

METHODIST GIRLS' SCHOOL
Founded in 1887



WEIGHTED ASSESSMENT 1 2025
PRIMARY 5
SCIENCE

Total Time for Section A and B: 40 minutes

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.

Name: _____ ()

Class: Primary 5. _____

Date : _____ February 2025

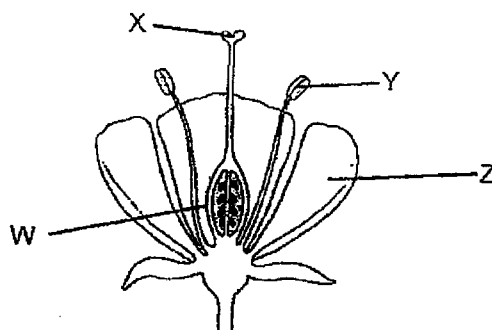
Section A	18
Section B	12
Total	30
Parent's Signature	

This booklet consists of 10 printed pages including this page.

Section A

For each question from 1 to 9, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and write in the bracket provided. [18 marks]

- 1 Kelly conducted an experiment using two similar flowers, C and D, from the same plant that have been pollinated. The parts of the flower is labelled as shown below.



One part of each flower, C and D, was removed. After some time, Kelly recorded her observation as shown in the table below.

Flower	Did the flower develop into a fruit?
C	no
D	yes

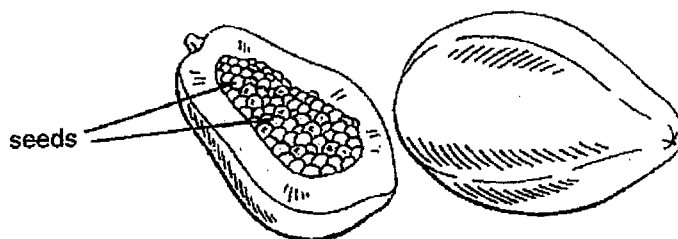
Which of the following correctly shows the part that was removed from each flower?

Part that was removed		
	flower C	flower D
(1)	X	W
(2)	Y	W
(3)	Z	X
(4)	W	Y

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(Go on to the next page)

- 2 The picture below shows the fruit of plant Q.



Based on the picture, which of the following statements can be concluded?

- A Pollination and fertilisation had taken place.
- B The ovaries of plant Q's flowers have many ovules.
- C The fruit splits open when dry and the seeds are dispersed by animals.

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

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- 3 Which of the following statements about reproduction in humans are correct?

- A The ovules are produced in the ovaries.
- B Many sperms are needed to fertilise an egg cell.
- C The fertilised egg develops in the mother's womb.
- D Fertilisation takes place when the male reproductive cell fuses with the female reproductive cell.

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

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- 4 Which of the following characteristics can be passed down from parents to offspring?

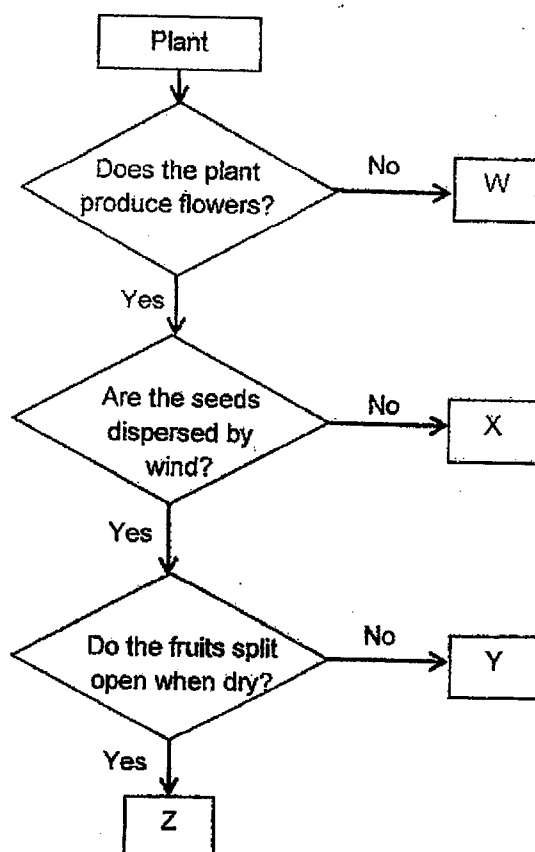
- A Length of hair
- B Attached earlobes
- C Colour of fruit
- D Distance travelled by the seed

