

Biology
UNIT: 4BI1
Science (Double Award) 4SD0
PAPER: 1BR

Time: 2 hours

Diagram Booklet

In the boxes below, write your name, centre number and candidate number.

Surname					
Other names					
Centre Number					
Candidate Number					

INSTRUCTIONS

There may be spare copies of some diagrams in case you need them.

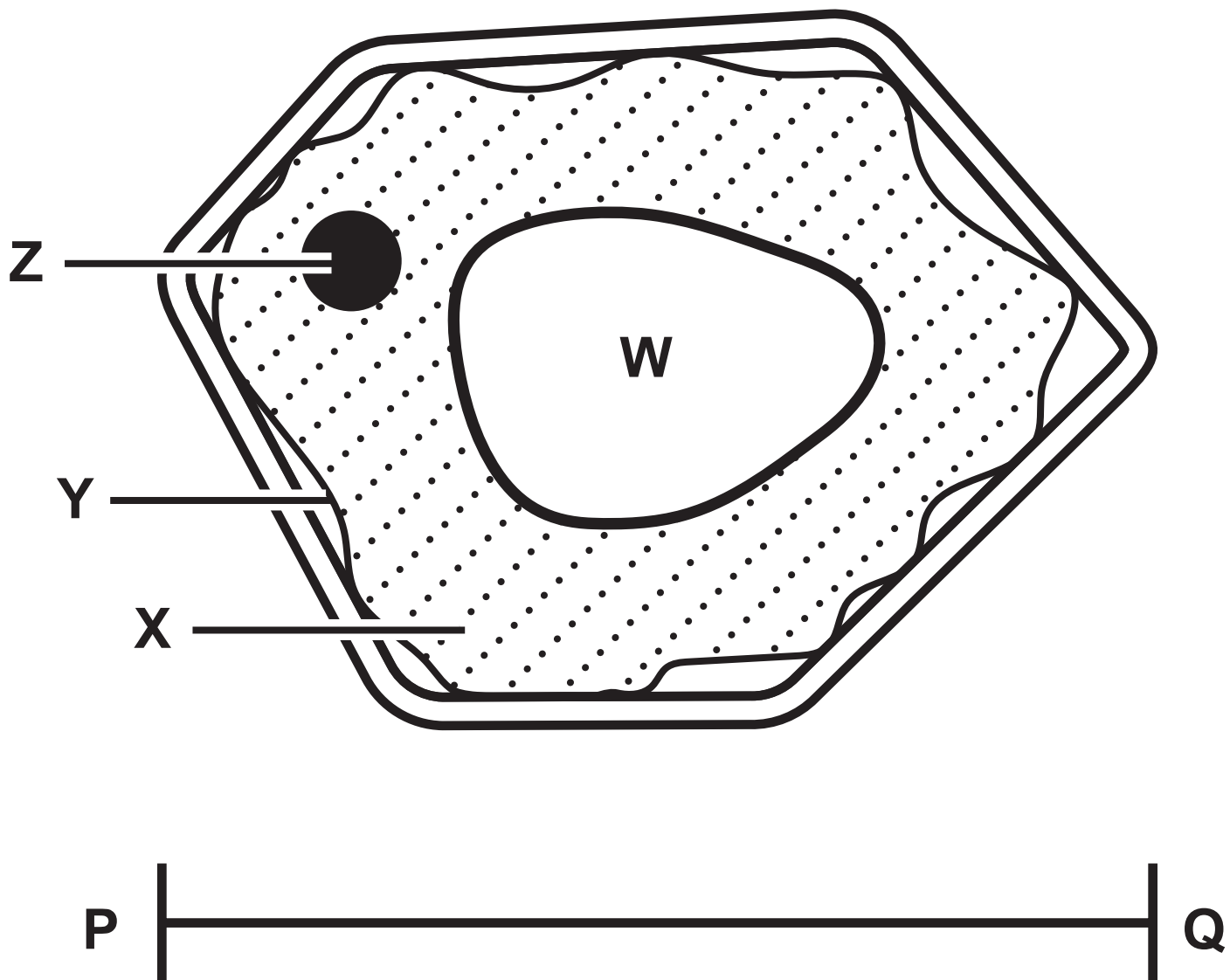
THIS DIAGRAM BOOKLET MUST BE RETURNED WITH THE QUESTION PAPER AT THE END OF THE EXAMINATION.

