Principal Assessor Report 2005

Assessment Panel:	**Technical Education**

Qualification area

Subject(s) and Level(s) Included in this report	**Technological Studies -- Higher**

Statistical information: update

Number of resulted entries in 2004	886

Number of resulted entries in 2005	848

General comments re resulted entry numbers

The continuing trend in declining numbers gives cause for concern, in the only examination subject with any direct connection to Engineering. From a 'high' of 1000+ in 2002, we have seen a reduction of approx. 10% each year.

Statistical Information: Performance of candidates

Distribution of awards including grade boundaries

Distribution of awards	%	Cum %	Number of candidates	Lowest mark
Maximum Mark - **100**	-	-	-	-
A	27.8	27.8	236	70
B	19.5	47.3	165	59
C	17.8	65.1	151	49
D	7.3	72.4	62	44
No award	27.6	100.0	234	-

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 any significant changes in distribution of awards/grade boundaries

The distribution of awards in 2005 is broadly similar to that of 2004. There are slightly fewer 'C' awards, with a counter-balancing increase in 'No Awards'. The grade boundaries are very close to 'a priori', as a result of a deliberate move to reduce the variance which arose in 2002.

Comments on candidate performance

General comments

The general performance of candidates in this year's examination was very similar to that of 2004. However, there are indications that an increased number of candidates was less-well prepared this year, leading to an increase in the percentage of 'No Awards'. The distribution of candidates across other grades was fairly consistent.

Areas of external assessment in which candidates performed well

Q1, combinational logic; Q3, op-amps; Q5, materials testing were all well answered. These are well-known areas of the syllabus.

Areas of external assessment in which candidates had difficulty

Q8, on MOSFETs, was very poorly answered. Very few candidates were able to attempt part (c). Q6, programming for monitoring systems, and Q7, control systems, were not very well answered either.

Recommendations

Feedback to centres

As ever, Centres need to concentrate on Moments, and Nodal Analysis, both areas which continue to be poorly attempted in the external assessment. Most other areas of the Question Paper were well attempted, though MOSFET transistors were not liked.

Some centres appear to teach a hybrid version of PBASIC which does not satisfy the course requirements, whilst some do not address Outcome 4 of Systems & Control in sufficient detail.