Summary report of the 2019 ATAR course examination: Earth and Environmental Science

<table>
<thead>
<tr>
<th>Year</th>
<th>Number who sat</th>
<th>Number of absentees</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>185</td>
<td>1</td>
</tr>
<tr>
<td>2018</td>
<td>233</td>
<td>4</td>
</tr>
<tr>
<td>2017</td>
<td>184</td>
<td>6</td>
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<tr>
<td>2016</td>
<td>272</td>
<td>11</td>
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</tbody>
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Examination score distribution–Written

Summary

Attempted by 185 candidates
Mean 53.78%  Max 80.25%  Min 15.00%

Section means were:
Section One: Multiple-choice
Mean 76.50%

Section Two: Short answer
Mean 49.76%

Section Three: Extended answer
Mean 50.33%

General comments
The examination mean of 53.78% was slightly lower compared to the 55.91% achieved in 2018. Generally, the quality of candidate response was satisfactory in most questions. Candidate performance was consistent throughout the paper compared to previous years, with fewer instances of isolated poor performances. New types of question (notably the interpretation of a block diagram in Question 19, construction of hypothetical geological relationships in Question 24 and a more active approach to integrated geophysical interpretation and exploration in Question 27) represented effective candidate differentiators, with stronger candidates performing well.

Advice for candidates
- Candidates must demonstrate insight and understanding of the curriculum, rather than the recall of specific facts.
- Answers are expected to be well-structured, logical and supported by examples where appropriate.
- In some circumstances, annotated illustrations, dot points and tables can provide an effective approach to presenting an answer, even when not explicitly called for in a question.
Relevant examples are strongly favoured as a means of demonstrating knowledge and understanding, particularly if you can establish their relevance to the question.

Advice for teachers

- 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.
- Case studies and examples do not need to be drawn from a specific geographic region. Use diverse examples where these illuminate the syllabus content in an informative fashion.

Comments on specific sections and questions

Section One: Multiple-choice (15 Marks)
Candidate performance in this section was largely satisfactory and consistent with previous cohorts. High mean scores were achieved for Questions 2, 9, 10, 11 and 14.

Section Two: Short answer (110 Marks)
Illustrations remain a weak point of candidate performance despite their consistent inclusion in recent examination papers. Performance in other consistent examination elements (notably the construction and interpretation of geological cross-sections) improved compared to previous years.

Section Three: Extended answer (30 Marks)
Candidate performance in this section was consistent with that achieved in Section Two. Candidates who attempted Question 27 achieved notably higher mean scores than those who selected the alternate option of Question 26. This does not reflect a difference in the innate difficulty of the two questions, as the higher marks in Question 27 were not accompanied by a higher proportion of candidates attempting the question. Rather, this seems to indicate a self-selection by more capable candidates of a new style of question providing scope to demonstrate an integrated understanding of geological exploration.