Contents

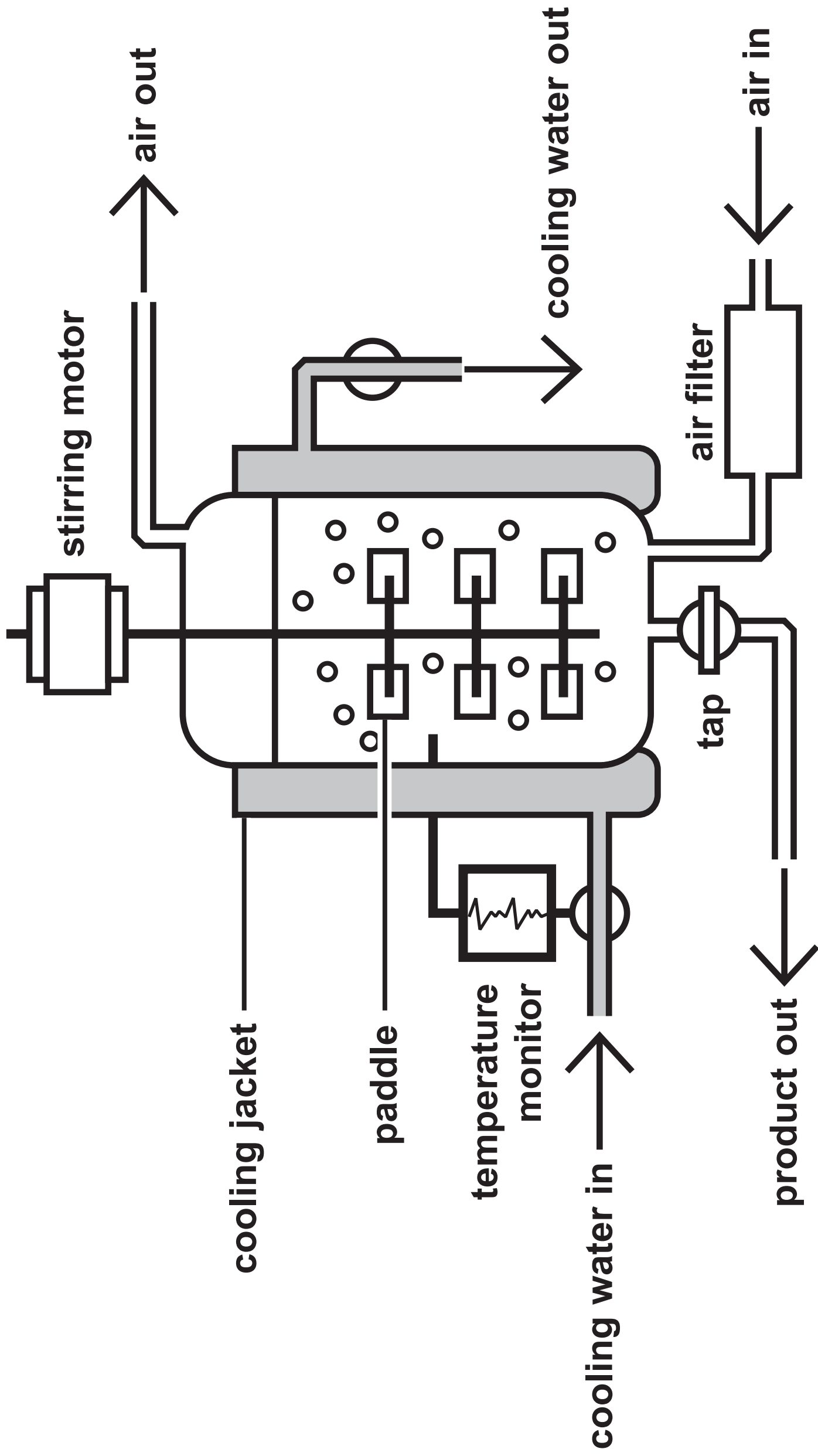
Page

4	Question 1
5	Question 2(c)
6	Question 3
7	Question 3(c)
8	Question 4(a)
9	Question 4(b)
10	Question 5(b)
11	Question 6(a)(i)
12	Question 6(a)(ii)
13	Question 6(a)(ii) – Spare Copy
14	Question 6(b)
15	Question 7(b)
16	Question 8
17	Question 8(b)(i)
18	Question 8(b)(i) – Spare Copy
19	Question 9(a)
20	Question 9(b)
21	Question 10(a)

