ENERGY & ENVIRONMENT AWARDS

EEA Level 3 End-point Assessment for Water Industry Asset Maintenance Technician
(Electrical; Mechanical; Instrumentation, control and automation)

Apprentice Guide

QAN 610/6456/7 ST1404 V1.0

Apprentice Guide for

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Updates to this Guide

Since the first publication of Energy & Environment Awards (EEA) Water Industry Asset Maintenance Technician Apprentice Guide, the following updates have been made.

Version	Date first published	Section updated	Page(s)
v1.0	January 2026	First published	All

At a Glance Component 1: Observation with questions

Date(s):	
Time:	
Location:	
Examination Conditions:	Conducted in your normal workplace
Additional Requirements:	
Assessed and marked by:	1 Independent assessor, approved by EEA

At a Glance Component 2: Interview based on an EPA portfolio

Date(s):	
Time:	
Location:	
Examination Conditions:	With an EEA Independent assessor, usually on-screen using MS teams. You must be at your employer's premises or a suitable venue for example training provider's premises You will have access to your EPA portfolio throughout the interview
Additional Requirements:	EPA Portfolio to be completed and submitted at Gateway
Assessed and marked by:	1 Independent assessor, approved by EEA

At a Glance Component 3: Multiple-choice test

Date(s):	
Time:	
Location:	
Examination Conditions:	Controlled by an invigilator
Additional Requirements:	
Assessed and marked by:	EEA

Introduction

Energy & Environment Awards has been selected by your employer to carry out end-point assessment (EPA) and it is our job to ensure that you are assessed fairly.

How This Apprentice Guide Is Organised

- ✓ Section 1:

  What is in the Apprentice Guide?

- ✓ Section 2:

  An Apprentice's End-point Assessment Journey

- ✓ Section 3:

  End-point Assessment Components

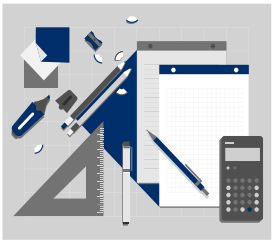
How to Use This Guide

This guide has been split into 3 sections. You can dip into each section that you are working on where you will find useful information, practical advice, tips you need and useful dates to successfully complete your EPA.

Throughout we have used headings and cross referenced to our EPA Water Industry Asset Maintenance Technician (WIAMT) Specification and/or Supporting Documents which provides details of the EPA components.

Section 1: The Basics

What is an Apprenticeship Standard?



An apprenticeship standard is a description of your apprenticeship, and it is based on the Water Industry Asset Maintenance Technician Standard, which was written by employers. It contains the water industry asset maintenance technician's job profile, and describes the knowledge, skills and behaviours (KSBs):

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

The standard can be accessed via the link below:
Water Industry Asset maintenance technician / Skills England
Select the occupational standard tab.

What is an Assessment Plan?

An Assessment Plan is also written by employers and provides details of what is required for you to pass your end-point assessment. It includes details of what you will be assessed on, how each assessment will take place, what methods will be used and who will assess you.

Energy & Environment Awards designed the end-point assessment (EPA) to meet the requirements of the Assessment Plan. The Assessment Plan can be accessed via the link below:
Water Industry Asset maintenance technician / Skills England
Select the EPA plan tab.

What is an end-point assessment (EPA)?

The end-point assessment is the assessments you take at the end of your apprenticeship. Your apprenticeship will typically take 48 months. You are required to spend a minimum of 8 months on-programme. After this you have a Gateway meeting with your employer or training provider to confirm you are ready for the end-point assessments. The words end-point means that you will be assessed at the end of your on-programme (training) to confirm you have met the standard. Your EPA period typically last 3 months.

What are the Gateway Requirements?

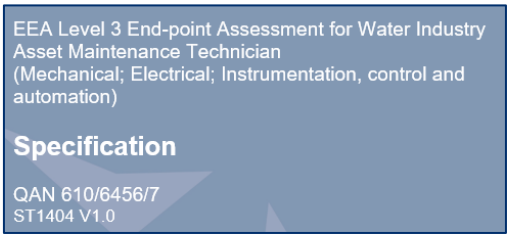
Gateway is a meeting where your employer, training provider and you ensure that you are confident that you can demonstrate all the KSBs defined in the apprenticeship standard and you are ready for EPA. After the meeting, your training provider will confirm the outcomes of the Gateway meeting by sending a signed document to Energy & Environment Awards. The document confirms that you have met the following Gateway requirements:

- achieved English and maths in line with the apprenticeship funding rules
- compiled an EPA portfolio, which will be the focus of the interview based on an EPA portfolio.

