

## Principal Assessor Report 2002

**Assessment Panel:**

**Engineering**

**Qualification area**

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

**Electronics  
Higher**

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## Statistical information: update

<b>Number of entries in 2001</b>	25 from 3 centres
<b>Pre appeal</b>	25
<b>Post appeal</b>	25

<b>Number of entries in 2002</b>	21 from 3 centres
<b>Pre appeal</b>	21
<b>Post appeal</b>	21

### General comments re entry numbers

The number of candidates was down on last year. There were three centres. Two centres presented candidates for the third time. One centre that presented candidates last year did not present this year.

### General comments

There was a welcome improvement in the calibre of candidates being presented. There was an overall increase in the average marks gained in 2002 (30%) as opposed to (29%) in 2001.

The ability of candidates across centres was more homogenous this year than in previous years.

## Grade boundaries at C, B and A for each subject area included in the report

Given as a percentage of the maximum mark

Upper A	85
Lower A	67
B	57
C	47

### General commentary on grade boundaries

*Notional percentage cut-offs for each grade*

Question papers and their associated marking schemes are designed to be of the required standard and to meet the assessment specification for the subject/level concerned.

For National courses the examination paper(s) are set in order that a score of approximately 50% of the total marks for all components merits a grade C (based on the grade descriptions for that grade), and similarly a score of 70 % for a grade A. The lowest mark for a grade B is set by the computer software as half way between the C and A grade boundaries.

### Comments on grade boundaries for each subject area

There was an unforeseen problem with part of the wording of Q11. Individual candidate scripts were studied. The pass mark was lowered by 3 marks to account for differences in interpretation. A similar adjustment was made at the lower A grade boundary.

## Comments on candidate performance

### General comments

In most cases good or excellent performance in Section A was matched by similar performance in Section B.

8 candidates scored more than half marks in Section A. 4 scored more than half marks in Section B.

Q10 (a) (i) some candidates used binary representation as well as sketching in order to answer this question. This was taken into account by markers and credit given accordingly.

In Section B the questions that attracted the largest uptake were Q11 (16 attempts) and Q12 (17 attempts). Q13 was the least popular with only 6 candidates attempting it.

Q13 (c) (i) – candidates who had been taught using the equation  $\frac{1}{2}n \times V_{ref}$  had no problems with this question.

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

Q2 – 16 candidates scored more than half marks

Q3 – 10 candidates scored more than half marks

Q7 – 17 candidates scored more than half marks

In Section B the most popular question (Q12) attracted the highest score (23 marks)

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

Section B, as intended, proved to be the most stretching part of the paper.

### Areas of common misunderstanding

There did not seem to be any areas of common misunderstanding or at least none that were easy to spot.

Q4 and Q8 appeared to be unpopular with the candidates. This may have been due to the format of these questions. The candidates do not appear to like ‘wordy’ questions. These types of questions have been discussed in depth and at length by the paper setting/vetting team. The team feels that for these types of question it is important that the candidate is able to extrapolate from the wording and use the information in this format.

## **Recommendations**

### **Feedback to centres**

I would like to commend those involved in teaching this course. It is a difficult course to 'time' and involves a very broad range of teaching ability. Keep up the good work.

This was the first year that a school has taught this course. I look forward to other schools following their lead in future.

Centres should consider reviewing their admissions and progression policies to ensure that candidates are not being entered for assessment beyond their capabilities. The Intermediate 2 course in Electronic and Electrical Fundamentals might be a more appropriate alternative for some candidates.

The gap between the highest and lowest marks gained this year was large. However, it was pleasing to see the best candidates scoring excellent results.