External Assessment Report 2013

Subject(s)	Geology
Level(s)	Higher

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

Five new centres presented this year. All centres had clearly prepared candidates very thoroughly. There were some exceptional performances this year from candidates, some of whom were studying the subject by distance learning.

Areas in which candidates performed well

- Q1a) Most candidates were able to access all the marks here, and it acted as a good opening question to settle nerves.
- Q2a) Nearly all candidates managed to attain full marks here.
- Section B (essays) Most of the essays were well done, a feature that has continued to improve over the last few years.
- Q12 Worked very well as a more straightforward three-point problem.
- Q13 Most candidates managed to attain more than half marks here, which was more challenging, but the responses suggested that a limited number of centres may be experiencing difficulties with teaching this skill.

Areas which candidates found demanding

- Q2b) Many candidates were describing erosional processes such as attrition rather than weathering processes.
- Q6b) Few candidates were able to attain full marks here. Many appeared to struggle with the concept of half-life.
- Q 11g) Trying to draw fault F2 was exceptionally difficult, and candidates were given the mark as long as the dip of the beds and sequences were correct.

Advice to centres for preparation of future candidates

Continue to set aside plenty of time to allow candidates to practice three-point problems and geological map work and cross section interpretation. There are some examples of these in the Support Materials section of the Geology page on SQA's website to assist in the teaching of these topics.

Centres should continue to involve candidates in as many fieldtrip experiences as possible. Not only is outdoor education more stimulating, it also enhances the overall understanding of geological concepts and helps the students fit the pieces of knowledge together. Take the opportunity to allow candidates time to interpret rock exposures for themselves. Geological scientists require acute problem-solving skills and the ability to made reasoned educated guesses as the full evidence is rarely available. Encourage candidates to make detailed written and pictorial records after careful visual observations.

Candidates should be encouraged to record and present information by sketching. Not all images should be digital.

Statistical information: update on Courses

Higher Geology

Number of resulted entries in 2012	17

Number of resulted entries in 2013	64

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	31.3%	31.3%	20	77
B	29.7%	60.9%	19	66
C	28.1%	89.1%	18	55
D	1.6%	90.6%	1	49
No award	9.4%	100.0%	6	-

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.