

## Qualification Manual

# ELECTRICAL

**EAL Level 3 Electrotechnical Experienced Worker  
Qualification 603/5982/1**

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# 01

## 1.0 About EAL

For over fifty years, EAL has been the specialist awarding organisation for engineering, manufacturing, building services and related sectors. Developed to the highest technical standards, our qualifications reflect ever-changing industry and regulatory needs. We support the providers of our qualifications with an unparalleled level of service to ensure that learners are well prepared to take the next step in their journeys, whether study, an apprenticeship or work.

Through industry partnerships with EAL centres and training providers, decades of experience supporting our core sectors, and our role as part of the Enginuity Group, we have built unrivalled knowledge and understanding of employer skills needs. As a result, EAL's skills solutions, including apprenticeship End-Point Assessment, External Quality Assurance and qualifications are respected and chosen by employers to deliver real lifelong career benefits for all our learners. That's why in the last ten years, 1.2 million people across the UK have taken EAL qualifications.

### 1.1 Equal opportunities and diversity

EAL expects its centres to enable learners to have equal access to training and assessment for qualifications in line with equalities legislation. Further details can be located in the EAL Equal Opportunities and Diversity Policy: <http://www.eal.org.uk/centre-support/centre-support/policies-and-important-documents>

### 1.2 Customer service and feedback

Customer Experience is a fundamental part of EAL's commitment to you. EAL aims to ensure that all customers receive a high-quality efficient service. We are always interested in feedback and if you have any comments or feedback on our qualifications, products or services, please contact the Customer Experience team:

**EAL Customer Experience**

**Tel: +44 (0)1923 652 400**

**Email: [customer.care@eal.org.uk](mailto:customer.care@eal.org.uk)**

## 2.0 Introduction to the Qualification

### What is this qualification?

This qualification is designed solely for individuals who have been working in the electrotechnical industry as a practicing electrician for a minimum of 5 years and possess specified knowledge, understanding and competence as outlined in the skills scan (aligned to the level 3 electrotechnical apprenticeship qualification).

It forms part of the requirements for the Electrotechnical Experienced Worker Assessment, together with the AM2E (outside of the qualification), enabling the experienced worker to apply for an ECS Installation Electrician Gold Card.

**This qualification is not for new entrants to the electrotechnical industry, apprentices, or those who have completed an electrotechnical technical qualification with less than five years (full time) relevant industry experience.**

### Who is this qualification for?

- experienced workers who are/have been working in the electrotechnical industry as practicing electricians for a minimum of 5 years full time
- those who wish to have their competencies recognised and work toward an ECS Gold Card
- those who wish to develop their career.

**From 04.09.23: Learners MUST already possess as a minimum a Level 2 qualification, as detailed in the TESP skills scan, to take this qualification. Please also see Section 5 of this Manual.**

### What does this qualification cover?

The competencies involved with electrical installation and commissioning. The qualification is made up of performance units which in summary cover: the application of health, safety and environmental considerations, organising the work environment, application of design and installation practices, termination and connection of conductors, inspection and testing, fault diagnosis and rectification. It also has two units which between them cover BS 7671 wiring regulations, and initial verification (these are the same units that appear in the industry recognised CPD qualifications). The units are listed in Section 3 of this manual.

This qualification has 153 GLH, and a Total Qualification Time (TQT) of 230 hours (notional time required by the learner to complete the qualification).

Please refer to Section 6 for details of the assessments. This qualification is graded pass or fail only.


## 2.1 Support for this Qualification

This qualification is recognised by the electrical industry and is supported by The Electrotechnical Skills Partnership (TESP) comprising of industry partners ECA, JIB, NET, Select and Unite. It was developed through discussions with these industry stakeholders and Certsure and NAPIT.

If you choose to promote your centre as one which offers the 603/5982/1 to potential candidates, and have your centre listed on the TESP website (no-charge) please can you contact: Kate Wilson, Email: [kate.wilson@the-esp.org.uk](mailto:kate.wilson@the-esp.org.uk) and provide the following details:

- Your centre name
- Your region: South East, South West, London, East of England, West Midlands, North East, North West, Wales, Northern Ireland
- Your contact telephone number for enquiries
- Your email address.

This will facilitate potential candidates to make contact with your centre in relation to this qualification.



