

Experienced Worker Assessment (EWA)

**Electrotechnical Certification Scheme Network Infrastructure
Installer Level 3 Card**

**Electrotechnical Certification Scheme Network Infrastructure
Installer Gold Card**

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Version Control

V2.0	Updated document March 2025. This includes confirmation of the minimum age of experienced workers undertaking assessment to 21. For Assessors the ECS Gold Card is desirable rather than essential. However, experience within the sector remains.
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About the Assessment

The Experienced Worker Assessment (EWA) is the new assessment process to recognise occupational competence for people who have been working in a relevant industry role, normally for over five (5) years, but haven't been able to complete an equivalent Level 3 vocational qualification.

The new Experienced Worker Assessment is based on the requirements associated with the ECS Card scheme, so that both new entrants and experienced workers are now being assessed and accredited against the same industry standard. This assessment has been approved by the Joint Industry Board and ECS.

The Experienced Worker Assessment will be controlled and quality assured by Open Awards as the Awarding Organisation.

The EWA is not regulated by a qualification regulator.

Introduction

The aim of this document is to describe the Experienced Worker Assessment for Network Infrastructure Installers, which:

- Is focused on the need for those with a minimum of five (5) years industry experience, who may have chosen an alternative development plan.
- Provides an efficient route to gaining the Network Infrastructure Installer (Level 3) ECS card for completion of one pathway (either copper or fibre) and a route to gain the Network Infrastructure Installer Gold card for completion of both pathways.
- Delivers an assessment process that meets the assessment criteria defined by the Awarding Organisation.
- Is focused on the levels of competence, quality and safety appropriate to the role.

Assessment Overview

Title	Open Awards Level 3 Network Cable Installer Experienced Worker Assessment (Copper) Open Awards Level 3 Network Cable Installer Experienced Worker Assessment (Fibre) Open Awards Level 3 Network Cable Installer Experienced Worker Assessment (Copper and Fibre)
Sector	6.1 Digital Technologies (Practitioners)
Level	Level Three (3)
Pricing Information	Please click here for more information
Review Date	31/07/2028

Age Range and Restrictions	
21	✓

Any Specified Entry Requirements

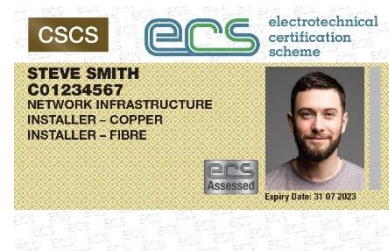
You must be over the age of 21 and have five (5) years' experience within a relevant role.

References

A. ECS Card Scheme

Network Infrastructure Installer (Level 3) Card

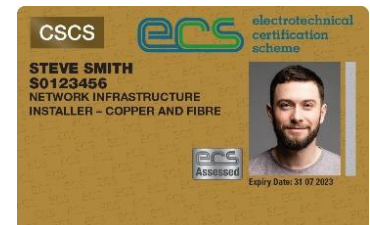
To be eligible for an ECS Network Infrastructure Installer (Level 3) card, applicants must meet the following criteria:



1. Recognised training or experience (successful completion of one of the following):
 - a. Level 3 industry recognised qualification in copper such as CNCI - Copper, the BTEC Level 3 Advanced Award in Data Communications Cable Installation or the BTEC Level 3 in Certified Network Cable Installer (Copper)
 - b. City & Guilds Level 3 Certificate in Communications Cabling (3668-03)
 - c. EAL Level 3 Award in Telecoms, Copper and Fibre
 - d. Open Awards Level 3 Award in Copper Datacoms Cable Installation and Testing
 - e. Open Awards Level 3 Award in Fibre Optics Installation and Testing
 - f. Completion of the Experienced Worker Assessment – Copper **or** Fibre pathway
2. Provision of an employer statement confirming at least 12 months installation experience post qualification completion.
3. Hold a current ECS Health, Safety and Environmental Assessment.