Your training provider will send copies of these documents to Energy & Environment Awards.

What is the EPA Specification?

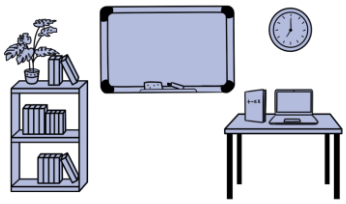
The end-point assessment specification provides details of the assessment methods used in your EPA, which:



- KSBs that are covered by each assessment
- KSBs amplification and guidance

The Specification can be accessed via the link below:
https://energyenvironmentawards.co.uk/epa/water-industry-asset-maintenance-technician-level-3/

Section 2: Apprentice EPA Journey



Let us Begin Your EPA Journey.

Find a quiet place and read on….

Your EPA journey consists of 3 elements:

- A training programme with on the job, off the job elements, typically 48 months
- Gateway meeting window
- End-point Assessment (EPA) typically 3 months

Your journey begins with the training program. Your employer and training provider are responsible for this part. This is where you will gain the required Knowledge, Skills and Behaviours (KSBs).

Water Industry Asset Maintenance Technician is a core and options apprenticeship standard. You must be trained and assessed against the core and one of the following specialisms:

- Mechanical
- Electrical
- Instrumentation, control and automation (ICA)

How will you be assessed in the end-point assessment?

You will be assessed on the following components, which can be taken in any order:

1. **Observation with Questions**
2. **Interview based on an EPA portfolio**
3. **Multiple-choice Test**

It is important for you to keep a record of when your 3 components are scheduled. We suggest you use the ‘At a Glance’ tables on page 5.

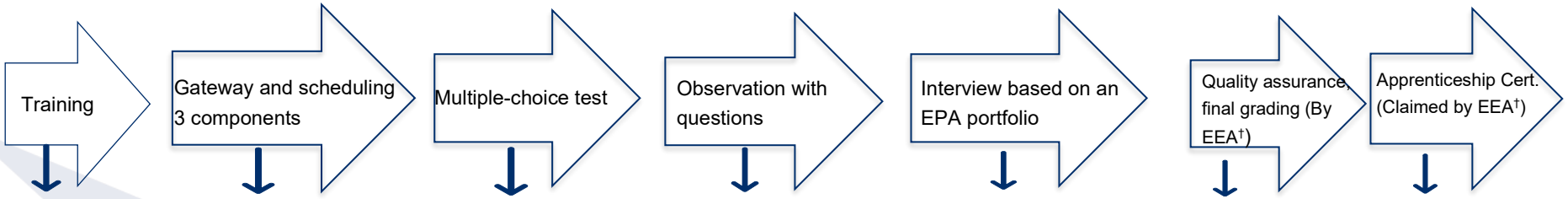
You must pass all 3 components to achieve this qualification. For further guidance refer to Section 3 End-point Assessment Components.

Reasonable adjustments

A reasonable adjustment is any action that helps to reduce the effect of a disability or difficulty that places you at a substantial disadvantage during assessments. If this applies to you make sure you tell your training provider who can make an application for a reasonable adjustment to Energy & Environment Awards on your behalf.

Your EPA Journey in a Diagram

The diagram below illustrates the order of your EPA **journey** from the day you register to your final certification:



Training	Gateway and scheduling 3 components	Multiple-choice test	Observation with questions	Interview based on an EPA portfolio	Quality assurance, final grading (By EEA†)	Apprenticeship Cert. (Claimed by EEA†)
Typically, 48 months	You have: Attended a Gateway meeting with your employer/provider. Achieved English and maths qualifications in line with the apprenticeship funding rules. Compiled a portfolio of evidence, which your interview will be based on.	60 Minutes. Multiple-choice 30 questions. • Under exam conditions • Supervised by an invigilator • Face to face Closed book. Scientific calculator allowed	4 hours Time may increase by up to 10%, to allow you to complete a task or answer. • Normal working conditions • Under examination conditions. • Face to face • Independent assessor For further details *see below.	90 minutes. Time may increase by up to 10%, to allow you to complete an answer. • Under examination conditions • Face to face or remote as agreed and recorded using relevant technology • Independent assessor For further details * see below.	Awarded Final Grading: Distinction, Pass or Fail.	Your Certificate will be sent to your training provider or employer. Contact your training provider or employer if you do not receive your certificate.

