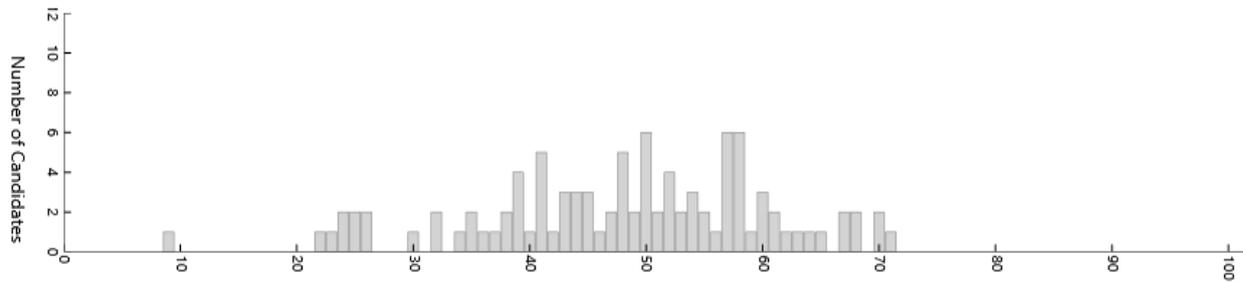




Summary report of the 2016 ATAR course examination: Integrated Science

Year	Number who sat	Number of absentees
2016	98	2

Examination score distribution



Summary

This was the first year that the ATAR Integrated Science syllabus was examined. The paper provided a thorough and balanced coverage of the ATAR syllabus and was of appropriate difficulty and length. The examination panel chose questions that had explicit links to the syllabus. Nevertheless the mean mark was significantly lower than previous years. The mean mark for the paper was 47.97% and scores ranged from 70.71% to 8.79%.

Section means were:

Section One: Multiple-choice	Mean 11.48(/20)	Max 17.00	Min 5.00
Section Two: Short response	Mean 21.49(/50)	Max 36.05	Min 0.79
Section Three: Extended response	Mean 15.16(/30)	Max 25.09	Min 5.95

General comments

When setting questions it is the intention of the examination panel that a full range of Bloom's taxonomy be interrogated ranging from simple recall to complex assimilation of ideas. Thus it was the intention of the panel that a range of valid results be obtained from a range of questions of varying difficulty. The examination had an internal reliability of 0.8 that suggests that candidates' rank order was similar across all sections of the paper.

It would appear that some candidates were unaware that the Science as a Human Endeavour and Science Enquiry Skills are equally examinable with the Science

Understanding section of the syllabus. Candidates should be aware that all items of the syllabus have equal importance and all may be examined.

Advice for candidates

- Past examination papers are available for the old WACE Stage 3 Integrated Science course and many of the questions are still relevant and worthy of revision.
- Ensure that items specified in the syllabus are known in depth.

Advice for teachers

- In general teachers rely on self-generated materials to give to students. Teachers might be advised to check the detail in these notes and ensure items of the old syllabus are removed and that all items in the new syllabus are present e.g. the light bulb experiment which seems to not have been done in some schools.

Comments on specific sections and questions

Section One: Multiple-choice

Attempted by 98 candidates

Mean 11.48(/20)

Max 17.00

Min 5.00

All questions had success rates above 20% and none was higher than 90%. Thus it would appear they were of appropriate difficulty. This section had an average of 57% and was the best section for many candidates. The range of scores was from 21% (questions 9 and 12) to 87% (question 15) and 85% question 16.

The results of this section of the paper correlated 0.77 with total score for these candidates. This was the lowest correlation of the three sections and might be accounted for by the opportunity to guess in multiple-choice questions, thus advantaging weaker candidates. All candidates answered all questions. This section provides examiners with the opportunity to assess a wide range of syllabus not covered in longer responses.

Section Two: Short response

Attempted by 98 candidates

Mean 21.49(/50)

Max 36.05

Min 0.79

This section of the paper was the least successful for many candidates and yet the correlation between the result on this section and total score was 0.95; a remarkable result. This would imply that the reliability was very high but, candidates found the questions difficult as shown by the 43% average.

Section Three: Extended response

Attempted by 97 candidates

Mean 15.16(/30)

Max 25.09

Min 5.95

The results of section three correlated 0.84 with total mark and so the section appears to have good internal reliability. The 50.5% average was again disappointing and with section two contributed to the overall low average for the paper.