



External Assessment Report 2012

Subject(s)	Managing Environmental Resources
Level(s)	Intermediate 2

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

Feedback indicated that the paper covered the National Course Specification in an appropriate and up-to-date manner. It included the use of natural resources, electricity production using renewable sources and meeting national recycling targets. Ecological studies were set on a sea cliff and in an estuarine ecosystem. The local investigation area featured Grangemouth and the Forth estuary with questions on land use. The local industry question featured a working forest.

All questions were accessible to at least some candidates and were deemed to be of a similar standard to previous years. Discriminating questions functioned well.

There was strong evidence of bi-level teaching, with Higher Managing Environmental Resources being taught, and those not achieving success in the Higher Unit assessments subsequently being presented at Intermediate 2 level. The majority of centres achieved success at both levels.

Very few candidates did not attempt all of the questions. The extended writing answers generally displayed an enthusiasm for the subject which was commented on by the markers. However, careless and inaccurate use of the English language was also commented on. Marks cannot be awarded for vague answers at Intermediate 2 level.

In Section 2 of the paper, Option A was the most popular choice, and the least well done. Most candidates neglected to explain the effects of generating electricity. Options B and C were chosen mostly by candidates who had achieved higher marks in the first section.

Areas in which candidates performed well

In Q1 (a) (iv) and (v), candidates demonstrated that they understood the concept of non-renewable. Most gained two marks by choosing the correct option to describe eutrophication. In previous years this was not the case when the question required an extended writing answer.

The uses of energy and a major source of energy in Q2(c) and (d) and recycling in Q3, apart from parts (f) and (g), were very well answered.

It was pleasing to see how well the candidates understood the biological principles covered in Q4. Centres must be congratulated on their teaching. Candidates also scored highly in drawing the double y-axis graph, Q5 (a) (i). Environmental issues were well understood in Q6 (a) (iv), (v), (b) and (c).

In Q7 (b), forestry operations, most candidates scored highly in all parts. Grid references in Q8 were well understood.

Areas which candidates found demanding

In general, the areas which candidates found most demanding were the more difficult problem-solving questions or where there was an application of knowledge in an unfamiliar context. The discriminating questions worked as expected.

Candidates had difficulty calculating the number of gigawatt hours in Q 2 (a) (ii). They also found it difficult to find a reason for the smaller territory of the otter on the seashore – Q6 (a) (i). Few candidates could explain how pesticides endangered otters – Q6 (a) (iii). In Q7 (a) (i), candidates confused natural regeneration with planting. The majority of candidates thought that screening trees were a natural feature which influenced the location of the site in Q8(c). Also, in Q 8 (f), most candidates could not account for the lack of housing development to the east of the A905.

Advice to centres for preparation of future candidates

The most recent SQA Arrangements document for Managing Environmental Resources specifies areas of knowledge (and names examples) which the candidate should know for the external exam. However, the nature of the subject allows for many correct alternative examples. Correct alternatives are always awarded marks.

It is obvious that most centres prepare their candidates very well in graph or chart completion. Please remember that graphs or charts should be completed in pencil. Bars in a bar chart must be of the same width, and daylight must not be seen between where the candidate has drawn the line and where it should be drawn. Pie chart sectors must always meet in the centre. All the appropriate information, including units, from the headings of the table of information, should be presented on the axes of the graph. Bars need not be shaded in, as long as the key can be interpreted correctly. Candidates are strongly advised not to hurriedly shade in bars at the end of their answer, as this can result in the loss of a mark when the shading goes above the appropriate line. Please follow this advice as these criteria will be applied when assessing the evidence produced for appeals.

Candidates should be given the opportunity to practise problem-solving. Opportunities to practise the calculation of ratios, percentages (including percentage increase and decrease) should also be provided.

The space given after a question indicates which type of answer is expected. A short line indicates a one-word answer. A longer line indicates that a longer answer is required. An explanation is usually given two lines for an answer. An extended answer for two marks usually has three lines.

Candidates should be advised to read the question carefully. If the question states 'from the diagram...', then the answer is expected to come from that diagram in the Question Paper and not from the candidate's Course work.

They must be prepared to answer every part of the question. 'Predict with a reason', for only one mark, indicates that the reason must back up the prediction; otherwise no mark will be awarded.

An excellent way to boost a candidate's grade is to provide opportunities to practise questions from past papers. There are past papers with marks schemes available on SQA's website. These are extremely useful in providing correct definitions and exemplification. The questions using a map indicate the depth of study required in the local area. Extended writing practice is also essential.

Candidates should be encouraged to read over their answer paper after finishing. This is especially important in section 2, where candidates must answer the question and not simply write everything they know. Reading over answers also allows the candidate to check that all questions have been answered.

Statistical information: update on Courses

Intermediate 2

Number of resulted entries in 2011	132
------------------------------------	-----

Number of resulted entries in 2012	107
------------------------------------	-----

Statistical information: Performance of candidates

Distribution of Course awards including grade boundaries

Distribution of Course awards	%	Cum. %	Number of candidates	Lowest mark
Maximum Mark 100				
A	22.4%	22.4%	24	70
B	23.4%	45.8%	25	60
C	24.3%	70.1%	26	50
D	5.6%	75.7%	6	45
No award	24.3%	100.0%	26	-

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.