

## Principal Assessor Report 2004

<b>Assessment Panel:</b>	<b>Computing and Information Systems</b>
<b>Qualification area</b>	
<b>Subject(s) and Level(s) Included in this report</b>	<b>Computing Higher Level</b>

### **Statistical information: update**

<b>Number of entries in 2003 (Pre Appeal)</b>	<b>4746</b>
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<b>Number of entries in 2004 (Pre Appeal)</b>	<b>5088</b>
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### **General comments re entry numbers**

This is continuing increase in candidate numbers.

## Statistical Information: Performance of candidates

### Distribution of awards

A	17.6%
B	24.2%
C	27.5%
D	11.5%
No Award	19.1%

### Comments on any significant changes in percentages or distribution of awards

The distribution of marks this year were very similar to last year.

## Grade boundaries for each subject area included in the report

Distribution of awards	%	Cum %	Number of candidates	Lowest mark
A	17.6	17.6	896	72
B	24.2	41.8	1233	61
C	27.5	69.3	1399	50
D	11.5	80.8	586	44
No award	19.1	99.9	974	

## 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

This year the 'degree of difficulty' of the examination was intentionally lowered to allow the passmark to be revised to 'a priori' (ie a standard 50% mark).

## **Comments on candidate performance**

### **General comments**

Most markers' reports suggest that the general standard of responses was similar to previous years. Although there were many examples of excellent responses there were still too many candidates giving vague answers which lacked technical detail. 11% of candidates scored less than 40 out of 100 suggesting that they were entered at the wrong level.

### **Areas of external assessment in which candidates performed well**

Generally candidates performed well in questions which required the recall of knowledge such as giving a definition of a term. Questions on floating point, vector graphics, readability, comparison of local and global variables were done well by most candidates.

### **Areas of external assessment in which candidates had difficulty**

Generally candidates have difficulty with problem solving in an unfamiliar context. Many candidates tried to give standard responses which did not answer the question. For example they might latch on to a word in the question and write down everything that they knew about it rather than answering the question.

Many candidates calculated addressable memory rather than number of addresses in Question 2(b) showing that they did not read and fully understand the question before attempting to answer it.

Candidates still have difficulty with program design questions such as Q14(d) and Q16(b) and (c).

In AI candidates had difficulty with tracing a solution and creating a rule in question 20. They also had difficulty identifying difficulties with image recognition systems and explaining how neural networks are trained.

In Computer Networking many candidates had a poor knowledge of the OSI model.

In Multimedia many candidates failed to give sufficiently detailed technical answers which related to the question asked.

## Recommendations

### Feedback to centres

Centres should stress to candidates the need for detailed, accurate and complete descriptions of computing knowledge. A level of depth and breadth appropriate to Higher Level is required.

Candidates should be reminded that when a question asks for a description or an explanation full marks will not be given for an answer which simply states the name of a device or the name of a feature of an application package.

Problem solving questions often require candidates to relate their answers to the context of the question. Many candidates simply write down all that they know without relating it to the context.

To achieve a grade A or B candidates must be able extract relevant knowledge from the text of a question and use that knowledge to solve a given problem which may be set in an unfamiliar context.

It was obvious this year that candidates were not taking time to read the questions thoroughly and lost marks because of this.