



ENERGY &
UTILITY SKILLS

Skills for a greener world

EUIAS Level 3 End-point Assessment for Power Industry
Substation Fitter
(Distribution maintenance; Transmission maintenance;
Construction)

Supporting Documents

QAN 610/4850/1

Supporting Documents for

EUIAS Level 3 End-point Assessment for Power Industry Substation Fitter

(Distribution maintenance; Transmission maintenance;
Construction)

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Updates to the supporting documents	3
Appendix A: Glossary	4
Appendix B: Gateway Eligibility Form	5
Appendix C: Trade Test Practical Assessment Requirements and Mapping Form	9
Appendix D: Trade Test Technical Interview Requirements and Mapping Form.....	35
Appendix E: Practice Multiple-choice Test.....	54
Appendix F: Practice Interview Based on an EPA Portfolio Form	72
Appendix G: Example: Trade Test Practical Assessor Recording Form	98
Appendix H: Example: Trade Test Technical Interview Assessor Recording Form.	133

Updates to the supporting documents

Since the first publication of the EUIAS Power Industry Distribution Substation Fitter (PISF) Specification – the following updates have been made.

Version	Date first published	Section updated	Page(s)
V1.1	October 2024	Minor updates to align the 3 Power Industry Supporting Documents	
V1.0	October 2024	First published	All

Appendix A: Glossary

Amplification – provides more detail on how individual knowledge, skills or behaviours statements should be interpreted. Where the KSB statements, themselves are deemed self-explanatory, no amplification is provided. Assessment may include questions on anything identified in the amplification

Behaviours (as part of KSBs) – specific mindsets, attitudes or approaches identified as part of the apprenticeship standard that must be evidenced during end-point assessment

Elements – are the knowledge, skills and behaviours and what is needed to competently undertake the duties required for an occupational standard

Gateway - the stage of the apprenticeship where the apprentice, employer and training provider determine whether the apprentice is ready to undertake end-point assessment

Guidance – is only provided where it is required to support interpretation of the KSB statements

Knowledge (as part of KSBs) – specific information, technical detail, and ‘know-how’ identified as part of the apprenticeship standard that must be evidenced during end-point assessment

Pathways – a specialist route within an apprenticeship standard that builds on the occupational competence for a new entrant to the occupation

Skills (as part of KSBs) – the practical application of knowledge identified as part of the apprenticeship standard that must be evidenced during end-point assessment

Standard – An occupational standard is a description of an occupation. It contains occupational profile, and describes KSBs needed for someone to be competent in the occupation’s duties. Occupational standards are developed by employers for occupations that meet the Institute for Apprenticeships and Technical Education current occupation criteria

Topic - is a collection of elements grouped into a theme e.g. Health and Safety



Appendix B: Gateway Eligibility Form

(Standard Version: ST1331 version 1.1; Assessment Plan Version:1.1

Apprentice's name:	Apprentice's job title:
Name of Employer:	Name of Training provider:
Employer representatives present:	Training provider representatives present:
Apprenticeship start date:	Apprenticeship on-programme end date:
Gateway meeting date:	
Has the apprentice taken any part of the end-point assessment for this apprenticeship standard with any other End Point Assessment Organisation?	Y / N
If "Yes" please give details:	

Apprentice's details

Eligibility requirements:

The apprentice must confirm their achievement of the following:

Eligibility requirement	Achieved by the apprentice? Y/N	Evidence (Scans of certificates MUST be included)
Achieved an English qualification in line with the apprenticeship funding rules		
Achieved a mathematics qualification in line with the apprenticeship funding rules		
Passed Emergency first aid 1 day course		
Compiled and submitted an EPA portfolio that meets the specification requirements, for the interview based on an EPA portfolio		

Gateway Eligibility Declaration

1. The apprentice, the employer and the training provider must sign this form to confirm that they understand and agree to the following:
2. The apprentice has completed the required on-programme elements of the apprenticeship and is ready for end-point assessment with EUIAS.
3. EUIAS has been informed about any reasonable adjustment and/or special considerations requests.
4. The apprentice will only submit their own work as part of end-point assessment.
5. All parties agree that end-point assessment evidence may be recorded and stored by EUIAS for quality assurance purposes.
6. The apprentice has been on-programme for a minimum duration of 365 days.
7. The apprentice has achieved English and mathematics qualifications in line with the apprenticeship funding rules.
8. The apprentice has passed an Emergency first aid 1 day course
9. The apprentice has compiled and submitted an EPA portfolio for the interview based on an EPA portfolio.
10. The apprentice, if successful, gives permission for EUIAS to request the apprenticeship certificate from the ESFA who issue the certificate on behalf of the Secretary of State.
11. The apprentice has been directed to the EUIAS Appeals Policy and Complaints Policy.
12. The employer/training provider has given the EUIAS at least three months' notice of requesting this EPA for this apprentice.
13. If the Gateway Eligibility Report is not completed in full, meeting all requirements, and submitted to EUIAS, the end-point assessment cannot take place.



Signed on behalf of the employer (print name):	Signature:	Date:
Signed on behalf of the training provider (print name):	Signature:	Date:
Apprentice's name (print):	Signature:	Date:
EUIAS use only:		
EUIAS Sign off:		
Comments/actions:		

Appendix C: Trade Test Practical Assessment Requirements and Mapping Form

Trade Test Practical Assessment with Questions Mapping Summary

Trade Test Practical Assessment Documentation

Distribution maintenance

The following documentation must be provided to EUIAS upon request. This forms part of EUIAS' quality assurance process for the PISF Standard. Please complete the table below by adding a reference(s) to your own paperwork in the document references column.

Documentation Requirements	Please provide the document filename(s)
Employer Assessor training and standardisation materials	
Employer Assessor documentation	
Guidance for Employer Assessors	
Guidance on invigilation of apprentices	
Grading guidance	
Question bank	
Guidance for apprentice and their manager	
Tasks for apprentices	

Trade Test Practical Assessment Requirements

Distribution maintenance

Please complete the table below by adding a reference(s) to your own paperwork in the document references column. In the reference column include the page(s) where evidence of the practical assessment requirements for the trade test (TT) can be located within your trade test paperwork.

Trade Test Practical Assessment Requirements	Please provide a document reference of where your documentation references the requirement
Space for the start and end date of TT to be documented <i>The trade test practical assessment with questions may take place in parts but must be completed over no more than 21 working days.</i>	
TT total time documented	
Guidance includes identified simulated environment(s)/locations	
Task to be conducted during practical assessment:	
Core	
a) prepare for power substation fitter activities	
b) organise and supervise a working party including receiving and clearing a safety document, and briefing a working party	
c) maintain work site health, safety, and environmental compliance including completing a risk assessment	
d) identify apparatus to be worked on	



Trade Test Practical Assessment Requirements	Please provide a document reference of where your documentation references the requirement
e) select, prepare, use and store tools and equipment	
f) complete work records	
Distribution Maintenance	
g) use maintenance specifications	
h) electrical testing	
i) circuit breaker maintenance	
j) battery maintenance	
k) inspection and monitoring of substation equipment	
l) switching operations	
KSBs are mapped to the assessment	
Guidance to employer assessor includes statement 'must ask at least 9 questions	
KSBs observed to be documented	
Space for apprentice's responses to be documented	
KSBs demonstrated in answers to questions are indicated	
Preliminary grade achieved recorded	
Guidance for resits to include: <ul style="list-style-type: none"> • different questions and tasks • resit whole TT Practical Assessment in full 	

Trade Test Practical Assessment with Questions Mapping Summary

Trade Test Practical Assessment Documentation Transmission maintenance

The following documentation must be provided to EUIAS upon request. This forms part of EUIAS' quality assurance process for the PISF Standard. Please complete the table below by adding a reference(s) to your own paperwork in the document references column.

Documentation Requirements	Please provide the document filename(s)
Employer Assessor training and standardisation materials	
Employer Assessor documentation	
Guidance for Employer Assessors	
Guidance on invigilation of apprentices	
Grading guidance	
Question bank	
Guidance for apprentice and their manager	
Tasks for apprentices	

Trade Test Practical Assessment Requirements

Transmission maintenance

Please complete the table below by adding a reference(s) to your own paperwork in the document references column. In the reference column include the page(s) where evidence of the practical assessment requirements for the trade test (TT) can be located within your trade test paperwork.

Trade Test Practical Assessment Requirements	Please provide a document reference of where your documentation references the requirement
Space for the start and end date of TT to be documented <i>The trade test practical assessment with questions may take place in parts but must be completed over no more than 21 working days.</i>	
TT total time documented	
Guidance includes identified simulated environment(s)/locations	
Task to be conducted during practical assessment:	
Core	
a) prepare for power substation fitter activities	
b) organise and supervise a working party including receiving and clearing a safety document, and briefing a working party	
c) maintain work site health, safety, and environmental compliance including completing a risk assessment	
d) identify apparatus to be worked on	



Trade Test Practical Assessment Requirements	Please provide a document reference of where your documentation references the requirement
e) select, prepare, use and store tools and equipment	
f) complete work records	
Transmission Maintenance	
g) use maintenance specifications	
h) use elevated work platforms	
i) electrical testing	
j) circuit breaker maintenance	
KSBs are mapped to the assessment	
Guidance to employer assessor includes statement 'must ask at least 9 questions	
KSBs observed to be documented	
Space for apprentice's responses to be documented	
KSBs demonstrated in answers to questions are indicated	
Preliminary grade achieved recorded	
Guidance for resits to include: <ul style="list-style-type: none">• different questions and tasks• resit whole TT Practical Assessment in full	

Trade Test Practical Assessment with Questions Mapping Summary

Trade Test Practical Assessment Documentation Construction

The following documentation must be provided to EUIAS upon request. This forms part of EUIAS' quality assurance process for the PISF Standard. Please complete the table below by adding a reference(s) to your own paperwork in the document references column.

Documentation Requirements	Please provide the document filename(s)
Employer Assessor training and standardisation materials	
Employer Assessor documentation	
Guidance for Employer Assessors	
Guidance on invigilation of apprentices	
Grading guidance	
Question bank	
Guidance for apprentice and their manager	
Tasks for apprentices	

Trade Test Practical Assessment Requirements

Construction

Please complete the table below by adding a reference(s) to your own paperwork in the document references column. In the reference column include the page(s) where evidence of the practical assessment requirements for the trade test (TT) can be located within your trade test paperwork.

Trade Test Practical Assessment Requirements	Please provide a document reference of where your documentation references the requirement
Space for the start and end date of TT to be documented <i>The trade test practical assessment with questions may take place in parts but must be completed over no more than 21 working days.</i>	
TT total time documented	
Guidance includes identified simulated environment(s)/locations	
Task to be conducted during practical assessment:	
Core	
a) prepare for power substation fitter activities	
b) organise and supervise a working party including receiving and clearing a safety document, and briefing a working party	
c) maintain work site health, safety, and environmental compliance including completing a risk assessment	
d) identify apparatus to be worked on	



Trade Test Practical Assessment Requirements	Please provide a document reference of where your documentation references the requirement
e) select, prepare, use and store tools and equipment	
f) complete work records	
Construction	
g) use engineering representations, drawings, and graphical information	
h) follow construction safety requirements	
i) install new substation equipment including positioning of a transformer and locating and fixing high voltage switchgear	
j) install earthing associated with substations	
k) install and terminate multi-core cables and containment systems	
l) conduct testing on installed equipment	
KSBs are mapped to the assessment	
Guidance to employer assessor includes statement 'must ask at least 9 questions'	
KSBs observed to be documented	
Space for apprentice's responses to be documented	
KSBs demonstrated in answers to questions are indicated	
Preliminary grade achieved recorded	
Guidance for resits to include: <ul style="list-style-type: none"> different questions and tasks 	



Trade Test Practical Assessment Requirements	Please provide a document reference of where your documentation references the requirement
<ul style="list-style-type: none">• resit whole TT Practical Assessment in full	



Trade Test Practical Assessment Mapping

Please complete the table below by adding a reference(s) to your own paperwork in the document references column to indicate the page(s) where evidence of the KSBs are found in your trade test practical assessment tasks.

Core

Trade Test Theme: Prepare for substation fitter activities	Please provide a document reference of where the apprentice will be demonstrating the KSB
K22: Planning, prioritising, organisation, and time management techniques for self and working party	
S1: Review drawings, instructions, or information to understand the task for example, work instructions, design specifications, utility plans, on-line search documents	
S2: Prioritise and plan tasks with consideration for safety, environmental impact, quality, and cost	
S3: Identify and organise resources to complete tasks for example, consumables	
S18: Select, check, and prepare resources.	



<p>Trade Test Theme: Organise and supervise a working party</p>	<p>Please provide a document reference of where the apprentice will be demonstrating the KSB</p>
<p>S5:Receive and clear a safety document. Brief a working party</p>	
<p>B3: Take ownership for work and responsibility for its impact on others. For example, self-motivated, disciplined in the approach to work tasks, identify and deal appropriately with distractions to enable tasks to be achieved, work carried out in line with standards</p>	

<p>Trade Test Theme: Maintain work site health, safety, and environment compliance</p>	<p>Please provide a document reference of where the apprentice will be demonstrating the KSB</p>
<p>K7: The hazards associated with work on or near electrical power networks</p>	
<p>K10: Risk assessments and method statements. Emergency procedures. Personal protective equipment (PPE). Manual handling. Fire safety</p>	
<p>K19: Recycling and waste transfer requirements</p>	
<p>K37: Hazards and controls for access and egress of operational substation sites: security, pre-entry checks, logging in requirements, automatic or remotely operated equipment, and fire suppression systems</p>	
<p>S6: Follow substation access and egress procedures</p>	
<p>S7: Identify hazards and risks and apply control measures</p>	



Trade Test Theme: Maintain work site health, safety, and environment compliance	Please provide a document reference of where the apprentice will be demonstrating the KSB
S8: Apply health and safety procedures in compliance with regulations, standards, and guidance. For example, demarcate the work area, working at height, confined spaces, COSHH	
S10: Apply measures to leave power work environments in a safe condition	
S13: Segregate waste for reuse, recycling, and waste transfer	
B1: Prioritise health and safety. For example, risk aware, minimise risks, and proactively work towards preventing accidents	

Trade Test Theme: Identify apparatus	Please provide a document reference of where the apprentice will be demonstrating the KSB
S4: Identify apparatus to be worked on	

Trade Test Theme: Tools and equipment	Please provide a document reference of where the apprentice will be demonstrating the KSB
K23: Hand tools and power tools application and operation requirements. Insulated tools - selection and care considerations	
S17: Select, check, prepare, use, and store hand tools and power tools	



Trade Test Theme: Complete work records	Please provide a document reference of where the apprentice will be demonstrating the KSB
K25: Documentation requirements; importance of accurate records	
S23: Record information	



Distribution maintenance

Trade Test Theme: Use maintenance specifications	Please provide a document reference of where the apprentice will be demonstrating the KSB
S27: Read, interpret, and follow maintenance specifications	

Trade Test Theme: Electrical testing	Please provide a document reference of where the apprentice will be demonstrating the KSB
K43: Electrical testing requirements and methods: continuity and polarity of circuits, insulation resistance, Voltage, Earth Fault Loop Impedance (EFLI), phase rotation, and joint or contact resistance	
S28: Conduct diagnostic testing to identify asset condition; identify action	
S29: Conduct continuity testing using a continuity test instrument or multimeter S30: Conduct joint or contact resistance testing using a contact resistance tester (ductor)	
S31: Conduct insulation testing using an insulation test instrument	
S46: Conduct supply checks of a low voltage single and three phase supply to identify: correct polarity, voltage, earth fault loop impedance and phase rotation	
S47: Use electrical test instruments to diagnose a fault condition on low voltage distribution or control equipment for example open circuit, blown fuse, short circuit or out phase condition	



