



## Course Report 2016

Subject	Practical Electronics
Level	National 5

The statistics used in this report have been compiled before the completion of any Post Results Services.

This report provides information on the performance of candidates which it is hoped will be useful to teachers, lecturers and assessors in their preparation of candidates for future assessment. It is intended to be constructive and informative and to promote better understanding. It would be helpful to read this report in conjunction with the published assessment documents and marking instructions.

## **Section 1: Comments on the assessment**

### **Component 1: Practical activity**

The practical aspects of the task are generally achieved well, but there is a lack of detailed candidate information at the design, testing and reporting stages of the task.

However, the range of tasks provided performed as expected with a wide spread of results achieved by candidates.

## **Section 2: Comments on candidate performance**

### **Areas in which candidates performed well**

#### **Component 1: Practical activity**

The construction part of the task is generally achieved well due to candidates gaining practical 'hands-on' experience in constructing electronic circuits.

In general, candidates were encouraged to be neat and methodical with regard to circuit layout and construction. A reasonably high standard of soldering and other construction skills was achieved by candidates.

### **Areas which candidates found demanding**

#### **Component 1: Practical activity**

The design, planning, testing and eventual reporting stages are, in general, very demanding as candidates focus on the practical skills and not necessarily the documentation stages.

## **Section 3: Advice for the preparation of future candidates**

### **Component 1: Practical activity**

Centres should endeavour to encourage candidates towards more documented evidence with regard to the four major milestones in the task, ie design, construction, testing, and reporting. Candidates will naturally wish to build the circuit and get it working, but should be steered towards creating comprehensive documentation at National 5 level as they proceed through the task.

In order to assist candidates with the design, planning, testing and eventual reporting stages, it may be that additional guidance and/ or a practice activity is given before candidates

undertake the course assessment task. The purpose of this would be to prepare them for this aspect of the course assessment and to reinforce this part of the course.

To do well in the construction part of the task, candidates require access to a range of well-maintained tools and equipment that are suitable for the task.

## Grade Boundary and Statistical information

### Statistical information: update on Courses

Number of resulted entries in 2015	125
------------------------------------	-----

Number of resulted entries in 2016	119
------------------------------------	-----

### Statistical information: Performance of candidates

#### Distribution of Course awards including grade boundaries

Distribution of Course awards	%	Cum. %	Number of candidates	Lowest mark
Maximum Mark -				
A	24.4%	24.4%	29	56
B	22.7%	47.1%	27	48
C	29.4%	76.5%	35	40
D	4.2%	80.7%	5	36
No award	19.3%	-	23	-

### Decision Making Record Statement

The course assessment performed as intended and so grade boundaries were set as intended.

## General commentary on grade boundaries

- ◆ While SQA aims to set examinations and create marking instructions which will allow a competent candidate to score a minimum of 50% of the available marks (the notional C boundary) and a well prepared, very competent candidate to score at least 70% of the available marks (the notional A boundary), it is very challenging to get the standard on target every year, in every subject at every level.
- ◆ Each year, SQA therefore holds a grade boundary meeting for each subject at each level where it brings together all the information available (statistical and judgemental). 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 management team at SQA.
- ◆ The grade boundaries can be adjusted downwards if there is evidence that the exam is more challenging than usual, allowing the pass rate to be unaffected by this circumstance.
- ◆ The grade boundaries can be adjusted upwards if there is evidence that the exam is less challenging than usual, allowing the pass rate to be unaffected by this circumstance.
- ◆ Where standards are comparable to previous years, similar grade boundaries are maintained.
- ◆ 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, and the mix of questions, are different. This is also the case for exams set in centres. If SQA has already altered a boundary in a particular year in, say, Higher Chemistry, this 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.
- ◆ SQA's main aim is to be fair to candidates across all subjects and all levels and maintain comparable standards across the years, even as arrangements evolve and change.