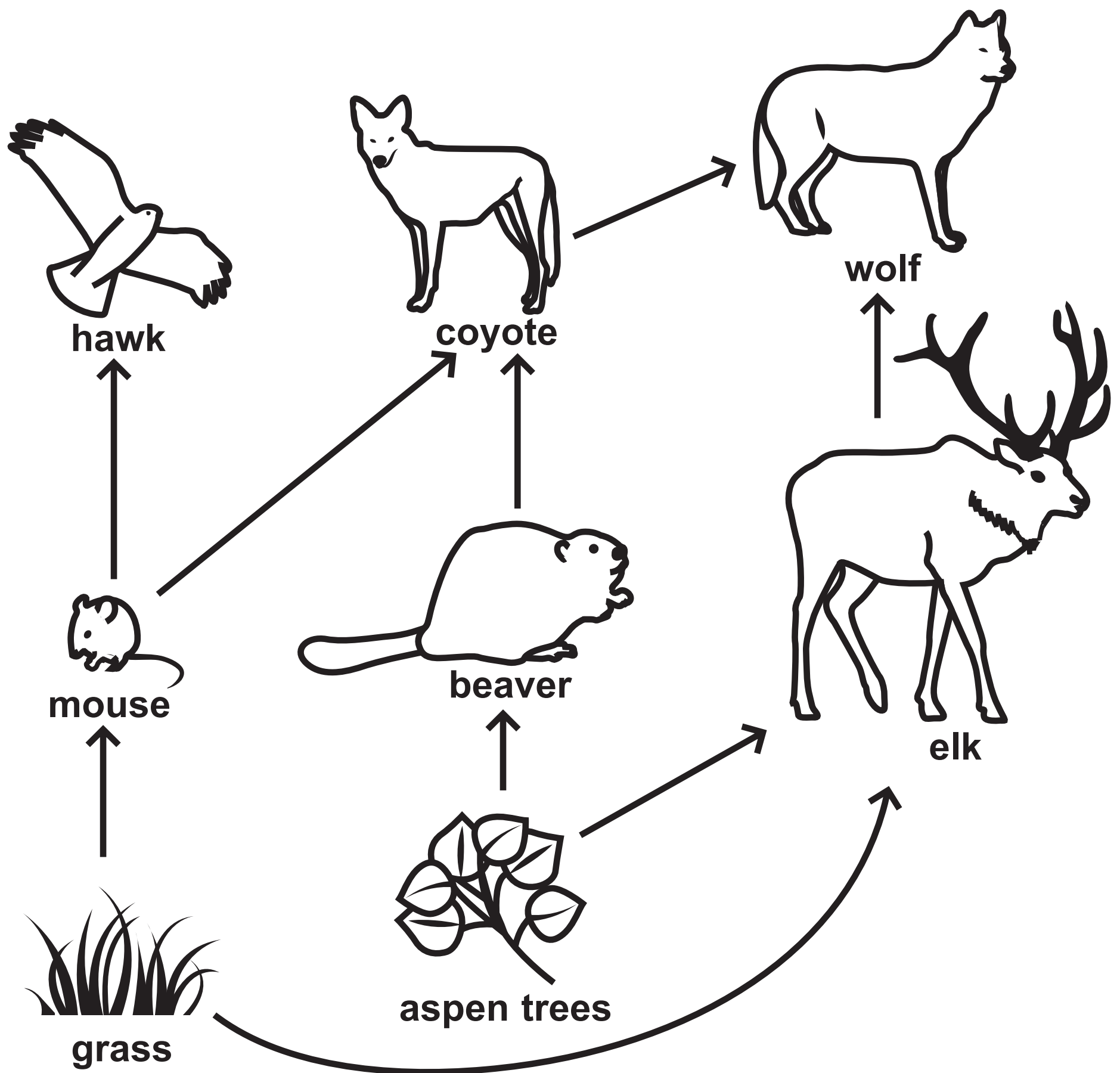
Question 1



Question 2(c)

