



External Assessment Report 2009

Subject	Managing Environmental Resources
Level	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

The candidates were considered to be making more informed responses than in previous years. This probably reflects the experience and hard work which has been built up by centres since this subject was introduced. The use of language was good particularly from candidates in S4.

The more able candidates scored better in section 2 of the paper, the extended writing question. Most candidates chose Option A from Unit 1, Natural Resource Use. The highest average mark was gained in Option C from Unit 3, the Local Environment.

Candidates did well in problem solving. Most were able to extract information from a passage, table, diagram or graph, draw conclusions, give explanations and make predictions. Questions based on Unit 1, Natural Resource Use, sustainable development (1.3), natural resources used in energy production (1.4), energy production (1.5) and environmental effects (1.6) were well answered. The questions based on a food web from Unit 2 Ecosystems (2.2) were also well answered.

Again, candidates seemed to have had most difficulty in learning specific terms or giving named examples, all of which are itemised in the notes column of the arrangements document.

Centres are to be congratulated in presenting candidates at the correct level.

Areas in which candidates performed well

Unit 1 questions were well answered. Other sources of renewable energy, Q2b, greenhouse gases, Q2e, changes in UK sources of energy, Q2d, recycling, Q4a and forestry, Q8d, resulted in high scores.

Q5c, the food web from Unit 2 was also well answered by most candidates showing that the food chain terms are well understood.

The key, Q5a, was completed by most candidates indicating that this concept from Unit 3, Local Environment, is familiar to most.

The scores in Q3 on photosynthesis, energy loss and parasitism were higher than in previous years on these topics.

Problem solving skills were good. Extracting information from a graph, Q2a and completing a pie chart, Q4e, were well done by most candidates. The use of six figure grid references posed no difficulties.

Areas which candidates found demanding

Candidates had difficulty with legislation and some biological definitions.

In Q8f, very few candidates could name a piece of legislation from Unit 2.7, pollution and conservation. In Q1c, very few candidates could give the term for a non-native species from Unit 3.3. They also had difficulties with Q4c, naming the local initiative from Unit 1.7.

From Unit 2.1, ecological concepts, adaptation Q5b and naming a biotic factor Q1b proved difficult for a lot of candidates

The investigation question, 7, had the lowest average score in the paper. Only the more able candidates answered correctly where the sewage was entering the river. Most candidates could describe the trend shown in Q7b, but very few could explain it.

Advice to centres for preparation of future candidates

If a term or phrase appears in the notes column of the arrangements document, then the candidate can be asked about it in the external assessment.

Candidates seem to have most difficulty with remembering Agenda 21 from Unit 1, biotic factors, nitrogen cycle, indicator species and legislation from Unit 2 and the terms in the flora and fauna section from Unit 3. The candidates that have learned these terms or understand these concepts gain the highest marks.

When drawing pie charts, a ruler must be used and the sectors must meet in the centre of the chart. The use of a pencil is strongly recommended. If the lines are drawn over in ink, then the two lines should coincide.

Pollution as an answer to a question is not specific enough. It should be qualified by air, noise, visual etc or include a description in order to gain marks.

The title of a piece of legislation should be given with its date, for example, Wildlife and Countryside Act (1981)

Candidates should be encouraged to attempt option C in the second section of the paper, since it gives them a chance to display their local knowledge and in doing this, attain higher marks.

Statistical information: update on Courses

Number of resulted entries in 2008	37
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Number of resulted entries in 2009	47
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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 - 100				
A	55.3%	55.3%	26	70
B	23.4%	78.7%	11	60
C	8.5%	87.2%	4	50
D	0.0%	87.2%	0	45
No award	12.8%	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.