Trade Test Theme: Circuit breaker maintenance	Please provide a document reference of where the apprentice will be demonstrating the KSB
K44: Insulating oil sampling methods: sample taps and sample tubes and their requirements	
K47: Post fault and routine maintenance of oil filled circuit breakers requirements	
S32: Conduct circuit breaker timing tests	
S33: Set up oil pumping equipment	
S34: Remove and replace insulating oil from substation plant avoiding contamination	
S35: Clean oil filled equipment following removal of insulating oil	
S36: Check circuit breaker contact condition; remove and replace or dress	
S37: Take oil samples from equipment	
S38: Clean and lubricate operating mechanisms using approved lubricants	
S39: Adjust, remove, and replace components for example, gaskets	

Trade Test Theme: Battery maintenance	Please provide a document reference of where the apprentice will be demonstrating the KSB
K49: Substation battery maintenance and testing requirements: wet cell and dry (sealed) battery types	
S44: Check battery connections for any damage, clean cells, check monitoring alarms, check function of charging equipment	



Trade Test Theme: Battery maintenance	Please provide a document reference of where the apprentice will be demonstrating the KSB
S45: Test substation batteries using voltage and analytical testing instruments	

Trade Test Theme: Inspection and monitoring of substation equipment	Please provide a document reference of where the apprentice will be demonstrating the KSB
K45: Requirements for inspection, monitoring and condition assessment of equipment in distribution secondary or primary substation types	
S40: Conduct functional tests of equipment - post maintenance or routine	
S41: Inspect substation site, buildings and equipment including steelwork and neutral earthing conductors and connections and identify defects	

Trade Test Theme: Switching operations	Please provide a document reference of where the apprentice will be demonstrating the KSB
K56: Low voltage and high voltage operational switching and testing requirements	
S48: Interpret network schematic diagrams and geographic records to identify running arrangements prior to operation	
S49: Prepare low voltage or high voltage switching operation schedules	



Trade Test Theme: Switching operations	Please provide a document reference of where the apprentice will be demonstrating the KSB
S50: Operate network switching equipment such as switches, circuit breakers, links or fuses on low voltage or high voltage distribution networks	



Transmission maintenance

Trade Test Theme: Use maintenance specifications	Please provide a document reference of where the apprentice will be demonstrating the KSB
S51: Read, interpret, and follow maintenance specifications	

Trade Test Theme: Use elevated work platforms	Please provide a document reference of where the apprentice will be demonstrating the KSB
S53: Use mobile elevated work platforms.	

Trade Test Theme: Electrical testing	Please provide a document reference of where the apprentice will be demonstrating the KSB
K57: Electrical testing requirements and methods: continuity, voltage, and joint or contact resistance	
K66: Restoring power procedures	
S52: Interpret network schematic diagrams prior to carrying out testing activities	
S54: Use diagnostic equipment to identify asset condition; identify action	
S55: Conduct testing using a continuity test instrument or multimeter	
S56: Conduct resistance testing using a contact resistance tester (ductor)	
S57: Conduct circuit breaker timing tests	
S69: Restore power.	



Trade Test Theme: Circuit breaker maintenance	Please provide a document reference of where the apprentice will be demonstrating the KSB
K59: Use and operation of mechanical fixings	
K62: Maintenance processes for circuit breakers	
S62: Take insulation medium samples from equipment for example, oil, SF6.	
S63: Clean and lubricate operating mechanisms using approved lubricants	
S64: Adjust or replace components	
S65: Conduct functional tests of equipment, post maintenance or routine, to confirm operating to expected parameters	
S66: Conduct a visual inspection of transmission steelwork earthing connections; identify issues	



Construction

Trade Test Theme: Use engineering representations, drawings, and graphical information	Please provide a document reference of where the apprentice will be demonstrating the KSB
K67: Engineering representations, drawings, and graphical information: application and importance	
S73: Read, interpret, and follow representations, drawings, and graphical information to complete tasks. For example, multicore diagrams, schematics, and core sheets	

Trade Test Theme: Follow construction safety requirements	Please provide a document reference of where the apprentice will be demonstrating the KSB
K75: Lifting operations – rigging and slinging	
S74: Prove plant, equipment, cabling, and system is safe to work on. For example, prove dead, isolate	
S75: Check earthing is in place. For example, additional earths, equipment earths, and drain earths	
S76: Follow lifting plan	

Trade Test Theme: Install new substation equipment	Please provide a document reference of where the apprentice will be demonstrating the KSB
K73: Fixing systems: unistrut, rawl bolts, chemical fixing anchors and proof loading, shims, and grouting for base plates	



Trade Test Theme: Install new substation equipment	Please provide a document reference of where the apprentice will be demonstrating the KSB
S79: Locate and fix high voltage switchgear	

Trade Test Theme: Install earthing associated with substations	Please provide a document reference of where the apprentice will be demonstrating the KSB
K68: Commercial gas: storage, transportation, and safe use	
K72: System earthing requirements: selection of materials and equipment for above and below ground earthing systems, installation, mechanical connections, welding, and brazing	
S81: Apply mechanical connections, brazing, and welding techniques	
S82: Lay and fix earth tape within excavation and to plant and equipment	

Trade Test Theme: Install and terminate multi-core cables and containment systems	Please provide a document reference of where the apprentice will be demonstrating the KSB
K70: Multi-core wiring requirements: installation, termination (glanding, looming, crimping, and ferruling), labelling and identification system	
S85: Select, position, and connect multi-core wiring including glanding, looming, crimping, and ferruling. For example, panel wiring within a protection panel and switchgear. Apply labelling and identification system	



Trade Test Theme: Conduct testing on installed equipment	Please provide a document reference of where the apprentice will be demonstrating the KSB
K76: Testing procedures: voltage, polarity, insulation resistance, three-phase testing, phase rotation, earth loop impedance, continuity, and joint resistance	
K82: Mechanical testing requirements	
K83: Oil sampling methods and requirements	
S86: Use test instruments. For example, volt meters, multi-function tester, and resistance tester	
S87: Conduct mechanical testing. For example, torque and proof loading	
S88: Conduct alignment checks	
S89: Take oil samples for testing	
S91: Interpret test results and action as required	



Employer Declaration

This is to confirm that our Trade Test Practical Assessment documentation maps to the Assessment Requirements as detailed above. A copy of the documentation has been provided for reference.

Employer Name

Contact Name:

Job Title:

Signature:

Date:



Office Use Only			
Copy documentation received		KSBs observed to be documented	
Mapping references confirmed		Apprentice's responses to be documented	
Start / End date and Total Time of TT documented		KSBs demonstrated in answers to questions are indicated	
Guidance includes identified simulated environment(s)/ locations		Preliminary grade achieved recorded	
Core and option tasks covered in employer-set tasks		Guidance for resits / different questions / different tasks	
KSBs are mapped to the assessment		EUIAS date of review	
Guidance includes statement 'must ask at least 10 questions		Published grading descriptors are used	

Comments



Appendix D: Trade Test Technical Interview Requirements and Mapping Form

Trade Test Technical Interview Mapping Summary

Technical Interview Documentation

The following documentation must be provided to EUIAS upon request. This forms part of EUIAS' quality assurance process for the PISF Standard. Please complete the table below by adding a reference(s) to your own paperwork in the document references column.

Documentation Requirements	Please provide the document filename(s)
Employer Assessor <i>training materials</i>	
Employer Assessor documentation	
Guidance for Employer Assessors	
Grading guidance	
Question bank	
Guidance for apprentice and their manager	

Technical Interview Requirements

Please complete the table below by adding a reference(s) to your own paperwork in the document references column to indicate the page(s) that where evidence of the technical interview requirements is found in your trade test paperwork.

Technical Interview Requirements	Please provide a document reference of where your documentation references the requirement
Space for the start and end time of TI to be documented <i>This will confirm that the TI has lasted at least 60 minutes</i>	
TI date documented	
Guidance includes resource requirements e.g. quiet place, procedures for remote interview	
Process in place to identify the identity of the apprentice and ensure the apprentice is not being aided	
Guidance to employer assessor includes statement 'must ask at least 6 questions (one for each theme minimum)'	
Space for apprentice's responses to be documented	
KSBs demonstrated in answers to questions are indicated	
Preliminary grade achieved recorded	
Guidance for resits / different questions	

Assessor Documentation

Please complete the table below by adding a reference(s) to your own paperwork in the document references column to indicate the page(s) that where evidence of the grading statements is found in your completed trade test paperwork. If there are sub bullets i.e. parts a, b, c etc then it would be helpful to identify where evidence for each of those sub bullets would be found.

Core

Trade Test Theme: Role and responsibilities	Please provide a document reference of where the assessor is assessing the grading descriptor
Pass descriptors	
Outlines their role as a substation fitter including their limits of responsibility and how they escalate issues. (K4, S22, B4)	
Describes how they respond and adapt to work demands in line with organisational requirements. (K4, S22, B4)	
Explains the responsibilities of persons as defined in the industry standard safety rules: supervising a working party, competent persons, and authorisation roles and responsibilities in relation to working under safety documentation. (K5)	

Trade Test Theme: Electrical danger - control and first aid	Please provide a document reference of where the assessor is assessing the grading descriptor
Pass descriptors	
Explains the dangers of electricity and how an electric shock can be received including direct contact, induced (impressed) voltage, and arcing. Outlines electric shock emergency procedures in line with company procedures (K8)	
Explains safe systems of work on high voltage and low voltage equipment to ensure safety from the inherent dangers of the system (K42)	
Describes how they would respond in the event of a first aid emergency, with reference to their emergency first aid training and responsibilities and measures they would take to avoid electrical risk in line with company procedures (K11, S9)	

Trade Test Theme: Working at height	Please provide a document reference of where the assessor is assessing the grading descriptor
Pass descriptors	
Describes how they use working at height access equipment with reference to hierarchy of methods for working at height and inspection, operation, and maintenance requirements for mobile working platforms,	

Trade Test Theme: Working at height	Please provide a document reference of where the assessor is assessing the grading descriptor
scaffolding and ladders in line with company procedures (K12 K13 S15 S16)	
Describes how they use personal protective equipment: harnesses, fall restraint and arrest equipment suitable for the context with reference to user inspection, operation, and maintenance requirements (K12 K13 S15 S16)	
Outlines rescue from height equipment and methods in line with company procedures (K12 K13 S15 S16)	

Trade Test Theme: Asset security	Please provide a document reference of where the assessor is assessing the grading descriptor
Pass descriptors	
Describes how they apply asset security measures in line with company procedures (K16 S11)	

Trade Test Theme: Insulating mediums	Please provide a document reference of where the assessor is assessing the grading descriptor
Pass descriptors	
Explains the advantages and disadvantages of different types of insulating mediums used in high voltage	

Trade Test Theme: Insulating mediums	Please provide a document reference of where the assessor is assessing the grading descriptor
equipment including insulating oil, SF6 gas, vacuum, air, and SF6 alternatives (K38)	

Trade Test Theme: Methods of cooling transformers	Please provide a document reference of where the assessor is assessing the grading descriptor
Pass descriptors	
Explains the advantages and limitations of different methods of cooling transformers including natural, pump forced, and fan forced. Along with the methods of control and associated protection if overheating occurs (K39)	

Trade Test Theme: Handling and transportation of insulation oil	Please provide a document reference of where the assessor is assessing the grading descriptor
Pass descriptors	
Explains considerations for the handling or transportation of insulating oil (bulk and drums) including reducing risk of spillage, bunding requirements, hygiene, barrier creams, specialist PPE, pumps, storage, labelling containers, manual handling, and disposal in line with company procedures (K40)	



Trade Test Theme: Determining insulating oil integrity	Please provide a document reference of where the assessor is assessing the grading descriptor
Pass descriptors	
Explains methods of determining insulating oil electrical integrity or presence of contaminants with reference to dielectric strength, moisture, acidity, polychlorinated biphenyl (PCB), and carbonisation (K41)	

Distribution maintenance

Trade Test Theme: Functional tests	Please provide a document reference of where the assessor is assessing the grading descriptor
Pass descriptors	
Explains the functional checks and routine basic maintenance of substation equipment including breather gels, Automatic Voltage Control systems, cooling systems, bund pumps, battery monitoring alarms, oil pressure alarms, and Transient Earth Voltage (TEV) testing in line with company procedures (K46)	
Trade Test Theme: Jointing earthing conductors	Please provide a document reference of where the assessor is assessing the grading descriptor
Pass descriptors	
Describes how they joint earthing conductors using mechanical compression joints and conduct electrical testing of earth electrodes using a digital earth resistance tester in line with company procedures (K55 S42 S43)	



Trade Test Theme: Ground mounted distribution oil filled switchgear maintenance		Please provide a document reference of where the assessor is assessing the grading descriptor	
Pass descriptors			
Explains routine ground mounted distribution oil filled switchgear maintenance requirements in line with company procedures including removal and replacement of oil, cleaning of internal tanks and components, inspection and replacement of gaskets, lubrication of external mechanisms (K48)			

Trade Test Theme: Transformers maintenance requirements		Please provide a document reference of where the assessor is assessing the grading descriptor	
Pass descriptors			
Explains distribution primary transformer and ancillary equipment maintenance requirements in line with company requirements (K50)			

Trade Test Theme: Air break disconnectors maintenance requirements	Please provide a document reference of where the assessor is assessing the grading descriptor
Pass descriptors	
Explains air break switch disconnectors maintenance requirements in line with company procedures for motorised load breaking and manual non-load breaking equipment (K51)	

Transmission maintenance

Trade Test Theme: Insultation testing	Please provide a document reference of where the assessor is assessing the grading descriptor
Pass descriptors	
Describes how they conduct insulation testing using an insulation test instrument in line with task requirements and company procedures (K58 S58)	
Trade Test Theme: Insulation medium maintenance	Please provide a document reference of where the assessor is assessing the grading descriptor
Pass descriptors	
Describes how they remove and replace insulating medium and clean equipment following its removal in line with task requirements and company procedures (S59, S60)	
Describes how they check circuit breaker contact condition and remove and replace or dress in line with task requirements and company procedures (S61)	

Trade Test Theme: Battery maintenance	Please provide a document reference of where the assessor is assessing the grading descriptor
Pass descriptors	
Describes how they conduct wet cell and sealed battery maintenance including checking battery connections for any damage, cleaning cells, checking monitoring alarms, and checking function of charging equipment and test substation batteries using voltage and analytical testing instruments in line with task requirements and company procedures (K65 S67 S68)	

Trade Test Theme: Transmission equipment maintenance	Please provide a document reference of where the assessor is assessing the grading descriptor
Pass descriptors	
Describes how they conduct transformer maintenance including tap changers, Buchholz relay, WTI, qualitrol, breathers, surge arrestors, coordinating gaps, arcing horns, insulator checks and recalibrating (LNER) in line with task requirements and company procedure (K61, S70)	
Describes how they conduct air system maintenance including making new pipework HP fittings, air leak detection and gas leak detection in line with task requirements and company procedures (K63, S71)	

