External Assessment Report 2015

Subject(s)	Information Systems
Level(s)	Advanced Higher

The statistics used in this report are prior to the outcome of any Post Results Services requests

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

Overall, candidates performed well in the question paper with 93.3% of candidates achieving a pass at A–C, the best pass rate in recent years. 43% of candidates achieved an A; 30% achieved a B; and 20 % achieved a C.

Areas in which candidates performed well

Section I

Questions 1 and 2:	Candidates provided accurate descriptions and explanations of key terminology from the core content.
Question 3 (b):	Candidates demonstrated a good understanding of Entity Life History diagrams.
Question 4 (b):	Candidates were able to describe appropriate validation for both Age and Gender.
Question 4 (c):	Candidates produced accurate explanations of the database operations that had been required to produce the monthly summary shown.

Section II Part A

Question 6 (a):	Candidates produced accurate data flow diagrams to represent the processes described.
Question 6 (b) (ii):	Candidates demonstrated good knowledge of the importance of a feasibility study.
Question 8 (a) and (b):	Candidates accurately stated physical constraints associated with the kiosk and explanations in part (b), demonstrating that the majority had a good understanding of types of interface and the use made of user error rates during usability testing.
Question 8 (c) (iv):	The vast majority of candidates knew that the avatar was part of the User Guide.
Question 8 (d) and (e):	Candidates provided accurate explanations of a phased conversion and the use made of user surveys to gather feedback from library members.

Question 9 (a) (ii) and (iii):	Candidates provided accurate explanations of types of prototyping and used their knowledge of co-discovery to assess its suitability for testing a mobile phone app.
Question 9 (c):	Candidates applied their knowledge of self reporting logs accurately in the situation described.

Section II Part B

Question 10 (a):	Candidates produced accurate data flow diagrams to represent the processes described.
Question 10 (b) and (d) (i):	Candidates produced accurate descriptions of relevant features of an e-commerce platform and were able to describe the use made of transaction standardisation and translation software in EDI.
Question 11 (b) and Question 12 (b):	Most candidates were able to provide an accurate description of the form element and write accurate HTML code.
Question 11 (c):	The vast majority of candidates knew that the avatar was part of the User Guide.
Question 11 (e):	Candidates provided accurate explanations of the use made of user surveys to gather feedback from library members.
Question 12 (c) (i):	Candidates were able to apply SQL ORDER BY statement to perform the task required.
Question 12 (d) (i):	Candidates demonstrated good knowledge of the importance of a feasibility study.

Areas which candidates found demanding

Section I

Question 3 (a):	The majority of candidates were unable to complete the Entity Event Matrix accurately.
Question 4 (a):	Although most candidates produced an Entity Relationship Diagram (ERD) that accurately defined the relationships between the entities, the optionality and weak entities/relationships had not been represented correctly in many of the diagrams.
Question 5 (a) and (b):	A few candidates did not create an unnormalised form (UNF) in part (a) and as a result, they were unable to do part (b) of the question. In addition, some candidates who did provide a UNF in part (a), inexplicably changed the UNF they used in their response to part (b).

Section II Part A

Question 7 (a):	Although most candidates were able to name methods that could be used to represent the design of the interface for the two systems, few were able to provide an accurate justification for the method selected in each case.
Question 7 (b) (i):	Few candidates demonstrated understanding of the term 'feature set'.
Question 8 (c) (ii) (A) and (C):	Few candidates were able to identify the use made of an agent-based interface and the use made of adherence to standards.

Section II Part B

Question 11 (a):	Few candidates demonstrated understanding of the term 'server based database management tools'.
Question 11 (d) (ii):	Few candidates were able to accurately describe the significance of reading and accepting the terms and conditions in part (A); candidate responses to part (B) were vague and lacking technical accuracy.
Question 12 (a):	Many candidates did not read the information provided in the stem of the question correctly. This meant that many candidates did not realise that the username and password had been entered correctly.
Question 13 (b) (ii):	Few candidates demonstrated knowledge of the SQL NOT EXISTS clause.

Advice to centres for preparation of future candidates

Candidates should be encouraged to read the wording in the stem of each question carefully to ensure they have a clear understanding of what is being asked.

Centres should also encourage candidates to attempt all questions. This is especially important when subsequent parts of a question depend on answers made earlier in the same question. For example, in Question 5, candidates who did not attempt part (a) were unable to gain any marks for part (b). Those candidates who did make an attempt at part (a) — even when they received no marks for that answer — were able to proceed to part (b). Although many candidates made errors in part (b), the majority of those who did attempt part (b) did well, with most gaining more than half marks.

Statistical information: update on Courses

Number of resulted entries in 2014	32

Number of resulted entries in 2015	30

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	43.3%	43.3%	13	140
B	27.9%	73.3%	9	120
C	20.0%	93.3%	6	100
D	0.0%	93.3%	0	90
No award	6.7%	-	2	-

For this Course, the intention was to set an assessment with grade boundaries at the notional values of 50% for a Grade C and 70% for a Grade A.

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.