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

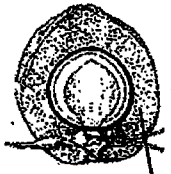
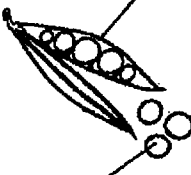
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5 Observe the flowchart below carefully.

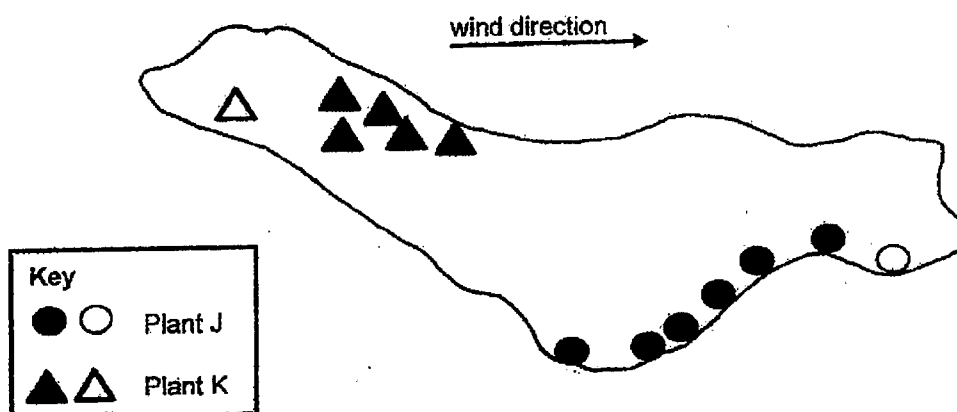


Which of the following correctly identifies the plants above?

	 fibrous husk	 pod seeds are light	 hair-like structure	 spore bags
(1)	W	Z	Y	X
(2)	X	Y	Z	W
(3)	W	Y	Z	X
(4)	X	Z	Y	W

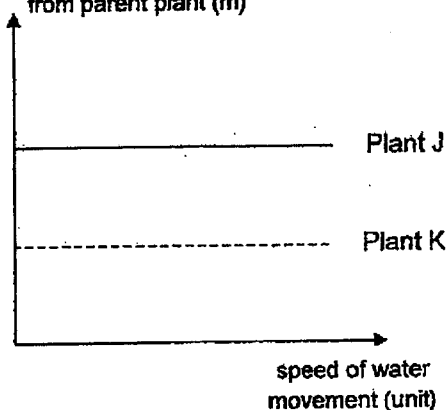
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- 6 The diagram below shows the map of Pulau Ubin, an island in Singapore surrounded by water. Two types of plants, J and K, are found growing on this island. The symbols representing the parent plants are not shaded.

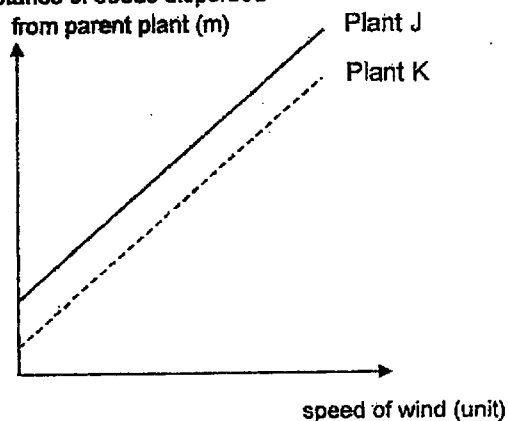


Based on the above information, which of the following graphs is most likely correct?

