



External Assessment Report 2012

Subject(s)	Information Systems
Level(s)	Advanced 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

Candidate performance in the final exam continues to improve with the majority of candidates demonstrating a good understanding of the core content.

Areas in which candidates performed well

Section I: Core

Questions 1 & 2: Most candidates demonstrated sound knowledge of the specialist terminology associated with the core Units.

Question 3: Candidates demonstrated good problem solving skills producing entity event matrices that were annotated correctly.

Question 7: The majority of candidates produced data flow diagrams that were accurate and correctly annotated.

Section II Part A: Information Systems Interfaces

Question 8 (e): Most candidates produced storyboards that were accurate and annotated appropriately.

Question 11 (b): The majority of candidates produced state transition diagrams that accurately reflected the system described.

Section II Part B: Online Database Systems

Question 13 (c) and Question 14 (a) & (b): The majority of candidates demonstrated a good knowledge and understanding of EDI systems.

Question 15 (b) and Question 17 (b) (ii): Most candidates demonstrated sound knowledge of a server-side scripting language and were able to write the scripts required.

Areas which candidates found demanding

Question 6: Some candidates had difficulty with most of this question. Of these, many candidates were unable to identify the correct primary key for the table and many were unable to identify functional, partial or transitive dependencies.

Advice to centres for preparation of future candidates

General

Centres should continue to encourage candidates to prepare themselves for the external exam by ensuring that their knowledge of terminology is sound. Often, candidates focus on the problem solving content and modelling techniques rather than the terminology: as a result, they may be unable to give accurate, technical descriptions of straightforward terms and miss out on readily accessible marks.

Candidates' confidence in tackling the modelling techniques continues to improve with fewer candidates missing out questions. Centres should remind candidates that partial marks are awarded, even for incomplete answers. Even when a candidate's analysis is flawed at, for example, the early stages of the normalisation process, marks are awarded for any subsequent work that follows the correct process.

Having a sound knowledge of specialist terminology is especially important for those candidates who undertake Part II of Section 2: Information System Interfaces. Unfortunately, a number of candidates still confuse qualitative and quantitative techniques and inspection and inquiry methods. When asked to select an appropriate qualitative or quantitative technique or state a suitable inspection or inquiry method, they often give a technique or method that belongs to the wrong category.

Candidates who tackle Part I of Section 2: Online Database Systems should be encouraged to practise problem solving using SQL. Some candidates seem to be put off by what they see as difficult content and miss out some SQL questions rather than attempting them. Confidence gained through practice would go a long way to overcoming this difficulty. Centres should encourage candidates to attempt as much of the query as they can: in most queries, and certainly in the more difficult ones, marks are awarded for the `SELECT... FROM...` and `WHERE...` statements that the majority of candidates should be able to achieve, even if they are unable to finish the query.

Statistical information: update on Courses

Number of resulted entries in 2011	53
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Number of resulted entries in 2012	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 200				
A	51.1%	51.1%	24	140
B	27.7%	78.7%	13	120
C	6.4%	85.1%	3	100
D	0.0%	85.1%	0	90
No award	14.9%	100.0%	7	-

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.