

## REGULATED QUALIFICATION FRAMEWORK (RQF)

### QUALIFICATION SPECIFICATION

- **LCL Awards Level 3 Award in the Requirements for Electrical Installation BS7671:2018 (603/3132/X)**

#### 1. Objective:

This qualification is designed to promote safety and competence within the Electrotechnical Sector. The objective of this qualification is for learners to demonstrate they know the scope, object and fundamental principles of BS7671, understand the definitions used within BS7671, understand how to assess the general characteristics of electrical installations, understand requirements of protection for safety of electrical installations, understand the requirements for selection and erection of equipment for electrical installations, understand the requirements of inspection and testing of electrical installations, understand the requirements of special installations and locations as identified in BS7671 and understand the information contained within the appendices of BS7671.

The target groups for this qualification are those learners who are;

1. Preparing for employment, new entrants to the occupation
2. Updating occupational competence, continuous professional development and or obtaining a licence to practice
3. Preparing for further learning or training and/or developing knowledge and or skills in a subject area who are existing workers in the occupation seeking to extend their range of work

#### 2. Qualification Framework:

**The qualification comprises of 1 mandatory Unit;**

| Unit Title  | Unit Reference Number | Type of Unit                | Level | Credit Rating |
|---|-----------------------|-----------------------------|-------|---------------|
| Understand the Requirements of Electrical Installations BS 7671 | LCL-E3004             | Knowledge and Understanding | 3     | 4             |

#### Qualification Structure:

- **LCL Awards Level 3 Award in the Requirements for Electrical Installation BS7671:2018**
  - QAN 603/3132/X
  - QW C00/1234/1
  - The Guided Learning Hours (GLH) are **35 hours**
  - The Total Qualification Time (TQT) is **40 hours**
  - The total credit required to achieve the qualification is **4**

### 3. Unit Grading Structure:

| Learning Outcomes  | Number of questions | %          |
|--|---------------------|------------|
| 1 Understand the scope, object and fundamental principles of BS7671.                               | 4                   | 7          |
| 2 Understand the definitions used within BS7671.   | 2                   | 3          |
| 3 Understand how to assess the general characteristics of electrical installations                 | 6                   | 10         |
| 4 Understand requirements of Protection for safety for electrical installations                    | 15                  | 25         |
| 5 Understand the requirements for Selection and erection of equipment for electrical installations | 14                  | 23         |
| 6. Understand the requirements of Inspection and testing of electrical installations               | 4                   | 7          |
| 7. Understand the requirements of special installations or locations as identified in BS 7671.     | 10                  | 17         |
| 8 Understand the information contained within the appendices of BS7671.                            | 5                   | 8          |
| <b>Total</b>   | <b>60</b>           | <b>100</b> |

**This is a Pass or Fail qualification. The learner is required to successfully achieve a minimum of 60% for this qualification to be awarded.**

### 4. Unit specification:

#### **LCL-E3004: Understand the Requirements of Electrical Installations BS 7671**

Assessment Method (MC-O/L)

#### **Learning Outcome 01. The learner will know the scope, object and fundamental principles of BS7671.**

The learner can:

- 1.1 Identify the scope of BS7671
- 1.2 Identify the object of BS7671
- 1.3 Identify the fundamental principles of BS7671

#### **Learning Outcome 02. The learner will understand the definitions used within BS7671**

The learner can:

- 2.1 Interpret the definitions used within BS7671
- 2.2 Relate the definitions to the regulations and appendices of BS7671.

**Learning Outcome 03. The learner will understand how to assess the general characteristics of electrical installations**

The learner can:

3.1 Interpret the requirements of assessing the general characteristics of electrical installations within the scope of BS7671.

**Learning Outcome 04. The learner will understand requirements of protection for safety for electrical installations**

The learner can:

4.1 Identify the requirements of protection for safety within the scope of BS7671.

4.2 Interpret how this applies to electrical installations within the scope of BS7671 to include:

- protection against electric shock
- protection against thermal effects
- protection against over current
- protection against voltage disturbances and electromagnetic disturbances.