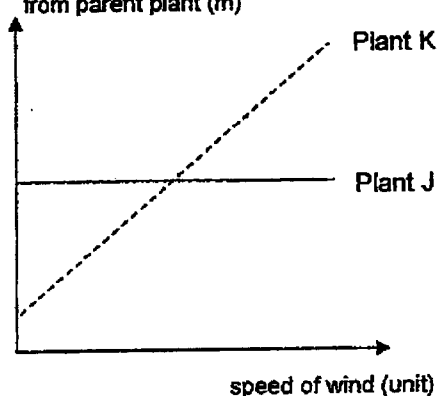
- (1) distance of seeds dispersed from parent plant (m)



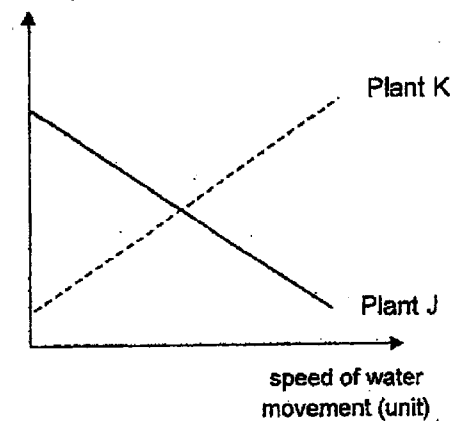
- (2) distance of seeds dispersed from parent plant (m)



- (3) distance of seeds dispersed from parent plant (m)



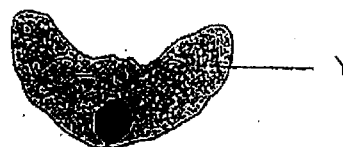
- (4) distance of seeds dispersed from parent plant (m)



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6

7 Study the following structures.

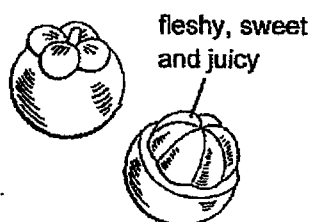


Structures X and Y help the seeds to _____.

- (1) disperse
- (2) fertilise
- (3) pollinate
- (4) germinate

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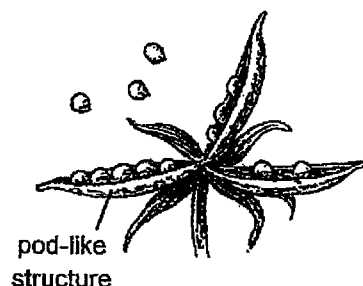
8 The diagram shows the fruits of plants L, M and N that are found in a place.



fruit L



fruit M



fruit N

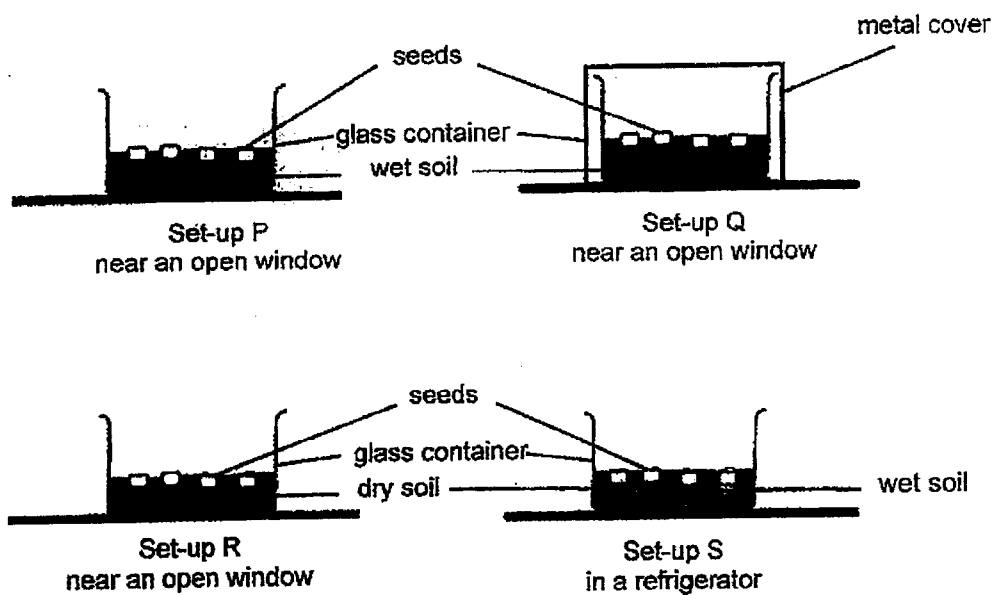
A disease outbreak resulted in the death of many animals living in the place. Based on their methods of dispersal, which fruit(s) will be most affected by the disease outbreak?