*For further details refer to Section 3 in this Apprentice Guide Or Section 2 of the Specification.

†EEA (Energy & Environment Awards

Section 3: End-point Assessment Components

Now let us continue your journey through EPA. There are 3 components that you must pass to be awarded a certificate.

Component 1: Observation with Questions

Overview

An observation with questions involves an independent assessor, appointed by Energy & Environment Awards observing and questioning you carrying out your day-to-day duties under normal working conditions. You must be allowed to demonstrate the application of your job role knowledge, skills and behaviours (KSBs) thorough natural occurring evidence. Simulation is not allowed. The independent assessor will ask you questions during or after the observation.

The following table outlines the procedure for conducting the observation with questions:

Structure of your Observation with questions	The total assessment time is 4 hours and this includes questioning. The assessor can increase the time by up to 24 minutes (10%) to allow you to complete your work or respond to a question if necessary. The assessment may be split into discrete sections held on the same working day. • Breaks may be taken during the observation to allow you to move from one location to another and for meal/comfort breaks • During breaks the clock will be stopped. The assessment time is not reduced **You may choose to end the observation with questions early**. Before doing so, you must be confident that you have demonstrated competence against all relevant assessment requirements.

Where will the assessment take place?	It will take place at your workplace in a real work setting under normal working conditions. **Simulation is not allowed**.
What knowledge, skills and behaviours (KSBs) do I have to demonstrate during the Observation with questions?	**NOTE:** You are only required to demonstrate core and your specialist option specific knowledge, skills and behaviours. Your employer/training provider will ensure that you have the opportunity to cover all aspects of the KSBs in an integrated way. **Health and safety (Core)** **K7:** Safe systems of work. **S4:** Follow health and safety procedures and safe systems of work in compliance with regulations and standards, including PPE. **S7:** Restore the work area on completion of the activity. **B1:** Take responsibility for and promotes health, safety and wellbeing for self, others, site and assets **Prepare for work (Core)** **S3:** Identify and organise resources to complete tasks, with consideration for process, cost, quality, safety, security and environmental impact. **Documentation and written communication (Core)** **K15:** Written communication and documentation: methods and requirements - electronic and paper. Service records. Test results. **S8:** Communicate in writing and record or enter information - paper based or electronic. For example, job sheets, risk assessments, equipment service records, test results, handover documents and manufacturers' documentation, asset management records, work sheets, checklists, waste environmental records and legal reporting requirements.

	Repair or maintenance (Mechanical) **K24:** Safe isolation and depressurisation of mechanical plant and equipment in preparation for repair and maintenance work. Permits, safe isolation policies and procedures, lock off systems. **K26:** Repair and maintenance of machinery, equipment and components. Practices and techniques. Removing and replacing parts, set up, adjustment, cleaning and lubricating. **K27:** Tools, equipment, resources and components used for the installation, repair and maintenance of mechanical systems. Application, operation, care and calibration requirements. **K29:** Inspection, monitoring and testing requirements and techniques. **S18:** Disconnect and remove mechanical equipment or components. **S19:** Apply repair and maintenance practices and techniques. **S20:** Use tools, equipment, resources and components for installation, repair and maintenance tasks. **S21:** Isolate plant and equipment in preparation for maintenance work, including permits, safe isolation policies, lock off systems and depressurisation of pressurised systems. **S22:** Inspect and test mechanical systems and components. **S24:** Carry out inspection and monitoring of mechanical systems and equipment. **S30:** Apply mechanical theories and principles. **Repair or maintenance (Electrical)** **K38:** Safe isolation of plant and electrical equipment in preparation for repair and maintenance work. Permits, safe isolation policies and procedures, lock off systems. **K42:** Tools, equipment, resources and components used for the installation, repair and maintenance of electrical systems. Application, operation, care and calibration requirements.

