

Paper Reference(s) 9BN0/01

Pearson Edexcel Level 3 GCE

Biology A (Salters Nuffield)

Advanced

**PAPER 1: The Natural Environment and
Species Survival**

Thursday 5 June 2025 – Afternoon

Time: 2 hours

Diagram Booklet

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

Surname					
Other names					
Centre Number					
Candidate Number					

**THIS DOCUMENT MUST BE RETURNED
TO PEARSON AT THE END OF
THE EXAMINATION**

INSTRUCTIONS

**There may be spare copies of
some diagrams.**

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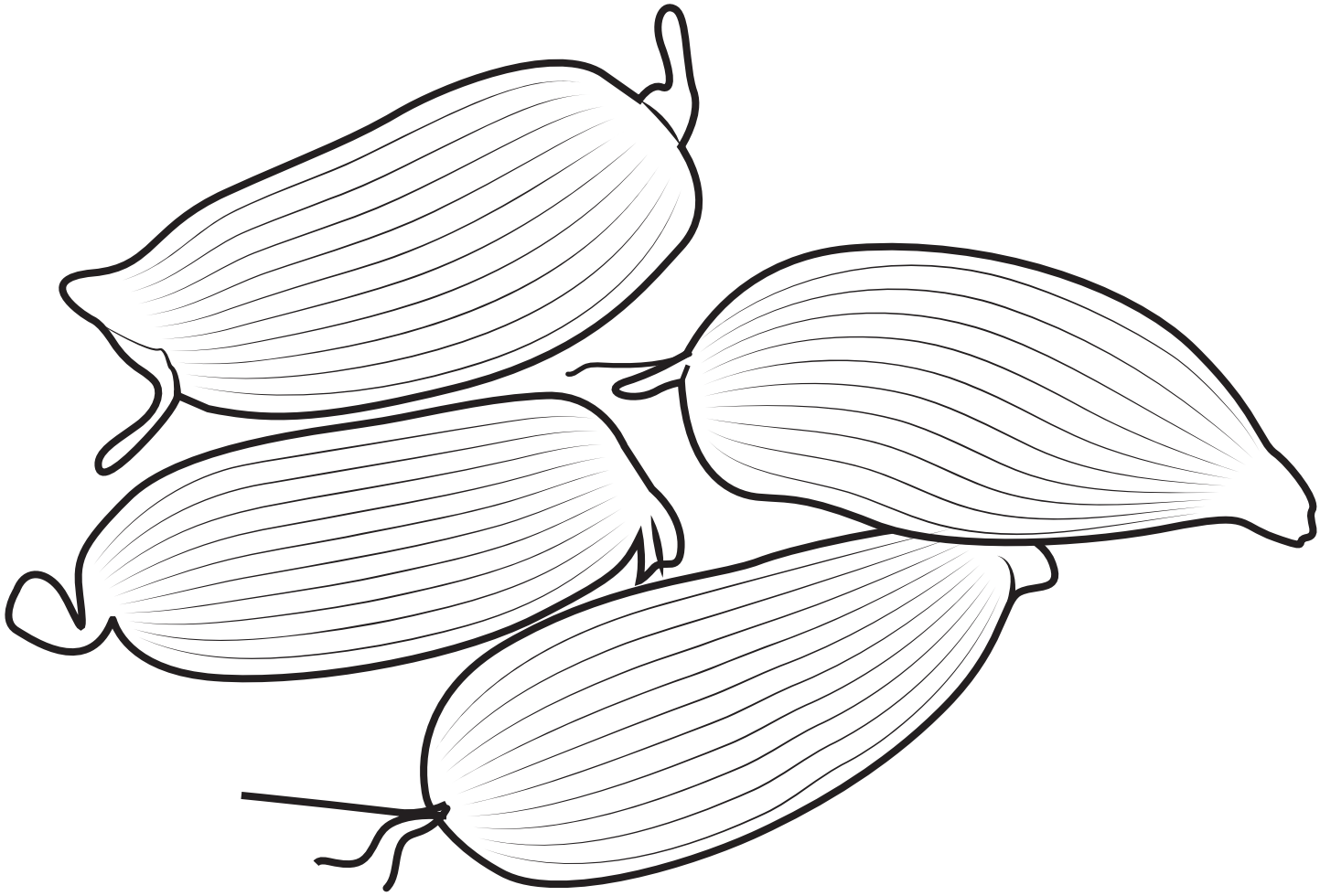
13 Question 8(c)