Trade Test Theme: Transmission equipment maintenance	Please provide a document reference of where the assessor is assessing the grading descriptor
Describes how they conduct ancillary equipment maintenance including isolator dynamic torque testing in line with task requirements and company procedures (K64, S72)	

Trade Test Theme: Condition monitoring processes	Please provide a document reference of where the assessor is assessing the grading descriptor
Pass descriptors	
Explains the condition monitoring processes and equipment used within their area of operation (K60)	

Construction

Trade Test Theme: Construction equipment and cabling installation		Please provide a document reference of where the assessor is assessing the grading descriptor	
Pass descriptors			
Describes how they install batteries in line with company procedures (K81, S77)			
Describes how they position transformers in line with company procedures (S78)			
Describes how they select, position, and install a given containment management system in line with company procedures (K69, S83)			
Explains the internal and external positioning requirements when installing plant, metal structures, and apparatus (K74)			
Trade Test Theme: AC/DC (alternating current and direct current) supply power cable and power wiring installation		Please provide a document reference of where the assessor is assessing the grading descriptor	
Pass descriptors			
Describes how they select, position, and install AC/DC supply power cable and power wiring in line with company requirements (K71 S80)			

Trade Test Theme: Diagnostic fault-finding techniques	Please provide a document reference of where the assessor is assessing the grading descriptor
Pass descriptors	
Describes how they use diagnostic fault-finding techniques to investigate issues with equipment (K77 S90)	
Trade Test Theme: Plant and equipment locking devices and interlocking systems requirements	Please provide a document reference of where the assessor is assessing the grading descriptor
Pass descriptors	
Explains plant and equipment locking devices and interlocking systems requirements in their company (K78)	
Trade Test Theme: Producing wiring core sheets from wiring diagrams	Please provide a document reference of where the assessor is assessing the grading descriptor
Pass descriptors	
Describes how they produce wiring core sheets from wiring diagrams in line with company procedures (S83)	

Trade Test Theme: Replacing components	Please provide a document reference of where the assessor is assessing the grading descriptor
Pass descriptors	
Describes how they replace components within equipment in line with company procedures (S92)	

Trade Test Theme: Removing cabling and equipment	Please provide a document reference of where the assessor is assessing the grading descriptor
Pass descriptors	
Describes how they remove cabling and equipment in line with company procedures (S93)	

Employer Declaration

This is to confirm that our Trade Test Technical Interview documentation maps to the Assessment Requirements as detailed above. A copy of the requested documentation has been provided for reference:

Employer Name

Contact Name:

Job Title:

Signature:

Date:



Office Use Only			
Copy documentation received		Guidance for resits / different questions	
Mapping references confirmed		Published grading descriptors are used	
Start / End time of TI documented		Apprentice's responses recorded	
TI date documented		KSBs demonstrated in answers to questions are indicated	
Guidance includes statement 'must ask at least 6 questions (one for each theme minimum)'		Preliminary grade achieved recorded	
Guidance includes resource requirements e.g. quiet place, procedures for remote interview		EUIAS date of review	

Comments



Appendix E: Practice Multiple-choice Test

Level: 3

Power Industry Substation Fitter

Supporting Document: Practice Paper

This examination consists of 40 multiple-choice questions.

The Pass mark is 28 correct answers.

The duration of this examination is 60 minutes.

You are NOT allowed any assistance to complete the answers.

You must use a **pencil** to complete the answer sheet - pens must NOT be used.

When completed, please leave the examination answer sheet and question paper on the desk.

For this paper the use of a scientific calculator (non-programmable) is permitted.

For each question, fill in ONE answer ONLY.

If you make a mistake, ensure you erase it thoroughly.

You must mark your choice of answer by shading in ONE answer circle only. Please mark each choice like this:

MARKING INSTRUCTIONS	
<input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input checked="" type="radio"/>	ANSWER COMPLETED CORRECTLY
Examples of how NOT to mark your examination sheet. These will not be recorded	
<input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/>	DO NOT partially shade the answer circle.
<input type="radio"/> A <input type="radio"/> B <input checked="" type="checkbox"/> C <input checked="" type="checkbox"/>	DO NOT use ticks or crosses.
<input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/>	DO NOT use circles.
<input type="radio"/> A <input type="radio"/> B <input checked="" type="radio"/> C <input checked="" type="radio"/>	DO NOT shade over more than one circle.

You may use this page for rough work. This page must not be removed.

Question 1

What is a key difference between IDNOs (Independent Distribution Network Operators) and traditional DNOs (Distribution Network Operators)?

Possible answers

a)	IDNOs operate only in rural areas, while DNOs operate in urban areas
b)	IDNOs can operate nationwide without regional restrictions, while DNOs have specific geographic regions
c)	IDNOs generate electricity, while DNOs distribute it
d)	IDNOs regulate electricity prices, while DNOs do not

Question 2

What is the significance of cross-border electricity flows managed by Transmission Network Operators (TNOs)?

Possible answers

a)	They help balance supply and demand across regions
b)	They increase the cost of electricity
c)	They reduce the reliability of the grid
d)	They are only used in emergencies

Question 3

To achieve their objectives, Ofgem operate a statutory framework set by the:

Possible answers

a)	European Court of Human Rights
b)	Confederation of British Industry
c)	Department for Business, Enterprise and Regulatory Reform
d)	UK Parliament

Question 4

Identify ONE of the basic requirements of The Electricity at Work Regulations 1989.

Possible answers

a)	Employers must assess electrical risks and implement appropriate control measures
b)	Outlines quality standards for the voltage levels
c)	Employers must follow its guidelines for designing and installing electrical systems
d)	Sets standards for the frequency and duration of power outages

Question 5

The Electricity Safety, Quality and Continuity Regulations 2002 (ESQCR) state that network owners shall ensure that their equipment is constructed, installed, protected, used and maintained to prevent danger, in which two areas?

Possible answers

a)	Electrical and mechanical operation
b)	Daytime and night-time working practices
c)	Indoor and outdoor asset housings
d)	Urban and rural locations

Question 6

Identify ONE role of customer feedback in power industry operations.

Possible answers

a)	To increase operational risks
b)	To improve service quality
c)	To increase operational costs
d)	To reduce energy production

Question 7

Identify ONE significant financial challenge for the UK power industry in achieving net-zero emissions by 2050.

Possible answers

a)	Increasing operational inefficiencies
b)	High initial investment costs
c)	Decreasing energy demand
d)	Lack of regulatory support

Question 8

If asbestos is left undisturbed and is in a reasonably good visible condition, which ONE of the following practices should the company adopt?

Possible answers

a)	By law, the company must remove the asbestos
b)	Carry out an inspection on an ad-hoc basis
c)	The asbestos should be removed from sight by use of boxing-in
d)	The asbestos should be left in-situ and monitored

Question 9

In the context of the Construction (Design and Management) Regulations 2015 (CDM 2015), what are individuals such as overhead linesmen, cable jointers and substation fitters defined as?

Possible answers

a)	Controller
b)	Designer
c)	Worker
d)	Delegate

Question 10

According to Section 2 of the Health and Safety at Work Act 1974, it is the responsibility of every employer, as far as is reasonably practicable, to ensure employees:

Possible answers

a)	health, safety and welfare
b)	have opportunities for future financial incentives
c)	have access to flexible working procedures
d)	Personal Protective Equipment (PPE) fits correctly

Question 11

Which ONE of the following substances is covered by the Control of Substances Hazardous Health Regulations 2002 (COSHH)?

Possible answers

a)	White spirit
b)	Radioactive substances
c)	Lead
d)	Asbestos


Question 12

Regulation 8(2) of the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER) defines a lifting operation as 'an operation concerned with the lifting or lowering of:

Possible answers

a)	a pallet
b)	a load
c)	plant and switchgear
d)	any item requiring more than two persons to lift it

Question 13	
What type of sign is this?	
Possible answers	
a)	Prohibition
b)	Warning
c)	Mandatory
d)	Help



Question 14	
According to The Confined Spaces Regulations 1997, before work commences, which ONE of the following key duties must be fulfilled?	
Possible answers	
a)	The local weather forecast is consulted
b)	Inspection and maintenance records data are referred to for guidance
c)	Vehicles near the work area are moved outside a five metre exclusion zone
d)	Adequate emergency arrangements must be put in place

Question 15	
Identify ONE purpose of the Environmental Protection Act (EPA) 1990.	
Possible answers	
a)	To increase industrial production
b)	To reduce government regulations
c)	To promote urban development
d)	To improve control of pollution

Question 16

What is the purpose of a bund in oil storage?

Possible answers

- | | |
|----|----------------------------------|
| a) | To increase storage capacity |
| b) | To provide secondary containment |
| c) | To reduce oil temperature |
| d) | To measure oil levels |

Question 17

What is the main benefit of using oil containment systems in substations?

Possible answers

- | | |
|----|--------------------------|
| a) | Lower cost |
| b) | Higher efficiency |
| c) | Environmental protection |
| d) | Increased oil pressure |

Question 18

What is the primary use of Sulfur Hexafluoride (SF6) in substations?

Possible answers

- | | |
|----|---------------------------------|
| a) | Cooling transformers |
| b) | Insulating electrical equipment |
| c) | Generating electricity |
| d) | Lubricating moving parts |

Question 19

What certification is required to handle SF6 in high voltage switchgear?

Possible answers

a)	ISO 9001
b)	HSE certification
c)	NEBOSH certification
d)	F-gas handling certificate

Question 20

A substation needs to supply power to a residential area with 50 houses. Each house has an average power consumption of 5 kW.

Calculate the total load in kW using the following formula

Total Load = (Number of Houses) x (Average Power Consumption per House)

Possible answers

a)	200 kW
b)	250 kW
c)	300 kW
d)	350 kW

Question 21

A substation is designed to handle a peak load of 800 kW. If the current load is 600 kW, what percentage of the substation's capacity is being used?

Possible answers

a)	60%
b)	70%
c)	75%
d)	80%

Question 22

A cable is to be laid diagonally across a square area with each side measuring 50 meters. What is the length of the cable, to 1 decimal place?

Possible answers

a)	50.0 metres
b)	70.7 metres
c)	100.0 metres
d)	141.4 metres

Question 23

A substation fitter needs to calculate the surface area of a transformer cubical housing with each side measuring 4 metres. What is the surface area of the cubical housing?

Possible answers

a)	64 metres ²
b)	96 metres ²
c)	128 metres ²
d)	144 metres ²

Question 24

Which ONE of the following best describes mass?

Possible answers

a)	The amount of matter in an object
b)	The force exerted by an object due to gravity
c)	The amount of space an object occupies
d)	The energy possessed by an object

Question 25

What is tensile strength?

Possible answers

a)	The ability of a material to resist deformation
b)	The maximum stress a material can withstand while being pulled before breaking
c)	The ability of a material to return to its original shape after deformation
d)	The resistance of a material to scratching or abrasion

Question 26

Which ONE of the following factors does **NOT** affect the mechanical advantage of a lever?

Possible answers

a)	Length of the input arm
b)	Length of the output arm
c)	Position of the fulcrum
d)	Weight of the lever

Question 27

Which ONE of the following is true for a system in static equilibrium?

Possible answers

a)	The system must be at rest
b)	The system must be accelerating
c)	The system must be moving at a constant velocity
d)	The sum of all external forces and moments must be zero

Question 28

What is the unit of magnetic flux?

Possible answers

a)	Farad
b)	Henry
c)	Tesla
d)	Weber

Question 29

Which law explains the operation of transformers?

Possible answers

a)	Ohm's Law
b)	Faraday's Law of Electromagnetic Induction
c)	Coulomb's Law
d)	Kirchhoff's Law

Question 30

What is the main advantage of using renewable energy sources for power generation?

Possible answers

a)	Lower initial cost
b)	Unlimited supply
c)	Higher efficiency
d)	Easier maintenance

Question 31

Which ONE of the following would cause a fuse to operate?

Possible answers

a)	High resistance
b)	Excessive voltage
c)	Low impedance
d)	Fault current

Question 32

Which ONE of the following is a common material used for busbars?

Possible answers

a)	Iron
b)	Aluminum
c)	Silver
d)	Steel

Question 33

What is the principal design feature of a withdrawable HV circuit breaker?

Possible answers

a)	Saves energy
b)	Is single use only
c)	Requires no maintenance
d)	Can be removed from its housing

Question 34

Which liquid is used to cool transformers?

Possible answers

a)	Liquid oxygen
b)	Liquid nitrogen
c)	Water
d)	Oil

Question 35

Which mechanism on a transformer actively changes voltage levels as required?

Possible answers

a)	Core
b)	Windings
c)	Tap changer
d)	Winding temperature indicator

Question 36

On a substation low-voltage (LV) distribution board, what is the main purpose of the isolator?

Possible answers

a)	To connect/disconnect the incoming transformer supply
b)	To earth the busbars
c)	To connect outgoing cables
d)	To supply batteries

Question 37

What is the purpose of air compressors in substations?

Possible answers

a)	To generate electricity
b)	To cool transformers
c)	To power pneumatic tools
d)	To operate circuit breaker mechanisms

Question 38

At a primary substation in the UK, the voltage is typically stepped down from:

Possible answers

a)	400 kV to 132 kV
b)	132 kV to 33 kV
c)	33 kV to 11 kV
d)	11 kV to 400/230 V

Question 39

Which ONE of the following contains a vacuum interrupter?

Possible answers

a)	Circuit breaker
b)	Earth switch
c)	Neutral Earth Resistor (NER)
d)	Disconnecter

Question 40	
What is the main feature of a Neutral Earth Resistor (NER)?	
Possible answers	
a)	Reduce losses
b)	Improve power factor
c)	Providing a substation earth
d)	Limiting fault current

End of Questions

Practice Multiple-choice Test

Answer scheme

Question	Answer	Question	Answer	Question	Answer
1	B	15	D	29	B
2	A	16	B	30	B
3	D	17	C	31	D
4	A	18	B	32	B
5	A	19	D	33	D
6	B	20	B	34	D
7	B	21	C	35	C
8	D	22	B	36	A
9	C	23	B	37	D
10	A	24	A	38	C
11	A	25	B	39	A
12	B	26	D	40	D
13	B	27	D		
14	D	28	D		

Appendix F: Practice Interview Based on an EPA Portfolio Form



Power Industry Substation Fitter Distribution Maintenance Interview

Full Name of Apprentice	
Apprentice ID checked	<input type="checkbox"/>
Location of End-point Assessment	
Full Name of Independent Assessor	
Date of Interview	
Start Time	
End Time	
Resit (check the box)	<input type="checkbox"/>
Assessor additional comments	

	Grade
Please indicate the apprentice's preliminary grade for the interview (F/P/D):	

By signing below, I confirm that the information provided is correct and the preliminary grade awarded is a true reflection of the performance by the apprentice.

Independent Assessor Full Name and Signature:	Date:

Please Note:

To achieve a Pass, the Apprentice must achieve all the pass descriptors.

To achieve a Distinction, the Apprentice must achieve all the pass descriptors and **all** the distinction descriptors.

Fail: the apprentice does not demonstrate all the pass descriptors.

Introduction

At the start of the interview the assessor will:

- Introduce themselves
- State their role
- State the date of the interview
- Request and confirm ID from the apprentice prior to beginning the assessment
- Provide apprentice with information on the format of the with questions, including the timescales they will be working to.

The apprentice will:

- Confirm their full name
- Confirm their date of birth
- Give their employer's name
- Confirm their location and that no one else is present in the room, if remote apprentice to pan camera 360°
- Confirm they are prepared for the interview; and confirm they can continue with the interview
- Confirm that the evidence within the portfolio relates to the KSB's that will be assessed during the interview.

