

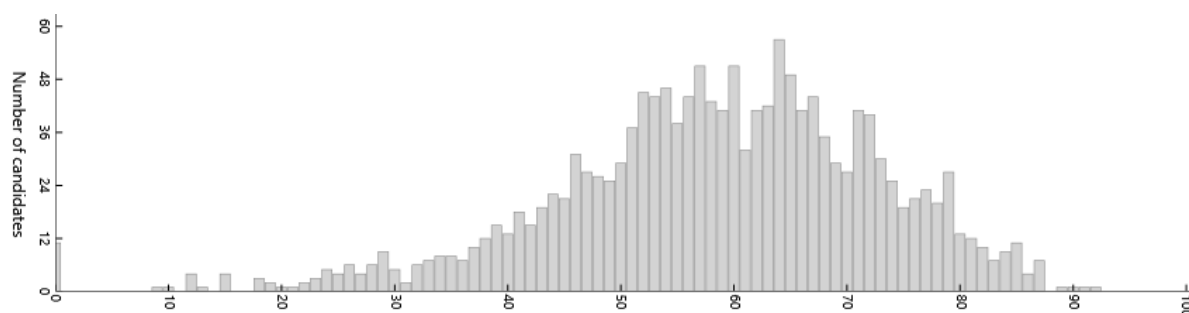


Summary report of the 2022 ATAR course examination report: Biology

Year	Number who sat	Number of absentees
2022	1554	35
2021	1716	29
2020	1758	23
2019	1769	21

The number of candidates sitting and the number attempting each section of the examination can differ as a result of non-attempts across sections of the examination.

Examination score distribution–Written



Summary

The examination paper had three sections. Section One comprised 30 multiple-choice questions, Section Two comprised five short answer questions and Section Three comprised two extended answer questions from Unit 3 and two from Unit 4. Candidates were required to answer all questions in Sections One and Two, and one question from each of Units 3 and 4 in Section Three.

Attempted by 1554 candidates Mean 58.11% Max 92.00% Min 0.00%

Section means were:

Section One: Multiple-choice	Mean 74.08%		
Attempted by 1554 candidates	Mean 22.23(/30)	Max 30.00	Min 0.00
Section Two: Short answer	Mean 53.55%		
Attempted by 1541 candidates	Mean 26.78(/50)	Max 44.50	Min 0.00
Section Three: Extended answer Unit 3	Mean 45.10%		
Attempted by 1515 candidates	Mean 4.51(/10)	Max 9.50	Min 0.00
Section Three: Extended answer Unit 4	Mean 45.99%		
Attempted by 1514 candidates	Mean 4.60(/10)	Max 10.00	Min 0.00

General comments

Candidates were generally well prepared and most attempted all questions. The overall mean score was slightly higher than the examination in 2021 (55.25%).

Advice for candidates

- Use formal and precise language and scientific terminology when answering questions.
- Communicate clearly in your written answers.

- Be precise in your answers. When describing the results of an experiment, make it clear which aspect of the experiment you are referring to. For example, control or treatment group. Do not omit critical words e.g. state 'mutations can arise from errors in cell division', rather than 'mutations arise from cell division'.
- Read the question carefully and make sure that you answer the question asked. Be alert to subtle components that require attention.
- Do not repeat or rephrase the question as your answer.
- Prepare to apply your knowledge and understanding of topics in a range of contexts.
- Develop an in-depth knowledge of key topics and concepts so that you can provide full answers to short answer and extended response questions.
- Spend some time planning your answers to the extended answer questions so that you do not miss crucial details and repeat points.
- Consider using headings to help organise your ideas when answering extended answer questions.

Advice for teachers

- Prepare students to answer questions from across the syllabus.
- Prepare students to apply their knowledge and understanding of topics in a range of contexts by providing a broad range of sample questions.
- Instruct students how to answer questions according to the 'command' verb in the question e.g. state, define, explain, compare, discuss. 'Compare' answers should include a systematic evaluation of similarities and differences. 'Discuss' answers should identify issues and provide points for and/or against.
- Provide students the opportunity to practise decoding questions so as to recognise the subtle components of questions that require attention.

Comments on specific sections and questions

Candidates typically performed best with the multiple-choice questions in Section One. They also answered the short answer questions in Section Two well, but found the extended answer questions in Section Three more challenging. In Section Three, the results for Units 3 and 4 were very similar. On average, candidates performed well when constructing a graph and with the factual recall and data interpretation questions, but struggled with questions that required them to apply their knowledge, explain concepts and discuss a question as in Section Three.

Section One: Multiple-choice (30 Marks)

Candidates performed very well in this section (mean score 74.08%). All candidates attempted every question. No candidates were able to answer all questions correctly.

Two questions (2 and 11) had mean scores above 90%, and another 13 had mean scores above 80%. Most of these questions tested factual recall from topics in both Units 3 and 4, although some required candidates to deduce answers from information given in the questions. Question 9, with a mean score of 41%, proved more challenging; it required candidates to identify an example of a disease management strategy that disrupted the life cycle of a pathogen. Question 14, with a mean score of 47%, required candidates to calculate a median from data provided in the question.

Section Two: Short answer (100 Marks)

Almost all candidates attempted this section. The mean score was 53.55%. The mean score per question ranged from 62.35% (Question 33) to 47.55% (Question 31).

Section Three: Extended answer Unit 3 (20 Marks)

Most candidates attempted this section. The mean score for Section Three, Unit 3, was 45.09%. Question 37 was much more popular than Question 36 and it also had a higher mean score of 46.8% and 37.5% respectively.

Section Three: Extended answer Unit 4 (20 Marks)

Most candidates attempted this section. The mean score for Section Three, Unit 4 was 45.99%, effectively the same as for Unit 3. Question 39 was more popular than Question 38 but it had a much lower mean score being 36.55% and 61.40% respectively. Candidates needed to carefully consider if they had sufficient knowledge before committing to the question.