	K44: Inspection and testing requirements and techniques. **K45:** Repair and maintenance of equipment and components. Practices and techniques. Removing and replacing parts**.** **S33:** Apply electrical theories and principles. **S34:** Apply repair and maintenance practices and techniques. **S38:** Use tools, equipment, resources and components for installation, repair and maintenance. **S39:** Isolate equipment in preparation for maintenance work, including permits, safe isolation policies and lock off systems. **S40:** Inspect and test electrical installations and equipment**.**
	Repair or maintenance (Instrumentation, control or automation)
	K52: Repair and maintenance of instruments, controllers, sensors, probes, attachments, cabling, meters and display units. Practices and techniques. **K55:** Safe isolation of plant and ICA equipment in preparation for repair and maintenance work. Permits, safe isolation policies, lock off systems. **K56:** Tools, equipment, resources and components used for the installation, repair and maintenance of control systems. Application, operation, care and calibration requirements. **K59:** Inspection and testing requirements and techniques. **S45:** Apply electrical theories and principles. **S49:** Use tools, equipment, resources and components for installation, repair and maintenance. **S51:** Apply repair and maintenance practices and techniques to instrumentation and control equipment, control systems and cabling. **S53:** Inspect and test ICA equipment.

	S57: Isolate equipment in preparation for maintenance work, including permits, safe isolation policies and lock off systems. **S61:** Assess condition of equipment. Identify action required. **Configure and calibrate (Instrumentation, control and automation)** **K54:** Open and closed loop systems. First and second order control systems. **K62:** Configuration and calibration procedures and requirements. Precision and tolerance. **S47:** Configure instrumentation and control devices. **S48:** Calibrate and monitor open and closed loop systems. **S55:** Calibrate ICA equipment. **For amplification and guidance refer to the WIAMT Specification. A link to the WIAMT Specification is available on page 9.**
What activities will I have to cover?	During your observation you must carry out **all** of the core activities along with the activities specific to your pathway: **Core** • preparation of resources for work • health and safety compliance • completion of documentation and written communication **Mechanical** • repair or maintenance activities **Electrical** • repair or maintenance activities **Instrumentation, control and automation** • repair or maintenance activities • configuration and calibration activities
What resources can I use?	Equipment and resources needed for the observation will be: • provided by your employer / training provider • a suitable premises • the tools, equipment and PPE required for the job

	• in good and safe working condition Relevant work instructions/manuals must be available in hard copy or electronically.
How many questions will I be asked?	The independent assessor: • will ask a minimum of 5 questions • may ask questions to follow up in order to seek clarification from you
Who will assess me?	An independent assessor, appointed by Energy & Environment Awards.
Preliminary Grading	The independent assessor will award a preliminary grade. You must pass **ALL** the pass criteria in order to achieve a pass.
Overall grading for this component	Fail or Pass.

Practice Component 1: Observation with questions

You should have an opportunity to have a practice observation which mirrors the real assessment. A practice observation would be set up for you using the structure in the table above by your employer or training provider.

Component 2: Interview based on an EPA Portfolio

Overview

The interview is based on your EPA portfolio. An EPA Portfolio Template has been designed to assist you during your interview. You should use the EPA Portfolio to collate evidence in preparation for your interview. You will have access to your EPA portfolio throughout the interview. A set of tasks are provided to support the compilation of your EPA Portfolio. Each task should help you to demonstrate how you have met the KSBs in order to carry out your occupational role as a Water Industry Asset Maintenance Technician effectively and safely. The interview allows for testing of responses where there are a range of potential answers.

The following table outlines the procedure for conducting the interview based on an EPA portfolio:

Who will assess me?	1 independent assessor, appointed by Energy & Environment Awards will conduct the interview.
How will the interview be organised?	**Locations:** Your interview will take place at your employer's premises or a suitable venue. **Time:** Your interview will be 90 minutes. The independent assessor can increase the time of your interview by 10%, to allow you to respond to a question if necessary. **Your interview will be:** • a discussion between you and the independent assessor • face to face or remote, as agreed • assessed and outcomes will be recorded by the assessor on official Energy & Environment Awards interview documents • recorded using the relevant technology such as Microsoft Teams or an audio recording device You will have **access to your EPA portfolio** throughout the interview. **You may choose to end the interview based on an EPA portfolio early**. Before doing so, you must be confident that you have demonstrated competence against all relevant assessment requirements.