Important points to inform the apprentice

- Please don't judge anything by the notes being taken, nor infer anything positive or negative from how long the interview lasts.
- Please don't consider me rude if I tell you that we need to move onto the next question. This will ensure that you get the opportunity to fully demonstrate your competencies within the time allowed.
- Ensure the apprentice has a drink of water to hand
- Please ensure that your mobile is switched off or placed somewhere where you will not be interrupted during the interview.
- Confirm that a sign is placed on the door of the interview room. Interview in progress 'Do not disturb'.

Note: The live interview will be fully recorded for the purpose of audit and quality assurance

Assessor Guidance

Delivery

- The interview will last 75 minutes. An additional 10% is allowed for the apprentice to complete their last answer
- You must be in full control. Time management is key! If the apprentice veers off track, they need to be reined back in
- You must ask a minimum of **seven** open questions
- The purpose of the questions is to cover the following topics: Communication and working with others; Sustainability; CPD and improvement activities; Working on the highway and location and avoidance of utilities
- Please work through the sections in the order they appear within this document
- Additional follow-up questions are allowed to seek clarification and to make a judgement against grading descriptor
- The text of additional questions must be recorded on this document
- Adapt the questions to the apprentice's circumstances following your review of their portfolio evidence
- Supply brief written notes where each criterion has been met
- If the apprentice does not achieve a descriptor, provide written notes that EUIAS can feed back to the apprentice to help the apprentice prepare for a resit
- Both the recording and the written notes will be subject to IQA.

At the end of the interview - Thank the apprentice for their time

Task 1: Communication and working with others

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P	To achieve a DISTINCTION the apprentice must achieve ALL the pass descriptors and ALL the distinction descriptors	D
Describes how they communicate in a professional manner by using communication techniques and industry terminology suitable for the context	<input type="checkbox"/>	Justifies the application of teamworking principles to meeting work goals	<input type="checkbox"/>
Describes how they apply written communication techniques to produce or amend documents in their work that are suitable for the context	<input type="checkbox"/>		
Describes how they use information and digital technology – computers and mobile devices - in their work in compliance with their organisation's cyber security requirements. Outlines the requirements of the General Data Protection Regulation (GPDR)	<input type="checkbox"/>		
Describes how they apply team working principles to meet work goals and support inclusivity in line with their company's policy on equality, diversity, and inclusion	<input type="checkbox"/>		

Portfolio reference	
Pass questions - to be tailored to apprentice portfolio	
Develop some open-ended questions	
Distinction questions - to be tailored to apprentice portfolio	
Develop some open-ended questions	
Note any additional questions asked during interview	



Fail <input type="checkbox"/>	Pass <input type="checkbox"/>	Distinction <input type="checkbox"/>
Summary of response to question(s): Box will expand to take all comments		
Feedback that you can provide to the apprentice if the apprentice has failed to meet the Pass criteria Box will expand to take all comments		

K24 K26 S21 S24 B5 Communication
K27 S25 Information and digital technology
K28 K29 S20 B6 Teamwork

Task 2: Sustainability

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P	To achieve a DISTINCTION the apprentice must achieve ALL the pass descriptors and ALL the distinction descriptors	D
Describes how they consider and apply the principles of sustainability and the circular economy in their own work to support their employer's and the power industry's net zero strategy with reference to the impact of sites of special scientific interest, flora and fauna on work, and the potential effects on the environment of companies and individuals not complying with good environmental practices	<input type="checkbox"/>	Justifies the application of sustainability practices in the power industry	<input type="checkbox"/>

Portfolio reference	
Pass questions - to be tailored to apprentice portfolio	
Develop some open-ended questions	
Distinction questions - to be tailored to apprentice portfolio	
Develop some open-ended questions	
Note any additional questions asked during interview	

Fail <input type="checkbox"/>	Pass <input type="checkbox"/>	Distinction <input type="checkbox"/>
Summary of response to question(s): Box will expand to take all comments		
Feedback that you can provide to the apprentice if the apprentice has failed to meet the Pass criteria Box will expand to take all comments		

K18 S12 B2 Sustainability

Task 3: CPD and improvement activities

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P	To achieve a DISTINCTION the apprentice must achieve ALL the pass descriptors and ALL the distinction descriptors	D
Describes how they have identified an area for improvement in the workplace	<input type="checkbox"/>	Justifies the potential impact of the improvement suggestion with consideration to benefits and any potential risks	<input type="checkbox"/>
Outlines the planned and unplanned learning and development activities they have carried out and recorded and shows a commitment to future continued professional development to maintain and enhance competence	<input type="checkbox"/>		

Portfolio reference	
Pass questions - to be tailored to apprentice portfolio	
Develop some open-ended questions	
Distinction questions - to be tailored to apprentice portfolio	
Develop some open-ended questions	
Note any additional questions asked during interview	

Fail <input type="checkbox"/>	Pass <input type="checkbox"/>	Distinction <input type="checkbox"/>
Summary of response to question(s): Box will expand to take all comments		
Feedback that you can provide to the apprentice if the apprentice has failed to meet the Pass criteria Box will expand to take all comments		

S19 Contribute to improvement activities

S26 B7 Continued professional development

Task 4: Working on the highway and location and avoidance of utilities

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P	To achieve a DISTINCTION the apprentice must achieve ALL the pass descriptors and ALL the distinction descriptors
Describes how they conduct plant or vehicle checks in line with company requirements	<input type="checkbox"/>	
Explains requirements for safe excavation and signing, lighting, and guarding in line with the New Roads and Street Works Act	<input type="checkbox"/>	
Explains the access to private land, streets, and wayleaves permissions in terms of impact on role	<input type="checkbox"/>	
Explains methods for locating and avoiding utilities and avoiding danger from underground services and overhead exposed conductors in line with the health and safety executive guidance and requirements: HSG 47 (Avoiding danger from underground services) and GS6 (Avoiding danger from overhead power lines)	<input type="checkbox"/>	

Portfolio reference	
Pass questions - to be tailored to apprentice portfolio	
Develop some open-ended questions	
Note any additional questions asked during interview	

Fail <input type="checkbox"/>	Pass <input type="checkbox"/>	
Summary of response to question(s): Box will expand to take all comments		

Feedback that you can provide to the apprentice if the apprentice has failed to meet the Pass criteria

Box will expand to take all comments

K15 S14 Plant or vehicle checks

K52 K53 New Roads and Street Works Act and access to private land, streets and wayleaves

K54 Location and avoidance of utilities



Power Industry Substation Fitter Transmission maintenance Interview

Full Name of Apprentice	
Apprentice ID checked	<input type="checkbox"/>
Location of End-point Assessment	
Full Name of Independent Assessor	
Date of Interview	
Start Time	
End Time	
Resit (check the box)	<input type="checkbox"/>
Assessor additional comments	

	Grade
Please indicate the apprentice's preliminary grade for the interview (F/P/D):	

By signing below, I confirm that the information provided is correct and the preliminary grade awarded is a true reflection of the performance by the apprentice.

Independent Assessor Full Name and Signature:	Date:

Please Note:

To achieve a Pass, the Apprentice must achieve all the pass descriptors.

To achieve a Distinction, the Apprentice must achieve all the pass descriptors and **all** the distinction descriptors.

Fail: the apprentice does not demonstrate all the pass descriptors.

Introduction

At the start of the interview the assessor will:

- Introduce themselves
- State their role
- State the date of the interview
- Request and confirm ID from the apprentice prior to beginning the assessment
- Provide apprentice with information on the format of the with questions, including the timescales they will be working to.

The apprentice will:

- Confirm their full name
- Confirm their date of birth
- Give their employer's name
- Confirm their location and that no one else is present in the room, if remote apprentice to pan camera 360°
- Confirm they are prepared for the interview; and confirm they can continue with the interview
- Confirm that the evidence within the portfolio relates to the KSB's that will be assessed during the interview.

Important points to inform the apprentice

- Please don't judge anything by the notes being taken, nor infer anything positive or negative from how long the interview lasts.
- Please don't consider me rude if I tell you that we need to move onto the next question. This will ensure that you get the opportunity to fully demonstrate your competencies within the time allowed.
- Ensure the apprentice has a drink of water to hand
- Please ensure that your mobile is switched off or placed somewhere where you will not be interrupted during the interview.
- Confirm that a sign is placed on the door of the interview room. Interview in progress 'Do not disturb'.

Note: The live interview will be fully recorded for the purpose of audit and quality assurance

Assessor Guidance

Delivery

- The interview will last 60 minutes. An additional 10% is allowed for the apprentice to complete their last answer
- You must be in full control. Time management is key! If the apprentice veers off track, they need to be reined back in
- You must ask a minimum of **five** open questions
- The purpose of the questions is to cover the following topics: Communication and working with others; Sustainability; CPD and improvement activities; Vehicle and plant checks
- Please work through the sections in the order they appear within this document
- Additional follow-up questions are allowed to seek clarification and to make a judgement against grading descriptor
- The text of additional questions must be recorded on this document
- Adapt the questions to the apprentice's circumstances following your review of their portfolio evidence
- Supply brief written notes where each criterion has been met
- If the apprentice does not achieve a descriptor, provide written notes that EUIAS can feed back to the apprentice to help the apprentice prepare for a resit
- Both the recording and the written notes will be subject to IQA.

At the end of the interview - Thank the apprentice for their time

Task 1: Communication and working with others

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P	To achieve a DISTINCTION the apprentice must achieve ALL the pass descriptors and ALL the distinction descriptors	D
Describes how they communicate in a professional manner by using communication techniques and industry terminology suitable for the context	<input type="checkbox"/>	Justifies the application of teamworking principles to meeting work goals	<input type="checkbox"/>
Describes how they apply written communication techniques to produce or amend documents in their work that are suitable for the context	<input type="checkbox"/>		
Describes how they use information and digital technology – computers and mobile devices - in their work in compliance with their organisation's cyber security requirements. Outlines the requirements of the General Data Protection Regulation (GPDR)	<input type="checkbox"/>		
Describes how they apply team working principles to meet work goals and support inclusivity in line with their company's policy on equality, diversity, and inclusion	<input type="checkbox"/>		

Portfolio reference	
Pass questions - to be tailored to apprentice portfolio	
Develop some open-ended questions	
Distinction questions - to be tailored to apprentice portfolio	
Develop some open-ended questions	
Note any additional questions asked during interview	



Fail <input type="checkbox"/>	Pass <input type="checkbox"/>	Distinction <input type="checkbox"/>
Summary of response to question(s): Box will expand to take all comments		
Feedback that you can provide to the apprentice if the apprentice has failed to meet the Pass criteria Box will expand to take all comments		

K24 K26 S21 S24 B5 Communication
K27 S25 Information and digital technology
K28 K29 S20 B6 Teamwork

Task 2: Sustainability

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P	To achieve a DISTINCTION the apprentice must achieve ALL the pass descriptors and ALL the distinction descriptors	D
Describes how they consider and apply the principles of sustainability and the circular economy in their own work to support their employer's and the power industry's net zero strategy with reference to the impact of sites of special scientific interest, flora and fauna on work, and the potential effects on the environment of companies and individuals not complying with good environmental practices	<input type="checkbox"/>	Justifies the application of sustainability practices in the power industry	<input type="checkbox"/>

Portfolio reference	
Pass questions - to be tailored to apprentice portfolio	
Develop some open-ended questions	
Distinction questions - to be tailored to apprentice portfolio	
Develop some open-ended questions	
Note any additional questions asked during interview	

Fail <input type="checkbox"/>	Pass <input type="checkbox"/>	Distinction <input type="checkbox"/>
Summary of response to question(s): Box will expand to take all comments		
Feedback that you can provide to the apprentice if the apprentice has failed to meet the Pass criteria Box will expand to take all comments		

K18 S12 B2 Sustainability

Task 3: CPD and improvement activities

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P	To achieve a DISTINCTION the apprentice must achieve ALL the pass descriptors and ALL the distinction descriptors	D
Describes how they have identified an area for improvement in the workplace	<input type="checkbox"/>	Justifies the potential impact of the improvement suggestion with consideration to benefits and any potential risks	<input type="checkbox"/>
Outlines the planned and unplanned learning and development activities they have carried out and recorded and shows a commitment to future continued professional development to maintain and enhance competence	<input type="checkbox"/>		

Portfolio reference	
Pass questions - to be tailored to apprentice portfolio	
Develop some open-ended questions	
Distinction questions - to be tailored to apprentice portfolio	
Develop some open-ended questions	
Note any additional questions asked during interview	

Fail <input type="checkbox"/>	Pass <input type="checkbox"/>	Distinction <input type="checkbox"/>
Summary of response to question(s): Box will expand to take all comments		
Feedback that you can provide to the apprentice if the apprentice has failed to meet the Pass criteria Box will expand to take all comments		

S19 Contribute to improvement activities

S26 B7 Continued professional development

Task 4: Vehicle and plant checks

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P	To achieve a DISTINCTION the apprentice must achieve ALL the pass descriptors and ALL the distinction descriptors
Describes how they conduct plant or vehicle checks in line with company requirements	<input type="checkbox"/>	

Portfolio reference	
Pass questions - to be tailored to apprentice portfolio	
Develop some open-ended questions	
Note any additional questions asked during interview	

Fail <input type="checkbox"/>	Pass <input type="checkbox"/>	
Summary of response to question(s): Box will expand to take all comments		
Feedback that you can provide to the apprentice if the apprentice has failed to meet the Pass criteria Box will expand to take all comments		

K15 S14 Plant or vehicle checks



Power Industry Substation Fitter Construction Interview

Full Name of Apprentice	
Apprentice ID checked	<input type="checkbox"/>
Location of End-point Assessment	
Full Name of Independent Assessor	
Date of Interview	
Start Time	
End Time	
Resit (check the box)	<input type="checkbox"/>
Assessor additional comments	

	Grade
Please indicate the apprentice's preliminary grade for the interview (F/P/D):	

By signing below, I confirm that the information provided is correct and the preliminary grade awarded is a true reflection of the performance by the apprentice.

Independent Assessor Full Name and Signature:	Date:

Please Note:

To achieve a Pass, the Apprentice must achieve all the pass descriptors.

To achieve a Distinction, the Apprentice must achieve all the pass descriptors and **all** the distinction descriptors.

Fail: the apprentice does not demonstrate all the pass descriptors.

Introduction

At the start of the interview the assessor will:

- Introduce themselves
- State their role
- State the date of the interview
- Request and confirm ID from the apprentice prior to beginning the assessment
- Provide apprentice with information on the format of the with questions, including the timescales they will be working to.

The apprentice will:

- Confirm their full name
- Confirm their date of birth
- Give their employer's name
- Confirm their location and that no one else is present in the room, if remote apprentice to pan camera 360°
- Confirm they are prepared for the interview; and confirm they can continue with the interview
- Confirm that the evidence within the portfolio relates to the KSB's that will be assessed during the interview.

Important points to inform the apprentice

- Please don't judge anything by the notes being taken, nor infer anything positive or negative from how long the interview lasts.
- Please don't consider me rude if I tell you that we need to move onto the next question. This will ensure that you get the opportunity to fully demonstrate your competencies within the time allowed.
- Ensure the apprentice has a drink of water to hand
- Please ensure that your mobile is switched off or placed somewhere where you will not be interrupted during the interview.
- Confirm that a sign is placed on the door of the interview room. Interview in progress 'Do not disturb'.

