



INSTITUTE OF THE
MOTOR INDUSTRY

IMI ACCREDITATION

MOTORCYCLE





What is IMI Accreditation?

IMI Accreditation is a practical, non-academic way to demonstrate individual capability, providing independent proof of current competence, knowledge and skills.

Focused on the Light Vehicle area of the automotive sector, IMI Accreditation encompasses everyone within this area, from individuals working directly on vehicles to those advising customers or managing a dealership. Three different types of accreditation reflect the diverse range of roles within the motor industry: Technical, Customer Facing and Management

Accreditation typically takes just one day to achieve (depending on the specific route), with individuals assessed against industry-agreed standards. Each accreditation route is designed using best practice techniques, and offers multiple career development options for a specific job role.

Accreditation is available for the following routes:

- Technical
 - Air Conditioning
 - Autoglazing
 - Cosmetic Repair
 - Digital Audio Broadcasting
 - Electric Vehicle
 - Fast Fit
 - Light Vehicle Maintenance & Repair
 - Light Vehicle Inspection
 - Mechanical Electrical Trim
 - Motorcycle
 - Paint
 - Panel
 - Roadside
 - Vehicle Damage Assessor
- Customer Facing
 - Customer Service
 - Parts
 - Sales
- Management
 - Management

Once an individual has passed all the required practical and knowledge-based modules in a specific route, they will receive a certificate of achievement which is valid for three years.



IMI Accreditation benefits

IMI Accreditation was created to help the motor industry keep on top of constant, rapid changes in technology, legislation and working methods, by encouraging and measuring the current competence, knowledge and ability of those working within it. By providing proof of current competence, IMI Accreditation benefits both individuals and their employers.

Those gaining accreditation receive:

- An IMI Accredited certificate
- Inclusion on IMI Professional Register
- Industry-wide recognition of their skills and abilities
- Confidence
- Advice and guidance for development
- An opportunity for career progression

While the employer of an accredited individual benefits from:

- Confidence in the individual's ability
- Eligibility for British Standard/DVSA requirements (depending on routes)
- Increased customer visibility on the IMI Professional Register
- Higher work output and fewer mistakes
- Public confidence in abilities

Industry Recognition through the IMI Professional Register

The IMI Professional Register is an industry-wide database of professionals in the motor industry. The Register is promoted to consumers as a place to find trustworthy professionals who have proven their skills and competence within specialist areas of the industry. IMI Accredited individuals are automatically included on the IMI Professional Register.

Routes to Accreditation

There are two routes to gaining IMI Accredited status: Full Assessment and Conversion*. Full Assessment involves the completion of all practical and knowledge-based assessments at each level. Conversion enables an individual to use existing qualifications to gain exemption from specific modules.

IMI Accreditation continually evolves to meet the changing needs of the industry, with each accreditation valid for three years, after which time an individual is required to undertake a new assessment either at the same level, next career level or a different route in order to prove their current competence.

IMI Accreditations are delivered through the IMI approved centre network, and you can find your nearest centre or explore assessment routes at www.theimi.org.uk/awarding



Further Information

For further information on any of the accreditation routes, please visit www.theimi.org.uk/accreditation Alternatively call 01992 511521 to contact IMI directly.

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| Who is the Motorcycle route for? | |
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The Motorcycle route is intended for technicians whose job role involves the maintenance and repair of a motorcycle.

There are three levels within Motorcycle:

- **Service Maintenance Technician**
The technician should be working in the motorcycle maintenance and repair sector of the industry and ideally have at least two years experience to ensure they are familiar with the skills, knowledge and techniques required to service, maintain and repair motorcycles.
- **Diagnostic Technician**
The technician should be working in the motorcycle sector of the industry and ideally have at least three years experience to ensure they are familiar with the skills, knowledge and techniques required to diagnose system faults, rectify the faults including replacing components and return the motorcycle systems to manufacturer specification.
- **Master Technician**
The technician should be working in the motorcycle sector of the industry and ideally have at least five years experience to ensure they are familiar with the skills, knowledge and techniques required to diagnose system faults, rectify the faults including replacing components and return the motorcycle systems to manufacturer specification.

