



17th Edition Training

by Jon Elliott

Hopefully readers of *Wiring Matters* will already be aware that the 17th Edition of the IEE Wiring Regulations was issued on 1st January 2008 and came into effect fully from the 1st July 2008.

Any installation works designed after 30th June should now be based upon, and comply with the requirements of the 17th Edition (Introduction to BS 7671:2008 refers). For this to occur, persons involved in the design, installation/construction and inspection and testing of electrical work need to develop a sound working knowledge of the 17th Edition and its application. As an aid to achieving this, a number of training options and qualifications have been developed which are aimed at providing the necessary updating of existing skills or indeed for persons new to the electrical industry the necessary initial training.

This article explains the 17th Edition qualifications options that are available and aims to clarify broadly which qualifications would be most appropriate taking into account the experience and prior qualifications of the person seeking training. It mentions briefly the impact that the 17th Edition has had upon qualifications relating to inspection and testing. It also highlights a number of publications that may assist a candidate to achieve successful completion of various electrical installation related qualifications that the IET has produced in partnership with City & Guilds and the courses currently offered by the IET Courses unit.

Initial training

Persons coming into the electrotechnical industry should obtain an appropriate initial qualification by attending a training programme at a Further Education College which leads to a recognised qualification at level 3 of the National qualification framework (NQF). Probably the most widely available currently being the City & Guilds 2330 Certificate in Electrotechnical Technology and the EAL level 3 Diploma in Electrotechnical services. Both may be offered on a full-time or a part-time (day-release) basis.

As a result of the modular nature of the City & Guilds 2330 qualification, candidates can choose from a range of vocation-specific pathways by completing the core unit and two units relating to their chosen occupation. The following Pathways are available:

- Installation (Building and Structures)
- Electrical Maintenance
- Installing Instrumentation and Associated Equipment

- Installing Public Lighting Systems and Associated Equipment
- Electrotechnical Panel Building
- Electrical Machine Repair and Rewind

Where the candidate is in appropriate employment, all of the above can contribute towards a candidate's completion of a Level 3 National Vocational Qualification (NVQ) or Scottish Vocational Qualification (SVQ).

Upgrading from 16th edition to 17th edition

A number of options are open to persons who are currently working within the electrotechnical sector wishing to improve their knowledge of the current (17th) Edition of the Wiring Regulations and obtain a 17th Edition qualification. They are particularly suited to persons directly engaged "on the tools" in installation and maintenance work. However, they would also provide extremely useful subject updating for those involved in roles within the electrotechnical industry such as design, supervision and inspection & testing - subject updating should not after all be confined only to those at the "coal-face".

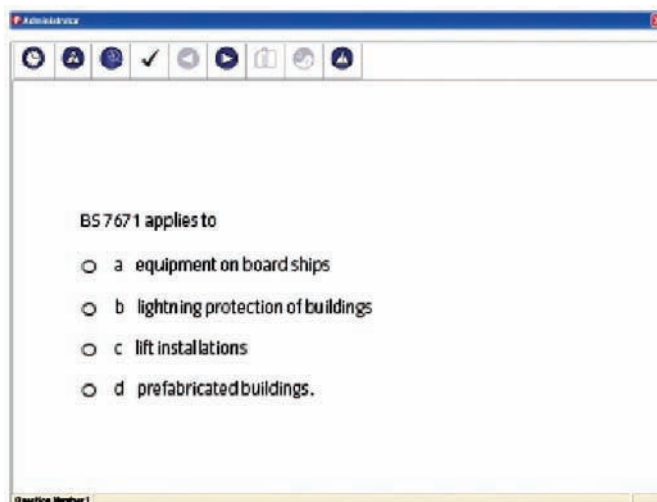
When considering which course is most appropriate for a particular person, the key factors will be having sufficient relevant work experience/knowledge and, most importantly when an individual obtained a 16th Edition qualification.

The entry requirements and course content of the various options available are considered below.

City & Guilds 2382-10 and EAL Level 3 Diploma in Requirements for Electrical Installations

These qualifications are primarily aimed at practising electricians with a working knowledge of the 16th Edition of BS 7671 and who have already achieved a qualification addressing BS

Fig 1: The way a typical multiple-choice question appears when sitting a City & Guilds GOLLA computer based examination.



7671 such as the City & Guilds 236 part A & B or 2360 part 1 & 2 certificates in electrical installation work.

Due to the amount of time elapsed since their 16th Edition qualification was obtained, these qualifications do not focus solely on the changes incorporated into the new edition but rather take candidates through the whole of the 17th Edition. As a result, these qualifications consist of around 30 hours of instruction which is typically delivered over four days or twelve evenings.

