

Principal Assessor Report 2005

Assessment Panel:

Technical Education

Qualification area

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

Technological Studies – Advanced Higher

Statistical information: update

Number of resulted entries in 2004	140
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Number of resulted entries in 2005	141
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General comments re resulted entry numbers

Numbers have remained steady over the past four years -- though at a disappointingly low value, given that this subject provides the limit of study applicable for candidates intending entry to higher education on engineering courses.

Statistical Information: Performance of candidates

Distribution of awards including grade boundaries

Distribution of awards	%	Cum %	Number of candidates	Lowest mark
Maximum Mark - 100	-	-	-	-
A	31.9	31.9	45	67
B	15.6	47.5	22	57
C	19.9	67.4	28	48
D	6.4	73.8	9	42
No award	26.2	100.0	37	-

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

This QP was considered to be of a consistent standard compared with 2004, so grade boundaries were unchanged, other than a reduction of 1 mark in the C/D boundary. With a very small sample such as this it is difficult to draw any significant conclusions from the minor changes in performance of candidates from 2004 to 2005.

Comments on candidate performance

General comments

Candidate performance was broadly similar to 2004, though it was felt that overall the candidature was perhaps very slightly less able than in 2004.

Areas of external assessment in which candidates performed well

Q4 with ADC was very well attempted, and microcontroller programming questions were well-liked, with most solutions gaining high- or perfect-marks.

Areas of external assessment in which candidates had difficulty

Structured questions – especially Method of Sections – still not well answered. Q5 on J-K bistables was very poorly attempted, perhaps because this question involved a ‘divide-by-3’ which, although being within the course, is less common than ‘divide-by-2/4/6 etc’.

Recommendations

Feedback to centres

Centres need to apportion a significant amount of time to the Structures and Materials part of the course, as this is the area in which many candidates lose marks, thus affecting their award. Specific areas: Bending Moments; Shear-force and Bending Moment Diagrams; Method of Sections. 'Divide-by-odd-number' mistakes need to be covered more thoroughly than they appear to have been thus far.