Network Infrastructure Installer – Gold Card

To be eligible for an ECS Network Infrastructure Installer (Level 3) Gold Card, applicants must meet the following criteria:



1. Recognised training or experience (successful completion of one of the following):
 - a. the industry Level 3 Apprenticeship Standard – (ST0485) the Network Cable Installer Apprenticeship
 - b. Previously met the requirements of the ECS Advanced Datacomms Specialist card.
 - c. The Copper and Fibre Network Infrastructure Experienced Worker Assessment (**both** pathways)
2. Provision of an employer statement or project reference confirming at least 12 months installation experience post qualification completion.
3. Hold a current ECS Health, Safety and Environmental Assessment.

Assessment Overview

The Experienced Worker Assessment (EWA) aims to ensure that workers can demonstrate the required levels of competence, quality and safety appropriate to carry out network cable installation work on site.

The assessment consists of two (2) components:

- Multiple-choice question test
- Practical observation with questioning

Experienced workers must complete a knowledge-based multiple-choice question test and be observed by an independent assessor completing a practical demonstration consisting of one (1) or two (2) distinctly separate tasks. Where an experienced worker only wishes to apply for either the copper cabling card or fibre optic cabling card, only that relevant task must be carried out (the relevant knowledge, skills and behaviours (KSBs) required can be seen in the Assessment Criteria section of this document).

The two (2) tasks are defined as:

- Install, terminate and test copper cable.
- Install, terminate and test fibre optic cable.

The rationale for this assessment method is: The Network Cable Installer role is heavily biased toward practical (hands-on) installation activities. The ability to install network cabling in demanding environments, in a safe manner, using the correct tools, and in accordance with highest quality standards, could only be assessed fairly and accurately in a simulated environment. Therefore, a practical observation with questions ensures that the experienced worker can not only demonstrate their practical skills but can also underpin this with a broader knowledge of the task at hand.

The multiple-choice question test will be undertaken under controlled exam conditions and invigilated by an appropriately trained and competent person. The multiple-choice question test must be undertaken by all experienced workers, irrespective whether they only wish to apply for either the copper cabling or fibre optic cabling cards only. This will ensure a holistic approach is taken to the EWA and ensure employers can be assured the Card holder has been able to robustly evidence current knowledge that is challenging to demonstrate through practical observation.

The assessments can be completed in any order. However, all assessment components (including resits) must be **completed within a three (3) month assessment window**. This will commence on the first day of the first assessment. If this window is not observed, all assessments will be void and need to be retaken.

Outcome from Assessment Combinations

Assessment component achievement			Outcome
Practical observation		Multiple choice test	
Install, terminate and test copper cable	NA	Multiple choice test – Copper	ECS Network Infrastructure Installer (Level 3) card
NA	Install, terminate and test fibre optic cable.	Multiple choice test – Fibre	ECS Network Infrastructure Installer (Level 3) card
Install, terminate and test copper cable	Install, terminate and test fibre optic cable.	Multiple choice test – Copper and Fibre	ECS Network Infrastructure Installer (Level 3) card - Gold card

Pathways

Learners will have the option of completing three (3) different pathways. These are:

- Copper
- Fibre
- Copper and Fibre

Copper Pathway

Copper Pathway For learners completing the copper pathway, they will need to complete:

- Multiple-choice question test – Copper Pathway
- Practical Test – Copper task

Fibre Pathway

For learners completing the fibre pathway, they will need to complete:

- Multiple-choice question test – Fibre Pathway
- Practical Test – Fibre task

Copper and Fibre Pathway

For learners completing the copper and fibre pathway, they will need to complete:

- Multiple-choice question test – Copper and Fibre Pathway
- Practical Test – Copper task and Fibre task

Recognition

Completion of either the Copper pathway or Fibre pathway will result in the learner being eligible to apply for the ECS Network Infrastructure Installer (Level 3) card. Completion of the Copper and Fibre pathway will result in the learner being eligible to apply for the ECS Network Infrastructure Installer (Level 3) Gold Card.

