



External Assessment Report 2009

Subject	Information Systems
Level	Intermediate 2

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

The 2009 Question Paper was thought to be of a similar standard to previous years but there was a slight decrease in the standard of candidates' responses. In many instances, candidates were unable to satisfactorily demonstrate knowledge of the basic concepts and principles of the Course.

Despite having been noted in the previous reports, an even greater number of candidates persisted in giving commercial product names (PowerPoint, Publisher, Instant Messenger, Microsoft Word, Dreamweaver) when asked for the **type** of application. In some instances, candidates lost up to 3 marks due to this. Centres should reinforce to candidates that commercial product names will not receive marks.

Uptake for the optional topics shows that Expert Systems had the fewest centres presenting with Applied Multimedia and The Internet having roughly equal presentation.

Section 1 was completed very poorly with the exception of Question 1, Question 2(b), Question 8 and Question 9(b) which were well answered.

Section 2 was completed satisfactorily. Question 10 (the normalisation question) was poorly done this year, with most candidates being unable to put the correct fields in the correct tables and identify the correct primary and foreign keys. This type of question has appeared every year. Candidates that do well in this question, tend to do well overall.

Section 3 Fewer candidates answered all 3 sections this year. All optional topics were completed satisfactorily.

- In the Applied Multimedia option, Question 14 (a) (iii) was poorly answered, with candidates unable to identify the 'subject expert'. Questions 13 (a) (ii), 14(c) (i) and 14 (d) (iii) were well answered.
- In the Expert Systems option candidates answered Question 16 (a) (completion of a factor table) extremely well although Questions 15 (e) and 17 (b) (ii) were poorly answered and most candidates did not give enough technical detail or apply their answer to the scenario in Question 17 (b).
- In The Internet option, Question 18 (a) and (b), requiring technical responses were answered very poorly with candidates responses lacking the degree of technical knowledge expected at this level. Question 18 (d), Question 19(c) and Question 20 (d) were very well answered. Question 20 (b) (i) and ii) were very poorly answered with candidates unable to identify absolute and relative addresses from the hierarchical structure given.

Areas in which candidates performed well

Section 1

Question 2 (b), Question 8 and Question 9 (b) were answered extremely well with most candidates gaining full marks.

Section 2

Question 10 a (i), Question 11 (c) and Question 12(d) (ii) were answered well.

In Question 12 (c) (ii), candidates obviously knew the correct answer but in many instances did not gain the marks due to not giving enough detail. For example 'Don't use capitals' - this gained no marks, whereas, 'Don't type in all capitals as it is considered shouting' gained the mark.

Section 3

Applied Multimedia

Questions 13 (a) (ii) and 14 (c)(i) were well answered. In Question 14 (c)(ii), candidates obviously knew the correct answer but in many instances did not gain the mark due to giving a commercial product name rather than the type of product. 'PowerPoint' was the most common answer which gained no marks, whereas those that put 'Presentation' received the mark.

Expert Systems

Question 15 (b) (iv) and (v) were answered very well as was 16 (a).

The Internet

Questions 18 (c) and (d), 19 (c) (i) and (ii), and 20 (d) were answered well.

Areas which candidates found demanding

Section 1

Question 2 (a) nearly all candidates were unable to correctly identify objects in a spreadsheet.

Question 5 was very poorly answered with most candidates answering about the advantages of having a network, rather than why they need a network strategy.

Question 7 candidates found this question very hard. Most candidates thought 'Start' was a number field and 'Athletics Club' a text field. These were awarded 0 marks. Only a few candidates put Date/Time for the 'Start' field. This was awarded 0 marks.

Question 9 although most candidates identified the first field 'sorted'; very few identified the second field. At Intermediate 2 level it is more likely that a complex 'sort' will be asked.

Section 2

Question 10 (a)(ii) very few candidates were able to normalise the table. More candidates were laying their answer out in a well structure manner.

Question 11 (b) it was surprising, that such a fundamental concept as 'primary key' was so poorly answered. Very few candidates gained this mark.

Question 12 (b)(ii) most candidates simply reiterated the information in the question i.e. 'calculating and saving' rather than identifying the processes 'processing' and 'storing'.

Question 12 (c) (i) most candidates talked about the 'legal' implications rather than the 'ethical' implications asked by the question.

Section 3 – Applied Multimedia

Question 13 b) although most candidates gained 1 mark for identifying the large mixture of fonts being used, few identified that it would have been better laid out in a table or as a list.

Section 3 – Expert Systems

Question 15 (a) (ii) very few candidates were able to identify 'decision trees' or 'factor tables' as techniques used at the knowledge representation stage.

Question 15 (e) candidates still have difficulty in comparing 'querying a database' and 'querying an expert system'.

Question 17 (b) (ii) most candidates reiterated their answer to part (i). They did not apply it to the scenario. Where a question asks 'in this expert system' or 'in this case' candidates are expected to refer to the scenario in which the question is set.

Section 3 – The Internet

Question 18 (a) was poorly answered with a very large number of candidates identifying the protocols the wrong way round and hence losing both marks.

Question 20 (b) (i) although most candidates were able to gain one mark for the <http://www.school.sch.uk>, very few were able to gain the second mark.

Question 20 (b) (ii) nearly all candidates failed to identify the relative address.

Advice to centres for preparation of future candidates

Candidates should not use commercial product names e.g. PowerPoint but should give the **type** of software e.g. Presentation.

Candidates should not use package specific terms like Date/Time but should identify the type of field from the data shown.

Candidates should not give answers like ‘it is easier/quicker/cheaper’. Answers like these must contain justification why they are easier/quicker/cheaper.

Candidates who represent the normalisation in a well structured, standard manner, achieve higher marks.

The relationship between entities must be applied to the scenario. ‘One to Many’ gained no marks, whereas ‘One Cat home has many employees’ gained full marks.

Statistical information: update on Courses

Number of resulted entries in 2008	1846
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Number of resulted entries in 2009	1765
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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 - 100				
A	29.5%	29.5%	521	66
B	27.1%	56.6%	478	56
C	18.8%	75.4%	332	47
D	8.8%	84.2%	155	42
No award	15.8%	100.0%	279	-

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.