Note: The live interview will be fully recorded for the purpose of audit and quality assurance

Assessor Guidance

Delivery

- The interview will last 75 minutes. An additional 10% is allowed for the apprentice to complete their last answer
- You must be in full control. Time management is key! If the apprentice veers off track, they need to be reined back in
- You must ask a minimum of **seven** open questions
- The purpose of the questions is to cover the following topics: Communication and working with others; Sustainability; CPD and improvement activities; Location and avoidance of utilities
- Please work through the sections in the order they appear within this document
- Additional follow-up questions are allowed to seek clarification and to make a judgement against grading descriptor
- The text of additional questions must be recorded on this document
- Adapt the questions to the apprentice's circumstances following your review of their portfolio evidence
- Supply brief written notes where each criterion has been met
- If the apprentice does not achieve a descriptor, provide written notes that EUIAS can feed back to the apprentice to help the apprentice prepare for a resit
- Both the recording and the written notes will be subject to IQA.

At the end of the interview - Thank the apprentice for their time

Task 1: Communication and working with others

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P	To achieve a DISTINCTION the apprentice must achieve ALL the pass descriptors and ALL the distinction descriptors	D
Describes how they communicate in a professional manner by using communication techniques and industry terminology suitable for the context	<input type="checkbox"/>	Justifies the application of teamworking principles to meeting work goals	<input type="checkbox"/>
Describes how they apply written communication techniques to produce or amend documents in their work that are suitable for the context	<input type="checkbox"/>		
Describes how they use information and digital technology – computers and mobile devices - in their work in compliance with their organisation's cyber security requirements. Outlines the requirements of the General Data Protection Regulation (GPDR)	<input type="checkbox"/>		
Describes how they apply team working principles to meet work goals and support inclusivity in line with their company's policy on equality, diversity, and inclusion	<input type="checkbox"/>		

Portfolio reference	
Pass questions - to be tailored to apprentice portfolio	
Develop some open-ended questions	
Distinction questions - to be tailored to apprentice portfolio	
Develop some open-ended questions	
Note any additional questions asked during interview	

Fail <input type="checkbox"/>	Pass <input type="checkbox"/>	Distinction <input type="checkbox"/>
<p>Summary of response to question(s): Box will expand to take all comments</p>		
<p>Feedback that you can provide to the apprentice if the apprentice has failed to meet the Pass criteria Box will expand to take all comments</p>		

K24 K26 S21 S24 B5 Communication
K27 S25 Information and digital technology
K28 K29 S20 B6 Teamwork

Task 2: Sustainability

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P	To achieve a DISTINCTION the apprentice must achieve ALL the pass descriptors and ALL the distinction descriptors	D
Describes how they consider and apply the principles of sustainability and the circular economy in their own work to support their employer's and the power industry's net zero strategy with reference to the impact of sites of special scientific interest, flora and fauna on work, and the potential effects on the environment of companies and individuals not complying with good environmental practices	<input type="checkbox"/>	Justifies the application of sustainability practices in the power industry	<input type="checkbox"/>

Portfolio reference	
Pass questions - to be tailored to apprentice portfolio	
Develop some open-ended questions	
Distinction questions - to be tailored to apprentice portfolio	
Develop some open-ended questions	
Note any additional questions asked during interview	

Fail <input type="checkbox"/>	Pass <input type="checkbox"/>	Distinction <input type="checkbox"/>
Summary of response to question(s): Box will expand to take all comments		
Feedback that you can provide to the apprentice if the apprentice has failed to meet the Pass criteria Box will expand to take all comments		

K18 S12 B2 Sustainability

Task 3: CPD and improvement activities

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P	To achieve a DISTINCTION the apprentice must achieve ALL the pass descriptors and ALL the distinction descriptors	D
Describes how they have identified an area for improvement in the workplace	<input type="checkbox"/>	Justifies the potential impact of the improvement suggestion with consideration to benefits and any potential risks	<input type="checkbox"/>
Outlines the planned and unplanned learning and development activities they have carried out and recorded and shows a commitment to future continued professional development to maintain and enhance competence	<input type="checkbox"/>		

Portfolio reference	
Pass questions - to be tailored to apprentice portfolio	
Develop some open-ended questions	
Distinction questions - to be tailored to apprentice portfolio	
Develop some open-ended questions	
Note any additional questions asked during interview	

Fail <input type="checkbox"/>	Pass <input type="checkbox"/>	Distinction <input type="checkbox"/>
Summary of response to question(s): Box will expand to take all comments		
Feedback that you can provide to the apprentice if the apprentice has failed to meet the Pass criteria Box will expand to take all comments		

S19 Contribute to improvement activities

S26 B7 Continued professional development

Task 4: Vehicle and plant checks and location and avoidance of utilities

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P	To achieve a DISTINCTION the apprentice must achieve ALL the pass descriptors and ALL the distinction descriptors
Describes how they conduct plant or vehicle checks in line with company requirements	<input type="checkbox"/>	
Explains vehicle marshalling requirements and limits of their role in line with industry practice	<input type="checkbox"/>	
Explains methods for locating and avoiding utilities and avoiding danger from underground services and overhead exposed conductors in line with the health and safety executive guidance and requirements: HSG 47 (Avoiding danger from underground services) and GS6 (Avoiding danger from overhead power lines)	<input type="checkbox"/>	

Portfolio reference	
Pass questions - to be tailored to apprentice portfolio	
Develop some open-ended questions	
Note any additional questions asked during interview	

Fail <input type="checkbox"/>	Pass <input type="checkbox"/>	
Summary of response to question(s): Box will expand to take all comments		
Feedback that you can provide to the apprentice if the apprentice has failed to meet the Pass criteria Box will expand to take all comments		

K79 Location and avoidance of utilities
K15 S14 Plant or vehicle checks
K80 Vehicle marshalling requirements

Appendix G: Example: Trade Test Practical Assessor Recording Form

Power Industry Substation Fitter

Trade Test Practical Assessment with Questions

Instructions for the employer assessor

Delivery

- The trade test practical assessment with questions
 - must take 30 - 37.5 hours.
 - may take place in parts but must be completed over no more than 21 working days. A working day is typically considered to be 7.5 hours long
- You must
 - observe apprentices in line with the employer's trade test assessment specification including the ratio of employer assessors to apprentices. You must be as unobtrusive as possible.
 - explain to the apprentice the format and timescales of the trade test practical assessment with questions tasks before they start. This does not count towards the assessment time
 - ask at least 9 questions. Questioning can occur both during and after the practical assessment
 - use the questions from the employer's question bank or tailor questions to suit individual circumstances
 - write each tailored question below the sample standardised question
- You can ask follow-up questions to clarify answers given by the apprentice. These questions are in addition to the above set number of questions for the trade test practical assessment with questions

The time for questioning is included in the overall assessment time.

Answers to questions, must be documented.



Name of Apprentice	
<input type="checkbox"/> Apprentice ID checked	
Option	
Are Reasonable Adjustments required? Yes <input type="checkbox"/> No <input type="checkbox"/>	
Please give details	
Location of Trade test	
Full Name of Employer Assessor	
Date(s) of Trade Test	
Total Assessment Time	

Fail - does not meet pass criteria

To achieve a PASS the apprentice must demonstrate ALL the PASS descriptors for the Core and their option

To achieve a DISTINCTION the apprentice must achieve ALL the PASS descriptors and ALL of the DISTINCTION descriptors for the Core and their option

Preliminary Grade awarded (Please indicate in the relevant box)	Distinction	Pass	Fail
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Employer Assessor Justification for Preliminary Grade awarded:



Trade Test Practical Assessment Summary	Pass	Distinction
Core		
Group 1: Prepare for substation fitter activities	<input type="checkbox"/>	<input type="checkbox"/>
Group 2: Organise and supervise a working party S5 B3	<input type="checkbox"/>	
Group 3: Maintain work site health, safety, and environment compliance K7 K10 K19 K37 S6 S7 S8 S10 S13 B1	<input type="checkbox"/>	<input type="checkbox"/>
Group 4: Identify apparatus S4	<input type="checkbox"/>	
Group 5: Tools and equipment K23 S17	<input type="checkbox"/>	
Group 6: Complete work records K25 S23	<input type="checkbox"/>	
Distribution maintenance		
Group 7: Use maintenance specifications (distribution) S27	<input type="checkbox"/>	
Group 8: Electrical testing K43 S28 S29 S30 S31 S46 S47	<input type="checkbox"/>	<input type="checkbox"/>
Group 9: Circuit breaker maintenance K44 K47 S32 S33 S34 S35 S36 S37 S38 S39	<input type="checkbox"/>	
Group 10: Battery maintenance K49 S44 S45	<input type="checkbox"/>	
Group 11: Inspection and monitoring of substation equipment K45 S40 S41	<input type="checkbox"/>	
Group 12: Switching operations K56 S48 S49 S50	<input type="checkbox"/>	



Trade Test Practical Assessment Summary	Pass	Distinction
Transmission maintenance		
Group 7: Use maintenance specifications S51	<input type="checkbox"/>	
Group 8: Use elevated work platforms S53	<input type="checkbox"/>	
Group 9: Electrical testing K57 K66 S52 S54 S55 S56 S57 S69	<input type="checkbox"/>	<input type="checkbox"/>
Group 10: Circuit breaker maintenance K59 K62 S62 S63 S64 S65 S66	<input type="checkbox"/>	
Construction		
Group 7: Use engineering representations, drawings, and graphical information K67 S73	<input type="checkbox"/>	
Group 8: Follow construction safety requirements K75 S74 S75 S76	<input type="checkbox"/>	
Group 9: Install new substation equipment K73 S79	<input type="checkbox"/>	
Group 10: Install earthing associated with substations K68 K72 S81 S82	<input type="checkbox"/>	
Group 11: Install and terminate multi-core cables and containment systems K70 S85	<input type="checkbox"/>	
Group 12: Conduct testing on installed equipment K76 K82 K83 S86 S87 S88 S89 S91	<input type="checkbox"/>	<input type="checkbox"/>

Introduction

At the start of the trade test the Employer Assessor will:

- Introduce themselves
- Confirm their role
- Provide apprentice with information on the format of the trade test, including the timescales they will be working to.

(The Employer Assessor can share the grading guidance with the apprentice as this appears in the assessment plan)

The apprentice will:

- Give their full name
- Their date of birth
- Their employer name
- Confirm they are prepared for the trade test; and confirm they can continue with the trade test.

The apprentice will be asked to show their identification to the Employer Assessor prior to beginning the assessment

Important points to inform the apprentice

- If at any point during the trade test you perform an unsafe act/task which contravenes Health and Safety, I will immediately stop the trade test.
- Please do not judge anything by me taking notes and you should not infer anything positive or negative from how long the trade test lasts.
- Ensure that your mobile is turned off or placed somewhere where you will not be interrupted during the trade test.

Group 1: Prepare for substation fitter activities

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P
Reviews drawings, instructions, or information to understand the task's requirements. (S1)	<input type="checkbox"/>
Plans tasks and identifies and organises resources required to complete tasks for self and working party using planning, prioritising, organisation, and time management techniques with consideration for safety, environmental impact, quality, and cost. (K22, S2, S3)	<input type="checkbox"/>

To achieve a DISTINCTION the apprentice must achieve ALL the PASS descriptors and ALL of the following:descriptors	D
Justifies their planning in terms of efficiencies achieved and the balance of safety, environmental impact, quality, and cost in planning decisions.	<input type="checkbox"/>

Comments: (what was observed)		
Questions to help evidence the Pass and Distinction descriptors above Develop some open-ended questions		
Write down the question(s) asked:		
Summary of response to question(s):		
Provide comments explaining the reasons for awarding a Fail, Pass or Distinction grade awarded for Group 1: Prepare for substation fitter activities		
Group 1 - Fail	<input type="checkbox"/>	



Group 1 - Pass	<input type="checkbox"/>	
Group 1 - Distinction	<input type="checkbox"/>	

K22: Planning, prioritising, organisation, and time management techniques for self and working party

S1: Review drawings, instructions, or information to understand the task for example, work instructions, design specifications, utility plans, on-line search documents

S2: Prioritise and plan tasks with consideration for safety, environmental impact, quality, and cost

S3: Identify and organise resources to complete tasks for example, consumables

S18: Select, check, and prepare resources.

Group 2: Organise and supervise a working party

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors		P
Receives and clears a safety document and briefs a working party in line with company requirements taking ownership for work and responsibility for the impact of the work on others.		<input type="checkbox"/>
Comments: (what was observed)		
Questions to help evidence the Pass descriptors above Develop some open-ended questions		
Write down the question(s) asked:		
Summary of response to question(s):		
Provide comments explaining the reasons for awarding a Fail or Pass grade awarded for Group 2: Organise and supervise a working party		
Group 2 - Fail	<input type="checkbox"/>	
Group 2 - Pass	<input type="checkbox"/>	

S5: Receive and clear a safety document. Brief a working party

B3: Take ownership for work and responsibility for its impact on others. For example, self-motivated, disciplined in the approach to work tasks, identify and deal appropriately with distractions to enable tasks to be achieved, work carried out in line with standards

Group 3: Maintain work site health, safety, and environment compliance

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P
Follows company's substation access and egress procedures to control hazards including security, pre-entry checks, logging in requirements, automatic or remotely operated equipment, and fire suppression systems. (K37, S6)	<input type="checkbox"/>
Identifies hazards and risks in the workplace including consideration of hazards associated with work on or near electrical power networks and applies control measures including demarcation systems to identify equipment made safe for work.	<input type="checkbox"/>
Prioritises and applies health and safety procedures in compliance with regulations and standards mitigating against risks including emergency procedures, personal protective equipment, manual handling, and fire safety. (K7, K10, S7, S8, B1)	<input type="checkbox"/>
Applies measures to leave power work environments in a safe and secure condition in line with company procedures. (S10)	<input type="checkbox"/>
Segregates resources for reuse, recycling, and waste handling in line with company procedures for recycling and waste transfer (K19, S13)	<input type="checkbox"/>

To achieve a DISTINCTION the apprentice must achieve ALL the PASS descriptors and ALL of the following:descriptors	D
Justifies how the controls they applied eliminated or reduced risks to an acceptable level using a hierarchical approach to risk assessment. (S7)	<input type="checkbox"/>

Comments: (what was observed)
Questions to help evidence the Pass and Distinction descriptors above Develop some open-ended questions
Write down the question(s) asked:

Summary of response to question(s):

Provide comments explaining the reasons for awarding a Fail, Pass or Distinction grade awarded for Group 3: Maintain work site health, safety, and environment compliance

Group 3 - Fail	<input type="checkbox"/>
Group 3 - Pass	<input type="checkbox"/>
Group 3 - Distinction	<input type="checkbox"/>

- K7:** The hazards associated with work on or near electrical power networks
- K10:** Risk assessments and method statements. Emergency procedures. Personal protective equipment (PPE). Manual handling. Fire safety
- K19:** Recycling and waste transfer requirements
- K37:** Hazards and controls for access and egress of operational substation sites: security, pre-entry checks, logging in requirements, automatic or remotely operated equipment, and fire suppression systems
- S6:** Follow substation access and egress procedures
- S7:** Identify hazards and risks and apply control measures
- S8:** Apply health and safety procedures in compliance with regulations, standards, and guidance. For example, demarcate the work area, working at height, confined spaces, COSHH
- S10:** Apply measures to leave power work environments in a safe condition
- S13:** Segregate waste for reuse, recycling, and waste transfer
- B1:** Prioritise health and safety. For example, risk aware, minimise risks, and proactively work towards preventing accidents

