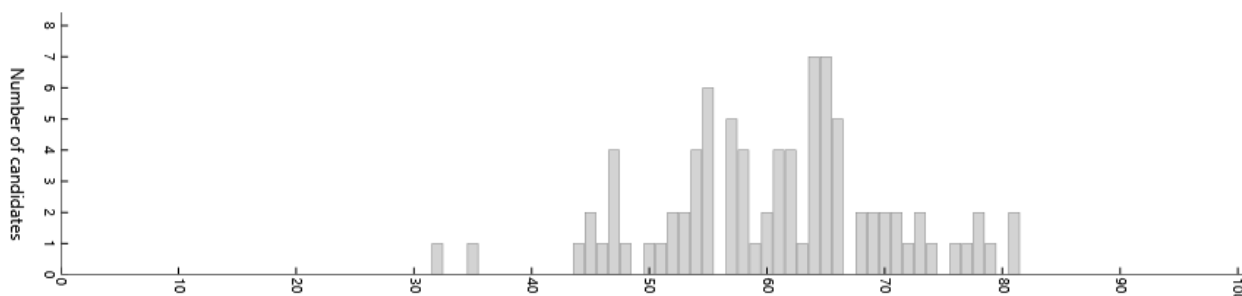




Summary report of the 2017 ATAR course examination: Integrated Science

Year	Number who sat	Number of absentees
2017	86	7
2016	98	2

Examination score distribution



Summary

Attempted by 86 candidates

Mean 60.70%

Max 80.71%

Min 31.68%

This was the second year that the ATAR Integrated Science syllabus was examined. The syllabus clarification provided by the previous examination was apparent with the significantly improved results achieved by the candidates when compared with 2016. This examination provided a thorough and balanced coverage of the ATAR syllabus and was of appropriate difficulty and length.

Section means

Section One: Multiple-choice

Mean 69.83%

Attempted by 86 candidates

Mean 13.97(/20) Max 19.00 Min 7.00

Section Two: Short response

Mean 59.35%

Attempted by 86 candidates

Mean 29.68(/50) Max 40.79 Min 15.79

Section Three: Extended response

Mean 56.86%

Attempted by 86 candidates

Mean 17.06(/30) Max 24.91 Min 5.89

General comments

Markers noted that this year there were no blank scripts and all candidates attempted every section. As has been noted previously Section Three, involving more interpretation and discussion, proved the most problematic while the Section One questions that were more closely aligned to single points of the syllabus, were answered well. The examining panel is required to examine the whole syllabus over time and there will always be questions with unfamiliar situations along with those that are more familiar.

Advice for candidates

- Use the syllabus as a checklist and ensure every point has been covered to allow for unfamiliar situations in questions.
- Use past examination papers in your revision program. The old WACE Stage 3 Integrated Science course examination papers have many questions that are still relevant and worthy of revision.

Advice for teachers

- Allowing students to experience the Science Inquiry Skills (SIS) section of the syllabus by rigorous design and evaluation of experiments would assist them in their completing the examination.

Comments on specific sections and questions

Section One: Multiple-choice (20 Marks)

Attempted by 86 candidates

Mean 13.97(/20)

Max 19.00

Min 7.00

It was pleasing to see that candidates demonstrated an awareness of the syllabus and where the question aligned closely with the syllabus, candidates were very successful. Questions 8, 9, 11, 13 and 17 all achieved over 90% success rate.

Question 13 on renewable energy achieved a remarkable 100% success rate. On the other hand, questions involving close reading such as Question 20, candidates were less successful. Also when the question involved the application of a principle to an unfamiliar situation, such as Question 5 candidates were even less successful with only 20% achieving a correct response. This may show a lack of experience in dealing with outliers; however, they were familiar with terms such as 'variable' as shown by their success with Question 6. Question 12 involved the comparison of processes and questions like this were generally not done as well. It should be noted that some candidates had only vague understandings of terms such as 'precipitation' and 'condensation' as shown in Question 2.

Section Two: Short response (50 Marks)

Attempted by 86 candidates

Mean 29.68(/50)

Max 40.79

Min 15.79

With a mean of 59.35% this section has improved remarkably from last year's 42.98%. Most candidates were willing to have a go at the questions and in many cases their attempts showed good Science understanding. For some candidates however, they were not specific in their answers and more depth was needed in the response to achieve full marks. Explanations around the greenhouse effect continues to demonstrate candidate's poor understanding of the concept. The difference between an economic impact and a social impact also did challenge some candidates.

Section Three: Extended response (30 Marks)

Attempted by 86 candidates

Mean 17.06(/30)

Max 24.91

Min 5.89

It was very pleasing that most candidates made an attempt to engage with all parts of the two extended response questions. The mean of 56.86% showed that many candidates were able to show their Science understanding of the stimulus material. For some candidates however, their attempts were not answering the question as stated and specific detail was lacking. Explanations around scientific method did challenge some candidates and superficial answers were given. Applying formulae from information given did challenge some candidates.