14 Question 10(b)

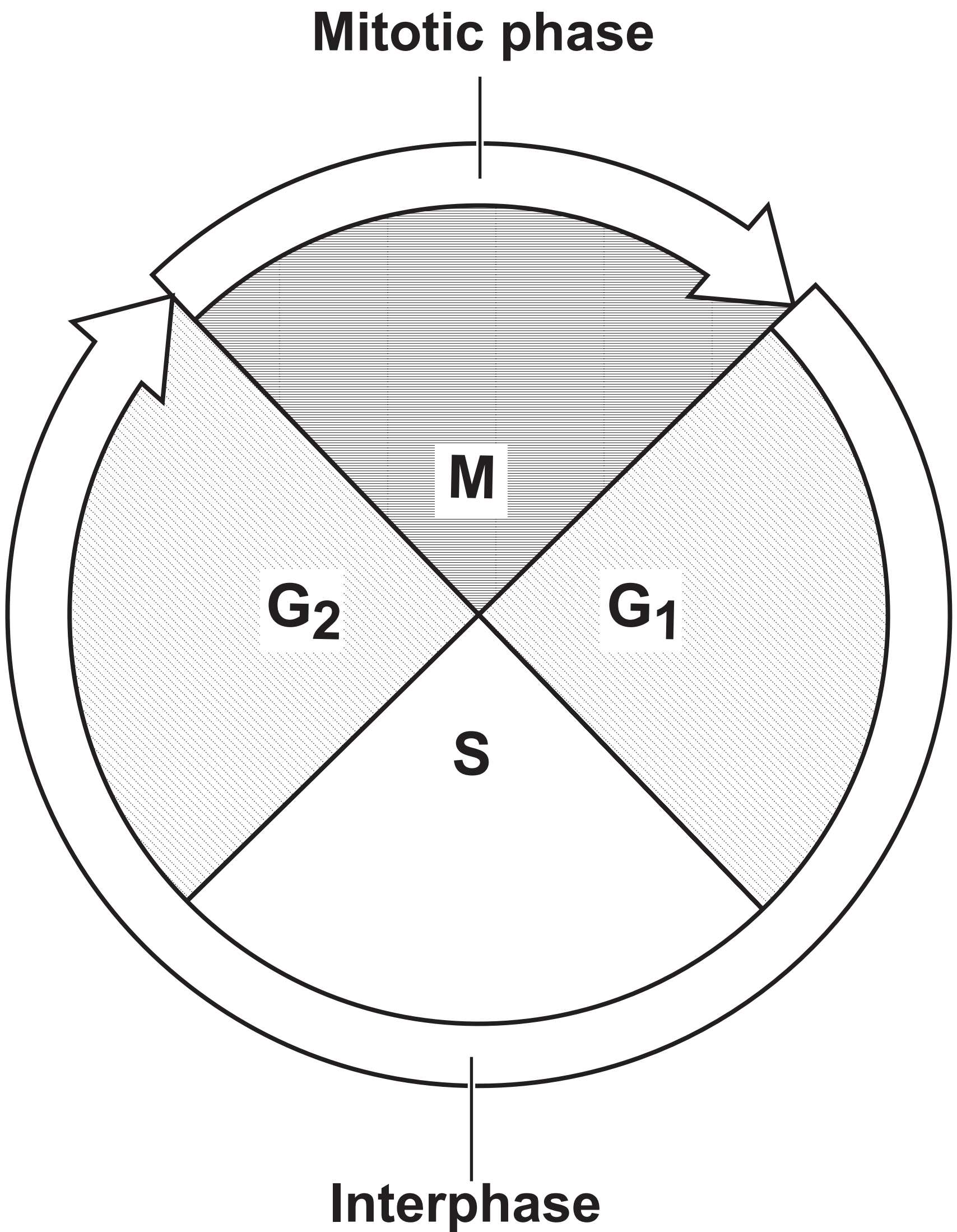
Spare Copies

15 Question 7(b)(i) – spare copy

Question 2(b)