In order for learners to claim their ECS Network Infrastructure card, they must first create a **MyECS** account through the ECS website or by clicking [here](#),

Once they have created an account and have logged in, they will be able to click on the **apply for new card** button, and work through the steps to complete their application process.

Full information and support on applying for a new card can be found on the ECS website by clicking [here](#).

Assessment Components

The two assessment components are:

- Multiple-choice question test
- Practical Observation with questioning

Multiple-choice Question Test

Experienced workers are required to complete the multiple-choice question test regardless of which pathway they choose to complete. The multiple-choice question test is an online test taken on Open Awards assessment system (XAMS) that must be invigilated by an appropriately trained person in line with Open Awards Instructions for Conducting Controlled Assessments with no conflicts of interest with the experienced worker. Subject to approval from Open Awards, it may be undertaken through remote invigilation in line with Open Awards Instructions for Conducting Controlled Assessments Remotely.

The knowledge criteria covered within this assessment are detailed in appendix 1. Each question will have four (4) potential answers with only one (1) answer being correct. No partial marks are given for an incorrect answer. Each question is worth one (1) mark. The test will be externally marked by Open Awards and results will be issued directly to the training provider. Each test will consist of randomised questions, therefore, each test will be individualised to each learner.

Copper Pathway

The multiple-choice question test will contain 30 questions and will last for a maximum of 45 minutes. Fifteen (15) questions will be made up of the core knowledge criteria and fifteen (15) will be made up of the copper specific knowledge criteria. The pass mark for the multiple-choice question test is 24 (80%) out of 30, however at least ten (10) of the fifteen (15) copper specific questions must be achieved.

Fibre Pathway

The multiple-choice question test will contain 30 questions and will last for a maximum of 45 minutes. Fifteen (15) questions will be made up of the core knowledge criteria and fifteen (15) will be made up of the fibre specific knowledge criteria. The pass mark for the multiple-choice question test is 24 (80%) out of 30, however at least ten (10) of the fifteen (15) fibre specific questions must be achieved.

Copper and Fibre Pathway

The multiple-choice question test will contain 45 questions and will last for a maximum of 60 minutes. Fifteen (15) questions will be made up of the core knowledge criteria, fifteen (15) will be made up of the copper specific knowledge criteria and fifteen (15) will be made up of the copper specific knowledge criteria. The pass mark for the multiple-choice question test is 36 (80%) out of 45, however at least ten (10) of the fifteen (15) sector specific questions for each specialism must be achieved.

Practical Observation with Questioning

Experienced workers are required to undertake either one (1) or both practical tasks in a controlled environment in line with Open Awards Instructions for Conducting Controlled Assessments. The tasks are arranged, delivered and internally marked by the training provider and externally quality assured by Open Awards. The training provider will arrange for assessments to take place at a suitable venue and in consultation with the employer, or the experienced worker directly if they are self-employed. They will be undertaken in an appropriate simulated test facility managed by the training provider.

The practical observation with questioning must be carried out over a maximum total assessment time of seven (7) hours for both tasks. The copper task will be allocated a maximum for two (2) hours and the fibre task will be allocated a maximum of five (5) hours. It is recommended that if the experienced worker wants to be assessed for both pathways, both tasks should be carried out on the same day. However, the tasks may be split over two (2) sequential days if required (i.e., each task must be fully completed within the notional one (1) day). This allows for flexibility and resource planning with the employer and will accommodate the needs of all parties.