TESP is a not-for-profit industry partnership formed by the Electrical Contractors' Association (ECA), Joint Industry Board (JIB), National Electrotechnical Training (NET), SELECT and Unite the Union to support electrotechnical employers to develop and drive the industry's skills agenda.

## 2.2 Achievement of the Qualification

This qualification is gained when all the necessary units have been achieved. The centre will then be able to apply for the learner's Certificate. The learner will also receive a Certificate of Unit Credit, listing all the achieved units.

## 2.3 Progression Opportunities

This qualification relates to various electrotechnical qualifications including:

- EAL Qualifications in environmental technology systems,
- EAL Level 3 Award In the In-Service Inspections and Testing of Electrical Equipment (PAT),
- EAL Level 4 Award in the Design and Verification of Electrical Installations,

Further information can be obtained from the EAL Website or alternatively contact:

**EAL Customer Experience**

**Tel: +44 (0)1923 652400**

**Email: [customer.care@eal.org.uk](mailto:customer.care@eal.org.uk)**

## 2.4 Qualification Support Materials

The following materials are available for this qualification:

- performance units - which can be utilised for the learner's portfolio,
- delivery units for the inspection and testing and wiring regulations unit,
- centre practical assessment documentation for the inspection and testing unit.

All materials can be accessed by EAL registered Centres from the EAL Website [www.eal.org.uk](http://www.eal.org.uk)

### 3.0 Rule of Combination (Qualification Structure)

This qualification will be obtained by the learner once they have completed the relevant units below. It has 153 GLH, and a Total Qualification Time (TQT) of 230 hours (notional time required by the learner to complete the qualification).

#### Qualification Units: **Must be completed:**

| Unit      | Unit title   | GLH | Ofqual Code |
|-----------|--|-----|-------------|
| NETP3-01  | Apply Health, Safety and Environmental Considerations  | 10  | F/507/7342  |
| NETP3-03  | Organise and Oversee the Electrical Work Environment   | 12  | J/507/7343  |
| NETP3-04A | Apply Design and Installation Practices and Procedures   | 20  | T/650/7477  |
| NETP3-05Z | Termination and Connection of Conductors   | 14  | Y/650/7521  |
| NETP3-06  | Inspect, Test and Commission Electrical Systems  | 16  | R/507/7345  |
| NETP3-07  | Apply Fault Diagnosis and Rectification  | 10  | Y/507/7346  |
| QIT3-001  | Principles, practices and legislation for the initial verification of electrical installations | 36  | D/503/5258  |

(Note that unit NEPT3-05Z replaces unit NETP3-05 for new registrations only from the 04.09.23)

#### And, one unit below must be achieved/completed from the two options below:

##### Pathway A: 2022

|          |   |    |            |
|----------|---|----|------------|
| 18ED3-02 | Understand the Requirements of Electrical Installations BS 7671:2018 (2022) | 35 | K/650/1450 |
|----------|---|----|------------|

##### Pathway B: 2018

*Please note, Pathway (2018) is only for learners who have already achieved the: Level 3 Award in the Requirements for Electrical Installations BS 7671: 2018, and are using the achievement in line with EAL's RPL policy toward this qualification. An onscreen exam is not available for this pre-amendment 2 unit (18ED3-01).*

|          |  |    |            |
|----------|--|----|------------|
| 18ED3-00 | Understand the Requirements of Electrical Installations BS 7671:2018 | 35 | H/617/0882 |
|----------|--|----|------------|

Learners who need to take the 60 MCQ Wiring regulations exam must select Pathway A: 2022.

## 4.0 Centre and Qualification Approval

Centres wishing to run the qualification will need to comply with this Qualification Manual and EAL's centre recognition criteria for this qualification upon accreditation and launch. Centres must also put in place the appropriate physical and human resources and administration systems to effectively run the qualification. Please refer to Section 5 for the requirements of centre staff involved in the delivery of the qualification.

### **For existing EAL centres to put the qualification on your centre remit:**

- To add this qualification to your centre qualification remit, create and complete a qualification approval application form in Smarter Touch and submit to EAL.

### **For non EAL centres to gain centre approval to run the qualification:**

- Please contact the EAL Customer Experience Department who will be delighted to hear from you:

**Tel: +44 (0)1923 652400**

**Email: [customer.care@eal.org.uk](mailto:customer.care@eal.org.uk)**

## 5.0 Profiles and Requirements

The staff involved in the delivery of these qualifications at the Centre must meet ALL of the requirements in this section.