- (1) L only
- (2) M only
- (3) L and M only
- (4) L and N only

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- 9 Anya compared the germination of seeds under different conditions using the set-ups shown below.



Which two set-ups should Anya use if she wants to find out if the presence of water affects germination?

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

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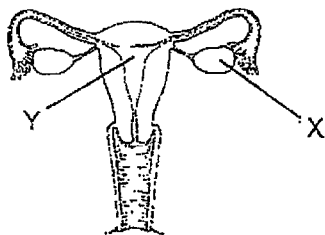
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Section B

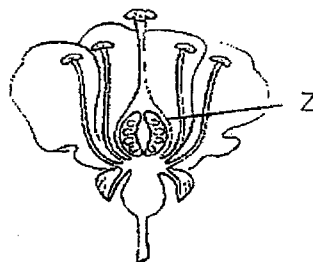
For questions 10 to 12, write your answer in the spaces provided.

[12 marks]

- 10 Study the diagrams shown below.



human reproductive system

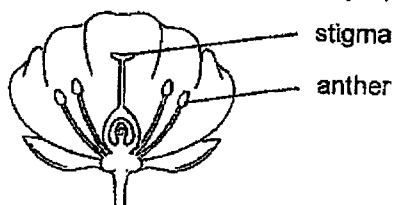


plant reproductive system

- (a) State one similarity between the functions of parts X and Z. [1]

- (b) Name part Y and state its function. [1]

The diagram below shows flower J. Its anthers and stigma are small and hidden deep inside the flower. The flower produces nectar, has large and bright petals and a sticky stigma.



flower J

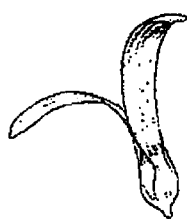
- (c)(i) State what pollination is. [1]

- (ii) State the likely method of pollination for flower J. Explain your answer. [2]



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11. Sammy conducted an experiment using three similar fruits, A, B and C, of the same type. He wanted to find out if the number of wing-like structures affects the time taken for each fruit to land on the ground.



fruit A



fruit B



fruit C

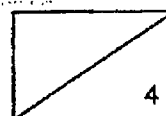
He released them from the same height and recorded the time taken for each fruit to land on the ground in the table below.

Fruit	Time taken for fruit to land on ground (s)
A	5
B	2
C	10

- (a) State a possible hypothesis for this experiment. [1]

- (b) Explain why it is an advantage for plants to disperse their seeds further away from their parent plant. [2]

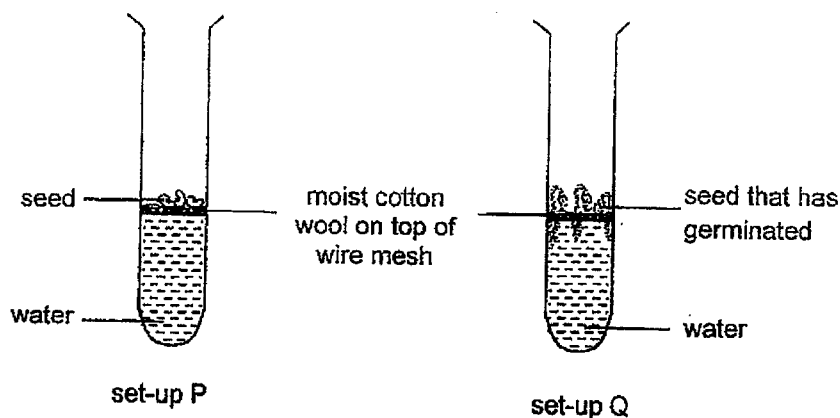
- (c) The flowers of the above fruits are red and white in colour. Sammy collected its seeds to grow new plants. Explain why the new plants will only bear red and white flowers. [1]