**Learning Outcome 05. The learner will understand the requirements for selection and erection of equipment for electrical installations**

The learner can:

5.1 Identify the requirements for selecting and erecting equipment within the scope of BS7671

5.2 Interpret how this applies to electrical installations within the scope of BS7671 to include:

- common rules
- selection and erection of wiring systems
- protection, isolation, switching, control and monitoring
- earthing arrangements and protective conductors
- other equipment
- safety services

**Learning Outcome 06. The learner will understand the requirements of inspection and testing of electrical installations**

The learner can:

6.1 Identify the requirements for inspection and testing.

6.2 Interpret how this applies to electrical installations.

**Learning Outcome 07. The learner will understand the requirements of special installations or locations as identified in BS7671**

The learner can:

- 7.1 Identify the requirements for special installations and locations.
- 7.2 Interpret how this effect the general requirements of the regulations.

**Learning Outcome 08. The learner will understand the information contained within the appendices of BS7671**

The learner can:

- 8.1 Identify the information in the appendices of BS7671.
- 8.2 Specify how the information contained in the appendices is used to support electrical installation activities.

**5. National Occupational Standard:**

The unit has a direct relationship with the National Occupational Standards for the areas of work contained within the Unit and has been approved by “The Electrical Skills Partnership” (TESP)

**6. RQF Descriptor Level 3.**

**Knowledge descriptor:**

*Has factual, procedural and theoretical knowledge and understanding of a subject or field of work to complete tasks and address problems that while well-defined, may be complex and non-routine. Can interpret and evaluate relevant information and ideas. Is aware of the nature of the area of study or work. Is aware of different perspectives or approaches within the area of study or work*

**7. Prior knowledge, skills or understanding which the learner is required to have before taking the qualification.**

None – *but it is recommended that the learner should have a good understanding of BS7671*

**8. Units which a learner must have completed before the qualification will be awarded and any optional routes.**

Learners must complete the one mandatory unit before the qualification will be awarded. See Section 4.0 above.

**9. Other requirements which a learner must have satisfied before the learner will be assessed or before the qualification will be awarded.**

Not Applicable.

**10. The design and delivery of the examination associated with these units are based on the following documents;**

BS 7671:2018 Requirements for Electrical Installations

**11. The criteria against which learners' level of attainment will be measured.**

The Learning Outcomes and Assessment Criteria against which learners' level of attainment will be measured are detailed in Section 3.

**12. Planned exemptions:**

None.

**13. Specimen assessment materials.**

Not Applicable

**14. Specified levels of attainment**

Learners must achieve an overall pass mark of 60% or more to pass the on-line assessment for the qualification to be awarded.

**15. Other information**

None

### **Assessment and Examination Terminology:**

AC – Approved Centre; an examination conducted either at the approved centre or a location approved by the centre, using staff approved by the centre to conduct the examination.

CBSR – Closed Book Short Response; Short response written questions will be set by the awarding organisation and administered and marked locally at the approved centre by approved markers. Learners will be prohibited from using industry normative or informative documents.

CE – Customer Evidence; evidence provided by a customer in the form of a written witness statement confirming a competent performance by the learner. That evidence may also be provided by an employing supervisor or manager of the learner. Witness statements that relate to a technical competence will only be accepted from a person technically competent in that particular activity to provide the statement.

IK – Inferred Knowledge; inferred knowledge is assessed as part of a performance assessment by a centre approved assessor. To deem the learner as having sufficient knowledge the learner must satisfactorily pass the performance assessment.

LE – Learner Evidence; learner generated evidence is for example documented recordings of readings, calculations or the production of a risk assessment or other procedural document.

MC – Multiple Choice; set by the awarding organisation and administered and marked locally or electronically. Learners will be able to answer multi-choice questions using reference to appropriate industry normative or informative sources.

O/L – Online: a secure cloud-based assessment system (XAMS)

OP – Observed Performance; the assessment of a learner's performance by an approved assessor either in the learner's work place or at the approved centre or a location approved by the centre.

OQ – Oral Questions; oral questions may be asked by an assessor as part of a performance assessment or knowledge examination to confirm the understanding of the criteria by the learner.

PA – Performance Assessment; a performance assessment conducted either in the learner's work place or at the approved centre or a location approved by the centre.

RWE – Realistic Work Environment; an area at the approved centre or a location approved by the centre which replicates and has the features of a Work Place. The learner must not be permitted to be familiar with the simulated environment prior to undertaking assessment.

SR – Short Response questions.

WP – Work Place; is the naturally occurring environment in which the learner works, typically that would be in a customer's premise where work is being paid for by the customer.