

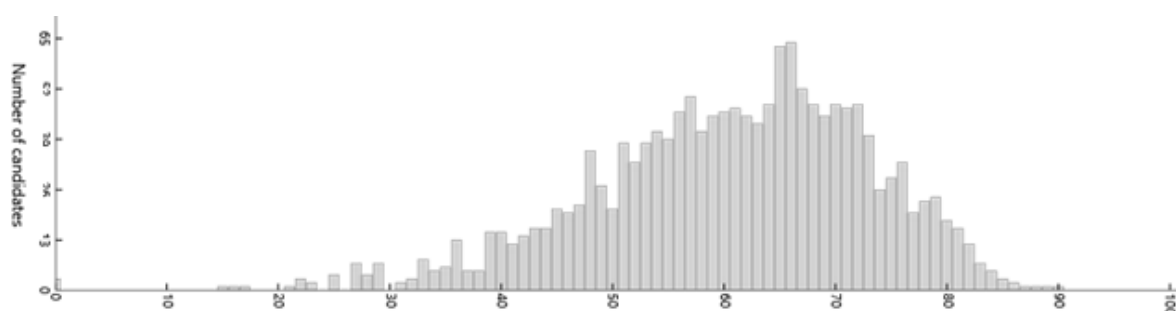


Summary report of the 2023 ATAR course examination report: Biology

| Year | Number who sat | Number of absentees |
|------|----------------|---------------------|
| 2023 | 1593 | 22 |
| 2022 | 1554 | 35 |
| 2021 | 1716 | 29 |
| 2020 | 1758 | 23 |

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



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 1593 candidates Mean 60.36% Max 89.75% Min 0.00%

Section means were:

| | | | |
|---------------------------------------|-----------------|-----------|----------|
| Section One: Multiple-choice | Mean 73.40% | | |
| Attempted by 1593 candidates | Mean 22.02(/30) | Max 30.00 | Min 0.00 |
| Section Two: Short answer | Mean 60.69% | | |
| Attempted by 1589 candidates | Mean 30.34(/50) | Max 46.00 | Min 0.00 |
| Section Three: Extended answer Unit 3 | Mean 38.04% | | |
| Attempted by 1560 candidates | Mean 3.80(/10) | Max 8.75 | Min 0.00 |
| Section Three: Extended answer Unit 4 | Mean 41.96% | | |
| Attempted by 1568 candidates | Mean 4.20(/10) | Max 9.00 | Min 0.00 |

General comments

Candidates were generally well-prepared for the examination and most attempted all questions. Overall, candidates performed well in the factual recall and data interpretation questions, but struggled with questions requiring them to explain concepts or provide in-depth knowledge of a topic.

Advice for candidates

- Use formal language and correct technical terms in answering questions.
- Be precise in the wording of your answers and use correct phrasing. For example, state that tuberculosis is caused by a bacterium, not that tuberculosis is a bacterium.
- Read the question carefully and make sure that you answer the question being asked. Be alert to subtle components that require attention. When asked to discuss a topic you should 'identify issues and provide points for and/or against'.
- Do not repeat or rephrase the question as your answer.
- Develop an in-depth knowledge of key topics and concepts so that you can provide full answers to more challenging questions.
- Spend some time planning your answers to Extended answer questions so that you do not miss crucial details and repeat points.
- Consider using headings to help organise your ideas when answering the Extended answer questions.
- Re-read your answers to check that the information you have provided makes sense to another person (e.g. the marker).
- Communicate clearly in your written answers and make sure that your writing is legible.

Advice for teachers

- Prepare students to answer questions from across the syllabus.
- Follow the current version of the syllabus and do not spend time on topics that have been removed from the syllabus (e.g. epigenetics).
- Give students practice decoding questions and recognising subtle components of questions that require attention.
- Familiarise students with the topics covered under different syllabus statements to assist them in decoding questions based on these statements.
- Prepare students to answer questions using correct/specific technical terms.
- Instruct students how to answer questions according to the command verb in the question, for example, 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 against.
- Remind students about basic classification when discussing relevant concepts, for example, endotherms and ectotherms.

Comments on specific sections and questions

In general, candidates 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 both Units 3 and 4 of Section Three more challenging.

Section One: Multiple-choice (30 Marks)

Candidates performed very well in this section (mean score 73.40%). All candidates attempted every question. Although some questions had high means, no single question was answered correctly by every candidate.

Eight questions in this section had mean scores of at least 90%, and another six questions had mean scores of at least 80%. Most of the questions tested factual recall from topics across Units 3 and 4. Question 21, with a mean score of 90%, required candidates to calculate the probability of an offspring phenotype from a parental cross. Question 23, with a mean score of 25%, was found to be the most challenging; it required candidates to identify the best hypothesis from a list of options. Many candidates mistakenly chose alternative (c), which did not state the variables tested in the experiment (eye colour of flies) and was phrased as a prediction.

Section Two: Short answer (30 Marks)

Almost all candidates attempted this section. The mean score was 60.69%, which was a considerable improvement upon last year's mean. Question means ranged from 53% (Question 32) to 71% (Question 34).

Section Three: Extended answer Unit 3 (20 Marks)

Most candidates attempted this section. The mean score was 38.04%. Question 36 was more popular than Question 37 and had a higher mean score (41.80% compared to 32.75%) and maximum mark (87.5% compared to 82.5%).

Section Three: Extended answer Unit 4 (20 Marks)

Most candidates attempted this section. The mean score for Section Three Unit 4 was 41.96%. Question 38 was more popular than Question 39 and had a slightly higher mean score (43.7% compared to 39.3%), but a lower maximum mark (77.5% compared to 90%).