What topics will I have to cover?	The interview focuses on the core and pathway specific tasks in your EPA portfolio:
	Core
	• Responsibilities and continual improvement
	  ○ Role, responsibilities and requirements
	  ○ Continual improvement and CPD
	• Health, safety, security, environment and sustainability
	• Working with others
	  ○ Equity and diversity
	  ○ Team working and communication
	  ○ ICT and digital
	• Planning for work
	Mechanical
	• Work activities
	  ○ Installation, commissioning and decommissioning
	  ○ Repair or maintenance
	  ○ Fault finding and problem solving
	Electrical
	• Work activities
	  ○ Installation, commissioning and decommissioning
	  ○ Fault finding and problem solving
	Instrumentation, control and automation
	• Work activities
	  ○ Installation, commissioning and decommissioning
	  ○ Fault finding and problem solving
	  ○ Calibration, configuration and software
	
	For further details refer to 'Knowledge, Skills and Behaviours (KSBs) coverage in the WIAMT Specification. **A link to the WIAMT Specification is available on page 9.**

How many questions will I be asked?	• The independent assessor will ask at least 10 questions to explore your level of knowledge, skills and behaviours • Standardised open questions will be asked based on the contents of the evidence in your EPA portfolio • Follow-up questions in order to seek clarification

Preliminary Grading	The independent assessor will award a preliminary grade. You must pass **ALL** the pass criteria in order to achieve a pass. To achieve a distinction you must achieve **All** the pass criteria and **ALL** the distinction criteria.
Overall grading for this component	Fail, Pass or Distinction

EPA Portfolio Requirements

The requirements are as follows:

EPA Portfolio Template
Throughout the on-programme part of your apprenticeship you must compile an EPA portfolio to support you in your interview. During the interview the independent assessor will ask questions based on the evidence contained in your EPA portfolio.

For further guidance refer to:

- Section below 'How do I organise my EPA portfolio?'
- WIAMT Specification Section 5: Guidance on EPA portfolio

How do I organise my EPA portfolio?

You must complete an EPA Portfolio Template. You should request the EPA Portfolio Template from you provider.

Your EPA portfolio template comprises of five tasks to support the compilation of the portfolio. Each task should help you focus on the specific knowledge, skills and behaviours that will be assessed in the interview.

For each task there is:

- a series of questions to be answered
- a text box following each question for you to provide your response. These boxes will expand to take more text; however, quality of answer is more important than quantity. You will be able to use your answers as prompts in the interview
- tables for you to record evidence that supports the examples provided in response to the questions. A copy of the tables can be found in Appendix B

Your EPA portfolio is **not** assessed. It serves the following purposes:

- A carefully prepared EPA portfolio will support you during the interview
- Your organised EPA portfolio will allow you to refer to examples and discuss the evidence with the independent assessor
- It allows the assessor to review it before the interview to help focus and contextualise the questions that you will be asked

What should I include in my EPA portfolio?

Quality vs quantity

You should be supported in selecting and mapping evidence for your EPA portfolio by your employer or training provider.

We would advise you to choose the best pieces of evidence to support the answer to each question in the EPA portfolio template. Your completed EPA portfolio should contain the tasks with your responses and at least one piece of evidence backing up each of the questions. A piece of evidence may cover more than one question. No other evidence should be included.

Examples of acceptable evidence:

- workplace documentation/records, for example job task sheets/job card/times sheets, equipment maintenance /service records related to the apprentice
- witness statements signed and dated by coaches/trainers
- any employer contributions should focus only on direct observation of evidence (for example witness statements) rather than opinions
- annotated photographs/diagrams
- video clips (maximum total duration 10-minutes); the apprentices must be in a view and identifiable

The above is not a definitive list. You can include other relevant evidence sources.

You **must not** include in your portfolio any methods of self-assessment or reflective accounts.

Evidence must be:

- produced by you (authentic)
- relevant to the task
- cross referenced and easily accessible in the portfolio
- produced during the time you were carrying out your on-programme training

What can I do to prepare for the interview?

You should:

- ensure there is quality evidence to cover the KSBs in the EPA portfolio template
- be familiar with the structure of your EPA portfolio
- know the tasks/KSBs covered by the interview
- know where you have referenced your evidence by referring to your EPA Portfolio Evidence Log. A copy is included in Appendix B
- know how you will be graded

The role of your employer or training provider

Employers or training providers are expected to support you in preparing your portfolio by:

- providing clear instruction and deadlines to allow you to plan and compile your portfolio in preparation for the Gateway meeting
- advising on which pieces of evidence to select
- authenticating evidence as valid
- signing off the EPA portfolio
- submitting your portfolio to EEA as part of Gateway requirements

Practice Component 2: Interview based on an EPA Portfolio

You should have an opportunity to have a practice interview which mirrors the real assessment. The practice interview would be set up using the structure in the table above by your employer or training provider.

Component 3: Multiple-choice Test

Overview

The multiple-choice test is a computer or paper-based test. You will have 60 minutes to complete the test. The test consists of 30 questions.