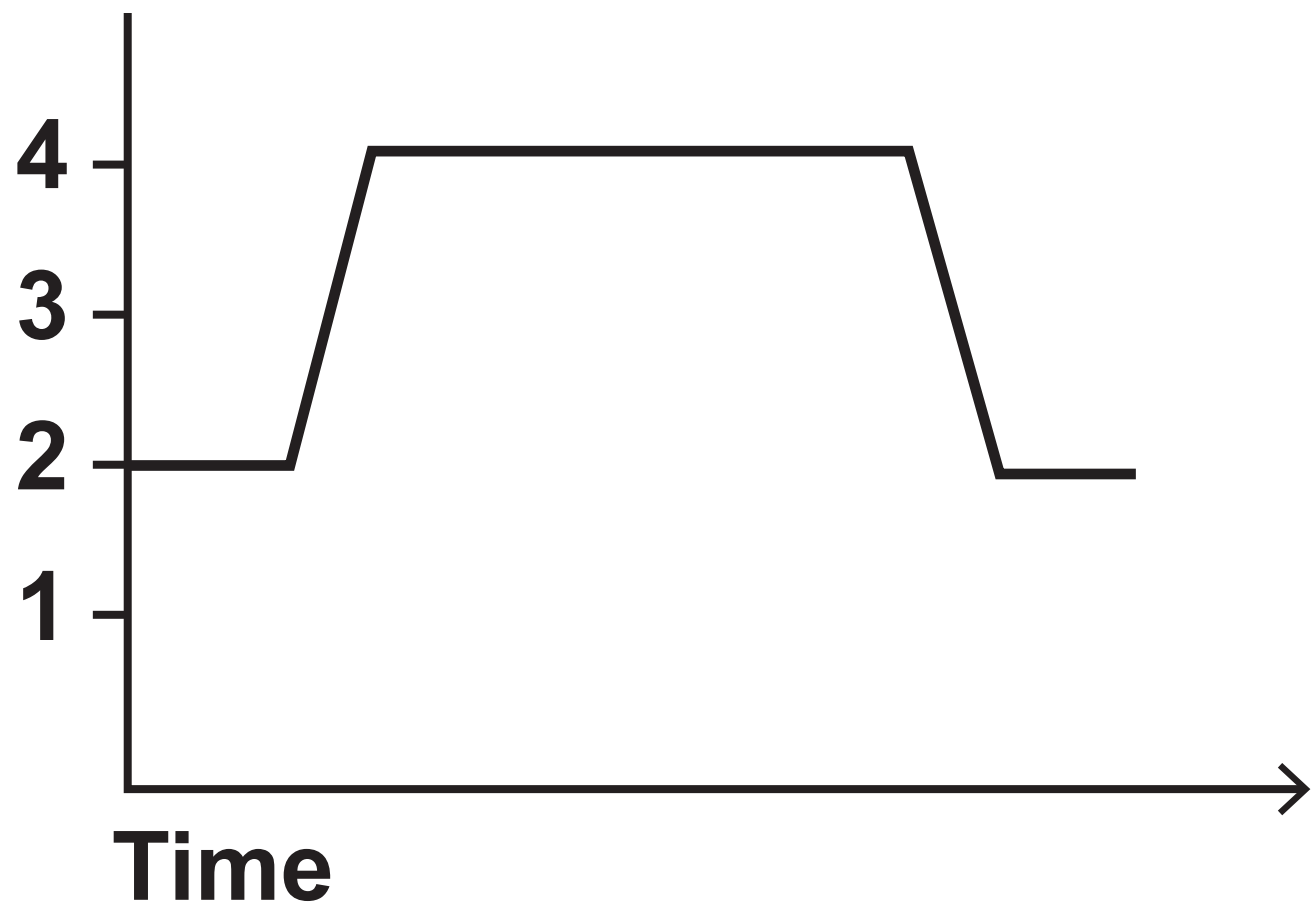


Question 3(a)

