External Assessment Report 2013

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 2013 exam paper was similar to that in previous years, with 85.7% of candidates achieving grades A–C, compared with 88.9% in 2012. The average mark in the exam was 73.4 with the average mark obtained in the core section being 41.2. The average marks obtained in the optional sections were 29.1 and 36.8 respectively.

Areas in which candidates performed well

In general, questions 1 and 2 in the core section were answered well by the majority of candidates.

- Question 3: Most candidates produced data flow diagrams that accurately represented most of the information provided.
- Question 4: Candidates demonstrated a good understanding of weak/mandatory entities and were able to accurately link the entities using the information provided.
- Question 5c): Candidates demonstrated good knowledge of entity life history diagrams.
- Question 5d): Candidates demonstrated good knowledge of testing and test plans.
- Question 6a) and 12a): Candidates demonstrated improved knowledge of the normalisation process. The average mark achieved was 7.1 out of a possible 10 marks.

Section II part A: Information Systems Interfaces

- Question 7a) and 7c): These were answered well by most candidates.
- Question 8c)i) and ii): These were answered well.
- Question 9d): This was answered well with candidates demonstrating good knowledge of intelligent interfaces.
- Question 10a), b) and c): Candidates demonstrated good knowledge of interface modes.
- Question 11a): Candidates were skilled in describing the characteristics of an interface.

Section II Part B: Online Database Systems

- Question 13a), c) and d): candidates demonstrated good knowledge of e-commerce platforms and EDI systems.
- Question 14(e)i) and ii): Candidates demonstrated good knowledge of HTML form tags.
- Question 15a) and d): These were answered well by candidates.

Areas which candidates found demanding

- Question 1c): Some candidates were unable to explain the need for new models at the design stage.
- Question 2c): Some candidates failed to justify the benefits of RAD tools. In many cases, candidates described disadvantages of RAD tools.
- Questions 6b) and 12b): Few candidates demonstrated any knowledge of graphical design notations as alternatives to structured English.
- Questions 8a) and 16a): Responses demonstrated that candidates had little knowledge of the term ‘system refinement’.

- Questions 8b) and 16b): Candidate responses were poor.

Section II Part A: Information Systems Interfaces

- Question 8c)iii): Candidates were unable to compare prototyping and state transition diagrams.
- Question 9a)i): Many candidates failed to name a quality inspection method, demonstrating an inability to distinguish between usability testing techniques and methods.
- Question 10e)i): Many candidates failed to name a qualitative technique, demonstrating an inability to distinguish between usability testing techniques and methods.
- Question 10e)ii): Candidates failed to answer the question asked — rather than describing how the named technique would be used, in many instances, they provided simple descriptions of the method.
- Question 11d)ii): Many candidates failed to name a quantitative technique.
- Question 11e)ii): Many candidates failed to name an inquiry method.

Section II Part B: Online Database Systems

- Question 13b): Candidates didn't take the context of the question into account. Instead, responses were very generic.
- Question 14a)ii): Although candidates demonstrated knowledge of open source and commercial software, comparisons between the two were poor.
- Question 14d): Responses demonstrated little knowledge of served based management tools.
- Question 15b): Many candidates failed to read the question carefully. Instead of recognising CRM features shown in the screenshot, answers tended to focus on generic features.
- Question 15c)ii): Some candidates failed to read the question carefully with many responses discussing the use of feedback in terms of a CRM system rather than use of CMS by administrators to approve feedback comments.

Advice to centres for preparation of future candidates

Centres should continue to ensure that candidates have a sound knowledge of specialist terminology from both core units.

Candidates must be prepared to solve problems using any of the six modelling techniques in the Systems Analysis and Design unit.

Candidates should be able to apply knowledge of database design techniques and database development in problem solving situations.

When asked to describe benefits, drawbacks or of features of a particular system, candidates are advised to refer to the context of the question and explain the relevance of the feature concerned; in this type of question, generic descriptions are unlikely to receive any marks.

Candidates studying Information Systems Interfaces

Candidates must be able to:

- Clearly distinguish between the four categories of usability testing and evaluation techniques/methods (qualitative techniques, quantitative techniques, quality inspection methods, inquiry methods) and suggest appropriate examples within the context of the question.
- Compare storyboards, state transition diagrams and prototyping as methods of interface design by making clear reference to the relevant benefits/drawbacks within the context of the question.

Candidates studying Online Database Systems

Candidates must be able to:

- Clearly distinguish between the features of Content Management Systems and Customer Relationship Management and exemplify features of each that are relevant within the context of the question.
- Compare open source and commercial software in terms of the issues stated by making clear reference to the relevant benefits/drawbacks within the context of the question.

Statistical information: update on Courses

Number of resulted entries in 2012	47

Number of resulted entries in 2013	49

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	42.9%	42.9%	21	140
B	30.6%	73.5%	15	120
C	12.2%	85.7%	6	100
D	6.1%	91.8%	3	90
No award	8.2%	100.0%	4	-

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.