### 5.1 Staff Responsible for Registering and Certification of Learners

Centres are required to appoint a suitable member of staff who can take responsibility for registering learners onto the qualification, submitting entries for externally set assessments to EAL, and taking receipt of external assessment procedures. They may also be responsible for applying to EAL for learner certificates. The role may be undertaken by the same person who undertakes quality assurance.

### 5.2 Teaching Staff

Teaching staff delivering this qualification must be able to demonstrate that they meet the following occupational expertise:

They should:

- be occupationally competent or technically knowledgeable in the area[s] for which they are delivering training. This knowledge must be to the same level as the training being delivered.

Teaching staff will also:

- have a minimum 2 years' experience in teaching/training  
**or**
- be working towards an appropriate teaching/training qualification  
**or**
- hold an appropriate teaching/training qualification (e.g. Cert Ed or Learning and Development trainer units).

### 5.3 Assessors

The Centre MUST provide EAL with the names of any teachers, trainers or other individuals who will undertake internal assessment (referred to as assessors), so that these can be approved prior to them carrying out an assessment role.

Assessors must be working towards or have achieved a relevant recognised assessor qualification such as a Level 3 Certificate in Assessing Vocational Achievement and continue to practice to that standard. Assessors who hold earlier qualifications (D32 or D33 or TQFE/TQSE) should have CPD evidence to the most current standards.

They must be occupationally competent electricians. Evidence which supports this is by the assessor holding a relevant electrotechnical NVQ L3\* and/or having registration with the JIB as Installation Electrician status or Eng-Tech status via the IET.

\*Assessors who qualified before NVQs were developed should provide evidence of how they are occupationally competent (such as through a CV together with any relevant references).

Assessors must be able to demonstrate evidence of being up to date with the electrical industry. This can be evidenced for example by either accessing trade publications, undertaking updates to wiring regulations or other course of learning, attending networking events relevant to this qualification and/or attending industry events.



## 5.4 Expert Witnesses

Where “Expert Witnesses” are used in the assessment process identified above they must be; Sector competent individuals who can attest to the learner’s performance in the workplace,

It is not necessary for expert witnesses to hold an assessor qualification, as a qualified assessor must assess the performance evidence provided by an expert witness. Evidence from expert witnesses must meet the tests of validity, reliability, authenticity and sufficiency.

Expert witnesses will need to demonstrate:

- They have relevant current knowledge of industry working practices and techniques
- That they have no conflict of interest in the outcome of their evidence.

## 5.5 Internal Quality Assurers

This relates to staff undertaking internal verification of assessment. The Centre MUST provide EAL with the names of any teachers, trainers or other individuals who will undertake internal quality assurance, so that these can be approved prior to them carrying out this role.

The main focus of internal quality assurance for this qualification is the quality assurance of assessment procedures, including standardisation of assessment practice across different assessors within the Centre.

Internal quality assurers must have a minimum of occupational experience evidenced by having a building services engineering related qualification or proven sector competence/experience plus access to relevant ‘occupational expertise’ to enable them to conduct their role as an internal quality assurer. This evidence and access to ‘occupational expertise’ is quality assured by the Awarding Organisation.

They must be working towards or have achieved a relevant recognised internal quality assurance qualification such as the Level 4 Award in the Internal Quality Assurance of Assessment Processes and Practice and continue to practice to that standard. Assessors who hold earlier qualifications (D34 or V1) should have CPD evidence to the most current standards.

They must be able to demonstrate evidence of being up to date with building services engineering industry. This can be evidenced for example by either accessing trade publications, undertaking courses of learning, attending networking events relevant to this qualification and/or attending industry events.

## 5.6 Staff Invigilating on-Screen Examinations

Members of staff with responsibility for invigilating on-screen examinations must know, understand and comply with the Procedures for Conducting the Exam Component within EAL Qualifications’, which are published by EAL. These members of staff must also:

- Have experience in conducting and controlling exam sessions
- or**
- Be supervised by an individual experienced in conducting and controlling exam sessions .

**Note:** A teacher/tutor who has prepared the learners for the subject of the exam must not be the sole supervisor at any time during an exam for that subject(s).

## 5.7 Learners

EAL expects its centres to enable individuals to have equal access to training and assessment for qualifications irrespective of their sex, marital status, age, religion, colour, race, nationality, ethnic origin or disability. In essence centres must deliver our qualifications and units in accordance with relevant Equalities Legislation.