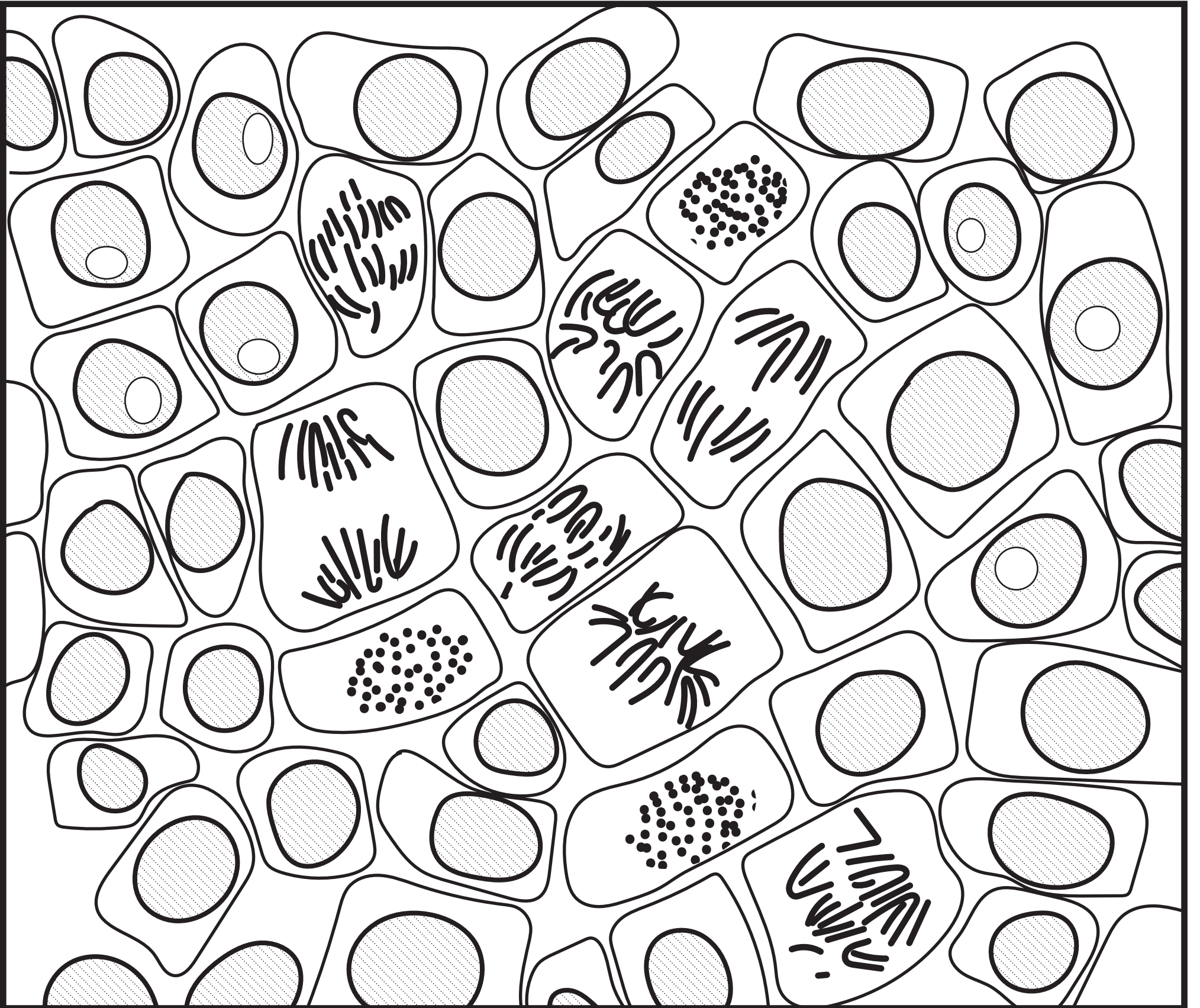


Question 3(a)(ii)

