



External Assessment Report 2015

Subject(s)	Information Systems
Level(s)	Intermediate 2

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

As there were a very small number of candidates this year, trends may have appeared that are different from past exams when there were larger numbers.

- ◆ Candidates seemed to cope with well with questions which were assessing lower-order thinking skills, but challenged with questions assessing higher-order thinking skills when being asked to evaluate or analyse.
- ◆ It would benefit candidates if centres could reinforce that when turning over pages, they should be checking both the question and page numbers.
- ◆ No candidates decided to do all three optional topics this year, and both candidates and centres should be commended for their efforts in this area.

Uptake for the optional topics was considerably different this year, with almost an equal distribution between Expert Systems, Applied Multimedia and The Internet. There is evidence to note that those candidates presented for the Expert Systems Unit did considerably better than those candidates for the other optional topics.

Section 1

Section 1 on the whole, was reasonably well answered this year in comparison to last year.

Question 4, candidates still find difficulty in explaining what is meant by Information Intellectual Property Rights.

Question 7 c), was poorly answered with few candidates gaining both marks. Candidates would benefit from being given practice at questions that are assessing the higher order skills of which this question was an example.

Section 2

Section 2 was completed to a slightly lower standard than in previous years.

Question 10 b) (the normalisation question) was not answered as well as in previous years. There was also evidence that some candidates were putting foreign keys in both tables. Candidates doing this will not be awarded the mark for the foreign key.

Question 10 c) was very well answered with almost all candidates getting it correct.

Question 11 d ii) part B was very poorly answered, with very few candidates even identifying that they would need to carry out a search, never mind giving the field and criteria that should be used.

Section 3

No candidates answered all three optional sections this year. All optional topics were completed satisfactorily, although there is considerable evidence that candidates are less knowledgeable about the optional topics than they are the core Units, with most candidates barely gaining half marks for the optional topic. It was also evident that candidates answering the multimedia option did less well than those answering the other two options.

Applied Multimedia: As has been indicated for many years, Markers commented on the lack of technical knowledge demonstrated by most candidates attempting this option. For example:

Question 13 b i) – Few candidates could explain what is meant by sampling depth.

As was indicated last year, centres doing the Applied Multimedia option should ensure that sufficient time and practice is allocated to learning the underlying theory behind the Unit. Also candidates will benefit from being given examples of theory questions in context and ensuring that candidates are aware that they will only gain full marks by responding to the question in terms of the context.

Expert Systems: Candidates doing the Expert Systems topic appeared better prepared than candidates doing the alternative topics. These centres should be commended for this.

- ◆ Question 17c (i) was very well answered, with most candidates gaining full marks.
- ◆ Many candidates found question 15 a) ii) writing a backward chaining rule challenging.

Candidates must realise that responses about a particular expert system **must** include a reference to the actual expert system described. Question 16 c) asked candidates *to describe how knowledge acquisition would have been carried out in this expert system*. Candidates who do not refer to the television fault expert system will not gain full marks.

Candidates doing the Expert Systems option should ensure that sufficient time and practice is allocated to learning the underlying theory behind the Unit. Also, candidates will benefit from being given examples of theory questions in context and ensuring that candidates are aware that they will only gain full marks by responding to the question in terms of the context.

The Internet: The Internet topic on the whole was answered better than in previous years. Some candidates demonstrated the required amount of technical knowledge.

- ◆ Question 18 b i) was answered very well by all candidates.
- ◆ Question 20 a) was answered quite poorly. This type of question has appeared in every previous paper and is normally answered well. There was little evidence that candidates knew where quotes would be essential.

Candidates doing The Internet option should ensure that sufficient time and practice is allocated to learning the underlying theory behind the Unit. Candidates are expected to be able to respond using a technical vocabulary. Ensuring candidates are able to do this, should see candidate's performance improve.

Areas in which candidates performed well

- ◆ Question 5: Most candidates were able to explain what is meant by a foreign key.
- ◆ Question 6: Most candidates were able to explain when you would use an *object* field type.
- ◆ Question 10 a): Most candidates were able to identify the advantages of a relational database over a flat file database.
- ◆ Question 13 a ii): Candidates were able to identify an anchor.
- ◆ Question 17 c i): Nearly all candidates were able to create an attribute pair.
- ◆ Question 18 b i): All candidates were able to identify an IP address.

Areas which candidates found demanding

- ◆ Question 7 c) Candidate responses were poor to this question, with few candidates gaining both marks for sorting a simple table on two fields.
- ◆ Question 11 d ii) Candidate responses were poor to Part B with few candidates identifying that a search was required or the fields and criteria.
- ◆ Question 13 b i) Candidates were not able to correctly explain that the sampling depth was the number of bits used to store a sound sample.
- ◆ Question 20 a) Some candidates did not realise that quotes would be required around 'Valiant hotel'.

Advice to centres for preparation of future candidates

Centres are encouraged to ensure that candidates are aware that when a question asks them to describe in terms of the scenario, that to gain full marks they must:

- ◆ make sure their answer refers to the scenario
- ◆ ensure their response is a description and not just a one word response.

Centres should ensure that when candidates are asked to **state** a response, they do not cover options and give multiple answers.

Candidates should ensure that they look at the number of marks allocated to each question and respond accordingly. If a question is worth 2 or 3 marks, then it is likely that the candidate would have to give 2 or 3 points to gain full marks.

Centres should ensure that sufficient time is allocated to the delivery of the optional topic. Within this time allocation sufficient time must be allowed for the delivery and reinforcement of the key concepts of the chosen optional topic.

Statistical information: update on Courses

Number of resulted entries in 2014	479
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Number of resulted entries in 2015	77
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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	14.3%	14.3%	11	70
B	20.8%	35.1%	16	60
C	28.6%	63.6%	22	50
D	10.4%	74.0%	8	45
No award	26.0%	-	20	-

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.