

Principal Assessor Report 2006

Assessment Panel:

Engineering

Qualification area

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

Electrical Installation Fundamentals Intermediate 2

Comments on candidate performance

General comments

Entry numbers continue to remain low with the anticipated increase in numbers not having occurred to date. It was hoped that the numbers for the Electrical Installation Fundamentals course would increase as the intake into the SPA (Scottish Progression Award) in Building Crafts increased. However, it must be assumed that candidates are pursuing other Level II Construction routes in the SPA rather than Electrical route. It is recommended that SQA take steps to actively promote the Electrical Installation Fundamentals course to employers, candidates and other stakeholders of the award.

It is pleasing to report that there continues to be a good standard of response from most candidates undertaking the Electrical Installation Fundamentals course which is reflected in a good pass rate. The Development Stage of the project continues to be done well by nearly all candidates although a few issues have been identified which will be discussed under Areas which candidates found demanding. The Planning Stage has also been done reasonably well although few candidates seem to identify aims and objectives for the installation project. Most candidates also fail to provide estimates of times to undertake activities in the garage or workshop project. Some improvements were noted in the Evaluation section of the project although most candidates tend to take a narrow approach to evaluation focussing principally on the technical aspects of the project.

One centre continues to subtract marks from candidates at the Planning Stage if their project is not workable leading to a negative mark being awarded for the Stage. The assessors believe that this process of awarding a negative mark should be stopped as it certainly was not what was intended in the Arrangements Document.

The standard of English in some reports continues to be poor. Lecturers should make reasonable efforts to correct spelling and grammatical errors.

Areas in which candidates performed well

As commented previously in general the Development Stage of the project is done well. For example, with regard to the Risk Assessment most candidates identify the main risks involved in undertaking the garage or workshop project and the steps required to minimise these risks. Most candidates provide a comprehensive project stock list. The testing part of the project is normally detailed with candidates giving accurate information on the expected results from the various tests. However, some candidates do get the sequence of tests in the wrong order.

In the Planning Stage most candidates give clear reasons why they prefer to do the garage project to the workshop project and vice versa. It is also clear that candidates are accessing various sources of information including the Internet when undertaking the project.

In the Evaluation Stage most candidates identify that the project has been successful and what technical skills they have learnt from the doing the project.

Areas which candidates found demanding

The project assessors have identified various areas which candidates find demanding. These are listed below:

Planning Stage

- (1) Nearly all candidates are not defining the aims and objectives of the project.
- (2) Some candidates fail to detail all stages of the project (e.g. they fail to mention the inspection and testing stage).
- (3) Most candidates do not include details of the times to complete the various parts of the project.
- (4) Candidates do not include details of the mechanism they are going to use to record progress throughout the project.

Development Stage

- (1) Under Risk Assessment candidates are still failing to assess the relative magnitude of risks in terms of a high, medium or low categorisation.
- (2) While providing wiring diagrams for lighting and power circuits candidates are not providing circuit diagrams for these circuits.
- (3) It would appear that candidates are not designing their own 'List of Activities' sheets. The sheets being used by candidates do not contain any information on times to complete the various activities.

Evaluation Stage

- (1) Evaluations tend to be quite narrowly focussed with candidates tending to spend much of their time repeating what they have done on the project. Candidates do not seem to question sufficiently the project planning and development processes. For example, there is little comment on how these can be improved. In marking project reports the impression is often formed that the project went very well with nothing going wrong. Experience of most project work is that things do go wrong and that the candidate has to respond to problems that arise. While candidates identify some of the technical skills they have developed while doing the project they fail to mention how other skills such as Communication, Health and Safety awareness, investigative and working with others have been developed.

Advice to centres for preparation of future candidates

It is pleasing to report that most centres continue to employ their own fully developed marking scheme when assessing candidate work which helps to ensure consistency of standards. The PA's fellow external assessor has developed a very useful marking scheme which has helped to ensure consistency in central marking.

Centres should ensure that candidates include the aims and objectives of the workshop or garage project in the Planning Stage. This should help in writing up the report in the Evaluation Stage. Lecturers/teachers should also encourage candidates to include estimates of the time each activity will take at the Planning Stage. This would then allow candidates to compare these estimates with the actual times spent on activities in the Evaluation Stage.

Centres should also get candidates to record progress throughout the project as this will help in the Evaluation report.

As highlighted last year, centres should also get candidates not only to identify the nature of risks associated with their projects but also to assess the level of each individual risk identified. This is important, as it is the view of the PA and his fellow external assessor that full Risk Assessment is not currently taking place.

Lecturers/teachers should allow candidates to design their own 'List of Activities' sheets which should include details of the times to complete each activity. Candidates should also produce circuit diagrams, as well as wiring diagrams, for the lighting and power circuits.

While it is recognised that the Evaluation section is probably the most difficult part of the course to do the PA believes that centres should challenge candidates more in terms of getting them to answer such questions as: How could the planning process be improved? What additional knowledge and skills have you gained from doing the project (not just narrow technique skills but wider personal skills) and what other questions could have been asked?

Lecturers/teachers are encouraged to correct poor spelling and grammar.

Statistical information: update on Courses

Number of resulted entries in 2005	31
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Number of resulted entries in 2006	33
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Statistical Information: Performance of candidates

Distribution of Course awards including grade boundaries

Distribution of Course awards	%	Cum %	Number of candidates	Lowest mark
Maximum Mark - 200	-	-	-	-
A	3.0	3.0	1	140
B	27.3	30.3	9	120
C	27.3	57.6	9	100
D	0.0	57.6	0	90
No award	42.4	100.0	14	-