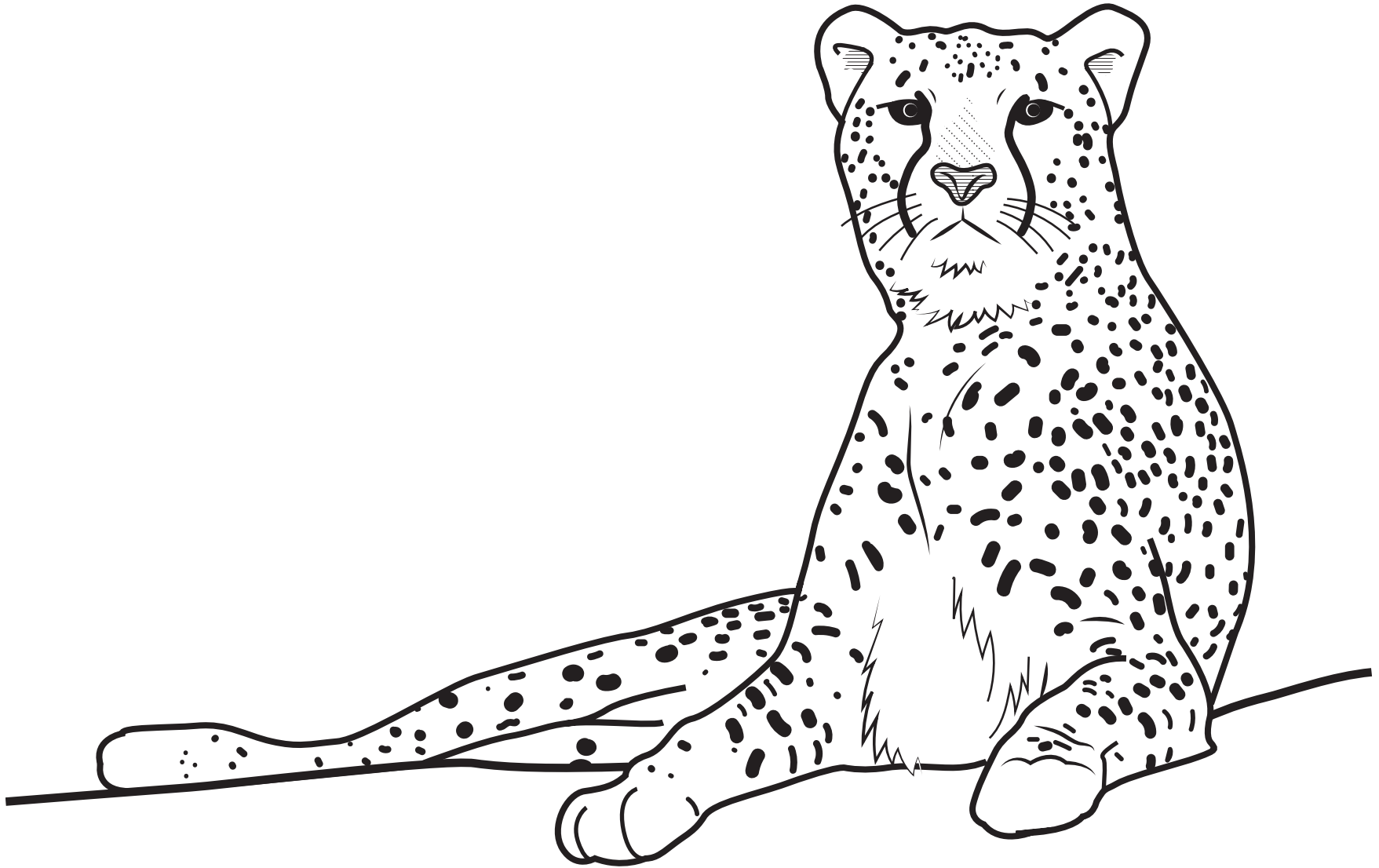
Quantity of DNA / a.u.



