

WEIGHTED ASSESSMENT 2

SCIENCE

(BOOKLET B)

Total Time (for Booklets A and B): **50 minutes**

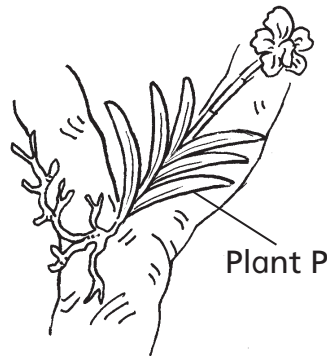
INSTRUCTIONS TO CANDIDATES

- Follow ALL instructions carefully.
- Answer ALL questions.

For questions 15 to 19, write your answers in this booklet. The number of marks available is shown in brackets [] at the end of each question or part question.

[22 marks]

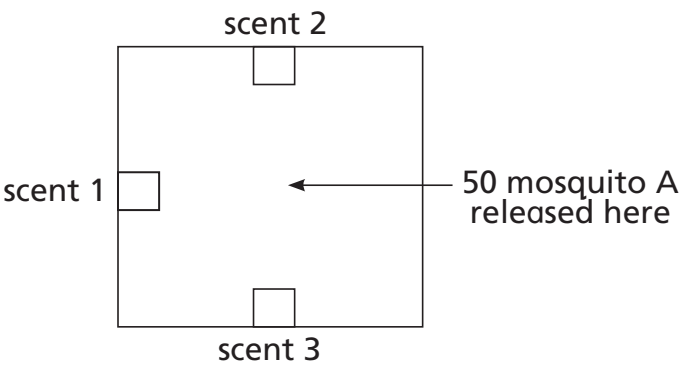
15. Plant P shown below grows on a tree trunk. Its roots grip the surface of the trunk but do not reach the ground. The roots do not obtain water from the tree.



- (a) Plant P lives in a forest where the air contains a large amount of tiny water droplets. The leaves of plant P need water to carry out photosynthesis. Describe the path in which water in the air moves to a leaf of plant P. [2]

- (b) When tiny, dust-like substance D from plant P lands on other tree trunks, they grow into new plants. Is substance D formed before fertilisation or after fertilisation? Explain your answer. [2]

- (c) Scientists found that the scent produced by the flowers of plant P contains substances X and Y. They prepared scents 1, 2 and 3 with different amounts of X and Y and placed them in a square room as shown.

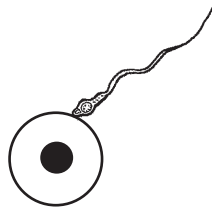


Mosquito A is the pollinator of plant P. The scientists counted the number of mosquito A attracted to each scent.

	Scent 1	Scent 2	Scent 3
Amount of substance X (units)	80	100	60
Amount of substance Y (units)	20	0	40
Number of mosquito A attracted to the scent	40	1	1

- (i) Why are the mosquitoes released from the position indicated in the above diagram? [1]
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- (ii) Based on the scientist’s table of results, what can you say about the scent produced by plant P needed to attract mosquito A? [1]
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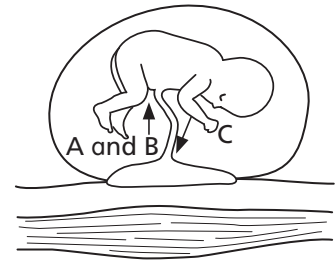
16. The diagram shows a life process taking place in a female human body.



- (a) This process also occurs inside part X of a flower. Name part X. [1]

- (b) The diagram shows materials A, B and C, carried by blood, passing between unborn baby and the mother.

Material	Part of the mother from which material comes from
A	Lungs
B	Small intestine



- (i) Name materials A and B and explain why the cells of the unborn baby need these materials. [2]

- (ii) Describe the path taken by material C from the unborn baby to the air. [2]

17. Fish L lives in an under-water forest of leafy plants. It has leaf-like structures on its slender body.



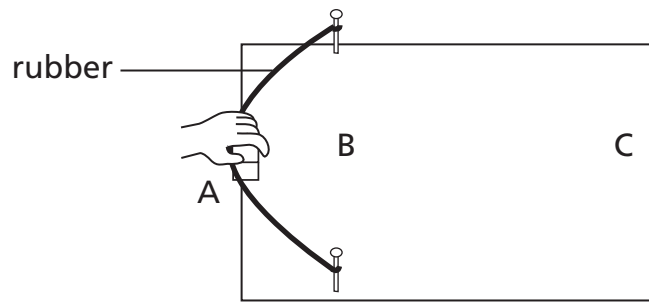
- (a) Fish L does not move from one under-water forest to another that are far apart. Based on the above information and diagram, explain how it is not safe for fish L to move away from its habitat.

[2]

- (b) The change in sea level due to global warming will affect the amount of light falling on the under-water forest. Explain how global warming can decrease the number of fish L.

[2]

18. Shawn pulled a wooden block against a rubber band from B to A. When he releases the rubber band, the block moves on the table surface and stops at C.

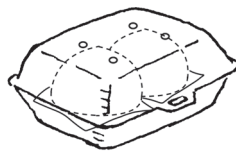


- (a) Complete the energy conversions.

_____ energy in rubber band A $\longrightarrow$ _____ energy of wooden block at B $\longrightarrow$ _____ energy due to friction as the block moves from B to C. [3]

- (b) The distance travelled by the wooden block decreases if Shawn increases the mass of the block. Why? [2]

19. Hui Ling bought some hot steamed buns and carried them in a plastic container home.



Holes were made in the lid of the plastic container. How do the holes help to prevent the steamed buns from becoming wet? [2]
