



External Assessment Report 2011

Subject	Information Systems
Level	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

In general, candidates' performance in the external exam has continued to improve, with performance in the Coursework Project similar to that in previous years.

Fifty-three candidates were presented for the final exam. It is pleasing to see a large number of returning centres and one new presenting centre. Together, these centres account for over 28% of the entries.

In a change from the previous few years, 53% of candidates attempted Section II, Part A: Information Systems Interfaces, whereas 47% of candidates attempted Section II, Part B: Online Database Systems. Performance of candidates within these options differs slightly: the average mark in Part A was 28 compared with an average mark of 35 for Part B.

It is pleasing to note that the vast majority of candidates are well prepared for the content of Section I and the core content in the option parts of Section II. The average mark for all candidates in Section I is 37 marks.

Areas in which candidates performed well

Section I

In general, candidates performed well in Questions 1 and 2. Written descriptions were more detailed than in previous years and provided an appropriate level of response.

Question 4 (a): most candidates handled the normalisation well, with several candidates achieving full marks.

Question 5: candidates produced DFDs that accurately matched the description provided.

Question 6: candidates knew how to create the ERD required and indicated clearly the required features of the diagram. The vast majority of the candidates coped well with this question.

Section II: Core Content

Questions 7 (f) and 11 (d): all candidates knew how to convert standard English statements into accurate structured English.

Questions 7 (g) and 11 (c): all candidates knew how to categorise test data values.

Questions 9 (f) and 13 (c): most candidates were able to suggest appropriate validation rules for the attributes required.

Part A: Information Systems Interfaces

Question 8 (a): on the whole, candidates were able to name technical factors which have contributed to the development of graphical interfaces.

Question 9 (a): all candidates were able to identify mode and methods of input/output from the description provided.

Part B: Online Database Systems

Question 11 (b): candidates were able to give disadvantages of e-commerce for the business.

Questions 12 (d) and 13 (a): in general, candidates produced accurate HTML statements for the situations described.

Areas which candidates found demanding

Section II

Part A: Information Systems Interfaces

Questions 7 (a) and 8 (b) and (c): candidates demonstrated little knowledge of what an intelligent interface actually is, and were largely unable to accurately name aspects of an intelligent interface.

Question 9 (c): candidates were unable to compare the techniques but gave bland descriptions instead.

In general, candidates often confused the different usability testing techniques with inspection and inquiry methods. As a result, they did not have accurate knowledge of how the techniques are used, when they are used, why they are used or who carries them out. For example, in Question 9 (e), few candidates could say who actually performs the test; in Question 8 (b)(ii), very few candidates could list suitable heuristics; in Questions 7 (d) and 9 (d), few candidates were able to name the actual technique being used.

Part B: Online Database Systems

Question 11 (c): many candidates provided a response that referred to upselling and cross-selling. While this is acceptable, candidates must ensure that these are different, and the description of each must be accurate. The question clearly expected candidates to justify their response by indicating how these techniques increase sales. Few candidates actually did this.

Question 12 (a): candidates were unable to compare the types of software but gave bland descriptions instead.

Question 12 (b): although candidates appear to know about Content Management Systems, they were unable to relate their basic knowledge to the question asked. Many candidates

simply stated that it would be possible to set up different levels of access for users of the CMS and failed to explain how this would achieve the required aims.

Advice to centres for preparation of future candidates

General

Centres should continue to encourage all candidates to practise modelling techniques required for core questions, and ensure that candidates' basic knowledge of core content is sound.

Candidates should be better prepared to answer questions that require them to compare two named items. They must do more than simply describe the items.

Section II

Part A: Information Systems Interfaces

Centres must ensure that candidates' knowledge of usability testing techniques and inspection/enquiry techniques is sound. This is essential knowledge that candidates must have if they are to accurately identify, describe and compare the techniques. Candidates should know why each technique is used (its purpose), how each technique is used, when it is used in the interface development process, and who is involved with the technique when testing of the interface is being carried out.

Part B: Online Database Systems

Centres should encourage candidates to practise exam questions relating to the use of server-side scripting and SQL. Although most candidates attempted these questions, the quality of response varied enormously.

Statistical information: update on Courses

Number of resulted entries in 2010	51
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Number of resulted entries in 2011	53
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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	24.5%	24.5%	13	140
B	32.1%	56.6%	17	120
C	22.6%	79.2%	12	100
D	5.7%	84.9%	3	90
No award	15.1%	100.0%	8	-

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, therefore, SQA 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 Head of Service 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.