Centres are required to have in place a policy to ensure that such discrimination does not occur either directly, indirectly or as a result of pressure from other bodies. This policy should apply to all satellites and there should be arrangements in place to monitor its application and effectiveness.

### **Important Requirements:**

**This qualification is only for experienced workers who have been working in the electrotechnical industry as a practicing electrician for a minimum of 5 years full time. From 04.09.23: Learners MUST already possess as a minimum a Level 2 qualification, as detailed in the TESP skills scan, to take this qualification.**

**It is a requirement that prior to undertaking this qualification, learners must have their suitability assessed by the completion of the qualification's pre-entry skills scan, and candidate background form. These documents have been developed by TESP.**

**The qualification is not for new entrants to the electrotechnical industry, apprentices, or those who have completed an electrotechnical technical qualification with less than last five years (full time) relevant industry experience.**

**The assessor and learner must sign the declaration on the candidate background form to attest to the learner's knowledge and experience and suitability to the qualification and the experienced worker assessment.**

Both the skills scan and the candidate background form are available from EAL Online services.

The age range of this qualification is 19+, however it is expected due to the five year industry experience requirements learners will be significantly older.

### **Overseas Candidates**

Please see Section 6.3

## 6.0 Assessment

**The assessment of this qualification involves the following aspects:**

**Performance Units:** These are units NEPT3: 01, 03, 04, 05(Z), 06, and 07. They require occupational evidence from the real working environment and are assessed via the Centre. (EAL will carry out verification and continuous monitoring by EQA visits).

**Additionally, performance unit: NETP3-05Z, Termination and Connection of Conductors** is subject to auditable (audio-recorded) professional discussion in the workplace by a qualified Assessor (as described in Section 5.3). The auditable (audio-recorded) professional discussion will sample the underpinning knowledge and understanding in the context of the work being undertaken against learning outcome 3. Example questions have been provided in Appendix 3 together with further guidance.

**Knowledge and understanding units:** These are units QIT3/001, and 18ED3/01.

- EAL set and marked on-screen exams, which must be invigilated at the centre. EAL carry out moderation of test results. QIT3/001 also has centre marked practical assessments.

All assessments are Pass or Fail only.

EAL will carry out verification and continuous monitoring via EQA visits to quality assure the assessment carried out by the Centre.

All assessments within the given qualification must be passed for it to be awarded. Practical/performance assessment contributes to approximately two-thirds of the assessments within the qualification. The pass mark for all exams is notionally set at 60%.

The learner must pass **ALL** assessments to achieve the qualification. A breakdown showing the assessment requirements for the qualification is shown below:

| Unit      | Unit   | Assessment summary  |
|-----------|--|---|
| NETP3/01  | Apply Health, Safety and Environmental Considerations  |   |
| NETP3/03  | Organise and Oversee the Electrical Work Environment   |   |
| NETP3/04  | Apply Design and Installation Practices and Procedures   | Requires evidence sourced from the real working environment assessed on a minimum of two occasions. <b>See 6.3 for further information.</b>   |
| NETP3/05Z | Termination and Connection of Conductors   |   |
| NETP3/06  | Inspect, Test and Commission Electrical Systems  |   |
| NETP3/07  | Apply Fault Diagnosis and Rectification  |   |
| QIT3/001  | Principles, practices and legislation for the initial verification of electrical installations | <p><b>1 on-screen exam with 55 questions: OPEN BOOK.</b> Requires Guidance Note 3 Inspection &amp; Testing Published by the IET.</p> <p><b>2 Centre marked practical assessments consisting of:</b> Initial inspection, and commissioning of a three phase rig.</p> |
| 18ED3/01  | Understand the Requirements of Electrical Installations BS 7671:2018                           | <b>1 on-screen exam with 60 questions: OPEN BOOK.</b> Requires BS 7671:2018   |
| 18ED3-02  | Understand the Requirements of Electrical Installations BS 7671:2018 (2022)                    | <b>1 on-screen exam with 60 questions: OPEN BOOK.</b> Requires BS 7671:2018 (2022) A2   |

### **For learners registered from the 04.09.23 in England only:**

There will be an expanded assessment requirement for the qualification units:

- Apply Health and Safety and Environmental Considerations
- Apply Design and Installation Practices and Procedures
- Termination and Connection of Conductors.

