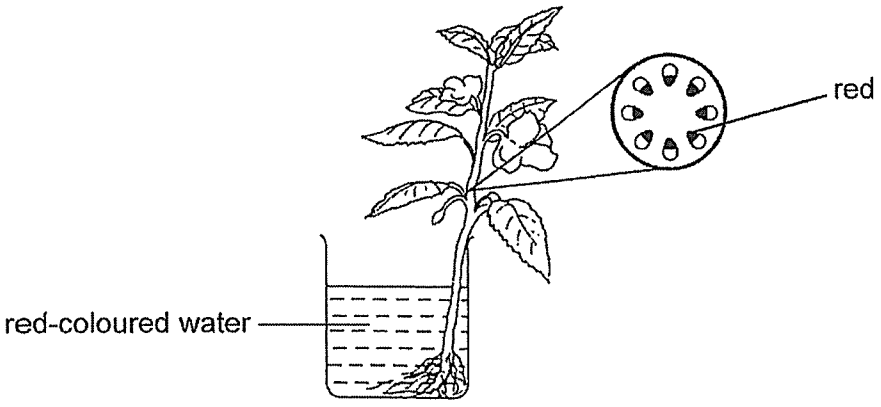
(3) Both A and B

(4) None of the circuits ( )

Booklet B (10 marks)

For questions 11 to 13, write your answers in this booklet.
The number of marks available is shown in brackets [ ] at the end of each question or part question. (10 marks)

11 Jia En left a plant with white flowers standing in a beaker of red-coloured water for one hour. After one hour, she cut a section of the stem and observed that there were red dots as shown.

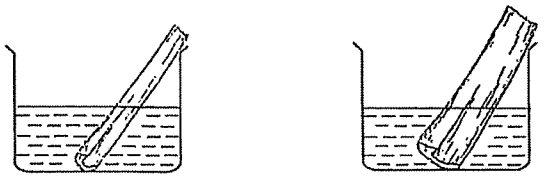


(a) Name the part of the stem that was stained red and state its function. [1]

_____

_____

Jia En prepared two set-ups for an experiment as shown.



(b) State the changed variable for the experiment. [1]

_____

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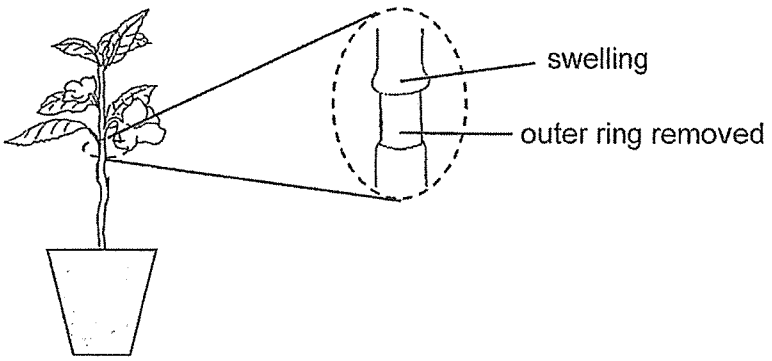
SCORE	/ 2

Continue from Question 11

Jia En removed the outer ring from the stem of another plant in a pot. The food-carrying tubes were removed while the water-carrying tubes remained in the stem.



(c) Explain why removing the outer ring of the stem caused swelling above the cut section. [1]

_____

_____

(d) Jia En observed that the plant died even though she watered the plant daily. Give a reason. [1]

_____

_____

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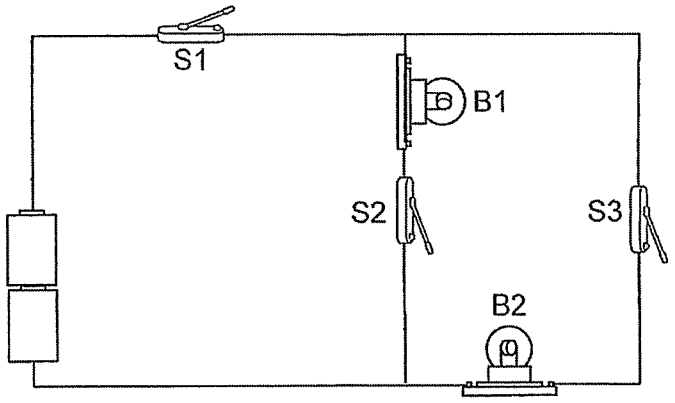
SCORE	/ 2