Candidates have 2 hours to answer 60 questions. In the case of the City & Guilds qualification, assessment is by a multiple-choice test sat via a computer using the GOLLA online system. In the case of the EAL qualification, candidates may sit either a conventional paper format or online examination.

Candidates who can demonstrate that they possess sufficient knowledge/experience of electrical installation work but do not have a 16th Edition qualification may be able to enrol on these qualifications subject to assessment of their suitability for the course by the college/training provider. However, due to the specific focus being on the Wiring Regulations only, these qualifications are not suitable, nor were they intended, for persons entering or seeking

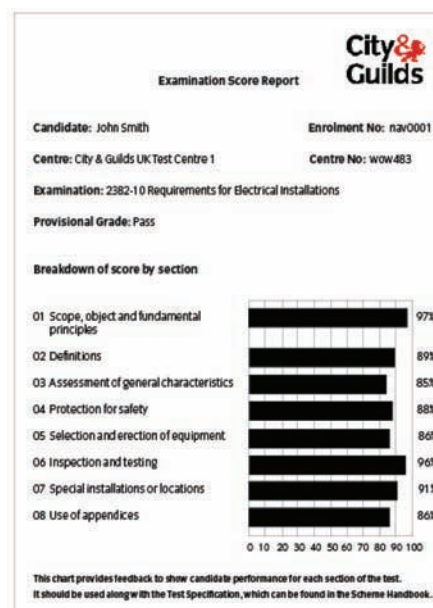


Fig 2: Examination score report. What a candidate sees immediately after the completing the City & Guilds 2382-10 GOLLA examination. Instant feedback on how they have performed.

employment within the electrotechnical sector for the first time for whom the initial training options described earlier would be appropriate.

City & Guilds 2382-20 and EAL Level 3 Diploma in Requirements for Electrical Installations (Update)

These qualifications are also primarily aimed at practising electricians with a

working knowledge of the 16th Edition of BS 7671 but are specifically aimed at persons who have already achieved one of the qualifications addressing BS 7671 listed below:

- City & Guilds Level 3 Certificate in the Requirements for Electrical Installations BS 7671: June 2001 (2381), or
- City & Guilds Level 3 Certificate in Electrotechnical Technology Installation (Building and Structures) (2330-07), or
- City & Guilds Level 3 Certificate in Electrotechnical Technology Electrical Maintenance (2330-08), or
- City & Guilds Level 3 Certificate in Electrical Installation Part Two (2360) (from January 1st 2004 onwards only)

On completion of these updating qualifications, candidates should be

conversant with the format, content and application of the current edition of BS 7671. Given the relatively short time that will have elapsed since candidates obtained their 16th Edition qualification, these qualifications focus on the main additions and alterations from the 16th Edition that have been incorporated in the 2008 17th Edition.

These qualifications consist of around 7½ hours of instruction, typically delivered over one day or three evenings.

Candidates have 1 hour to answer 30 questions. In the case of the City & Guilds qualification, assessment is by a multiple-choice test sat via a computer using the GOLLA online system and the case of the EAL qualification, candidates may sit either a conventional paper format or online examination.

It is worth mentioning at this

point that persons sitting any of the 17th Edition examinations described above may only make reference to the 17th Edition during the examination.

Inspection, testing and certification

Although the 17th Edition contains a number of changes relating to inspection, testing and certification, these should be covered in sufficient depth during a course leading to the City & Guilds 2382 or EAL 17th Edition qualifications and as such it has not been considered necessary to require persons who have successfully completed a 16th Edition era (2391-01) City & Guilds inspection and testing qualification to have to undertake any inspection and testing specific upgrading training. However, the current version of the City & Guilds qualification (the 2392-10) and the EAL