The independent assessor may conduct and observe a maximum of six (6) experienced workers simultaneously during this assessment method. On the occasions where only one experienced worker is being assessed, the training provider will provide an additional person to assist where two-person working is required for health and safety reasons. In this eventuality, the independent assessor must not act as the additional person to ensure they can fully observe the experienced worker without being distracted. It is the responsibility of the independent assessor to brief the additional person prior to the assessment starting, to ensure they are clear on the boundaries of the role. This will ensure the experienced worker is not advantaged or disadvantaged by the assistance provided by the additional person.

The assessment will take the form of the independent assessor observing the experienced worker installing, terminating, and testing cables with oral questioning by the assessor throughout the observation. Before starting the assessment, the independent assessor will provide an introductory brief to the experienced worker, detailing assessment requirements (see Appendix 2) and conduct of the practical observation with questioning. This briefing must include:

- The extent or limits of the work area to be worked in during the practical demonstration.
- Known health and safety hazards and associated risks.
- Actions in the event of an emergency.
- Planned alarm tests.
- Tools and equipment available for use.

Practical Assessment Activities

The independent assessor **MUST** observe the experienced worker undertaking all the activities associated with the relevant task(s) during the practical demonstration. This is to provide reassurance the work can demonstrate occupational competence in the KSBs assigned to this assessment method. The independent assessor must ensure each assessment task is assessed discretely.

The two (2) tasks are defined:

Install, terminate and test copper cable

- Lay cable
- Looming of cables into cabinet
- Install containment using spirit level
- Terminate copper (Unshielded Twisted Pair and Foil Twisted Pair [UTP/FTP]) including:
 - o One (1) UTP and one (1) FTP outlets at low level
 - o Six (6) copper (UTP) panel to panel links.

Install, terminate and test fibre optic cable.

- Lay cable
- Looming of cables into cabinet
- Install containment using spirit level
- Terminate fibre optic cables including:
 - o One (1) fibre cable panel to panel link with four (4) spliced fibres and four (4) direct terminated type fibres.

Practical Assessment Conditions

The assessment shall take place under the following conditions:

- Pre-installed cabinets will be available
- Pre-installed “high level” cable baskets will be available
- A simulated timber fixing surface will be available
- Suitable termination tooling will be available
- Suitable test equipment will be available
- Pre-installed UPVC trunking and conduit will be available
- Suggested facility layouts will be provided.
- Each task (copper and fibre) shall be independent of each other.
- Independent Assessors can ask questions at appropriate times during the observation to confirm under-pinning knowledge associated with the installation activities.
- Questioning should be bespoke to the experienced worker that is being observed and used to enhance areas from the observation.
- The assessor may terminate the assessment of any experienced worker who works in an unsafe manner. This may include, but is not limited to:
 - Multiple minor infractions - working practices which, if allowed to continue unchecked, could be likely to cause harm to the individual or other persons present in the immediate vicinity. Four (4) infractions will result in the termination of this assessment method.
 - A single serious safety error - an occurrence that could have or has caused serious injury to the individual or other persons present in the work environment.

Experienced workers are permitted and encouraged to select and bring their own installation tools; the training provider should also have sufficient and appropriate installation tools available in the event they are required. These tools should include:

- Hand tools for cutting and mounting trunking/conduit
- Stripping and termination tools
- Fibre and copper certification test equipment, minimum Cat 6a and Tier 1 Optical Fibre testing
- Fusion splicing tools
- Labelling machines.

Equipment needed for copper task:

- Cable Certification Tester
- Wire mapping tester
- Tone and Amp
- IDC punchdown tool
- Cable jacket stripping tool
- Screw drivers – flat head, cross head
- Side cutters/wire cutters
- Supply of suitable termination hardware: euromod/patch panel (24 way)
- FTP/UTP category 6/class E cable UTP & STP

Equipment needed for fibre task:

- Power meter and light source
- VFL
- OTDR with appropriate leads
- End face inspection probe
- Fusion splicer, cleaver and splice protection sleeves
- Sharps container
- Jacket stripper
- Loose tube “peg” tool
- Miller strippers or equivalent
- Lint free wipes and IPA
- De greasing wipes.