**At least one** of the on-site assessments of performance for each of the above units must occur in a **commercial or industrial setting**. (i.e., on-site assessment must not occur exclusively in a domestic context).

#### **Domestic premises are:**

- Designed to accommodate a single family
- Houses in multiple occupation comprising a number of self-contained units, each designed to accommodate a single person or family
- Sheltered housing, dwelling units
- Supported housing.

It also includes, bungalows, resident areas of care homes, multi storey houses, individual flats and maisonettes, apartment buildings, mobile homes, holiday homes, sheltered housing, shared houses and houses divided into several self contained single family dwelling units, and student accommodation.

Domestic premises **do not include** large or extensive communal areas used by residents of more than one single dwelling. Large or extensive communal residential areas may suffice for the commercial / industrial assessment requirement. Examples of these areas would be large catering kitchens in care homes, student accommodation communal areas such as receptions, bathrooms intended for the use of more than one residential unit, boiler rooms servicing several individual dwellings, service risers or stairways and landings servicing many individual flats, typically with an incoming three-phase electricity supply etc.

## **6.1 On-Screen Exams**

A specification for the examination, indicating the number of questions to be set for each learning outcome is provided in Appendix 2.

#### **Key Points**

- The external examinations are available on demand
- The examination must be undertaken by the learner under controlled examination conditions, in accordance with EAL's Procedures for Conducting the Exam Component within EAL Qualifications'
- The EAL co-ordinator within the Centre will assume responsibility for liaison and correspondence regarding the external assessment component
- Centres will be sampled and spot checks will be carried out by EAL to ensure examinations are delivered in accordance with EAL published procedures.

## **6.2 Centre Marked Assessment for the Unit QIT3/001**

These two assessments are set by EAL and marked by members of the delivery team at the Centre (see profiles of markers in section 5). All assessment decisions are then subject to internal standardisation and external quality assurance.

Centre marked assessments involve collecting and evaluating evidence that demonstrates achievement of the learning outcome/criteria. They are accompanied by marking criteria and other materials to ensure that the markers are consistent in their approach to assessment across learners.

Centres are responsible for ensuring that centre marked assessments are suitably controlled to ensure that assessment decisions are valid and reliable, and that work submitted for assessment by learners is prepared and produced by them independently, without assistance from others, and free of plagiarism.

Centres should maintain an assessment and feedback record for each learner, which details the evidence evaluated against the learning outcome and the feedback given to the learner. These records must be available to the EQA.

## 6.3 Assessment of Performance Units

Evidence must be sourced from the real working environment for Performance Units and must be naturally occurring and assessed on a minimum of two occasions. Evidence can be generated by:

- Direct observation of performance in the workplace by a qualified assessor and/or testimony from an expert witness subject to the activity being assessed. This will be the preferred source of evidence.  
Or
- Learner's reflective account of performance and work plans / work based products e.g. risk assessment documentation, method statements, diagrams, drawings, specifications, customer testimony, authorised and authenticated photographs/images and audio visual records of work completed together with learner questioning.  
Or
- Witness testimony.

**Evidence must be current, and past practical work cannot be used against the evidence requirements of the units.**

**Important Note: Performance Unit NETP3/01 is subject to direct observation on at least two separate occasions in the workplace by a qualified assessor. Reflective accounts ARE NOT accepted as evidence for Unit NETP3/01. Any outstanding performance criteria that are not met through the direct observation must be supplemented by alternate evidence provided by the employer/supervisor.**

**As a minimum, one of the two direct observations must be a physical, face to face, site visit with an assessor, the second direct observation may be live streamed online assessment with an assessor.**

Learners must work safely in accordance with relevant legislation. This is particularly important when working toward the performance units when working at heights, inspecting and testing; and diagnosing faults.

Meeting the assessment requirements of Performance Units will need initial discussions and assessment planning between the learner and assessor, as an essential activity to identify opportunities to assess real working environment evidence, gaps that need to be filled or opportunities to recognise the prior achievement of the learner.

Please note any particular assessment requirements of the performance unit is detailed in the Unit Information (Assessment) section of the unit.

### Overseas Candidates

Please refer to the ECS guidance: <https://www.ecscard.org.uk/content/If-you-have-non-UK-qualifications>.

Candidates from overseas who wish to undertake the Level 3 Electrotechnical Experienced Worker Qualification may use their relevant experience in the application onto this qualification. However past practical work evidence from overseas cannot be used against the evidence requirements of the units.

