

Principal Assessor Report 2004

Assessment Panel:

Computing

Qualification area

**Subject(s) and Level(s)
Included in this report**

Information Systems – Advanced Higher

Statistical information: update

Number of entries in 2003 (Pre Appeal)	89
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Number of entries in 2004 (Pre Appeal)	102
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General comments re entry numbers

Setting and examining teams are pleased with the increase in presentation numbers. Many new centres have presented candidates for the first time.

Statistical Information: Performance of candidates

Distribution of awards

A	12.8%
B	26.5%
C	38.2%
D	12.7%
No Award	9.8%

Comments on any significant changes in percentages or distribution of awards

Overall pass rate shows slight improvement on that of the previous year.

Percentage of A's awarded reflects the fact that far fewer candidates achieved high marks in the external exam component. Although overall candidate performance in the exam was similar to the previous year, fewer in-depth responses were received. It would seem that this year's group of candidates was not as strong as presentations in previous years.

Grade boundaries for each subject area included in the report

Distribution of awards	%	Cum %	Number of candidates	Lowest mark
A	12.8	12.8	13	70
B	26.5	39.3	27	60
C	38.2	77.5	39	50
D	12.7	90.2	13	45
No award	9.8	100	10	

General commentary on passmarks and grade boundaries

- While SQA aims to set examinations and create mark schemes which will allow a competent candidate to score a minimum 50% of the available marks (notional passmark) and a very well-prepared, very competent candidate to score at least 70%, it is almost impossible to get the standard absolutely on target every year, in every subject and level
- Each year we therefore hold a passmark meeting for each subject at each level where we bring together all the information available (statistical and judgmental). 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 senior management team at SQA
- We adjust the passmark downwards if there is evidence that we have set a slightly more demanding exam than usual, allowing the pass rate to be unaffected by this circumstance
- We adjust the passmark upwards if there is evidence that we have set a slightly less demanding exam than usual, allowing the pass rate to be unaffected by this circumstance
- Where the standard appears to be very similar to previous years, we maintain similar grade boundaries
- 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 are different. This is also the case for exams set in centres. And just because SQA has altered a boundary in a particular year in say Higher Chemistry 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
- Our main aim is to be fair to candidates across all subjects and all levels and maintain standards across the years, even as arrangements evolve and change.

Comments on grade boundaries for each subject area

The grade boundaries are similar to those in previous years and in line with 'a priori' boundaries.

Comments on candidate performance

General comments

Overall, candidate performance in the exam is similar to that in previous years. Once again, the majority of candidates performed better in Section 1 than in Section 2.

Areas of external assessment in which candidates performed well

In Section 1, question 1 was completed well by the majority of candidates. The majority of candidates demonstrated knowledge of the skills required to successfully complete the normalisation process. It should be noted, however, that several candidates still demonstrate fundamental errors in carrying out the normalisation process.

Areas of external assessment in which candidates had difficulty

In Section 1, the Entity/Event Matrix and Entity Life History in question 2 were often poorly attempted. Candidates demonstrated limited knowledge of the structure of and notation used in ELH diagrams. Many candidates produced generic EEM rather than one that focused on the scenario provided.

In Section 2, **all** candidates **must** give more in-depth answers and descriptions. Many questions in this section ask candidates to discuss, describe, explain and justify. The **vast** majority of candidate responses are no more than one or two sentences. In some cases, bulleted lists are provided. At this level, candidates are expected to demonstrate a *detailed* understanding of the concepts.

Recommendations

Feedback to centres

Candidate performance in the exam continues to show improvement – especially the skills required to successfully complete the normalisation in Section 1. Although the overall pass rate shows a slight increase from previous years, significantly fewer A's were awarded to candidates. This is due to the fact that fewer in-depth responses were received.

Section 1

Question 1 was completed well by the majority of candidates. It should be noted, however, that fundamental errors are still being made.

All candidates are expected to clearly state all attributes that form the UNF – this should be a single list with the primary key and repeated items *clearly* indicated. Several candidates still provide multiple entities as their UNF.

When carrying out the processing through 1NF, 2NF and 3NF candidates *must not* introduce new attributes – this instruction is clearly indicated in the questions paper. It should also be noted that many candidates are extremely careless when carrying forward lists of attributes – candidates should be encouraged to check that all attributes have been included at each stage of the normalisation. Centres should encourage candidates to *indicate clearly* the work that they are presenting as UNF, 1NF, 2NF and 3NF. Without appropriate headings, it is extremely difficult to determine one stage from another.

The Entity/Event Matrix in question 2 was poorly attempted. A large number of candidates automatically assume that all entities must have create, modify and delete events. Although it is true that all entities will have create and delete events, the question clearly asks candidates to base their matrix on the outline provided. Candidates should be encouraged to restrict their answers to the outline/scenario provided rather than provide generic responses that receive no marks. Events listed in the EEM should relate to the words stated in the scenario. For example, issue new contract is an event that requires *Contract* entity to be *created*, the *Extra* entity to be *read* and the *Scene* entity to be *read*. This is clearly stated in the question. However, many candidates simply state 'New contract' and enter a C against the Contract entity. Candidates at this level are being asked to show an understanding of how each event affects **each** of the entities in the system. Similarly, many candidates recorded an event 'Edit contract' and entered M against the contract entity rather than recording an event such as 'Send substitute (existing extra)' and entering M against contract *and* R against extra.

In many cases, the Entity Life History in question 2 was also poorly attempted. Few candidates demonstrated any knowledge of the proper *structure* of an ELH diagram – events that create, modify and delete are shown from left to right; events with alternatives or options, and events that repeat, must be shown on a second and subsequent levels. Disappointingly, even fewer candidates seem to understand the o and * symbols. These are frequently omitted completely or are scattered randomly on the diagram.

Section 2

In Section 2, **all** candidates **must** give more in-depth answers and descriptions. Many questions in this section ask candidates to discuss, describe, explain and justify. The **vast** majority of candidate responses are no more than one or two sentences. In some cases, bulleted lists are provided. At this level, candidates are expected to demonstrate a *detailed* understanding of the concepts.

For example, question 3(a) asks candidates to discuss copyright issues arising from the situation described in the stem of the question. **Large numbers** of candidates stated that including website content in a product breaks copyright. This level of answer would be acceptable at Intermediate 1 or 2 level but a lot more is expected at AH level. **Some** candidates went on to say that permission should be sought. This does improve the answer - slightly. **Several** discussed Data Protection and Computer Misuse issues that were not required.

Few seemed to be able to differentiate between the use made of band materials by the unofficial site and the intended use by Jonathan. As a result, answers failed to discuss **all** of the issues arising from the situation described.

In question 11(b), candidates are asked to give examples of documentation and explain their content. **Many** candidates mentioned user guides: user guide contains instructions on how to use the system. Although this answer does name a type of documentation, it does not provided an explanation of its contents. This lack of detail is unacceptable at AH level. Candidates are expected to state the contents of various types of documentation and explain the use made of each *within the admission system described*.

Several candidates had difficulty with question 7 in Section 2 (Natural Language Processing) and failed to provide a lexicon to indicate the classification of the words in the grammar – this is essential for the parsing that is required in part (b).