Group 4: Identify apparatus

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors		P
Identifies apparatus to be worked on using identification methods suitable for the equipment and the situation.		<input type="checkbox"/>
Comments: (what was observed)		
Questions to help evidence the Pass descriptors above Develop some open-ended questions		
Write down the question(s) asked:		
Summary of response to question(s):		
Provide comments explaining the reasons for awarding a Fail or Pass grade awarded for Group 4: Identify apparatus		
Group 5 - Fail	<input type="checkbox"/>	
Group 5 - Pass	<input type="checkbox"/>	

S4: Identify apparatus to be worked on

Group 5: Tools and equipment

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P
Selects, checks, and prepares hand tools and power tools required for the task in line with company procedures including selection and care of insulated tools.	<input type="checkbox"/>
Uses hand tools and power tools that are suitable for the application in line with operational requirements.	<input type="checkbox"/>
Stores tools and equipment in line with company procedures.	<input type="checkbox"/>

Comments: (what was observed)

Questions to help evidence the Pass descriptors above

Develop some open-ended questions

Write down the question(s) asked:

Summary of response to question(s):

Provide comments explaining the reasons for awarding a Fail or Pass grade awarded for Group 5: Tools and equipment

Group 4 - Fail

Group 4 - Pass

K23: Hand tools and power tools application and operation requirements. Insulated tools - selection and care considerations

S17: Select, check, prepare, use, and store hand tools and power tools

Group 6: Complete work records

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P
Records information for work tasks in line with company documentation requirements.	<input type="checkbox"/>

Comments: (what was observed)	
Questions to help evidence the Pass descriptors above Develop some open-ended questions	
Write down the question(s) asked:	
Summary of response to question(s):	
Provide comments explaining the reasons for awarding a Fail or Pass grade awarded for Group 6: Complete work records	
Group 6 - Fail	<input type="checkbox"/>
Group 6 - Pass	<input type="checkbox"/>

K25: Documentation requirements; importance of accurate records
S23: Record information



Distribution maintenance

Group 7: Use maintenance specifications (distribution)

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P
Reads, interprets, and follows maintenance specifications to support task completion.	<input type="checkbox"/>

Comments: (what was observed)	
Questions to help evidence the Pass descriptors above Develop some open-ended questions	
Write down the question(s) asked:	
Summary of response to question(s):	
Provide comments explaining the reasons for awarding a Fail or Pass grade awarded for Group 7: Use maintenance specifications (distribution)	
Group 7 - Fail	<input type="checkbox"/>
Group 7 - Pass	<input type="checkbox"/>

S27: Read, interpret, and follow maintenance specifications

Group 8: Electrical testing

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P
Conducts diagnostic testing to identify asset condition and identifies action required.	<input type="checkbox"/>
Conducts electrical testing using correct methods for continuity, joint or contact resistance, insulation, and supply checks on a low voltage single and three phase supply to identify: correct polarity, voltage, earth fault loop impedance and phase rotation in line with task requirements and company procedures.	<input type="checkbox"/>

To achieve a DISTINCTION the apprentice must achieve ALL the PASS descriptors and ALL of the following: descriptors	D
Evaluates the diagnostic results to determine potential underlying cause of issues and rectification.	<input type="checkbox"/>

Comments: (what was observed)

Questions to help evidence the Pass and Distinction descriptors above
Develop some open-ended questions

Write down the question(s) asked:

Summary of response to question(s):

Provide comments explaining the reasons for awarding a Fail, Pass or Distinction grade awarded for Group 8: Electrical testing

Group 8 - Fail	<input type="checkbox"/>	
Group 8 - Pass	<input type="checkbox"/>	
Group 8 - Distinction	<input type="checkbox"/>	

K43: Electrical testing requirements and methods: continuity and polarity of circuits, insulation resistance, Voltage, Earth Fault Loop Impedance (EFLI), phase rotation, and joint or contact resistance

S28: Conduct diagnostic testing to identify asset condition; identify action

S29: Conduct continuity testing using a continuity test instrument or multimeter

S30: Conduct joint or contact resistance testing using a contact resistance tester (ductor)

S31: Conduct insulation testing using an insulation test instrument

S46: Conduct supply checks of a low voltage single and three phase supply to identify: correct polarity, voltage, earth fault loop impedance and phase rotation

S47: Use electrical test instruments to diagnose a fault condition on low voltage distribution or control equipment for example open circuit, blown fuse, short circuit or out phase condition

Group 9: Circuit breaker maintenance

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P
Sets up oil pumping equipment, removes and replaces insulating oil, and cleans equipment following removal of insulating oil in line with task requirements and company procedures.	<input type="checkbox"/>
Checks circuit breaker contact condition, removing and replacing or dressing in line with task requirements and company procedures.	<input type="checkbox"/>
Cleans and lubricates operating mechanisms using approved lubricants in line with task requirements and company procedures.	<input type="checkbox"/>
Adjusts, remove, and replaces components in line with task requirements and company procedures. (K47, S32, S33, S34, S35, S36, S38, S39)	<input type="checkbox"/>
Takes oil samples using insulating oil sampling methods including sample taps and tubes in line with task requirements and company procedures. (K44, S37)	<input type="checkbox"/>

Comments: (what was observed)

Questions to help evidence the Pass descriptors above

Develop some open-ended questions

Write down the question(s) asked:

Summary of response to question(s):

Provide comments explaining the reasons for awarding a Fail or Pass grade awarded for Group 9: Circuit breaker maintenance

Group 9 - Fail	<input type="checkbox"/>	
Group 9 - Pass	<input type="checkbox"/>	

K44: Insulating oil sampling methods: sample taps and sample tubes and their requirements

K47: Post fault and routine maintenance of oil filled circuit breakers requirements

S32: Conduct circuit breaker timing tests

S33: Set up oil pumping equipment

S34: Remove and replace insulating oil from substation plant avoiding contamination

S35: Clean oil filled equipment following removal of insulating oil

S36: Check circuit breaker contact condition; remove and replace or dress

S37: Take oil samples from equipment

S38: Clean and lubricate operating mechanisms using approved lubricants

S39: Adjust, remove, and replace components for example, gaskets

Group 10: Battery maintenance

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors		P
Conducts functional tests of equipment to confirm operating to expected parameters and inspects substation site, buildings and equipment including steelwork and neutral earthing conductors and connections in line with task requirements and company procedures and identifies any defects in condition.		<input type="checkbox"/>
Comments: (what was observed)		
Questions to help evidence the Pass descriptors above Develop some open-ended questions		
Write down the question(s) asked:		
Summary of response to question(s):		
Provide comments explaining the reasons for awarding a Fail or Pass grade awarded for Group 10: Battery maintenance		
Group 10 - Fail	<input type="checkbox"/>	
Group 10 - Pass	<input type="checkbox"/>	

K49: Substation battery maintenance and testing requirements: wet cell and dry (sealed) battery types

S44: Check battery connections for any damage, clean cells, check monitoring alarms, check function of charging equipment

S45: Test substation batteries using voltage and analytical testing instruments

Group 11: Inspection and monitoring of substation equipment

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors		P
Conducts functional tests of equipment to confirm operating to expected parameters and inspects substation site, buildings and equipment including steelwork and neutral earthing conductors and connections in line with task requirements and company procedures and identifies any defects in condition.		<input type="checkbox"/>
Comments: (what was observed)		
Questions to help evidence the Pass descriptors above Develop some open-ended questions		
Write down the question(s) asked:		
Summary of response to question(s):		
Provide comments explaining the reasons for awarding a Fail or Pass grade awarded for Group 11: Inspection and monitoring of substation equipment		
Group 11 - Fail	<input type="checkbox"/>	
Group 11 - Pass	<input type="checkbox"/>	

K45: Requirements for inspection, monitoring and condition assessment of equipment in distribution secondary or primary substation types

S40: Conduct functional tests of equipment - post maintenance or routine

S41: Inspect substation site, buildings and equipment including steelwork and neutral earthing conductors and connections and identify defects

Group 12: Switching operations

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors		P
Conducts switching operations including accurately interpreting the network schematic diagrams and geographic records to identify the running arrangements, preparing low voltage or high voltage switching operation schedules, and operating network switching equipment in line with task requirements and company procedures.		<input type="checkbox"/>
Comments: (what was observed)		
Questions to help evidence the Pass and Distinction descriptors above Develop some open-ended questions		
Write down the question(s) asked:		
Summary of response to question(s):		
Provide comments explaining the reasons for awarding a Fail or Pass grade awarded for Group 12: Switching operations		
Group 11 - Fail	<input type="checkbox"/>	
Group 11 - Pass	<input type="checkbox"/>	

K56: Low voltage and high voltage operational switching and testing requirements

S48: Interpret network schematic diagrams and geographic records to identify running arrangements prior to operation

S49: Prepare low voltage or high voltage switching operation schedules

S50: Operate network switching equipment such as switches, circuit breakers, links or fuses on low voltage or high voltage distribution networks



Transmission maintenance

Group 7: Use maintenance specifications

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors		P
Reads, interprets, and follows maintenance specifications to support task completion.		<input type="checkbox"/>
Comments: (what was observed)		
Questions to help evidence the Pass descriptors above Develop some open-ended questions		
Write down the question(s) asked:		
Summary of response to question(s):		
Provide comments explaining the reasons for awarding a Fail or Pass grade awarded for Group 7: Use maintenance specifications		
Group 7 - Fail	<input type="checkbox"/>	
Group 7 - Pass	<input type="checkbox"/>	
Group 7 - Distinction	<input type="checkbox"/>	

S51: Read, interpret, and follow maintenance specifications



Group 8: Use elevated work platforms

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors		P
Uses mobile elevated work platforms safely in line with company procedures		<input type="checkbox"/>
Comments: (what was observed)		
Questions to help evidence the Pass descriptors above Develop some open-ended questions		
Write down the question(s) asked:		
Summary of response to question(s):		
Provide comments explaining the reasons for awarding a Fail or Pass grade awarded for Group 8: Use elevated work platforms		
Group 8 - Fail	<input type="checkbox"/>	
Group 8 - Pass	<input type="checkbox"/>	

S53: Use mobile elevated work platforms.

Group 9: Electrical testing

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P
Interprets network schematic diagrams accurately prior to carrying out testing activities.	<input type="checkbox"/>
Uses diagnostic equipment to identify asset condition and identifies action required.	<input type="checkbox"/>
Conducts electrical testing using correct methods for continuity, resistance, and circuit breaker timing in line with task requirements and company procedures. (K57, S52, S54, S55, S56, S57)	<input type="checkbox"/>
Restores power in line with company procedures. (K66, S69)	<input type="checkbox"/>

To achieve a DISTINCTION the apprentice must achieve ALL the PASS descriptors and ALL of the following:descriptors	D
Evaluates the diagnostic results to determine potential underlying cause of issues and rectification.	<input type="checkbox"/>

Comments: (what was observed)
Questions to help evidence the Pass and Distinction descriptors above Develop some open-ended questions
Write down the question(s) asked:
Summary of response to question(s):

Provide comments explaining the reasons for awarding a Fail, Pass or Distinction grade awarded for Group 9: Electrical testing

Group 9 - Fail	<input type="checkbox"/>	
Group 9 - Pass	<input type="checkbox"/>	
Group 9 - Distinction	<input type="checkbox"/>	

K57: Electrical testing requirements and methods: continuity, voltage, and joint or contact resistance

K66: Restoring power procedures

S52: Interpret network schematic diagrams prior to carrying out testing activities

S54: Use diagnostic equipment to identify asset condition; identify action

S55: Conduct testing using a continuity test instrument or multimeter

S56: Conduct resistance testing using a contact resistance tester (ductor)

S57: Conduct circuit breaker timing tests

S69: Restore power.

Group 10: Circuit breaker maintenance

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors		P
Conducts circuit breaker maintenance in line with task requirements and company procedures including taking insulation medium samples from equipment, cleaning and lubricating operating mechanisms using approved lubricants, adjusting or replacing components using mechanical fixings, conducting functional tests of equipment to confirm it is operating to expected parameters, and conducting visual inspections of transmission steelwork earthing connections, identifying any issues.		<input type="checkbox"/>
Comments: (what was observed)		
Questions to help evidence the Pass descriptors above Develop some open-ended questions		
Write down the question(s) asked:		
Summary of response to question(s):		
Provide comments explaining the reasons for awarding a Fail or Pass grade awarded for Group 10: Circuit breaker maintenance		
Group 10 - Fail	<input type="checkbox"/>	
Group 10 - Pass	<input type="checkbox"/>	

K59: Use and operation of mechanical fixings

K62: Maintenance processes for circuit breakers

S62: Take insulation medium samples from equipment for example, oil, SF6.



S63: Clean and lubricate operating mechanisms using approved lubricants

S64: Adjust or replace components

S65: Conduct functional tests of equipment, post maintenance or routine, to confirm operating to expected parameters

S66: Conduct a visual inspection of transmission steelwork earthing connections; identify issues

Construction

Group 7: Use engineering representations, drawings, and graphical information

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P
Reads, interprets, and follows engineering representations, drawings, and graphical information to support task completion.	<input type="checkbox"/>

Comments: (what was observed)	
Questions to help evidence the Pass descriptors above Develop some open-ended questions	
Write down the question(s) asked:	
Summary of response to question(s):	
Provide comments explaining the reasons for awarding a Fail or Pass grade awarded for Group 7: Use engineering representations, drawings, and graphical information	
Group 7 - Fail	<input type="checkbox"/>
Group 7 - Pass	<input type="checkbox"/>

K67: Engineering representations, drawings, and graphical information: application and importance

S73: Read, interpret, and follow representations, drawings, and graphical information to complete tasks. For example, multicore diagrams, schematics, and core sheets:

Group 8: Follow construction safety requirements

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P
Proves plant, equipment, cabling, and system is safe to work on and checks earthing is in place in line with task requirements and company procedures. (S74, S75)	<input type="checkbox"/>
Follows lifting plan in line with lifting operations - rigging and slinging - requirements. (K75, S76)	<input type="checkbox"/>

Comments: (what was observed)	
Questions to help evidence the Pass descriptors above Develop some open-ended questions	
Write down the question(s) asked:	
Summary of response to question(s):	
Provide comments explaining the reasons for awarding a Fail or Pass grade awarded for Group 8: Follow construction safety requirements	
Group 8 - Fail	<input type="checkbox"/>
Group 8 - Pass	<input type="checkbox"/>

K75: Lifting operations – rigging and slinging

S74: Prove plant, equipment, cabling, and system is safe to work on. For example, prove dead, isolate

S75: Check earthing is in place. For example, additional earths, equipment earths, and drain earths

S76: Follow lifting plan

Group 9: Install new substation equipment

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors		P
Locates and fixes high voltage switchgear using fixing systems including unistrut, rawl bolts, chemical fixing anchors and proof loading, shims, and grouting for base plates in line with task requirements and company procedures		<input type="checkbox"/>
Comments: (what was observed)		
Questions to help evidence the Pass descriptors above Develop some open-ended questions		
Write down the question(s) asked:		
Summary of response to question(s):		
Provide comments explaining the reasons for awarding a Fail or Pass grade awarded for Group 9: Install new substation equipment		
Group 9 - Fail	<input type="checkbox"/>	
Group 9 - Pass	<input type="checkbox"/>	