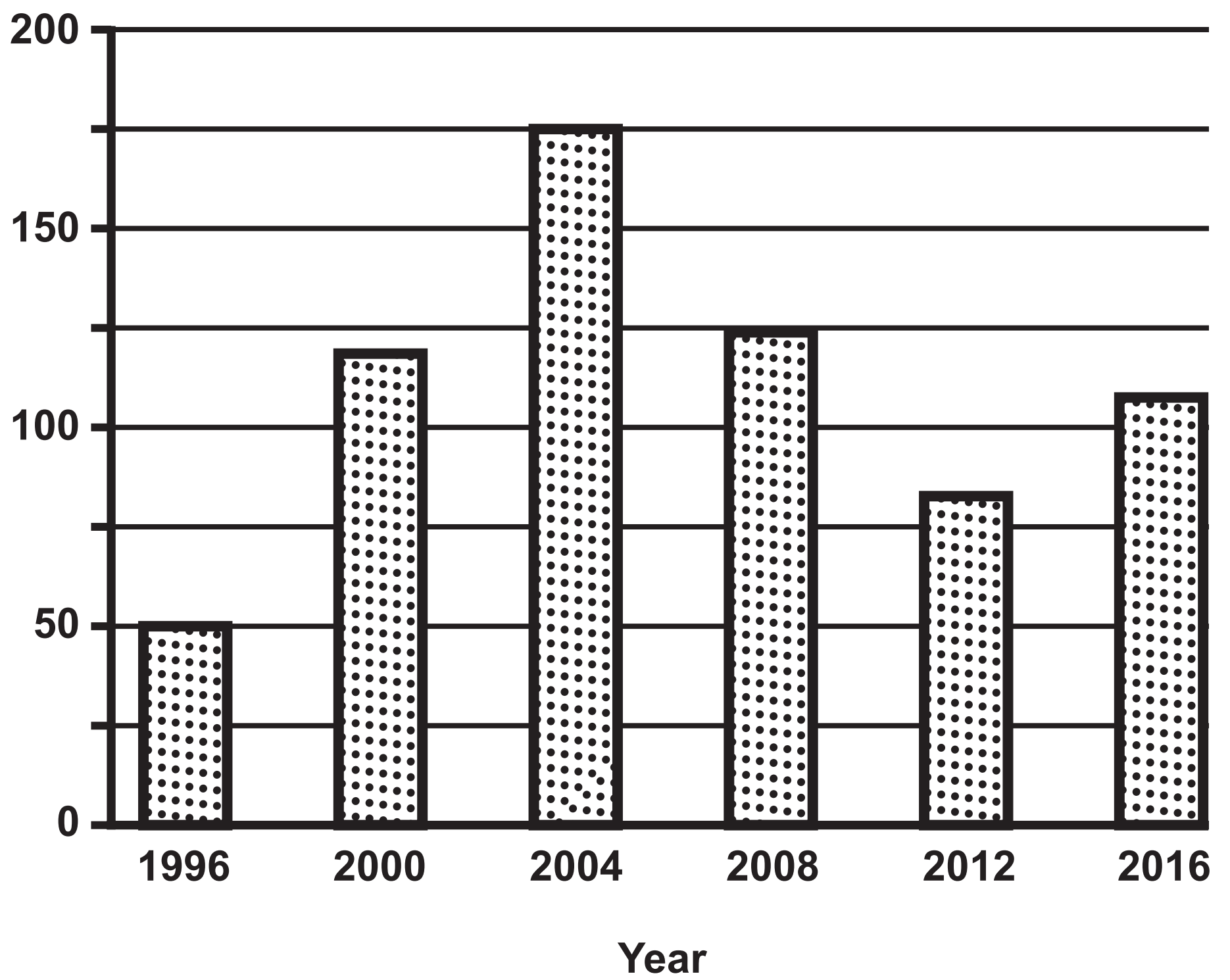


Question 3

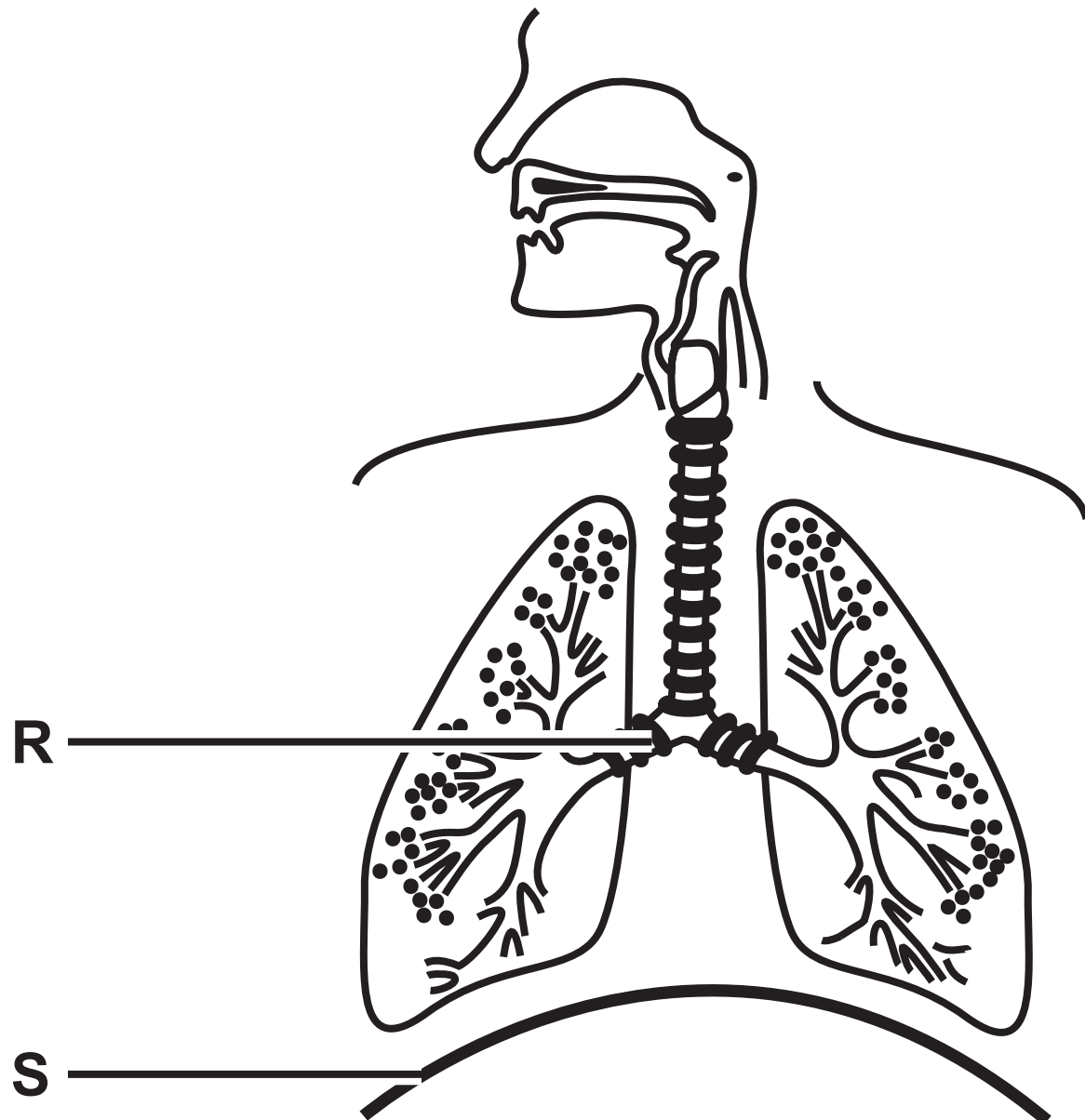


Question 3(c)

Wolf population



Question 4(a)

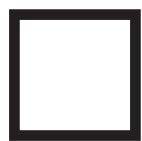


Question 4(b)

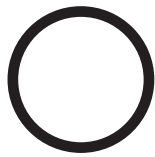
Cycling speed in km per hour	Volume of air in each breath in cm³	Breathing rate in breaths per minute	Ventilation rate in dm³ per minute
0	500	14	7
15	1500	14	21
20	2000	14	28
25	2500	16	40
30	2600	20	52
35		25	65

Question 5(b)