The multiple-choice questions will have four possible answers of which one will be correct.

You must be given at least **2 week's notice** of the date and time of the multiple-choice test.

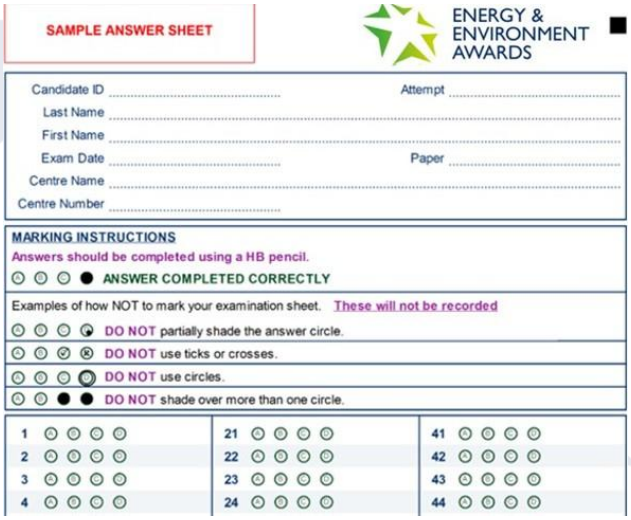
The following table outlines the procedure for conducting the multiple-choice test:

Who will start and finish my multiple-choice test?	You will sit your multiple-choice test in the presence of an invigilator.
What format will my test take?	The test may be paper-based or taken online. Your training provider will let you know what the format of your test is. All other aspects of the test are exactly the same, including: • content • timings • question types • scoring

How will the question appear in a paper-based test?	Here is an example of how the question will appear:

Question 1	
In a workplace, who is responsible for maintaining health and safety?	
Possible answers	
a)	Employers
b)	Safety managers
c)	Most senior person on-site
d)	Everyone

You must **select one answer** that you think is correct. You will be provided with an answer sheet where you will be expected to shade in the answer you have selected. Here is an example:


SAMPLE ANSWER SHEET

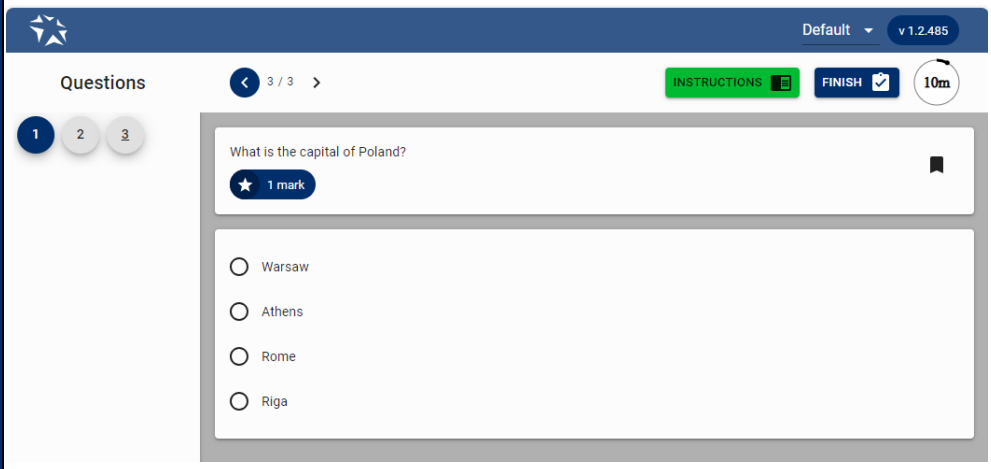
ENERGY & ENVIRONMENT AWARDS

Candidate ID ..... Attempt .....
Last Name .....
First Name .....
Exam Date ..... Paper .....
Centre Name .....
Centre Number .....

MARKING INSTRUCTIONS
Answers should be completed using a HB pencil.
ANSWER COMPLETED CORRECTLY
Examples of how NOT to mark your examination sheet. These will not be recorded
DO NOT partially shade the answer circle.
DO NOT use ticks or crosses.
DO NOT use circles.
DO NOT shade over more than one circle.

1	21	41
2	22	42
3	23	43
4	24	44

Always have a go even if you are not sure that it is the correct answer.