12 Study the circuit. All the electrical components are in working condition.



(a) Complete the table by filling in the four blanks. [2]

Were the switches open or closed?			Did the bulb light up?	
S1	**S2**	**S3**	**B1**	**B2**
(i)	closed	(ii)	yes	yes
closed	(iii)	(iv)	yes	no

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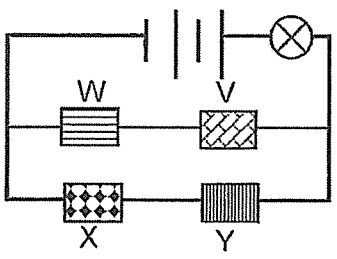
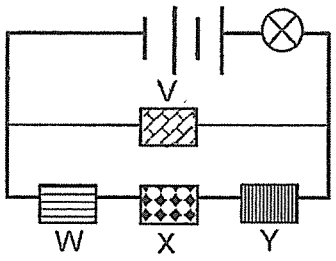
SCORE	2

Continue from Question 12

Two circuits using identical batteries and bulbs are set up as shown. Materials V, W, X and Y are either electrical conductors or electrical insulators.



circuit 1: bulb lights up



circuit 2: bulb does not light up

(b) Based on the information, which two materials are electrical insulators? Explain why the bulb does not light up in circuit 2. [2]

_____

_____

_____

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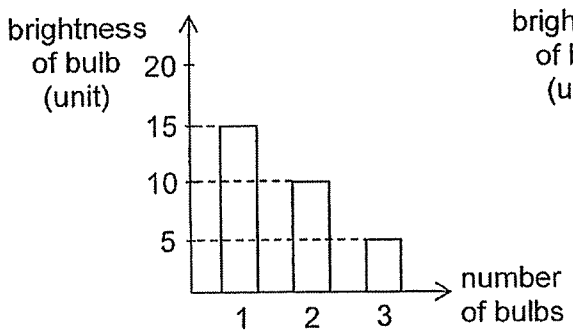
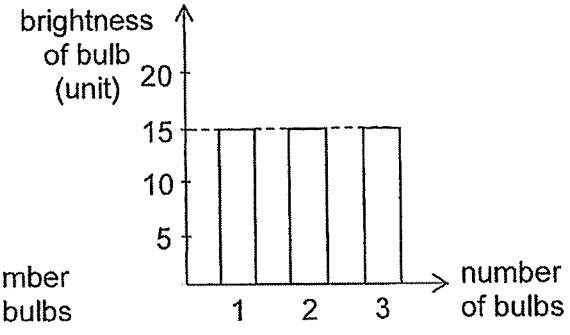
SCORE	/ 2

13 The graphs show the relationship between the number of bulbs and the brightness of the bulbs in circuits G and H. Identical bulbs and batteries used are in working condition.



