

Principal Assessor Report 2003

Assessment Panel:

Chemistry

Qualification area

**Subject(s) and Level(s)
Included in this report**

Intermediate 1 Chemistry

Statistical information: update

Number of entries in 2002	
Pre appeal	263
Post appeal	263

Number of entries in 2003	
Pre appeal	723

General comments re entry numbers

The increase in numbers sitting the exam was mainly due to the increase in S4 candidates being presented at this level. Dates of birth indicated that the majority of candidates presented for the exam were presented from S4.

Grade boundaries at C, B and A for each subject area included in the report

Maximum mark = 60

(grade boundaries expressed as percentage mark in brackets)

Year	Mark (lowest)			
	Upper A	A	B	C
2002	51 (85%)	42 (70%)	36 (60%)	30 (50%)
2003	51 (85%)	42 (70%)	36 (60%)	30 (50%)

General commentary on passmarks and grade boundaries

- While SQA aims to set examinations and create mark schemes which will allow a competent candidate to score a minimum 50% of the available marks (notional passmark) and a very well-prepared, very competent candidate to score at least 70%, it is almost impossible to get the standard absolutely on target every year, in every subject and level
- Each year we therefore hold a passmark meeting for each subject at each level where we bring together all the information available (statistical and judgmental). 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 senior management team at SQA
- We adjust the passmark downwards if there is evidence that we have set a slightly more demanding exam than usual, allowing the pass rate to be unaffected by this circumstance
- We adjust the passmark upwards if there is evidence that we have set a slightly less demanding exam than usual, allowing the pass rate to be unaffected by this circumstance
- Where the standard appears to be very similar to previous years, we maintain similar grade boundaries
- 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 are different. This is also the case for exams set in centres. And just because SQA has altered a boundary in a particular year in say Higher Chemistry 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
- Our main aim is to be fair to candidates across all subjects and all levels and maintain standards across the years, even as syllabuses evolve and change

Comments on grade boundaries for each subject area

The view of the examining team was that the exam was of a very similar standard to 2002. The grade boundaries therefore reflect this.

Comments on candidate performance

General comments

Candidates being presented from S4 did not appear to be as well prepared for the exam as other candidates. In some of the answers given, although chemical in nature, were completely unrelated to the area of chemistry being tested.

Areas of external assessment in which candidates performed well

Candidates performed well in questions assessing Outcome 2, problem solving. This was particularly true for presenting information and for selecting information from graphs.

Areas of external assessment in which candidates had difficulty

Candidates performed poorly in questions assessing Outcome 1, knowledge and understanding.

E.g the following questions were all poorly answered:

Q1 (b) (i) - Name the process used to separate crude oil into fractions

Q2 (c) - What type of compound can farmers use to prevent diseases in plants?

Q7 (c) (i) - What other substance needs to be added to the test tubes to show if the iron is protected from rusting?

Q9 (a) (ii) - Name the substance in green plants which absorbs light during photosynthesis

Q10 (e) - Name the salt formed when magnesium reacted with hydrochloric acid.

Recommendations

Feedback to centres

Many candidates only display very limited knowledge of the chemistry covered in the course. They are however able to present and extract information in a chemical context.

Centres should place an increased emphasis on recall of knowledge throughout the course.