K73: Fixing systems: unistrut, rawl bolts, chemical fixing anchors and proof loading, shims, and grouting for base plates
S79: Locate and fix high voltage switchgear



Group 10: Install earthing associated with substations

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P
Installs earthing including laying earth tape, selecting and applying mechanical connections, brazing and welding to fix it within excavations and to plant and equipment above and below ground. In doing so, uses materials and equipment suitable for the task and stores, transports and uses commercial gas in line with company procedures.	<input type="checkbox"/>

Comments: (what was observed)

Questions to help evidence the Pass descriptors above
Develop some open-ended questions

Write down the question(s) asked:

Summary of response to question(s):

Provide comments explaining the reasons for awarding a Fail or Pass grade awarded for Group 10: Install earthing associated with substations

Group 10 - Fail	<input type="checkbox"/>	
Group 10 - Pass	<input type="checkbox"/>	

- K68:** Commercial gas: storage, transportation, and safe use
- K72:** System earthing requirements: selection of materials and equipment for above and below ground earthing systems, installation, mechanical connections, welding, and brazing
- S81:** Apply mechanical connections, brazing, and welding techniques
- S82:** Lay and fix earth tape within excavation and to plant and equipment

Group 11: Install and terminate multi-core cables and containment systems

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P
Selects, positions, and connects multi-core wiring including glanding, looming, crimping, and ferruling in line with task requirements and company procedures	<input type="checkbox"/>

Comments: (what was observed)

Questions to help evidence the Pass descriptors above
Develop some open-ended questions

Write down the question(s) asked:

Summary of response to question(s):

Provide comments explaining the reasons for awarding a Fail or Pass grade awarded for Group 11: Install and terminate multi-core cables and containment systems

Group 11 - Fail	<input type="checkbox"/>	
Group 11 - Pass	<input type="checkbox"/>	

K70: Multi-core wiring requirements: installation, termination (glanding , looming, crimping, and ferruling), labelling and identification system
S85: Select, position, and connect multi-core wiring including glanding, looming, crimping, and ferruling. For example, panel wiring within a protection panel and switchgear. Apply labelling and identification system

Group 12: Conduct testing on installed equipment

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P
Selects and use test instruments to conduct a minimum of 3 different testing procedures and describes how they would conduct others in line with task requirements and company procedures, covering voltage, polarity, insulation resistance, three-phase testing, phase rotation, earth loop impedance, continuity, and joint resistance. (K76, S86)	<input type="checkbox"/>
Conducts mechanical testing including proof loading and torque tests in line with task requirements and company procedures. (K82, S87)	<input type="checkbox"/>
Conducts alignment checks in line with task requirements and manufacturer's instructions. (S88)	<input type="checkbox"/>
Takes oil samples for testing in line with task requirements and company procedures. (K83, S89)	<input type="checkbox"/>
Interprets test results identifying action as required. (S91)	<input type="checkbox"/>

To achieve a DISTINCTION the apprentice must achieve ALL the PASS descriptors and ALL of the following:descriptors	D
Evaluates the importance of applying electrical and mechanical testing in terms of preventing operational issues.	<input type="checkbox"/>

Comments: (what was observed)
Questions to help evidence the Pass and Distinction descriptors above Develop some open-ended questions
Write down the question(s) asked:
Summary of response to question(s):

Provide comments explaining the reasons for awarding a Fail, Pass or Distinction grade awarded for Group 12: Conduct testing on installed equipment

Group 10 - Fail	<input type="checkbox"/>	
Group 10 - Pass	<input type="checkbox"/>	

K76: Testing procedures: voltage, polarity, insulation resistance, three-phase testing, phase rotation, earth loop impedance, continuity, and joint resistance

K82: Mechanical testing requirements

K83: Oil sampling methods and requirements

S86: Use test instruments. For example, volt meters, multi-function tester, and resistance tester

S87: Conduct mechanical testing. For example, torque and proof loading.

S88: Conduct alignment checks

S89: Take oil samples for testing

S91: Interpret test results and action as required

Appendix H: Example: Trade Test Technical Interview Assessor Recording Form

Power Industry Substation Fitter

Trade Test Technical Interview – Example of Assessor Recording Form

Instructions for the employer assessor

Delivery

- The interview will last at least 75 minutes
- This is an Employer Assessor led formal interview and not a professional discussion. You must be in full control. If the apprentice veers off track, they need to be reined back in
- You must ask a minimum of ten open questions
- Tailor questions to suit individual circumstances
- The purpose of the questions is to cover the following topics:

Core

- role and responsibilities
- electrical danger and control
- working at height
- asset security
- insulating mediums
- methods of cooling transformers
- handling and transportation of insulation oil
- determining insulating oil integrity

Distribution maintenance

- functional tests
- jointing earthing conductors
- ground mounted distribution oil filled switchgear maintenance
- transformers maintenance requirements
- air break disconnectors maintenance requirements

Transmission maintenance

- insulation testing
- insulation medium maintenance
- battery maintenance
- transmission equipment maintenance
- condition monitoring

Construction

- construction equipment and cabling installation
 - AC/DC (alternating current and direct current) supply power cable and power wiring installation
 - diagnostic fault-finding techniques
 - plant and equipment locking devices and interlocking systems requirements
 - producing wiring core sheets from wiring diagrams
 - replacing components
 - removing cabling and equipment
-
- Answers to questions, must be documented.
 - If the interview is conducted by video conferencing, timeline each question to the recording. Only log the time for the start of each question asked
 - Additional follow-up questions are allowed to seek clarification and to make a judgement against grading descriptor
 - Supply brief written notes where each criterion has been met
 - Complete the summary report page
 - Record a preliminary grade
 - Complete the justification for the preliminary grade
 - Both the recording and the written notes will be subject to IQA by EUIAS.

At the end of the interview -Thank the apprentice for their time and wish them good luck



Name of Apprentice	
<input type="checkbox"/> Apprentice ID checked	
Option	
Are Reasonable Adjustments required? Yes <input type="checkbox"/> No <input type="checkbox"/>	
Please give details	
Location of Technical Interview	
Full Name of Employer Assessor	
Date of Technical Interview	
Start Time	
End Time	

Fail - does not meet pass criteria

To achieve a PASS the apprentice must demonstrate ALL the PASS descriptors for the core and their option

Preliminary Grade awarded (Please tick the relevant box)	Pass	Fail
	<input type="checkbox"/>	
Employer Assessor Justification for Preliminary Grade awarded:		



Trade Test Technical Interview Summary	Pass
Core	
Group 1: Role and responsibilities K4 K5 S22 B4	<input type="checkbox"/>
Group 2: Electrical danger - control and first aid K8 K11 K42 S9	<input type="checkbox"/>
Group 3: Working at height K12 K13 S15 S16	<input type="checkbox"/>
Group 4: Asset security K16 S11	<input type="checkbox"/>
Group 5: Insulating mediums K38	<input type="checkbox"/>
Group 6: Methods of cooling transformers K39	<input type="checkbox"/>
Group 7: Handling and transportation of insulation oil K40	<input type="checkbox"/>
Group 8: Determining insulating oil integrity K41	<input type="checkbox"/>
Distribution maintenance	
Group 9: Functional tests K46	<input type="checkbox"/>
Group 10: Jointing earthing conductors K55 S42 S43	<input type="checkbox"/>
Group 11: Ground mounted distribution oil filled switchgear maintenance K48	<input type="checkbox"/>
Group 12: Transformers maintenance requirements K50	<input type="checkbox"/>
Group 13: Air break disconnectors maintenance requirements K51	<input type="checkbox"/>
Transmission maintenance	



Group 9: Insultation testing K58 S58	<input type="checkbox"/>
Group 10: Insulation medium maintenance S59 S60 S61	<input type="checkbox"/>
Group 11: Battery maintenance K65 S67 S68	<input type="checkbox"/>
Group 12: Transmission equipment maintenance K61 K63 K64 S70 S71 S72	<input type="checkbox"/>
Group 13: Condition monitoring processes K60	<input type="checkbox"/>
Construction	
Group 9: Construction equipment and cabling installation K69 K74 K81 S77 S78 S84	<input type="checkbox"/>
Group 10: AC/DC (alternating current and direct current) supply power cable and power wiring installation K71 S80	<input type="checkbox"/>
Group 11: Diagnostic fault-finding techniques K77 S90	<input type="checkbox"/>
Group 12: Plant and equipment locking devices and interlocking systems requirements K78	<input type="checkbox"/>
Group 13: Producing wiring core sheets from wiring diagrams S83	<input type="checkbox"/>
Group 14: Replacing components S92	<input type="checkbox"/>
Group 15: Removing cabling and equipment S93	<input type="checkbox"/>

Introduction

At the start of the trade test technical interview the Employer Assessor will:

- Introduce themselves
- State their role
- State the date of the interview
- Request and confirm ID from the apprentice
- Provide apprentice with information on the format of the technical interview, including the timescales they will be working to.

The apprentice will:

- Confirm their full name
- Confirm their date of birth
- Confirm they are prepared for the interview; and confirm they can continue with the interview

Important points to inform the apprentice

- Please do not judge anything by the notes being taken, nor infer anything positive or negative from how long the interview lasts.
- We are not allowed to give you feedback at any point. So unfortunately, we will not be able to give you any indication of your grade and whether you have passed or failed at the end.
- Please ensure that your mobile off or somewhere where you will not be interrupted during the interview.
- Sign placed on the door of the interview room. Interview in progress 'Do not disturb'.
- This interview will be fully recorded for the purpose of audit and quality assurance.

Core

Group 1: Role and responsibilities

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors		P
Outlines their role as a substation fitter including their limits of responsibility and how they escalate issues. (K4, S22, B4)		<input type="checkbox"/>
Describes how they respond and adapt to work demands in line with organisational requirements. (K4, S22, B4)		<input type="checkbox"/>
Explains the responsibilities of persons as defined in the industry standard safety rules: supervising a working party, competent persons, and authorisation roles and responsibilities in relation to working under safety documentation. (K5)		<input type="checkbox"/>
Timeline reference:	<i>Record time if interview conducted by video conferencing</i>	
Write down the question(s) asked:		
Summary of response to question(s):		
Provide comments explaining the reasons for awarding a Fail or Pass grade awarded for Group 1: Role and responsibilities		
Group 1 - Fail	<input type="checkbox"/>	
Group 1 - Pass	<input type="checkbox"/>	

K4: Substation fitter roles and responsibilities. Limitations of role and escalation procedures

K5: Responsibilities of persons as defined in industry standard safety rules: supervising a working party, competent persons. Authorisation roles and responsibilities. Safety documentation

S22: Escalate issues outside limits of responsibility

B4: Respond and adapt to work demands. For example, adapt working methods to reflect changes in working environment, take initiative -making on the spot decisions, re-prioritise workloads to react to emergency response and to fault scenarios

Group 2: Electrical danger - control and first aid

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P
Explains the dangers of electricity and how an electric shock can be received including direct contact, induced (impressed) voltage, and arcing. Outlines electric shock emergency procedures in line with company procedures. (K8)	<input type="checkbox"/>
Explains safe systems of work on high voltage and low voltage equipment to ensure safety from the inherent dangers of the system. (K42)	<input type="checkbox"/>
Describes how they would respond in the event of a first aid emergency, with reference to their emergency first aid training and responsibilities and measures they would take to avoid electrical risk in line with company procedures. (K11, S9)	<input type="checkbox"/>

Timeline reference:	<i>Record time if interview conducted by video conferencing</i>	
Write down the question(s) asked:		
Summary of response to question(s):		
Provide comments explaining the reasons for awarding a Fail or Pass grade awarded for Group 2: Electrical danger - control and first aid		
Group 2 - Fail	<input type="checkbox"/>	
Group 2 - Pass	<input type="checkbox"/>	

K8: The dangers of electricity and how an electric shock can be received: direct contact, induced (impressed) voltage, and arcing. Electric shock emergency procedures

K11: Emergency first aid

K42: Safe systems of work on high voltage and low voltage equipment to ensure safety from the inherent dangers of the system

S9: Respond in the event of an emergency first aid situation including situations where there is electrical risk



Group 3: Working at height

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P
Describes how they use working at height access equipment with reference to hierarchy of methods for working at height and inspection, operation, and maintenance requirements for mobile working platforms, scaffolding and ladders in line with company procedures.	<input type="checkbox"/>
Describes how they use personal protective equipment: harnesses, fall restraint and arrest equipment suitable for the context with reference to user inspection, operation, and maintenance requirements.	<input type="checkbox"/>
Outlines rescue from height equipment and methods in line with company procedures.	<input type="checkbox"/>

Timeline reference:	<i>Record time if interview conducted by video conferencing</i>	
Write down the question(s) asked:		
Summary of response to question(s):		
Provide comments explaining the reasons for awarding a Fail, Pass or Distinction grade awarded for Group 3: Working at height		
Group 3 - Fail	<input type="checkbox"/>	
Group 3 - Pass	<input type="checkbox"/>	

K12: Working at height awareness and safe use of methods of access and egress. Hierarchy of methods. Mobile working platforms, scaffolding, ladders – inspection, operation, and maintenance requirements

K13: Working at height personal protective equipment: harnesses, fall restraint and arrest equipment - user inspection, operation, and maintenance requirements. Rescue from height equipment and methods

S15: Use working at height access equipment for example, scaffold towers and ladders

S16: Select, inspect, and use working at height personal protective equipment



Group 4: Asset security

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors		P
Describes how they apply asset security measures in line with company procedures.		<input type="checkbox"/>
Timeline reference:	<i>Record time if interview conducted by video conferencing</i>	
Write down the question(s) asked:		
Summary of response to question(s):		
Provide comments explaining the reasons for awarding a Fail or Pass grade awarded for Group 4: Asset security		
Group 4 - Fail	<input type="checkbox"/>	
Group 4 - Pass	<input type="checkbox"/>	

K16: Asset security requirements

S11: Apply security measures for example, set alarm system, remove climbing aides



Group 5: Insulating mediums

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P
Explains the advantages and disadvantages of different types of insulating mediums used in high voltage equipment including insulating oil, SF6 gas, vacuum, air, and SF6 alternatives	<input type="checkbox"/>

Timeline reference:	<i>Record time if interview conducted by video conferencing</i>
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Write down the question(s) asked:

Summary of response to question(s):

Provide comments explaining the reasons for awarding a Fail or Pass grade awarded for Group 5: Insulating mediums

Group 5 - Fail	<input type="checkbox"/>	
Group 5 - Pass	<input type="checkbox"/>	

K38: Types of insulating mediums used in high voltage equipment and their advantages or disadvantages: insulating oil, SF6 gas, vacuum, air, and SF6 alternatives



Group 6: Methods of cooling transformers

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P
Explains the advantages and limitations of different methods of cooling transformers including natural, pump forced, and fan forced. Along with the methods of control and associated protection if overheating occurs	<input type="checkbox"/>

Timeline reference:	<i>Record time if interview conducted by video conferencing</i>
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Write down the question(s) asked:

Summary of response to question(s):

Provide comments explaining the reasons for awarding a Fail, Pass or Distinction grade awarded for Group 6: Methods of cooling transformers

Group 6 - Fail	<input type="checkbox"/>	
Group 6 - Pass	<input type="checkbox"/>	

K39: Methods of cooling transformers and their advantages and limitations: natural, pump forced, and fan forced. The methods of control and associated protection if overheating occurs