Pass Criteria

As the EWA is a determination of competence, the only available grades for both the practical observation with question and multiple-choice question test are Pass or Fail.

To achieve a Pass in either assessment all pass criteria must be met (see Appendix 2).

Experienced workers who do not meet the requirements to achieve a Pass are deemed to have failed.

Name of Grade	Grade descriptor
Fail	Fails to meet ALL pass criteria
Pass	Provides evidence that ALL pass criteria have been met

To achieve an overall Pass for either copper cable or fibre optic cable, the experienced worker must pass both assessments. Experienced workers who do not meet the requirements to achieve a Pass are deemed to have failed.

Assessment outcome		Overall outcome
Multiple choice question test	Practical observation	
Fail	Fail	Fail
Fail	Pass	Fail
Pass	Fail	Fail
Pass	Pass	Pass

Re-sits

Experienced workers who fail one or more pass criteria will be offered the opportunity to re-sit the assessment. It is recommended that experienced workers should have a supportive action plan to prepare for their re-sit.

An experienced worker who fails a practical observation with questions, either copper or fibre, will only be required to re-sit or re-take the failed assessment for that pathway. For example, a worker who passes the fibre installation task, but fails the copper installation task should only be required to resit the copper installation task.

For the Practical Observation, given the assessment window limitation of three (3) months, it is envisaged that a maximum of two (2) re-sits or re-takes per component will be permitted. That is two (2) re-sits or re-takes for copper and two (2) re-sits or re-takes for fibre.

Any assessment method re-sit must be **completed within a three (3) month assessment window**. This will commence on the first day of the first assessment.

Where any assessment method has to be re-sat the experienced worker will be awarded a Pass once all pass criteria have been met. However, experienced workers must re-sit the entire assessment; they cannot be assessed against individual assessment criteria which were not originally met.

Delivering this Assessment

Becoming a Provider

To deliver this qualification you must be a recognised Open Awards Provider. For more information, head to our [website](#) or contact the team on 0151 494 2072.

How to Deliver

To request to deliver this qualification, please login to [the Portal](#) and then click on 'Tracking' and 'Initiate a Workflow'. You will then need to select 'Apply to Deliver the Experienced Worker Assessment(s)'.

For support with this process, please see the following document in the Portal 'Provider Portal Guidance – Qualification Approval' or contact the team on customerservices@openawards.org.uk or 0151 494 2072.

Registering Learners

Once you are ready to deliver this assessment, you will need to register your learners in line with the timescales below:

Short courses (15 weeks or less) within 25 working days of the course start date.

Long courses (over 15 weeks) within 60 working days of the course start date.

You will need to register your learners via [the Portal](#).

Due to the nature of the assessment, learners should be 21 or over at the time of registration and hold a minimum of five (5) years industry experience.

Quality Assurance and Standardisation

Delivery of the EWA must be done in accordance with Open Awards' quality assurance processes. Template forms and guidance documents are available to approved providers via the Open Awards portal.

Training Provider Staff Requirements

Training providers are responsible for ensuring that their staff are suitably skilled and experienced. Assessors and internal quality assurance (IQA) staff must have relevant and current occupational knowledge and competence at or above the level of the EWA being delivered (see Independent Assessor section); i.e., Level 3.

Providers are responsible for notifying Open Awards of staff changes.

Training and support

Open Awards offers training and support events in Delivery & Assessment, Quality Assurance and invigilation. These events are held throughout the year. Such events will also provide an opportunity to identify and share best practice. Up to date details of these training events are available on our website.

Independent Assessors

Training providers are responsible for recruiting, training and managing independent assessors to deliver the EWA. To ensure credibility, EWA assessments must NOT be undertaken by assessors who have a vested interest in the outcome. For the purposes of clarification, experienced workers should not be assessed by a training provider who is currently providing them with supportive training towards the EWA, or has provided them with training within the previous 12 months.