How will the question appear in an online test?	Here is an example of how the question will appear in an online version of the test:  You must **select one answer** that you think is correct.
Can I take any resources into the exam room?	The test is closed which means that you cannot refer to reference books or any other materials. You may use a scientific calculator You will be provided with appropriate stationery on the day.
Can I have access to the internet?	No access to the internet is allowed and this means you must not take your SMART watch into the exam room.
How will the multiple-choice test be organised for me?	**Locations:** Your multiple-choice test will take place at your employer's or training provider's premises or a suitable venue. • You will take the test in a quiet space and in the presence of an invigilator • Your test will be scheduled by your employer or training provider with EEA • If you fail the multiple-choice test, you can re-sit or re-take the failed test at your employer's discretion. There are no limits to the number of re-sits or re-takes you can take but it is important to revise and ensure that you are confident with the knowledge you are being tested on.

What criteria will I have to learn? **AND** How many questions will be asked on each criteria?	The multiple-choice test questions are knowledge based and sample core and option knowledge criteria. Below is a list of the knowledge criteria, assessed in the multiple-choice test along with the range of questions that will be allocated to a multiple-choice test paper:

Number of Questions	Knowledge
Core	
2 - 4	**K1:** Overview of water and wastewater industries. Regulators and stakeholders: Drinking Water Inspectorate (DWI), Water Services Regulation Authority (OFWAT), Consumer Council for Water (CCWater), Environment Agency (EA), Health and Safety Executive (HSE), and Department for Environment, Food and Rural Affairs (Defra) - roles and powers.
2 - 4	**K3:** Awareness of water and waste water process theory from source to recycling. Abstraction processes. Water treatment and disinfection processes. Water distribution, boosters and service reservoirs. Wastewater treatment, networks and pumping stations. Effluent discharges and parameters.
2 - 4	**K4:** Chemical dosing systems for water and wastewater. Risks, mitigations and safe systems of work. Equipment and storage to include pumps, valves and dosing lines.
7 - 9	**K6:** Awareness of health and safety regulations, relevant to the occupation and the technician's responsibilities. CDM regulations. Control of Substances Hazardous to Health (COSHH). Display Screen Equipment. Due diligence. Electricity at work regulations (EaWR). Emergency evacuation procedures. Health and Safety at Work Act – responsibilities. Isolation and emergency stop procedures. Legionella. Lifting Operations and Lifting Equipment Regulations (LOLER). Lone

		working. Management systems of occupational health and safety ISO 45001. Manual handling. Near miss reporting. Noise regulation. Provision and use of Work Equipment Regulations (PUWER). Reporting of Injuries, Diseases, and Dangerous Occurrences Regulations (RIDDOR). Risk assessments. Safety equipment: guards, signage, fire extinguishers. Situational awareness. Slips, trips and falls. Types of hazards. Personal Protective Equipment (PPE). Working in confined spaces. Pressure Systems Safety Regulations (PSSR).
	2 - 4	**K9:** Water industry sustainability and environmental principles and requirements. Permits and operation conditions for water extraction. Requirements for disposing of discharges and waste. Monitoring emissions to air, land and water (MCERTS). Waste Electrical and Electronic Equipment (WEEE) Regulations.
	Mechanical	
	2 - 4	**K23:** Mechanical theories and principles; pneumatics, hydraulics and pressure systems. Torque, gearbox ratios, flow ratios, step-down ratios. Machine specifications.
	2 - 4	**K32:** Types and application of machinery. For example: lathes, pillar drills, milling machine, threading machine, mechanical saws. Machine speeds for different materials.
	3 - 5	**K34:** Round numbers, scientific notation, percentages and ratios. Area, perimeter, volume and surface area. Scales, tables, graphs and charts. Trigonometry and Pythagoras' Theorem. Engineering formulae. Sequence of operations. Conversions and calculations. **S31:** Use mathematical theory.

Electrical	
2 - 4	**K36:** Electrical theories and principles. Basic concepts of electricity. Ohms law, Kirchoff's law, circuits, conductors and insulators, basic AC theory, complex numbers, resistance and impedance - capacitive and inductive, transformers, polyphase AC circuits, power factor. Harmonics.
2 - 4	**K47:** Electrical drawings.
3 - 5	**K49:** Round numbers, scientific notation, percentages and ratios. Area, perimeter, volume and surface area. Scales, tables, graphs and charts. Trigonometry and Pythagoras' Theorem. Engineering formulae. Sequence of operations. Conversions and calculations. **S43:** Use mathematical theory.
Instrumentation, Control and automation	
2 - 4	**K50:** Electrical theories and principles. Basic concepts of electricity. Ohm's law, Kirchoff's law, circuits, conductors and insulators, basic AC theory, complex numbers, resistance and impedance - capacitive and inductive, transformers, polyphase AC circuits, power factor.
2 - 4	**K53:** Instrumentation and control device operational principles: flow, level, pressure, analysers, transducers, transmitters, gauges. Proportional–integral–derivative controller.
3 - 5	**K63:** Round numbers, scientific notation, percentages and ratios. Area, perimeter, volume and surface area. Scales, tables, graphs and charts. Trigonometry and Pythagoras' Theorem. Engineering formulae. Sequence of operations. Conversions and calculations. **S56:** Use mathematical theory.