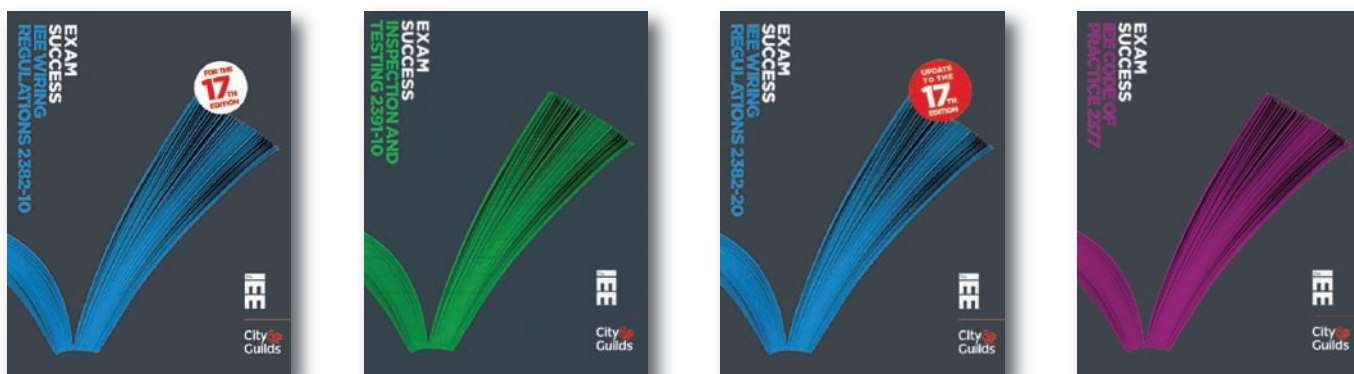


Fig 3: The complete Exam Success series of books

Level 3 Diploma in Inspecting and Testing Electrotechnical Systems and Equipment have been updated such that they now relate to the 17th Edition requirements.

Help with the examinations

The IET and City & Guilds have worked together to produce a series of books called *Exam Success*, the aim of which is to assist candidates in their preparation for sitting City & Guilds electrical installation/maintenance related examinations and which are intended to complement the tuition provided from attendance on a course of study. Where necessary these have been revised to reflect the content of the 17th Edition.

These books contain useful tips to aid in revision for and sitting the examinations and contain a number of sample question papers and model answers with explanations. In the case of the 2377 and 2382 17th Edition examinations, advice is also given on what to expect when sitting a GOLLA computer based examination for the first time. Although not specifically designed to accompany the EAL qualifications, the sample questions and model answers would also be of use to persons attempting the EAL equivalents of the City & Guilds qualifications.

The *Exam Success* series of publications is as follows:

Relating to the 17th Edition

- **2382-10** 17th Edition. To accompany the 2 hour, 60 question examination
- **2382-20** 16th to 17th Edition update. To accompany the 1 hour, 30 question examination
- **2391-10** Inspection and testing

Relating to the *IEE Code of practice* for In-service inspection and testing of electrical equipment

- **2377** Covers both the *Management of electrical equipment maintenance* (2377-100) and the *Inspection and testing of electrical equipment* (2377-200) examinations.

A newly revised version of the On-site Guide based upon the content of the 17th Edition has also been released recently.

Summary

Regulation 16 of The Electricity at Work Regulations 1989 requires persons involved in electrical work to be competent to do so. Technical knowledge is one of the elements of the measure of competency. As such anyone involved in low voltage electrical installation or maintenance work should develop a sound working knowledge of the 17th Edition (BS 7671:2008).

A number of training courses and

qualifications are available to help persons to become conversant with the current requirements contained within the 17th Edition. The IET also offer a wide range of training options relating to electrical installation, maintenance, safety and legislation. The IET courses unit offers a wide range of courses relating to the electrical design, inspection and testing full details of which can be obtained from the current course brochure or from <http://www.theiet.org/careers/courses/electrical/index.cfm>

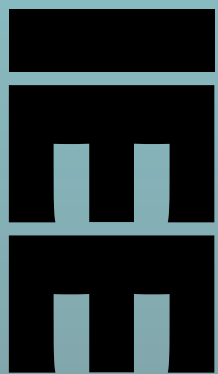
Courses are provided at venues throughout the UK and can also be offered in-house to organisations.

Assistance to aid the successful completion of these qualifications can be obtained from the Exam Success series of books produced by The IET in collaboration with City and Guilds.

The On-site Guide and *Exam Success* series of books can be obtained directly from the IET or from most large bookshops.

Anyone seeking further information on City & Guilds courses should refer to City & Guilds directly or consult their website at www.cityandguilds.com/

Anyone seeking further information on EAL courses should refer to EAL directly or consult their website at www.eal.org.uk ■



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City & Guilds



Routes to Competence:

17th Edition

- Workshop upgrade and City & Guilds 2382-20 exam
- Level 3 Certificate in the Requirements for Electrical Installations 17th Edition and City & Guilds 2382-10 exam
- 17th Edition Design

Inspection and Testing

- Level 2 Certificate in Fundamental Inspection, Testing and Initial Verification (City & Guilds 2392-10)
- Level 3 Certificate in Inspection, Testing & Certification of Electrical Installations (City & Guilds 2391-10)



Also available from the IET:

Portable Appliance Testing
(City & Guilds 2377-100 and 2377-200)
Principles and Sizing of Earthing and Bonding
Electrical Basics
Electricity at Work Regulations 1989

Save time and money with training on your company premises. A delegate from Network Rail had this to say "Very good presenter, flexible approach and tailored presentation to meet our requirements."

For bookings and course information visit
www.theiet.org/wmcourses or Tel: **+44 (0) 1438 767289**