Assessors used by training providers must meet the following minimum qualification requirements:

- Have a minimum five (5) years demonstrable experience within the Network Infrastructure sector.
- Recent relevant experience within the occupation/sector gained in the last three (3) years or significant experience within the occupation/sector.
- It is desirable that assessors hold a Network Infrastructure Installer – Gold Card.
- Hold or be working towards an independent assessor qualification e.g., CAVA or A1.
- Attend training organised by the provider to ensure they understand how to administer the assessments before undertaking any EWAs.
- Attend standardisation and update training as required but a minimum of once a year.
- Undertake Continuous Professional Development (CPD) activities to maintain currency.

Evidence assessors meet the qualification and independence requirements must be maintained by the training provider for sampling by Open Awards through quality assurance activities.

Internal Quality Assurance (IQA)

All Providers delivering EWA must operate rigorous internal quality assurance procedures that support fair, reliable, and consistent assessment across the organisation and over time. Providers will be required to provide Open Awards with evidence setting out how they will internally quality assure and standardise their EWA delivery.

All IQA's must meet the minimum qualification requirements:

- Have a minimum five (5) years demonstrable experience within the Network Infrastructure sector.
- Recent relevant experience within the occupation/sector gained in the last three (3) years or significant experience within the occupation/sector.
- It is desirable that assessors hold a Network Infrastructure Installer – Gold Card.
- Hold a relevant D34/ V1/ IQA unit(s) (or equivalent), Level 3 Award in Education and Training.
- Attend training organised by the provider to ensure they understand how to administer the assessments before undertaking any EWAs.
- Attend standardisation and update training as required but a minimum of once a year.
- Undertake Continuous Professional Development (CPD) activities to maintain currency.

External Quality Assurance (EQA)

Provider approval compliance monitoring and external quality assurance is carried out by Open Awards' Quality and Standards Advisers (QASAs) who will confirm the provider is assessing to standard and ensure that there are robust quality assurance systems embedded. Please refer to Internal and External Quality Assurance within the Provider Handbook.

Standardisation

Providers are required to contribute to national standardisation as requested by Open Awards. Open Awards offers Standardisation events that are held throughout the year. Such events will also provide an opportunity to identify and share best practice. Up to date details of training and standardisation events can be found on our website. Further guidance on Quality Assurance and Standardisation please refer to the Provider Handbook

Recognition of Prior Learning and Achievement (RPL)

RPL is a method of assessment that considers whether an individual can demonstrate that they can meet the assessment requirements through knowledge, understanding or skills they may already possess. Evidence of learning must be sufficient, reliable and valid.

Due to the requirement for experienced workers to demonstrate they meet the assessment requirements it is not possible to RPL any element of the EWA.

For more information, please see our Recognition of Prior Learning Policy found on [the Portal](#).

Reasonable Adjustments

The provider must have in place clear and fair arrangements for making Reasonable Adjustments for EWA in line with Open Awards current procedures. These should detail how an experienced worker qualifies for Reasonable Adjustment and what Reasonable Adjustments will be made. Any adjustment must maintain the validity, reliability and integrity of the assessment methods.

Health and Safety

Due to the practical requirements of the EWA, training providers must ensure that appropriate risk assessments are in place which cover both the activities and individual workers to ensure everyone's safety during assessments. As part of this, training providers must ensure that experienced workers, assessors and anyone else (e.g., Open Awards Quality and Standards Advisers) has access to and wears appropriate clothing and personal protective equipment (PPE).