Question 3(b)



Question 4

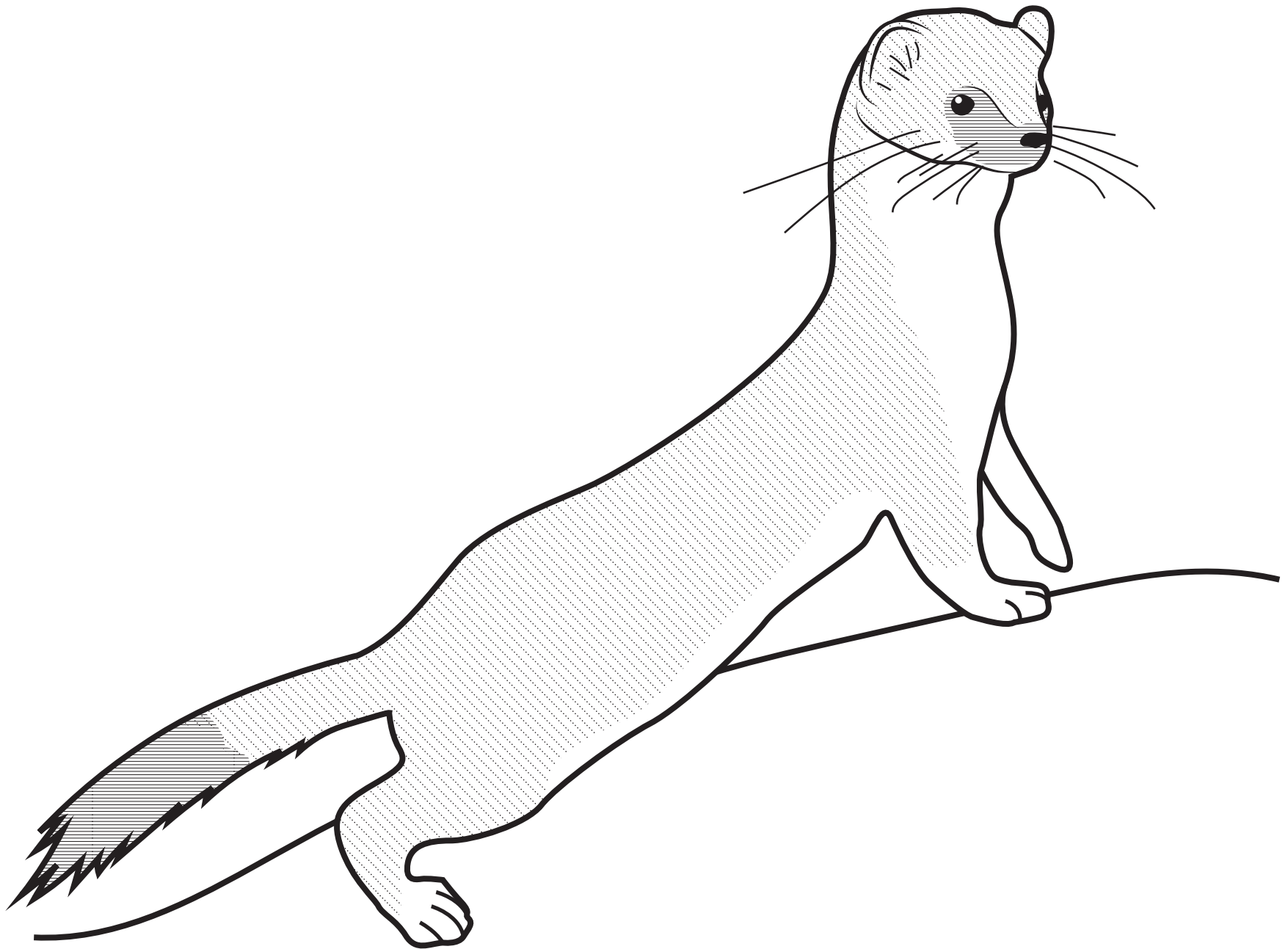


Question 6(c)

9

Antibiotic substance	Potential use
Seraticin	Effective against MRSA, C. difficile, E. coli
Reutericyclin	Effective against MRSA

Question 7



Question 7(b)(i)

Year	Number of breeding females	Number of female offspring	Total number of offspring
1	1	6	12
2	$1 + 6 = 7$	42	84
3	$7 + 42 = 49$	294	588
4			