	Remember the questions have been written to reflect the water industry asset maintenance technician role as a whole and are not focussed on specific plant, machinery, or employer-specific processes. For amplification and guidance refer to Section 3 of the WIAMT Specification.
What should I do to prepare for the multiple-choice test?	**You should be prepared to**: • revise the knowledge criteria listed above • ask your employer or training provider for additional questions that they have prepared to support you • attend the multiple-choice test which will last 60 minutes While on-programme, the employer or training provider must ensure you are: • familiar with all areas assessed by the multiple-choice test as listed above • supported in completing a practice test and provide you with constructive feedback to enable you to identify areas you need to carry out further revision in.

Practice Component 3: Multiple-Choice test

You should have an opportunity to have a practice multiple-choice test which mirrors the real assessment. The practice multiple-choice test would be set up using the structure in the table above by your employer or training provider. The feedback provided will assist you with preparing for the actual multiple-choice test.

Overall grading

Your apprenticeship will be graded distinction, pass or fail. The final grade will be determined by collective performance in the three assessment components.

In order to gain a pass grade, you must achieve a minimum of a pass in each EPA component. A pass represents full competence against the standard.

To achieve a distinction grade, you must achieve a distinction in the interview based on an EPA portfolio and a pass in the observation with questions and multiple-choice test.

Grades from individual assessment components will be combined in the following way to determine your overall EPA grade as a whole.

Multiple-choice test	Observation with questions	Interview based on an EPA portfolio	Overall grading
Fail in any component			**Fail**
Pass	Pass	Pass	**Pass**
Pass	Pass	Distinction	**Distinction**

Section 4: Resits and retakes

If you fail one or more EPA component you can re-sit or a re-take the failed component at your employer's discretion. Your employer needs to agree that a re-sit or re-take is appropriate. A re-sit does not need further learning, but a re-take does. You should have a supportive action plan to prepare for your re-sit or re-take.

Your employer and Energy & Environment Awards will agree the timescale for your re-sit or re-take. A re-sit is typically taken within 3 months of the EPA outcome notification. The timescale for a re-take is dependent on how much re-training is required and is typically taken within 6 months of the EPA outcome notification.

Failed EPA component(s) must be re-sat or re-taken within 6 months of the EPA outcome notification, otherwise the entire EPA will need to be re-sat or re-taken in full.

Re-sits and re-takes will not be offered to you if you wish to move from pass to a higher grade.

You will get a maximum EPA grade of a pass if you need to re-sit or re-take one or more assessment methods, unless Energy & Environment Awards determines there are exceptional circumstances.

Energy & Environment Awards resit and re-take policy can be found at:
Policies and Fees - Energy & Environment Awards

Section 5: 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 –mindsets, attitudes or approaches needed for competence. Whilst these can be innate or instinctive, they can also be learnt. Behaviours tend to be very transferable. They may be more similar across occupations than knowledge and skills. For example, team worker, adaptable and professional

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

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

Gateway – the stage of the apprenticeship where the apprentice, employer and trainer determine whether the apprentice is ready to undertake the End-Point Assessment

Independent Assessor – Will holistically assess the knowledge, skills and behaviours (KSBs) that you have been taught throughout the apprenticeship. Their role as an Independent Assessor would involve assessing components 1 (observation with questions) and 2 (interview based on an EPA portfolio)

Knowledge – the information, technical detail, and 'know-how' that someone needs to have and understand to successfully carry out the duties. Some knowledge will be occupation-specific, whereas some may be more generic

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

Skills – the practical application of knowledge needed to successfully undertake the duties. They are learnt through on and/or off-the-job training or experience

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. The occupational standards are developed by employers for occupations that meet Skills England current criteria. For further details refer to: Water Industry Asset maintenance technician / Skills England

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