Appendix 1: Multiple Choice Question Test

Assessment Criteria

Core Knowledge Criteria	Number of questions per Test
K1. Understand different types of documents used within the Network Cabling Industry including floor plans, patch lists, bills of materials, rack face layout plans	1
K2. Understand Health and Safety at Work Act 1974 and Management of Health and Safety at Work Regulations 1999, including roles and responsibilities	2
K3. Health and safety hazards that could occur whilst carrying out cable installation tasks, who might be affected and what actions can be taken to mitigate the risk	1
K4. Understanding of the Asbestos Register and Asbestos regulations and identification of Asbestos Containing Materials (ACMs) and actions to be taken if ACMs are identified whilst installation work is being carried out.	1
K5. Status and scope of the Electricity at Work regulation and how work carried out during network cable installation tasks are governed by supporting standards i.e. BS7671	1
K6. Understanding of the Working at Height regulations.	1
K7. Structural components of equipment racks/cabinets and how to assemble them to meet the requirements on the infrastructure design	1
K8. Documentation and record keeping requirements and the depth of information required for successful completion and handover to the customer. - Remove	1
K9. Understand national and internal standards and how these affect your industry	1
K10 Containment and pathways and use of all tools and cables	2
K11. A knowledge and understanding of decibels	1
K12. Requirements for working in confined spaces and components	1
K13. A knowledge of the depth of external containment and external cabinets and equipment	1
Copper specific	
KC1. The principles associated with the transmission of digital information over copper networks and the impact poor-quality workmanship has on the communication link.	1
KC2. Ohms Law and how changes in the electrical characteristics of copper cable can be caused through handling and installation irregularities.	1
KC3. The requirement for the segregation of data cables from electrical cables in accordance with BSEN 50174. Can also	1

identify media supporting other data services e.g. telephone, security, alarms and AV systems and the precautions to be taken to prevent interference or damage to the systems	
KC4. Requirements under the Remote Power / Power Over Ethernet (POE) standards	1
KC5. Understand how to select and quantify tools and their usage and equipment required for copper tasks, including testing equipment	2
KC6. Key components of a structured copper cabling infrastructure and the relationship between campus, building and floor distributors, with relevance to the cable installation plan.	1
KC7. Basic elements of copper IT network architecture, including the range of cable types and networking equipment including routers, switches and containment	2
KC8. Understand test parameters for copper cable certification in accordance with appropriate industry standards	1
KC9. Requirements to comply with National and International standards and the importance of following manufacturers' best-practice guidelines	1
KC10. Understand how to test copper networks on installed systems	1
KC11. Data carrying capacities of various copper cable types and connectors	2
KC12. Different sheaths of copper cables and when and where they can be used.	1
Fibre specific	
KF1. The principles associated with the transmission of digital information over fibre cable networks	1
KF2. The principles of light propagation and attenuation within the fibre channel.	1
KF3. Understand where losses can occur through poor handling and installation techniques	2
KF4. Understand how to select and quantify tools and their usage and equipment required for fibre tasks, including testing equipment	2
KF5. Key components of a structured fibre cabling infrastructure and the relationship between campus, building and floor distributors, with relevance to the cable installation plan.	1
KF6. Basic elements of fibre IT network architecture, including the range of cable types and networking equipment including routers, switches and containment	2
KF7. Understand test parameters for fibre cable certification in accordance with appropriate industry standards.	1
KF8. Requirements to comply with National and International standards and the importance of following manufacturers'	1

best-practice guidelines including SI units and safety requirements	
KF9. Understand how to test fibre networks on installed systems	2
KF10. Data carrying capacities of various fibre cable types and connectors	1
KF11. Different sheaths of fibre cables and fibres and when and where they can be used.	1

Appendix 2: Practical Observation Assessment

Criteria

2a Assessment Criteria (Copper Cable)

Two (2) hours maximum.