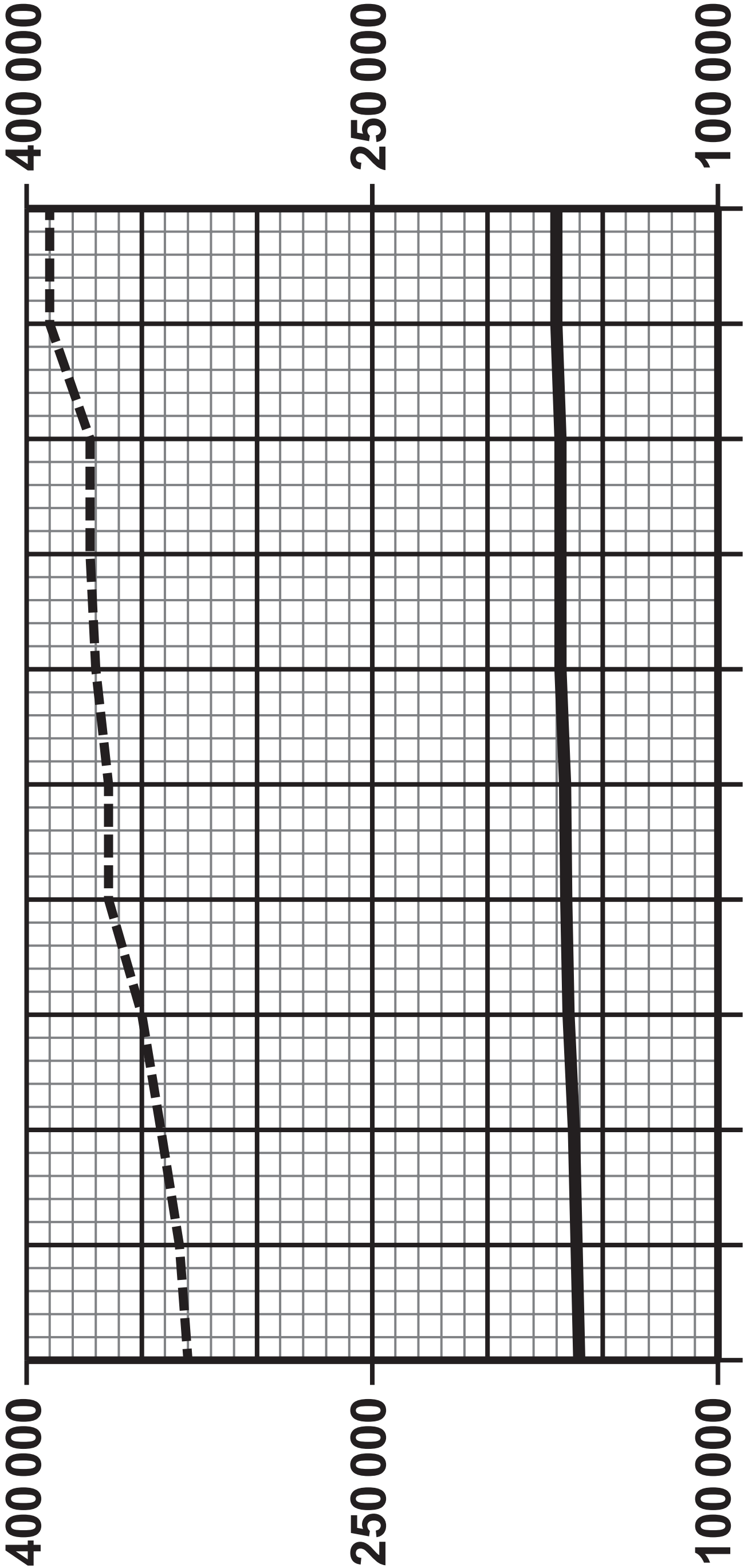
Question 8

KEY

----- diagnoses

— deaths

Number of people



2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

Year

Question 8(c)