circuit G



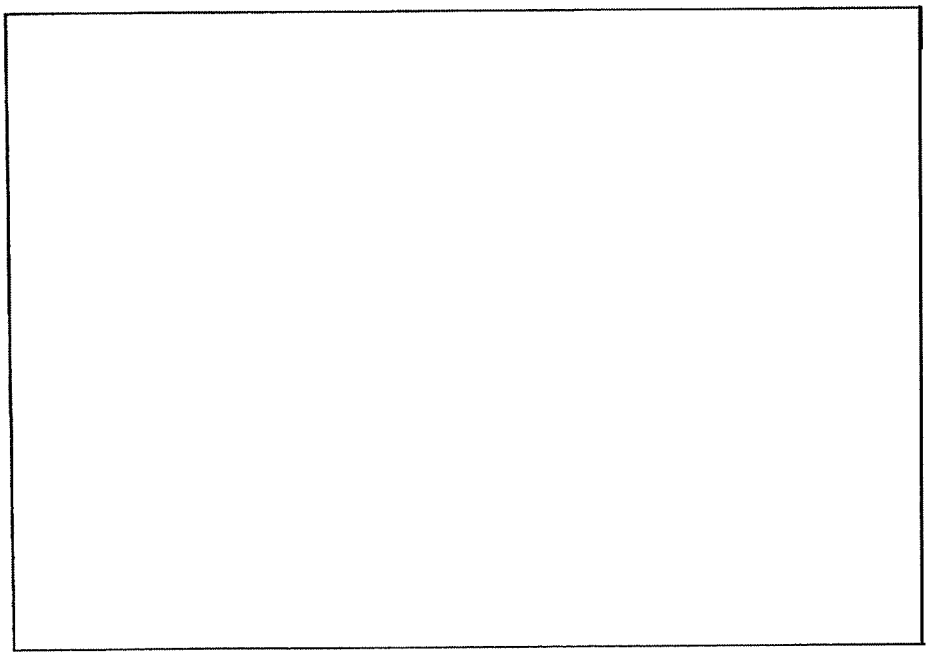
circuit H

(a) Based on the information, state the arrangement of the bulbs in each circuit. [1]

circuit G: _____

circuit H: _____

(b) Complete the circuit diagram of circuit H with three bulbs in the box. The batteries have been drawn for you. [1]



End of Paper

SCORE	/ 2

SCHOOL : CATGOLIC HIGH SCHOOL
LEVEL : PRIMARY 5
SUBJECT : SCIENCE
TERM : 2024 WA3

Q1)	2
Q2)	3
Q3)	1
Q4)	4
Q5)	4
Q6)	3
Q7)	3
Q8)	4
Q9)	2
Q10)	1

Primary 5 Science 2024
Weighted Assessment 3

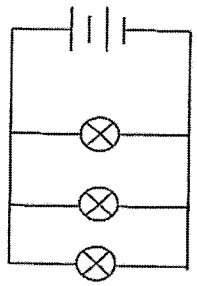
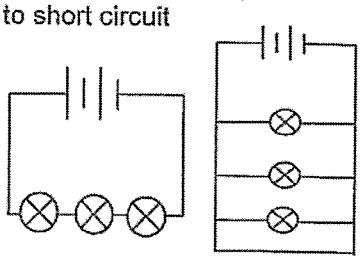
Name: _____ ( ) **Class: Pr 5 –** _____

Booklet B (10 marks)

Qn	Correct / Acceptable Answer	Remarks
11	***Concept(s)/Skill(s) assessed:*** *Identify the parts of the plant transport system and describe their functions.* *Investigate the functions of plant parts and communicate findings.*	
a	water-carrying _____ tubes. The water-carrying _____ tubes transport water _____ and mineral salts _____ from the roots _____ to all _____ parts of the plant.	Study the definition given in TB page 4.
b	Thickness _____ of the stem	*Changed variable can only be one in an experimental set-up.* *Size, length is not the same as thickness.* *Size → big or small* *Be specific!*
c	The food _____, made in the leaves was accumulated _____ at the cut _____ as food could not be transported to the parts below _____ the cut / to the roots.	

Cause Outer ring removed (mentioned) → Food-carrying tubes removed (mentioned) → Food made in leaves accumulated **above** the cut section → Food made in leaves could not be transported **below** the cut section → **Effect** Swelling **above** the cut section (mentioned)

d	The roots _____ could not absorb water for the plant to photosynthesise.	Must state the **function** of the roots. **Do not** repeat what you wrote in Part C.

12	***Concept(s)/Skill(s) assessed:*** *Show an understanding that a current can only flow in a closed circuit.* *Identify electrical conductors and insulators.*		
a	(i) closed (ii) closed (iii) closed (iv) open		
b	C: Materials W and V. E: The circuit is open so R: electric current cannot flow through the circuit.		Had mentioned many times in class! Open circuit → electric current cannot flow through Closed circuit → electric current can flow through
13	*Concept(s)/Skill(s) assessed:* *Investigate the effect of the current on circuit arrangement (series & parallel).* *Construct simple circuits from circuit diagrams.*		
a	circuit A: series circuit B: parallel		'arrangement' means whether it is a series or parallel arrangement
b			*Not accepted:* series circuit / extra path will lead to short circuit  **Standard exam marking system:** -additional components / obvious wires sticking out / wires cross bulb (minus ½m) -gaps of 0.1cm or more (0m)