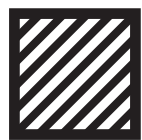
KEY



male with normal feathers



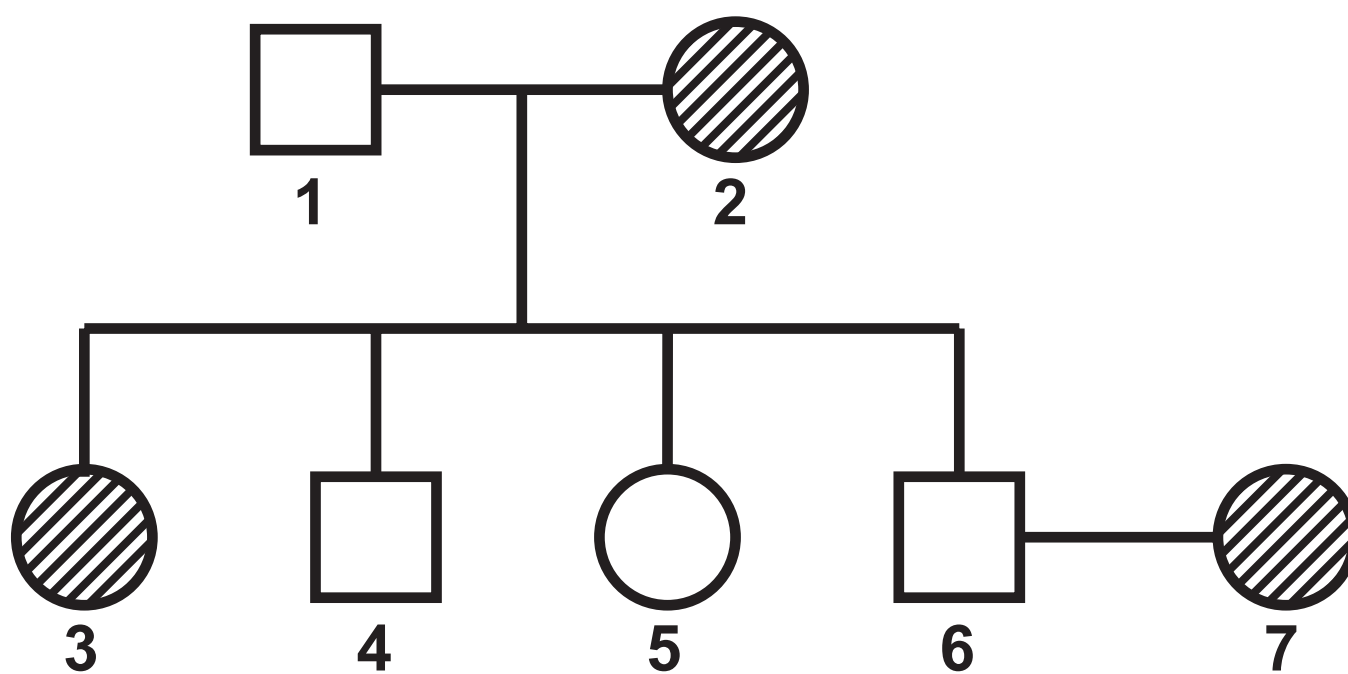
female with normal feathers



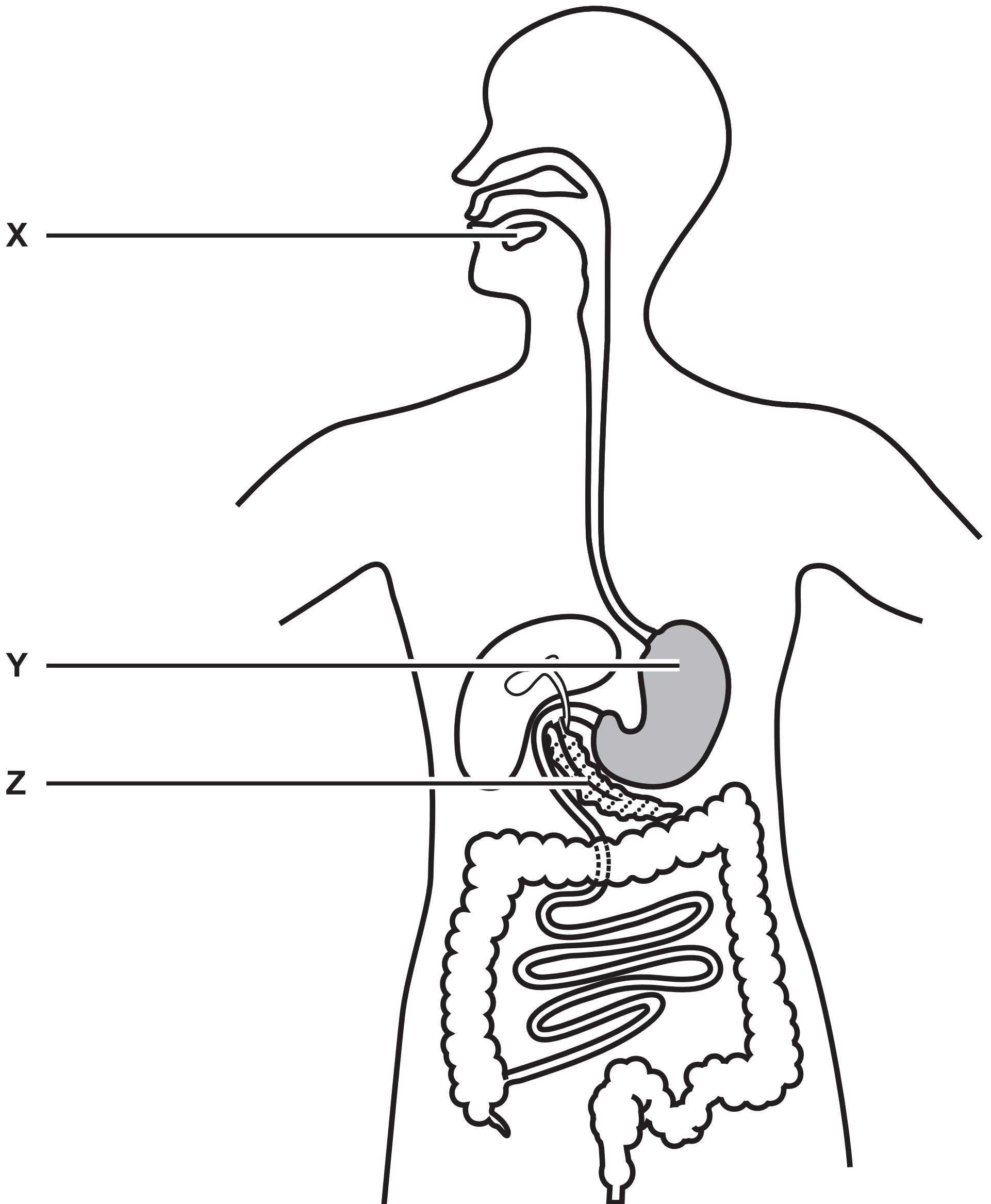
male with silkite feathers



female with silkite feathers



Question 6(a)(i)



Question 6(a)(ii)

Table 1

Enzyme	Molecule	Product
		maltose
	lipid	
protease		

Question 6(a)(ii)