## 7.0 External Quality Control of Assessment

There are two major activities in which EAL interacts with the Centre in relation to the External Quality Control of Assessment for this qualification and these are:

- **Recognition:** When a Centre decides to offer the qualification, the EAL External Quality Assurer (EQA) ensures that the Centre is suitably equipped and prepared for delivery and assessment.
- **Engagement:** Throughout the ongoing delivery of the qualification EAL, through EQA monitoring and other mechanisms will review the quality and consistency of assessment and internal quality assurance and recommend actions to address issues of concern.

### Recognition

In granting approval, EAL, normally through its EQAs, will ensure that the prospective Centre:

- Meets any procedural requirements specified by EAL.
- Has sufficient and appropriate physical and staff resources.
- Meets relevant health and safety and/or equality and access requirements.
- Has a robust plan for the delivery, assessment and QA for the qualifications (including, where appropriate, scope for involving employers).

EAL may decide to visit the Centre to view the evidence provided.

### Engagement

EAL, through EQA Engagement and other mechanisms will ensure that:

- A strategy is developed and deployed for the on-going monitoring of the centre – this will be based on an active risk assessment of the Centre, and will include details of the learner, assessor and internal quality assurer's sampling strategy and the rationale behind this.
- The Centre's internal quality assurance processes are effective in learner assessment.
- Outcomes of internal assessment are verified, through sampling, to ensure standards are being maintained.
- Sanctions are applied to a Centre where necessary and that corrective actions are taken by the Centre and monitored by the EQA.
- Reviews of EAL's external auditing arrangements are undertaken.

## Appendix 1: Qualification Amendments

EAL is committed to a policy of continuous improvement, which can sometimes result in changes being made to our publications. Whilst every effort is made to inform customers of any changes that are made it is important that centres, assessors and learners use only the latest issue of EAL publications to ensure that all the current requirements are fully met. The table below lists the amendments and the current issue number for the qualification's materials. Note that as the materials used in this qualification already exist in other qualifications, the unit issue date is prior to the launch date of this qualification.

| Publication          | Material      | Amendment   | Issue N°       | Date     |
|----------------------|---------------|---|----------------|----------|
| NETP3-01             | Unit          |   | 1.2            | 14.02.20 |
| NETP3-03             | Unit          |   | 1.1            | 11.11.15 |
| NETP3-04             | Unit          |   | 1.2            | 14.02.20 |
|                      |               | Updates to range  | 1.3            | 16.05.23 |
|                      | Unit          | Unit withdrawn from qualification for new registrations from the 04.09.23   | N/A            | 04.09.23 |
| NETP3-04A            | Unit          | Unit replaces NETP3/04 for registrations from the 04.09.23  | 1.0            | 16.05.23 |
| NETP3/05             | Unit          |   | 1.2            | 14.02.20 |
|                      | Unit          | Unit withdrawn from qualification for new registrations from the 04.09.23   | N/A            | 04.09.23 |
| NETP3-05Z            | Unit          | Unit replaces NETP3/05 for registrations from the 04.09.23  | 1.0            | 16.05.23 |
| NETP3-06             | Unit          |   | 1.4            | 14.02.20 |
| NETP3-07             | Unit          |   | 1.2            | 14.02.20 |
| QIT3-001             | Delivery Pack | Updated unit in qualification   | 6.1            | 28.03.22 |
|                      | Learner Pack  | Updated unit in qualification   | 5.1            | 28.03.22 |
| 18ED3-01             | Unit          |   | 1.1            | 01.01.20 |
| 18ED3-02             | Unit          | New unit in qualification for BS 7671:2018 A2   | 1.0            | 01.05.22 |
|                      |               |   |                |          |
| Qualification Manual |               |   | 1.0            | 01.07.20 |
|                      |               | Section 5.7 updated: candidate background form and skills scan information  | 1.1            | 01.07.20 |
|                      |               | Section 2 updated with TESP info  | 1.2            | 29.01.21 |
|                      |               | Sections 5 and 6 updated with overseas candidates   | 1.3            | 03.12.21 |
|                      |               | Updated for new unit to BS 7671:2018 A2   | 1.4            | 01.05.22 |
|                      |               | 6.3 Updated to reflect that face to face physical assessment required, and past practical evidence cannot be used.  | 1.5            | 12.09.22 |
|                      |               | Pathway 2018 reinstated to accommodate pre amendment 2 18th Ed wiring regs achievement- see important note in Section 3 (as replicated in Appendix 3)                             | 2              |          |
|                      |               | Entry requirements updated for learners from the 04.09.23. Updates to Unit NETP3-04; Remove Unit NETP3-05, New Unit created: NETP3-05Z; update to Section 6 - assessment context. | 3              | 16.05.23 |
|                      |               |   | www.eal.org.uk |          |

