



## External Assessment Report 2011

Subject	<b>Geology</b>
Level	<b>Higher</b>

The statistics used in this report are pre-appeal.

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 standard of candidates' responses was generally poorer than last year's excellent performance. This suggests that a lack of provision of Intermediate Courses at some centres has resulted in weaker candidates having to follow a Course that was perhaps beyond them. However, most centres had candidates who attained very high grades.

The standard of essay writing in the more able candidates continues to improve. Many candidates displayed an excellent depth of knowledge. This is what this section of the exam assesses, and it was gratifying to see evidence of significant depth of learning, which reflects in-depth research on the part of these candidates.

It was also pleasing to note that some centres that have not presented at this level before had candidates who achieved good results.

## Areas in which candidates performed well

Question 1: the majority of candidates performed well, and a significant number attained full marks.

Question 2 (a): most candidates performed well, although some lost marks because their answers were too brief. For example 'graptolites are upside down' does not explain that younger graptolites lie below the older ones.

Questions 3 (a) and (b): these were well answered questions. Graphs were accurate.

Questions 5 (a) and (b): generally well answered, although lack of detail cost some candidates marks. Answers like 'similar fossils' were not accepted, as candidates were expected to demonstrate that certain organisms (such as freshwater reptiles) would not be able to cross oceans.

Question 5 (c): reasonably well answered, but the inclusion of degrees of latitude made the question more challenging, as was anticipated.

Questions 6 and 7: these questions were designed to offer less challenge to the candidates before they embarked on Section B. They performed as anticipated, with most candidates accessing more than half marks.

Questions 8 to 10: these extended answers, which are intended to test a depth of knowledge, were well answered by a significant number of candidates. About 10% of candidates gained full marks here, which was most impressive. Question 9 (sedimentary rocks) proved to be the most popular, with the question on ores being the least popular.

Question 11: this simulated fieldwork interpretation question was intended to be challenging. Many candidates applied their knowledge and gained good marks, which must be indicative of the excellent work in the field that teachers and lecturers are conducting with their students. The answers were not obvious but this did not put candidates off, and there were many plausible and well argued responses.

Questions 12 to 13: following the trend of recent exam diets, these questions were well answered. Once again, candidates are being well taught, and plenty of time is being spent by teachers ensuring that most candidates can perform well.

## **Areas which candidates found demanding**

Questions 2 (b) to (d): these questions were included as discriminators, and by and large only the more able candidates were able to access these because they were focused on a narrow aspect of the Course content.

Questions 3 (b)(ii) to (c): very few candidates were able to identify this as a destructive margin, but most managed to attain marks by showing understanding of gravity anomalies. Weaker candidates found this a challenging question.

Questions 4 (a) and (b): correlation was done well, but only a minority of candidates were able to associate varves with proglacial lakes. Only a limited number of candidates correctly calculated how many years of deposition were represented. Some candidates had 24 years as an answer, not appreciating that the layers represented alternating summer and winters. Part (b) was designed as a discriminator question and most candidates, as expected, did find it challenging.

Question 5 (d): about half the candidates struggled with this question, missing the point that minimum drift rate takes account of varying speeds but would not allow for a continent that did not drift following a meandering course.

## **Advice to centres for preparation of future candidates**

### **General**

Section A is the part of the exam paper that most candidates find the most challenging. Try to ensure that the past papers that are available on SQA's website are utilised to prepare candidates.

## Statistical information: update on Courses

Number of resulted entries in 2010	63
------------------------------------	----

Number of resulted entries in 2011	63
------------------------------------	----

## Statistical information: performance of candidates

### Distribution of Course awards including grade boundaries

Distribution of Course awards	%	Cum. %	Number of candidates	Lowest mark
Maximum Mark 110				
A	27.0%	27.0%	17	77
B	14.3%	41.3%	9	66
C	23.8%	65.1%	15	55
D	9.5%	74.6%	6	49
No award	25.4%	100.0%	16	-

## 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, therefore, SQA 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 Head of Service 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.