13

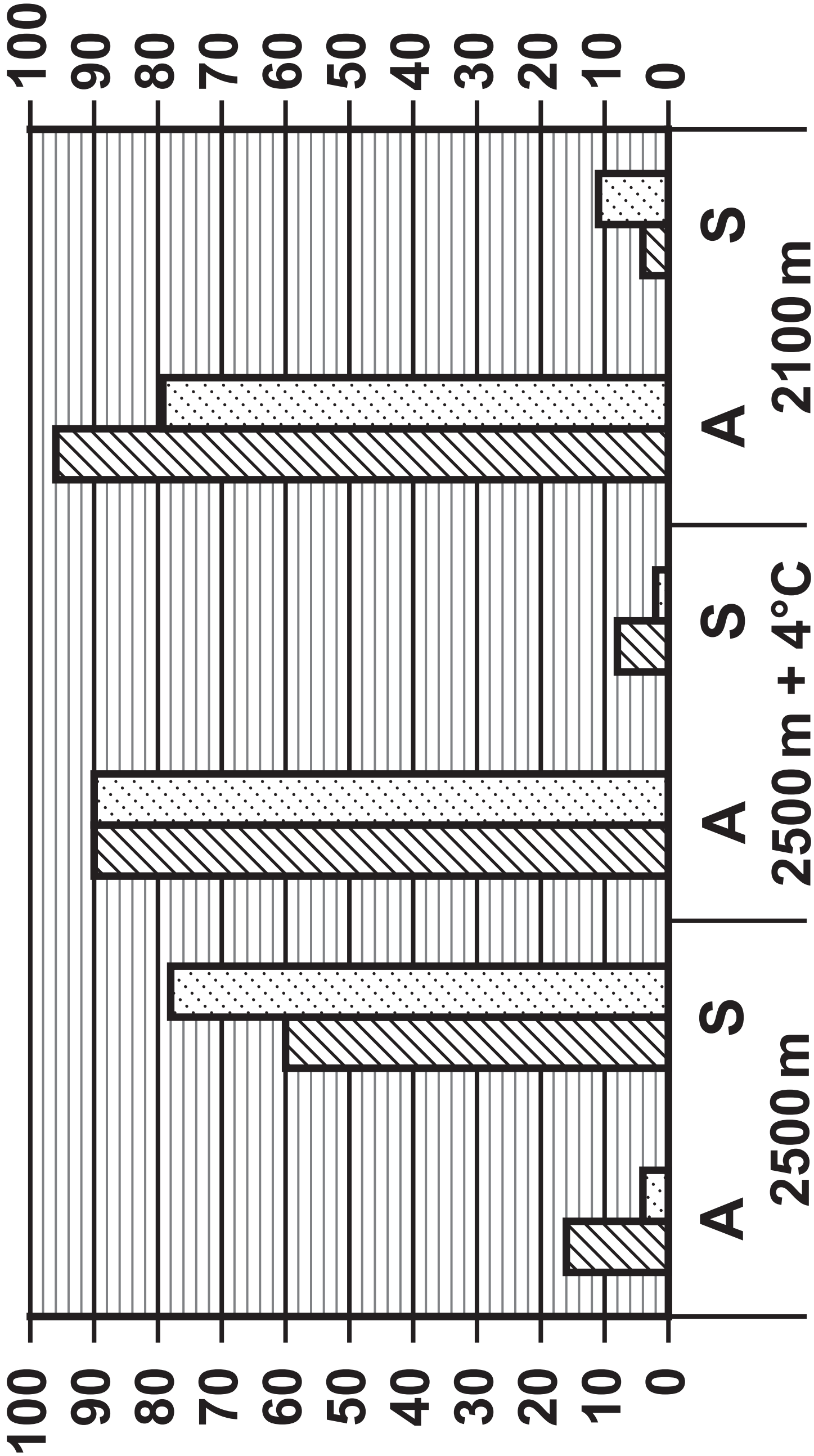
Type of immunotherapy	Method of action
Monoclonal antibodies	The antibody attaches to the specific protein antigen on cancer cells
Checkpoint blockers	Blocks T cell inhibitors produced by cancer cells
mRNA vaccine	Engulfed by macrophages and used to synthesise the specific protein antigen

Question 10(b)

KEY

 Veronica  Oxyria A - Autumn S - Spring

Percentage germination (%)



Question 7(b)(i) – spare copy

Year	Number of breeding females	Number of female offspring	Total number of offspring
1	1	6	12
2	$1 + 6 = 7$	42	84
3	$7 + 42 = 49$	294	588
4			

Source information

Question 2(b)

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Question 3(b)

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Question 4

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Question 7

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