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- 12 Elise placed three green bean seeds into each set-up, P and Q. The seeds in both set-ups were given enough water. She placed set-up P in a freezer and set-up Q in the classroom.

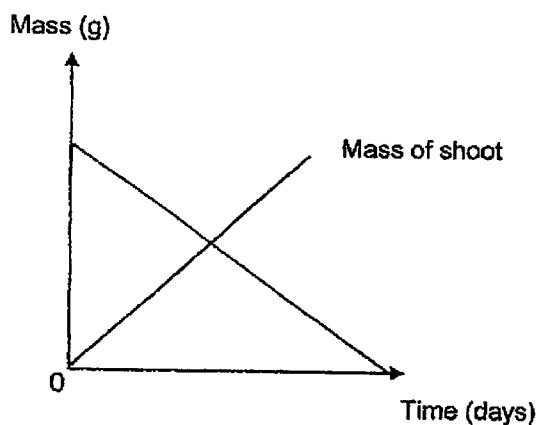
After two days, she observed that only the seeds in set-up Q germinated as shown below.



- (a) What is the aim of her experiment?

[1]

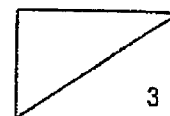
- (b)(i) The graph below shows the change in the mass of the shoot. Using the same graph, draw a line to show the change in mass of seed leaves as the seedling grows. [1]



- (ii) Explain your answer in (b)(i).

[1]

END OF PAPER

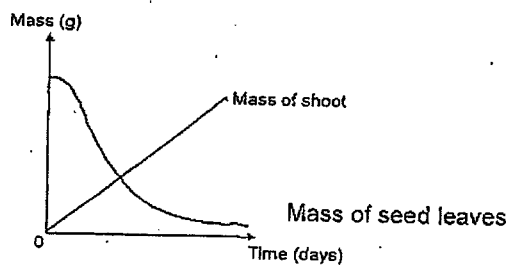


METHODIST GIRLS' SCHOOL (PRIMARY)
SCIENCE WEIGHTED ASSESSMENT 1 2025
PRIMARY 5
ANSWER KEY

Section A

1.	4	4.	2	7.	1
2.	2	5.	4	8.	3
3.	3	6.	3	9.	2

Section B

Qn	
10(a)	They produce the female reproductive <u>cells</u> .
10(b)	The womb. It protects the developing baby until it is fully developed.
10(c)	Pollination is the process where <u>pollen grains</u> are <u>transferred</u> from the <u>anther</u> to the <u>stigma</u> .
10(cii)	<u>By insect/animal</u> . The nectar/petal <u>attracts</u> the insect. The <u>pollen grains from the anther will stick onto the insect's body and get transferred to the (sticky) stigma</u> .
11(a)	As the number of wing-like structures increase/decrease, the longer/shorter the time taken for the fruit to land on the ground.
11(b)	It is to reduce overcrowding so that the young plants will not need to <u>compete</u> with <u>the parent plant</u> for <u>sunlight</u> , <u>space</u> , <u>water</u> and <u>minerals</u> . <u>salts</u>
11(c)	The parent plants pass the <u>characteristics</u> to the young plants during fertilisation.
12(a)	She wanted to find out if <u>warmth</u> is <u>needed</u> for germination.
12(bi)	
12(bii)	As the seed develops into a seedling / young plant, it uses up the food stored in the seed leaves. OR The seed/seedling gets its food from the seed leaves until the leaves are developed for the plant to make its own food.