Group 7: Handling and transportation of insulation oil

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors		P
Explains considerations for the handling or transportation of insulating oil (bulk and drums) including reducing risk of spillage, bunding requirements, hygiene, barrier creams, specialist PPE, pumps, storage, labelling containers, manual handling, and disposal in line with company procedures		<input type="checkbox"/>
Timeline reference:	<i>Record time if interview conducted by video conferencing</i>	
Write down the question(s) asked:		
Summary of response to question(s):		
Provide comments explaining the reasons for awarding a Fail, Pass or Distinction grade awarded for Group 7: Handling and transportation of insulation oil		
Group 7 - Fail	<input type="checkbox"/>	
Group 7 - Pass	<input type="checkbox"/>	

K40: Considerations for the handling or transportation of insulating oil (bulk and drums): reducing risk of spillage, bunding requirements, hygiene, barrier creams, specialist PPE, pumps, storage, labelling containers, manual handling, and disposal

Group 8: Determining insulating oil integrity

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P
Explains methods of determining insulating oil electrical integrity or presence of contaminants with reference to dielectric strength, moisture, acidity, polychlorinated biphenyl (PCB), and carbonisation	<input type="checkbox"/>

Timeline reference:	<i>Record time if interview conducted by video conferencing</i>
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Write down the question(s) asked:

Summary of response to question(s):

Provide comments explaining the reasons for awarding a Fail, Pass or Distinction grade awarded for Group 8: Determining insulating oil integrity

Group 8 - Fail	<input type="checkbox"/>	
Group 8 - Pass	<input type="checkbox"/>	

K41: Methods of determining insulating oil electrical integrity or presence of contaminants: dielectric strength, moisture, acidity, polychlorinated biphenyl (PCB), and carbonisation



Distribution maintenance

Group 9: Functional tests

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors		P
Explains the functional checks and routine basic maintenance of substation equipment including breather gels, Automatic Voltage Control systems, cooling systems, bund pumps, battery monitoring alarms, oil pressure alarms, and Transient Earth Voltage (TEV) testing in line with company procedures		<input type="checkbox"/>
Timeline reference:	<i>Record time if interview conducted by video conferencing</i>	
Write down the question(s) asked:		
Summary of response to question(s):		
Provide comments explaining the reasons for awarding a Fail, Pass or Distinction grade awarded for Group 9: Functional tests		
Group 9 - Fail	<input type="checkbox"/>	
Group 9 - Pass	<input type="checkbox"/>	

K46: Functional checks and routine basic maintenance of substation equipment requirements: breather gels, Automatic Voltage Control systems, cooling systems, bund pumps, battery monitoring alarms, oil pressure alarms, Transient Earth Voltage (TEV) testing



Group 10: Jointing earthing conductors

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P
Describes how they joint earthing conductors using mechanical compression joints and conduct electrical testing of earth electrodes using a digital earth resistance tester in line with company procedures	<input type="checkbox"/>

Timeline reference:	<i>Record time if interview conducted by video conferencing</i>
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Write down the question(s) asked:

Summary of response to question(s):

Provide comments explaining the reasons for awarding a Fail, Pass or Distinction grade awarded for Group 10: Jointing earthing conductors

Group 10 - Fail	<input type="checkbox"/>	
Group 10 - Pass	<input type="checkbox"/>	

K55: Requirements for jointing earthing conductors using mechanical compression joints

S42: Conduct electrical testing of earth electrodes using a digital earth resistance tester

S43: Joint earthing conductors using mechanical compression joints



Group 11: Ground mounted distribution oil filled switchgear maintenance

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors		P
Explains routine ground mounted distribution oil filled switchgear maintenance requirements in line with company procedures including removal and replacement of oil, cleaning of internal tanks and components, inspection and replacement of gaskets, lubrication of external mechanisms		<input type="checkbox"/>
Timeline reference:	<i>Record time if interview conducted by video conferencing</i>	
Write down the question(s) asked:		
Summary of response to question(s):		
Provide comments explaining the reasons for awarding a Fail, Pass or Distinction grade awarded for Group 11: Ground mounted distribution oil filled switchgear maintenance		
Group 11 - Fail	<input type="checkbox"/>	
Group 11 - Pass	<input type="checkbox"/>	

K48: Routine ground mounted distribution oil filled switchgear maintenance requirements: removal and replacement of oil, cleaning of internal tanks and components, inspection and replacement of gaskets, lubrication of external mechanisms



Group 12: Transformers maintenance requirements

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors		P
Explains distribution primary transformer and ancillary equipment maintenance requirements in line with company requirements		<input type="checkbox"/>
Timeline reference:	<i>Record time if interview conducted by video conferencing</i>	
Write down the question(s) asked:		
Summary of response to question(s):		
Provide comments explaining the reasons for awarding a Fail, Pass or Distinction grade awarded for Group 12: Transformers maintenance requirements		
Group 12 - Fail	<input type="checkbox"/>	
Group 12 - Pass	<input type="checkbox"/>	

K50: Distribution primary transformer and ancillary equipment maintenance requirements



Group 13: Air break disconnectors maintenance requirements

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P
Explains air break switch disconnectors maintenance requirements in line with company procedures for motorised load breaking and manual non-load breaking equipment	<input type="checkbox"/>

Timeline reference:	<i>Record time if interview conducted by video conferencing</i>
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Write down the question(s) asked:

Summary of response to question(s):

Provide comments explaining the reasons for awarding a Fail, Pass or Distinction grade awarded for Group 13: Air break disconnectors maintenance requirements

Group 13 - Fail	<input type="checkbox"/>	
Group 13 - Pass	<input type="checkbox"/>	

K51: Air break switch disconnectors maintenance requirements for motorised load breaking and manual non-load breaking equipment



Transmission maintenance

Group 9: Insultation testing

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P
Describes how they conduct insulation testing using an insulation test instrument in line with task requirements and company procedures	<input type="checkbox"/>

Timeline reference:	<i>Record time if interview conducted by video conferencing</i>
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Write down the question(s) asked:

Summary of response to question(s):

Provide comments explaining the reasons for awarding a Fail, Pass or Distinction grade awarded for Group 9: Insultation testing

Group 9 - Fail	<input type="checkbox"/>	
Group 9 - Pass	<input type="checkbox"/>	

K58: Insulation resistance testing methods and requirements

S58: Conduct insulation testing using an insulation test instrument



Group 10: Insulation medium maintenance

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P
Describes how they remove and replace insulating medium and clean equipment following its removal in line with task requirements and company procedures (S59, S60)	<input type="checkbox"/>
Describes how they check circuit breaker contact condition and remove and replace or dress in line with task requirements and company procedures (S61)	<input type="checkbox"/>

Timeline reference:	<i>Record time if interview conducted by video conferencing</i>	
Write down the question(s) asked:		
Summary of response to question(s):		
Provide comments explaining the reasons for awarding a Fail, Pass or Distinction grade awarded for Group 10: Insulation medium maintenance		
Group 10 - Fail	<input type="checkbox"/>	
Group 10 - Pass	<input type="checkbox"/>	

S59: Remove and replace insulating medium for example, oil, SF6 or air from transmission plant avoiding contamination
S60: Clean equipment following removal of insulating medium
S61: Check circuit breaker contact condition; remove and replace or dress

Group 11: Battery maintenance

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors		P
Describes how they conduct wet cell and sealed battery maintenance including checking battery connections for any damage, cleaning cells, checking monitoring alarms, and checking function of charging equipment and test substation batteries using voltage and analytical testing instruments in line with task requirements and company procedures		<input type="checkbox"/>
Timeline reference:	<i>Record time if interview conducted by video conferencing</i>	
Write down the question(s) asked:		
Summary of response to question(s):		
Provide comments explaining the reasons for awarding a Fail, Pass or Distinction grade awarded for Group 11: Battery maintenance		
Group 11 - Fail	<input type="checkbox"/>	
Group 11 - Pass	<input type="checkbox"/>	

K65: Substation battery maintenance and testing requirements: wet cell and sealed

S67: Check battery connections for any damage, clean cells, check monitoring alarms, check function of charging equipment

S68: Test substation batteries using voltage and analytical testing instruments

Group 12: Transmission equipment maintenance

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P
Describes how they conduct transformer maintenance including tap changers, Buchholz relay, WTI, qualitrol, breathers, surge arrestors, coordinating gaps, arcing horns, insulator checks and recalibrating (LNER) in line with task requirements and company procedure (K61, S70)	<input type="checkbox"/>
Describes how they conduct air system maintenance including making new pipework HP fittings, air leak detection and gas leak detection in line with task requirements and company procedures (K63, S71)	<input type="checkbox"/>
Describes how they conduct ancillary equipment maintenance including isolator dynamic torque testing in line with task requirements and company procedures (K64, S72)	<input type="checkbox"/>

Timeline reference:	<i>Record time if interview conducted by video conferencing</i>	
Write down the question(s) asked:		
Summary of response to question(s):		
Provide comments explaining the reasons for awarding a Fail, Pass or Distinction grade awarded for Group 12: Transmission equipment maintenance		
Group 12 - Fail	<input type="checkbox"/>	
Group 12 - Pass	<input type="checkbox"/>	

K61: Maintenance processes for transformers: tap changers, Buchholz relay, winding temperature indicator (WTI), qualitrol, breathers, surge arrestors, coordinating gaps, arcing horns, insulator checks and recalibrating (LNER)



K63: Maintenance processes for air systems: making new pipework HP fittings, air leak detection, and gas leak detection

K64: Maintenance processes for ancillary equipment: Isolator dynamic torque testing

S70: Conduct transformer maintenance including tap changers, Buchholz relay, WTI, qualitrol, breathers, surge arrestors, coordinating gaps, arcing horns, insulator checks and recalibrating (LNER)

S71: Conduct air system maintenance including making new pipework HP fittings, air leak detection and gas leak detection

S72: Conduct ancillary equipment maintenance

Group 13: Condition monitoring processes

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P
Explains the condition monitoring processes and equipment used within their area of operation	<input type="checkbox"/>

Timeline reference:	<i>Record time if interview conducted by video conferencing</i>
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Write down the question(s) asked:

Summary of response to question(s):

Provide comments explaining the reasons for awarding a Fail, Pass or Distinction grade awarded for Group 13: Condition monitoring processes

Group 13 - Fail	<input type="checkbox"/>	
Group 13 - Pass	<input type="checkbox"/>	

K60: Condition monitoring processes and use of equipment relating to measuring asset condition



Construction

Group 9: Construction equipment and cabling installation

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P
Describes how they install batteries in line with company procedures (K81, S77)	<input type="checkbox"/>
Describes how they position transformers in line with company procedures (S78)	<input type="checkbox"/>
Describes how they select, position, and install a given containment management system in line with company procedures (K69, S83)	<input type="checkbox"/>
Explains the internal and external positioning requirements when installing plant, metal structures, and apparatus (K74)	<input type="checkbox"/>

Timeline reference:	<i>Record time if interview conducted by video conferencing</i>
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Write down the question(s) asked:

Summary of response to question(s):

Provide comments explaining the reasons for awarding a Fail, Pass or Distinction grade awarded for Group 9: Construction equipment and cabling installation

Group 9 - Fail	<input type="checkbox"/>	
Group 9 - Pass	<input type="checkbox"/>	

K69: Types of cable containment management systems and installation requirements

K74: Installation of plant, metal structures, and apparatus - internal and external - positioning requirements

K81: Battery installation and checking requirements. Principles of stored energy and incident level

S77: Install batteries. Check function and action as required

S78: Position transformers

S84: Select, position, and install containment management system. For example, unistrut, ladder tray, and trunking



Group 10: AC/DC (alternating current and direct current) supply power cable and power wiring installation

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P
Describes how they select, position, and install AC/DC supply power cable and power wiring in line with company requirements	<input type="checkbox"/>

Timeline reference:	<i>Record time if interview conducted by video conferencing</i>
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Write down the question(s) asked:

Summary of response to question(s):

Provide comments explaining the reasons for awarding a Fail, Pass or Distinction grade awarded for Group 10: AC/DC (alternating current and direct current) supply power cable and power wiring installation

Group 10 - Fail	<input type="checkbox"/>	
Group 10 - Pass	<input type="checkbox"/>	

K71: AC/DC (alternating current and direct current) supply power cable and power wiring installation requirements

S80: Select, position, and install AC/DC supply power cable and power wiring



Group 11: Diagnostic fault-finding techniques

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors		P
Describes how they use diagnostic fault-finding techniques to investigate issues with equipment		<input type="checkbox"/>
Timeline reference:	<i>Record time if interview conducted by video conferencing</i>	
Write down the question(s) asked:		
Summary of response to question(s):		
Provide comments explaining the reasons for awarding a Fail, Pass or Distinction grade awarded for Group 11: Diagnostic fault-finding techniques		
Group 11 - Fail	<input type="checkbox"/>	
Group 11 - Pass	<input type="checkbox"/>	

K77: Diagnostic fault-finding techniques

S90: Apply diagnostic fault-finding techniques



Group 12: Plant and equipment locking devices and interlocking systems requirements

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors	P
Explains plant and equipment locking devices and interlocking systems requirements in their company	<input type="checkbox"/>

Timeline reference:	<i>Record time if interview conducted by video conferencing</i>
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Write down the question(s) asked:

Summary of response to question(s):

Provide comments explaining the reasons for awarding a Fail, Pass or Distinction grade awarded for Group 12: Plant and equipment locking devices and interlocking systems requirements

Group 12 - Fail	<input type="checkbox"/>	
Group 12 - Pass	<input type="checkbox"/>	

K78: Plant and equipment locking devices and interlocking systems requirements



Group 13: Producing wiring core sheets from wiring diagrams

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors		P
Describes how they produce wiring core sheets from wiring diagrams in line with company procedures		<input type="checkbox"/>
Timeline reference:	<i>Record time if interview conducted by video conferencing</i>	
Write down the question(s) asked:		
Summary of response to question(s):		
Provide comments explaining the reasons for awarding a Fail, Pass or Distinction grade awarded for Group 13: Producing wiring core sheets from wiring diagrams		
Group 13 - Fail	<input type="checkbox"/>	
Group 13 - Pass	<input type="checkbox"/>	

S83: Produce wiring core sheets from wiring diagrams



Group 14: Replacing components

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors		P
Describes how they replace components within equipment in line with company procedures		<input type="checkbox"/>
Timeline reference:	<i>Record time if interview conducted by video conferencing</i>	
Write down the question(s) asked:		
Summary of response to question(s):		
Provide comments explaining the reasons for awarding a Fail, Pass or Distinction grade awarded for Group 14: Replacing components		
Group 14 - Fail	<input type="checkbox"/>	
Group 14 - Pass	<input type="checkbox"/>	

S92: Replace components within equipment



Group 15: Removing cabling and equipment

To achieve a PASS the apprentice must demonstrate ALL the following pass descriptors		P
Describes how they remove cabling and equipment in line with company procedures		<input type="checkbox"/>
Timeline reference:	<i>Record time if interview conducted by video conferencing</i>	
Write down the question(s) asked:		
Summary of response to question(s):		
Provide comments explaining the reasons for awarding a Fail, Pass or Distinction grade awarded for Group 15: Removing cabling and equipment		
Group 15 - Fail	<input type="checkbox"/>	
Group 15 - Pass	<input type="checkbox"/>	

S93: Remove cabling and equipment



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