

Principal Assessor Report 2005

Assessment Panel:

Physics

Qualification area

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

X119 Applied Practical Electronics Intermediate 1

Statistical information: update

Number of resulted entries in 2004	30
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Number of resulted entries in 2005	57
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General comments re resulted entry numbers

The number of centres presenting candidates has increased from 5 to 7 with 1 additional school and 1 additional FE college offering this award. It is hoped that the number of centres offering this award, continue to increase. It is anticipated that FE colleges may well be offering individual course units as part of an engineering group award. They may be reluctant to offer the whole award due to the May completion date as most FE programmes continue through until the end of June. There are no school/college partnership candidates, which is disappointing as this was one of the reasons for the development of the course.

Statistical Information: Performance of candidates

Distribution of awards including grade boundaries

Distribution of awards	%	Cum %	Number of candidates	Lowest mark
Maximum Mark - 200	-	-	-	-
A	21.1	21.1	12	140
B	31.6	52.6	18	120
C	12.3	64.9	7	100
D	0.0	64.9	0	90
No award	35.1	100.0	20	-

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

In comparison to last session, the percentage of candidates achieving either an upper or lower A award has improved from 16.7% to 21.1%. This may be due to a wide variety of factors but it is hoped that one factor is centres becoming more experienced with the award. There is little change in the percentage of candidates achieving a B award (30.0% last session and 31.6% this session). There is a large decrease in the percentage of C awards from 43.3% last session to 12.3% this session. Last session only 10% did not achieve an award but this has increased to 35.1% this session. Study leave, for candidates in the school sector, was given as a possible reason, when centres were visited.

Comments on candidate performance

General comments

A new project was trialled this session to supplement the one in existence. SQA are preparing a finalised version ready for next session.

Areas of external assessment in which candidates performed well

Candidates enjoy most of the practical elements of the course, especially since the introduction of the second project gives centres greater scope to match the skills acquired on this course to other elements within their curriculum.

Areas of external assessment in which candidates had difficulty

With both projects, candidates experienced difficulties with the layout of the circuit stripboard, which is relatively complex. This resulted in candidates having further difficulty with the accuracy and neatness of the circuit soldering and circuit implementation. Testing also proved difficult for candidates due to complexity of the circuit, at this level. Most candidates received assistance with these stages.

Recommendations

Feedback to centres

The 2 projects available should give most schools and FE colleges scope to match the course contents to other elements of the curriculum. The circuitry involved in each project means that the stripboard layout, soldering, circuit implementation and testing of the final circuit can be difficult for candidates. A project with simpler circuitry is one way forward. Another approach would be to give candidates assistance with these difficult areas, as happened this session.