## Appendix 2: Centre Examination Specifications

**Unit:** 18ED3-01 Understand the Requirements of Electrical Installations BS 7671:2018

Assessment type: Multiple choice

Number of questions: 60

Time allowed: 120 minutes

The pass mark is notionally set at 60%

Additional re-sitting constraints: None

This is an open book exam requiring reference to IET Wiring Regulations Eighteenth Edition published by the Institute of Engineering and Technology. Where relevant Amendment 1 to BS 7671 can also be used as a loose leaf document.

Candidates may also use a non-programmable calculator.

The examination will cover the learning outcomes of the unit as follows:

| Learning Outcome | Learning Outcome Title   | Approximate coverage: |
|------------------|--|-----------------------|
| 1                | Understand the scope, object and fundamental principles of BS7671                                | 7%                    |
| 2                | Understand the definitions used within BS 7671   | 3%                    |
| 3                | Understand how to assess the general characteristics of electrical installations                 | 10%                   |
| 4                | Understand requirements of protection for safety for electrical installations                    | 25%                   |
| 5                | Understand the requirements for selection and erection of equipment for electrical installations | 23%                   |
| 6                | Understand the requirements of inspection and testing of electrical installations                | 7%                    |
| 7                | Understand the requirements of special installations or locations as identified in BS 7671       | 17%                   |
| 8                | Understand the information contained within the appendices of BS 7671                            | 8%                    |



**Unit:** 18ED3/02: Understand the Requirements of Electrical Installations BS 7671:2018 (2022)

Assessment type: Multiple choice

Number of questions: 60

Time allowed: 120 minutes

The pass mark is notionally set at 60%

Additional re-sitting constraints: None

This is an open book exam requiring reference to IET Wiring Regulations Eighteenth Edition to Amendment 2, published by the Institute of Engineering and Technology.

Candidates may also use a non-programmable calculator.

The examination will cover the knowledge learning outcomes of the unit, as follows:

| Learning Outcome | Learning Outcome Title   | Approximate coverage: |
|------------------|--|-----------------------|
| 1                | Understand the scope, object and fundamental principles of BS7671                                | 7%                    |
| 2                | Understand the definitions used within BS 7671   | 3%                    |
| 3                | Understand how to assess the general characteristics of electrical installations                 | 10%                   |
| 4                | Understand requirements of protection for safety for electrical installations                    | 25%                   |
| 5                | Understand the requirements for selection and erection of equipment for electrical installations | 23%                   |
| 6                | Understand the requirements of inspection and testing of electrical installations                | 7%                    |
| 7                | Understand the requirements of special installations or locations as identified in BS 7671       | 12%                   |
| 8                | Understand the information contained within Part 8 and the appendices of BS 7671                 | 13%                   |

**Unit:** QIT3/001 - Principles, practices and legislation for the initial verification of electrical installations.

Assessment type: Multiple choice

Number of questions: 55

Time allowed: 90 minutes

The pass mark is notionally set at 60%

This is an open book exam requiring reference to Guidance Note 3: Inspection and Testing published by the Institute of Engineering and Technology. Candidates may also use a non-programmable calculator. The examination will cover the learning outcomes of the unit as follows:

| Outcome | Title   | Approximate coverage: |
|---------|---|-----------------------|
| 1       | Understand the requirements for completing the safe isolation of electrical circuits and installations.                         | 13%                   |
| 2       | Understand the requirements for initial verification of electrical installations.   | 5%                    |
| 3       | Understand the requirements for completing the inspection of electrical installations prior to their being placed into service. | 14%                   |
| 4       | Understand the requirements for the safe testing and commissioning of electrical installations.                                 | 13%                   |
| 5       | Understand the requirements for testing before circuits are energised.  | 20%                   |
| 6       | Understand the requirements for testing energised installations.  | 24%                   |
| 7       | Understand the requirements for the completion of electrical installation certificates and associated documentation.            | 9%                    |
| 10      | Be able to test electrical installations prior to them being placed into service  | 2%                    |

# A3

## Appendix 3: Example Professional Discussion Questions

The purpose of this appendix provides guidance and example questions for the auditable professional discussion for unit NETP3-05Z, Termination and Connection of Conductors Learning Outcome 3.

