

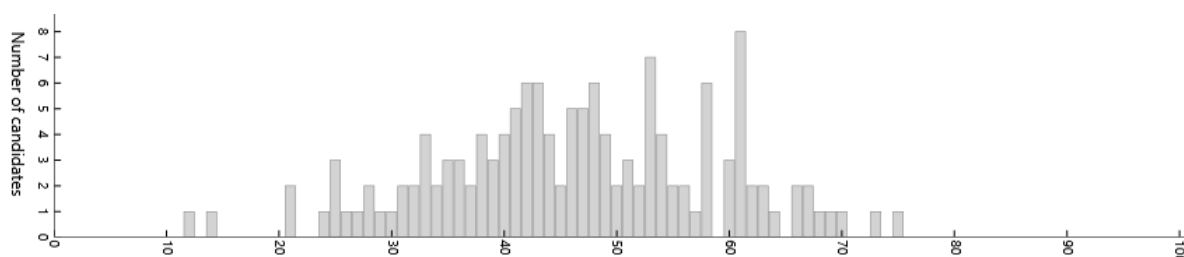


Summary report of the 2022 ATAR course examination report: Earth and Environmental Science

Year	Number who sat	Number of absentees
2022	140	2
2021	142	1
2020	165	2
2019	185	1

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 consisted of three sections. Sections One and Two required candidates to complete all questions. In Section Three, candidates were required to answer the compulsory question (Question 24) and one other question (Question 25 or Question 26).

Attempted by 140 candidates Mean 46.12% Max 74.50% Min 11.75%

Section means were:

Section One: Multiple-choice	Mean 71.24%		
Attempted by 140 candidates	Mean 10.69(/15)	Max 15.00	Min 4.00
Section Two: Short answer	Mean 43.01%		
Attempted by 140 candidates	Mean 23.65(/55)	Max 41.00	Min 4.75
Section Three: Extended answer	Mean 39.29%		
Attempted by 138 candidates	Mean 11.79(/30)	Max 22.50	Min 0.00

General comments

The examination presented questions that covered many varied parts of the syllabus that offered scope for the candidates to succeed and show their knowledge. Most candidates attempted all questions, indicating that the examination was of an appropriate length. The individual response patterns largely conformed to those of the last few years, both between sections, with candidates progressively being more challenged through Sections One, Two, and Three, and within individual questions. Higher marks were typically achieved for the early parts of Short answer and Extended answer sections, with the later parts, designed to elicit synthesis and higher-order thinking, proving a greater challenge thus differentiating the candidates. There was a general weakness in candidates failing to adequately develop explanations to show understanding of content, rather than elementary factual recall on many of the topics examined.

Advice for candidates

- You are expected to demonstrate insight and understanding of the curriculum and relevant skills alongside the recall of specific facts.
- Answers are expected to be well-structured, logical and supported by reference to real-world examples where appropriate.
- The examination is constructed to accommodate different styles of thinking and expression. Consider the use of annotated illustrations, dot points and tables in presenting an answer, even when such means of expression are not explicitly called for in a question.
- Identification and discussion of real examples can be a valuable element of your response, but only insofar as the example/s are used to demonstrate knowledge and understanding of specific scientific principles or knowledge relevant to the question posed.

Advice for teachers

- Keep in mind that the syllabus for this subject is largely geared towards practical insight and understanding of processes as they affect the real world, rather than in-depth knowledge of formal scientific theories.
- Attempt to include questions relating to current events with relevance to the curriculum, or be open to the use of such events as illustrative examples in the class.
- Students should be exposed to practice questions that test their ability to construct and interpret representative diagrams as an element of preparation for the examination.
- Case studies and examples do not need to be drawn from a specific geographic region. Use of diverse examples is encouraged in the classroom where these illuminate the syllabus content in an informative fashion.
- Students should be challenged to develop answers in greater depth for content as required for the extended response format.

Comments on specific sections and questions

Section One: Multiple-choice (15 Marks)

Candidates performed well in this section, with both the mean, 71.24%, and minimum mark, 26.67%, for the section notably higher than in 2021. The deliberate range of question difficulty implemented in the design of the exam was reflected in the mean marks of individual questions, which ranged from 36% to 90%.

Section Two: Short answer (55 Marks)

The low mean mark of 43.01% reflected consistent poor performance throughout this section, with candidates only achieving a mean above 50% on Question 20 (mine planning and decision making) and Question 22 (construction and interpretation of a graph).

Section Three: Extended answer (30 Marks)

Candidates were required to complete the compulsory question, and then choose to answer one of the other two questions. Approximately 40% of candidates answering the optional question chose Question 25, with 60% answering Question 26. Performance was consistent across the questions in this section. Candidates generally were not able to provide adequate extended response answers.