Serial	Outcome	Criteria	Requirements
1	Works in a safe manner	1.1 Selects and wears appropriate PPE for the task 1.2 Uses tools and equipment correctly and safely 1.3 Maintains a safe environment in the task area 1.4 Work in a clean and tidy manner	
2	Install unshielded Copper Cable Infrastructure	2.1 Select appropriate tools and equipment 2.2 Prepare cables for installation 2.3 Install cables into existing containment 2.4 Install module into faceplate and backbox 2.5 Install termination patch panel 2.6 Label cables at the required points using a suitable labelling system	Class E UTP, is required. To be installed to a wall outlet
3	Install shielded Copper Cable Infrastructure	3.1 Select appropriate tools and equipment 3.2 Prepare cables for installation 3.3 Install cables into existing containment 3.4 Install module into faceplate and backbox 3.5 Install termination patch panel 3.6 Label cables at the required points using a suitable labelling system	Class E FTP Panel to Outlet
4	Test Cables (for both UTP and FTP copper cables)	4.1 Select appropriate test equipment 4.2 Select the appropriate test cords 4.3 Check test equipment calibration 4.4 Setup required test parameters for the cable installation 4.5 Carry out copper testing 4.6 Record test results	BSEN standards
5	Finish	5.1 Leave area clean and tidy	

2b Assessment Criteria (Fibre Cable) -

Five (5) hours maximum.

Serial Outcome	Criteria	Requirements
1 Works in a safe manner	1.1 Selects and wears appropriate PPE for the task 1.2 Uses tools and equipment correctly and safely 1.3 Maintains a safe environment in the task area 1.4 Work in a clean and tidy manner	
2 Install one fibre optic cable into a patch panel using pigtails (minimum 4 fibres)	2.1 Select appropriate tools and equipment 2.2 Install cables into existing containment (basket/tray) 2.3 Prepare cables for installation 2.4 Install and terminate cable into two patch panels	Prep fibre splice pigtails dress panel
3 Using a pre terminated patch panel that has been terminated with min 200 m fibre	3.1 Check cable is the same as previously installed into patch panel 3.2 prep the lose end ready for splicing to other cable	
4 Terminate fibre into patch panel	4.1 Terminate fibre optic cables using fusion splicing techniques and pigtails 4.2 Terminate fibre optic cables using the required colour code order 4.3 Prepare splice area and fusion splice machine for splicing 4.4 Strip and cleave optical fibres 4.5 Splice optical fibres 4.6 Protect fibre splice using splice protector sleeves 4.7 Dress fibres into Patch panel	
5 Terminate the two fibre optic cables together into a splice tray	5.1 Terminate fibre optic cables using fusion splicing techniques 5.2 Terminate fibre optic cables using the required colour code order 5.3 Prepare splice area and fusion splice machine for splicing	Splice pre terminated panel to candidates' cable via splice tray and dress neatly.

		5.4 Strip and cleave optical fibres 5.5 Splice optical fibres 5.6 Protect fibre splice using splice protector sleeves. 5.7 Dress fibres into splice tray	
6	Identify and label cables	6.1 Label cables at the required points using a suitable method	Check labelling
7	Test Cables for continuity	7.1 Select appropriate test equipment 7.2 Select the appropriate test cords 7.3 Test all fibre links for continuity	
8	Do a loss budget calculation	8.1 Complete a loss budget calculation using standard losses	Confirm result
9	Do an ILM test	9.1 Select equipment 9.2 Clean all connectors 9.3 Set the reference 9.4 Carryout testing in both directions and calculate average results	
10	OTDR Testing	10.1 Connect OTDR using correct launch lead 10.2 Set OTDR for correct parameters 10.3 Perform test record results	
11	Interpret results	11.1 Compare OTDR results to ILM results and confirm length of link and any losses	
12	Finish	12.1 Leave area clean and tidy	

Policies and Links

The following documents can be viewed on the Open Awards [website](#):

1. Provider Handbook
2. Enquiries and Appeals Policy and Procedures
3. Complaints Policy
4. Equality and Diversity Policy
5. Invoicing Policy
6. Privacy Policy
7. Reasonable Adjustments and Special Considerations Policy and Procedures

Additional supporting documents can be viewed in the Open Awards Portal.

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