Table 1

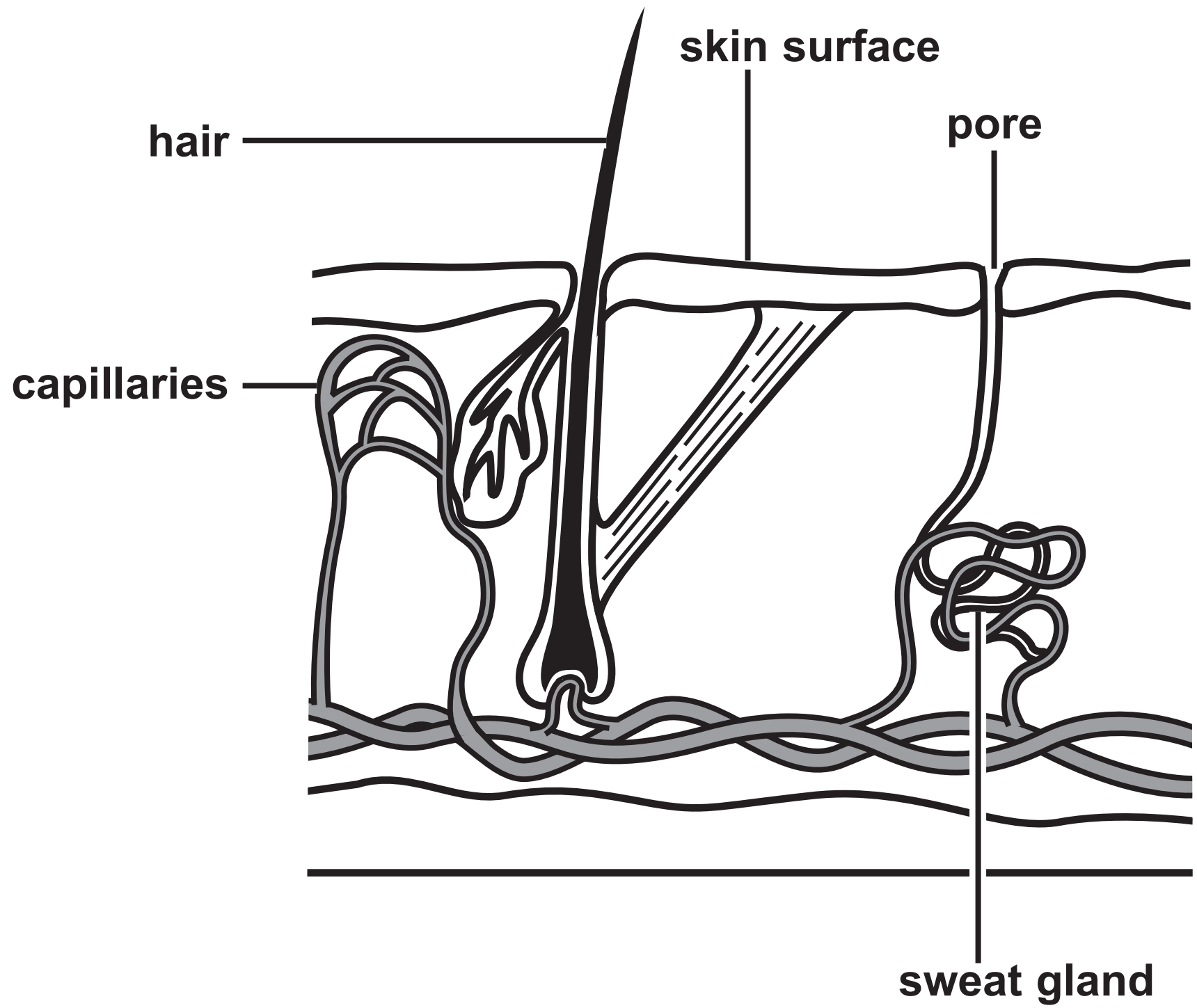
Enzyme	Molecule	Product
		maltose
	lipid	
protease		

Question 6(b)

Table 2

Amount of dietary component		Energy in kJ	Protein in g	Vitamin A in mg	Vitamin C in mg	Calcium in mg	Iron in mg	Fibre in g
RDA		2200	46	0·70	65	1300	15	26
Diet of person		2700	46	0·72	32	800	16	12

Question 7(b)



Question 8

Day	Dry mass of seedlings in g	
	Without fertiliser	With fertiliser
4	3.5	3.8
8	4.9	5.8
12	5.8	6.7
16	6.3	7.8
20	6.8	8.5