### The Assessor must:

- ensure the learner has been fully briefed on the purpose of the discussion, specifically the content that will be addressed, and the type of information the assessor will require
- ensure any additional requirements highlighted by the centre are taken into consideration in line with the Reasonable Adjustments policy
- make consistent and unbiased assessment decisions
- try to put the learner at ease
- use open questions with 'why', 'what', 'how', 'where', and 'when' to provide opportunities for all learners to demonstrate attainment
- use follow-up questions, giving the learner the opportunity to explore the discussion point fully. The questions must be thoughtful, relevant, and pitched at the appropriate level
- discuss the learner's activities with them, looking for evidence of specific knowledge, procedures, processes, analytical abilities, and decision-making, together with their competence. Questioning should provide a gradual 'handing over' to the learner. You would expect the learner to be taking the lead in the discussion after the initial opening questions/brief
- identify topic areas in responses that can be further explored later in the discussion.

### What to avoid during the Professional Discussion:

- using one question type throughout
- answering the question yourself instead of expanding on it to get a response
- overloading the learner with too many questions, allowing them no time to think or to answer fully
- disregarding answers
- spending too long on one area of discussion, reducing the time available for other areas
- asking complex questions too early in the discussion
- avoid the use of closed questions unless a 'yes' or 'no' answer is specifically required. Closed questions can cause learners to 'freeze' or 'block', and this would be more likely under the pressure of examination conditions

### Example Questions:

These are example questions to illustrate the types of questions that can be utilised in the recorded professional discussion, for unit NETP3-05Z, Termination and Connection of Conductors.

These are examples only and others should be used as applicable with appropriate follow-up questions to enable the learner to evidence the knowledge and understanding required.

#### Criteria 3.1:

How did you set up and maintain your work area for safe working?  
How did you consider the safety of others in the work area?

#### Criteria 3.2:

What protective devices did you install? And what were their types? Why were they selected?  
Which parts of the regulations require this?

#### Criteria 3.3:

When selecting the cable for the radial circuit, why did you select that type of cable?  
What cable glands did you use and why? (e.g., storm gland or BC/CW, etc.)  
What was the design process you used to select the cable for that load?  
What correction factors did you apply?  
What effect did thermal insulation have on the circuit design?  
What was the circuit's volt-drop?  
What is the maximum disconnection time for this circuit?  
How did you comply with BS 7671 on the routing of cables in the installation?  
How did the regulations apply to the installation of cables?

#### Criteria 3.4:

What fire detection did you install?  
How did you maintain fire compartments?

## Appendix 4: Learner Registration and Certification

Learners must be registered with EAL on a code which relates to the qualification – this must be completed prior to assessment. Both learner registration and certification can be completed online at the EAL Website [www.eal.org.uk](http://www.eal.org.uk). For paper based registration and certification use the appropriate forms. These are located on the EAL Website, for guidance on registration and certification please refer to the Registration and Certification User Guide.

**To register the learner on the chosen qualification pathway:**

### Pathway A: (2022)

To complete the qualification with the wiring regulations unit to BS 7671:2018 (2022) to Amendment 2, please select this option below with the 'A' suffix.

| Qualification Title  | Code  |
|--|---|
| EAL Level 3 Electrotechnical Experienced Worker Qualification<br>(from the 04.09.23 use registration code with AZ) | 603/5982/1 <b>A</b><br>603/5982/1 <b>AZ</b> |

(Note that RPL may be used for the 18th Ed unit if the learner has already achieved the industry recognised Unit/Award to 18th Ed Amendment 2 2022).

### Pathway B: (2018)

*Please note, Pathway (2018) is only for learners who have already achieved the: Level 3 Award in the Requirements for Electrical Installations BS 7671: 2018 (pre-Amendment 2), and are using the achievement in line with EAL's RPL policy toward this qualification.*

|  |   |
|--|---|
| EAL Level 3 Electrotechnical Experienced Worker Qualification<br>(from the 04.09.23 use registration code with BZ) | 603/5982/1 <b>B</b><br>603/5982/1 <b>BZ</b> |
|--|---|

For further information please contact EAL Customer Experience +44 (0)1923 652 400.

