



External Assessment Report 2015

Subject(s)	Biology
Level(s)	Intermediate 1

The statistics used in this report are prior to the outcome of any Post Results Services requests.

This report provides information on the performance of candidates which it is hoped will be useful to teachers/lecturers in their preparation of candidates for future examinations. It is intended to be constructive and informative and to promote better understanding. It would be helpful to read this report in conjunction with the published question papers and marking instructions for the examination.

Comments on candidate performance

General comments

The number of presentations for Intermediate 1 Biology was significantly lower than in previous years as more centres presented candidates for the new National Qualifications. There were fewer than 50 entries, from a total of seven centres.

A higher proportion of candidates at Intermediate 1 were from Further Education Colleges; one college accounted for nearly one third of all entries.

One third of entries were from candidates in S4 and the remainder from S5 and 6.

The 2015 Intermediate 1 Biology question paper was very similar in format to those of recent years in terms of question types. It was intended to assess candidates' knowledge and understanding and problem solving/practical abilities across all three Units.

Overall, the mean score was in line with previous years.

Performance in questions requiring knowledge and understanding continued to be challenging for many candidates. In both Section A and Section B, a significant number of candidates performed less well in questions requiring knowledge and understanding of Course content.

The recent trend of fewer candidates leaving questions unanswered was again sustained.

Areas in which candidates performed well

Section A

Question 1: Almost every candidate used analytical skills to conclude information on the effect of exercise and gender on pulse rate.

Question 4: Almost every candidate knew the relative length of recovery time and resting pulse rate expected in an unfit person.

Question 5: Almost every candidate identified the health problem associated with abnormal blood pressure.

Question 8: Almost every candidate identified a correct conclusion from a graph showing possible changes in muscle strength before and after exercise.

Question 14: Almost every candidate identified an advantage of providing heat during plant propagation.

There was no analysis of Section B.

Areas which candidates found demanding

Section A

Question 1: Fewer than half the candidates identified a description of vital capacity.

Question 2: Fewer than half the candidates interpreted graphical information to make a conclusion on a student's breathing rate.

Question 15: Only one third of candidates could correctly identify the humidity and temperature conditions which would result in lowest water loss in plants.

Question 19: Only one third of candidates were able to identify the correct mass of fat from data provided which required a two stage calculation.

Question 24: Just over one third of candidates were able to identify the correct graph of data provided in tabular form, relating to the rising of dough.

There was no analysis of Section B.

Statistical information: update on Courses

Number of resulted entries in 2014	578
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Number of resulted entries in 2015	42
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Statistical information: Performance of candidates

Distribution of Course awards including grade boundaries

Distribution of Course awards	%	Cum. %	Number of candidates	Lowest mark
Maximum Mark	75			
A	28.6%	28.6%	12	51
B	28.6%	57.1%	12	43
C	11.9%	69.0%	5	35
D	11.9%	81.0%	5	31
No award	19.0%	-	8	-

For this Course, the intention was to set an assessment with grade boundaries close to the notional values of 50% for a Grade C and 70% for a Grade A. The Course assessment functioned as intended, therefore no adjustment to grade boundaries was required.

General commentary on grade boundaries

- ◆ While SQA aims to set examinations and create marking instructions which will allow a competent candidate to score a minimum of 50% of the available marks (the notional C boundary) and a well prepared, very competent candidate to score at least 70% of the available marks (the notional A boundary), it is very challenging to get the standard on target every year, in every subject at every level.
- ◆ Each year, SQA therefore holds a grade boundary meeting for each subject at each level where it brings together all the information available (statistical and judgemental). The Principal Assessor and SQA Qualifications Manager meet with the relevant SQA Business Manager and Statistician to discuss the evidence and make decisions. The meetings are chaired by members of the management team at SQA.
- ◆ The grade boundaries can be adjusted downwards if there is evidence that the exam is more challenging than usual, allowing the pass rate to be unaffected by this circumstance.
- ◆ The grade boundaries can be adjusted upwards if there is evidence that the exam is less challenging than usual, allowing the pass rate to be unaffected by this circumstance.
- ◆ Where standards are comparable to previous years, similar grade boundaries are maintained.
- ◆ An exam paper at a particular level in a subject in one year tends to have a marginally different set of grade boundaries from exam papers in that subject at that level in other years. This is because the particular questions, and the mix of questions, are different. This is also the case for exams set in centres. If SQA has already altered a boundary in a particular year in, say, Higher Chemistry, this does not mean that centres should necessarily alter boundaries in their prelim exam in Higher Chemistry. The two are not that closely related, as they do not contain identical questions.
- ◆ SQA's main aim is to be fair to candidates across all subjects and all levels and maintain comparable standards across the years, even as arrangements evolve and change.