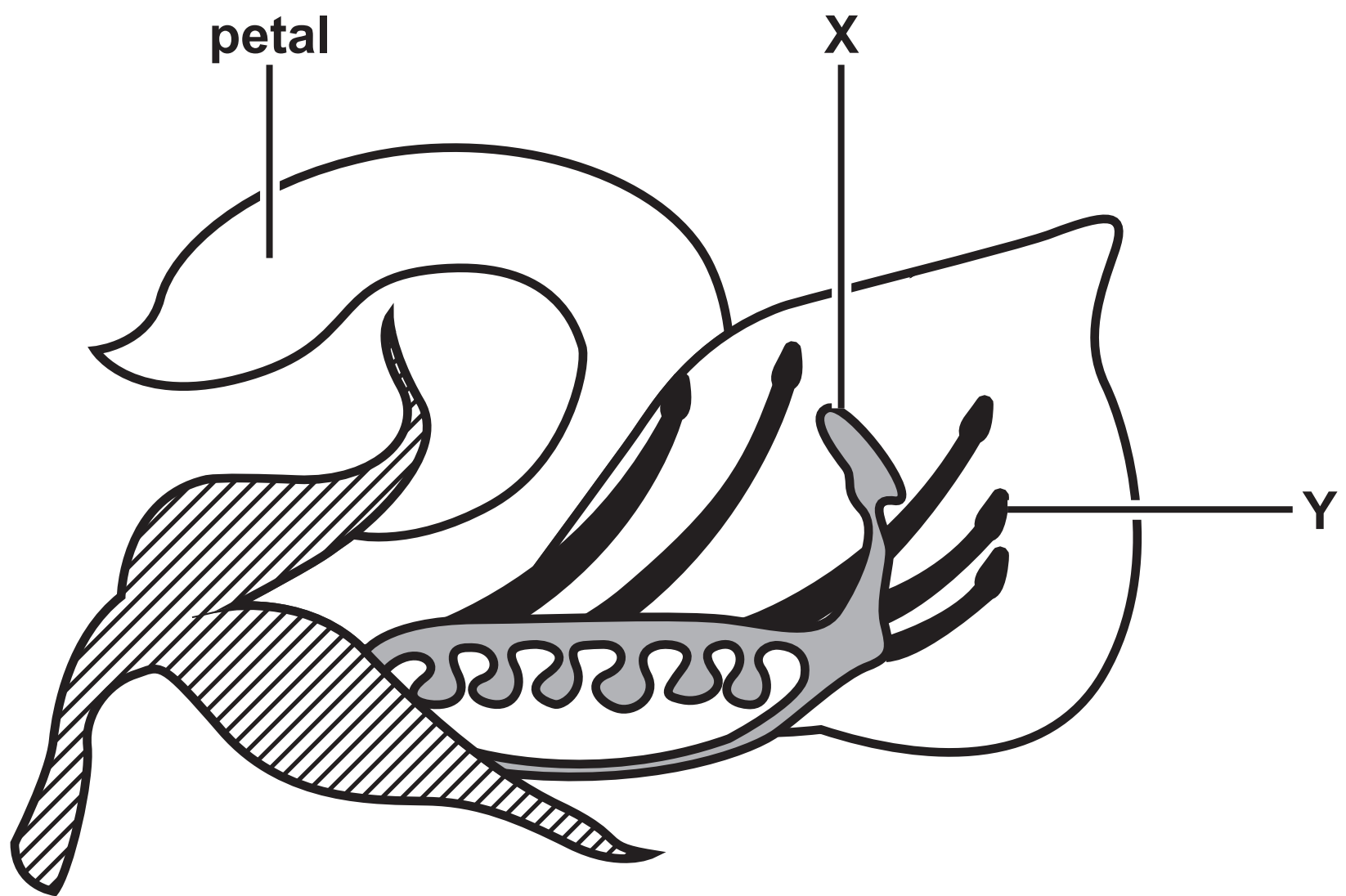
Question 8(b)(i)

[illegible]

Question 8(b)(i)

[illegible]

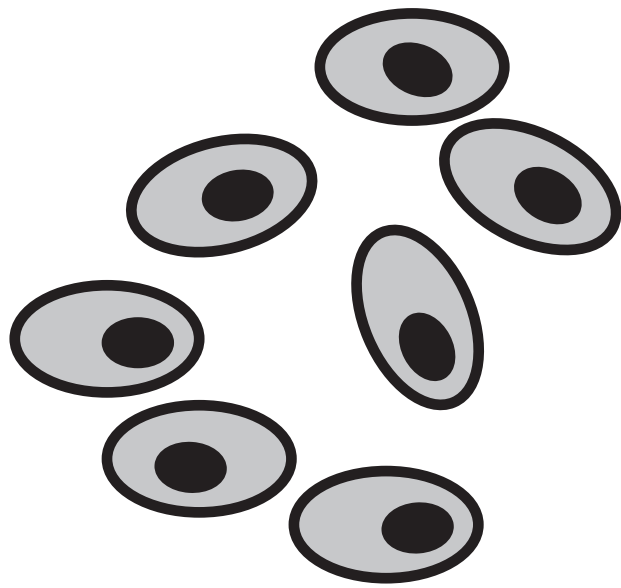
Question 9(a)



Question 9(b)

Seeds	Colour of iodine solution	Colour of Benedict's solution
ungerminated	black	blue
germinating	black	red

Question 10(a)



Question 10

**Source adapted from: © STEVE GSCHMEISSNER/SCIENCE
PHOTO LIBRARY**