The master technician will also require the skills and ability to effectively communicate with internal staff (at all levels), customers and industry organisations to transfer both technical and non-technical information.



Motorcycle Route Structure

Those wishing to achieve IMI accreditation will be required to use the following method:

- **Full Assessment**

For those wishing to retain their accreditation there are two options, these are:

- **Full Assessment**
- or
- **AOM Update**

Note: In order to re-accredit using ‘AOM Updates’ (Assessed Outcome Modules) the candidate’s accreditation must remain valid throughout the assessments and until all of the prescribed AOMs have been passed. Should the accreditation expire beforehand, the candidate will be required to re-take a ‘full assessment’.

Motorcycle – Service Maintenance Technician

Full Assessment

This level requires the technician to complete the following modules:

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| Mechanical Systems | AOM 106 |
| Wheel and Tyre Replacement | AOM 107 |
| Steering and Suspension | AOM 108 |
| Braking Systems | AOM 109 |
| Motorcycle Safety Inspection and Service | AOM 110 |

This will normally be a one-day assessment.

Motorcycle – Diagnostic Technician

Full Assessment

This level requires the technician to complete the following modules:

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| Mechanical System Diagnosis | AOM 111 |
| Electrical System Diagnosis | AOM 112 |
| Computer Based Test Equipment Diagnosis | AOM 113 |
| Chassis Systems | AOM 114 |
| Steering and Suspension System Diagnosis | AOM 115 |

This will normally be a one-day assessment.



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| Motorcycle – Master Technician | Full Assessment |
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This level requires the technician to complete the following modules:

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|-------------------------------|------------|
| Electrical Systems - Complex | AOM 116 |
| Failure Analysis and Report | AOM 117 |
| Computer Based Test Equipment | AOM 118 |
| Instructional Support | AOM 119 |
| Customer Liaison | AOM 120 |

This will normally be a one-day assessment.

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| Motorcycle – Service Maintenance Technician | AOM Update <small>Reaccreditation only</small> |
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This level requires the technician to complete the following module:

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| Motorcycle Safety Inspection and Service | AOM 110 |
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This may either be achieved through a one-day assessment or may be spread over the duration of the individual's existing IMI accreditation.

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| Motorcycle – Diagnostic Technician | AOM Update <small>Reaccreditation only</small> |
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This level requires the technician to complete the following modules:

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| Electrical System Diagnosis | AOM 112 |
| Computer Based Test Equipment Diagnosis | AOM 113 |

This may either be achieved through a one-day assessment or may be spread over the duration of the individual's existing IMI accreditation.



Motorcycle – Master Technician

AOM Update Reaccreditation only

This level requires the technician to complete the following modules:

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|-------------------------------|------------|
| Electrical Systems - Complex | AOM 116 |
| Failure Analysis and Report | AOM 117 |
| Computer Based Test Equipment | AOM 118 |

This may either be achieved through a one-day assessment or may be spread over the duration of the individual's existing IMI accreditation.



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| Accreditation Module Title | Mechanical Systems |
| Module Code | ATA - AOM - 106 |
| Practical Assessment Time | 1 hour |
| On-line Knowledge Test | K - 106 |
| IMI AOM Level | 2 |
| Module Overview | <p>This module is to determine that the candidate is able to measure mechanical components (e.g. brake disc / crankshaft journal) using industry recognised tools and equipment.</p> <p>The candidate will be able to use the measurement results obtained and compare these against the motorcycle manufacturer specifications to determine the serviceability of the components.</p> <p>The candidate will need to make recommendations as to which components are serviceable and which will require replacement.</p> <p>The candidate will be required to ensure that they follow all appropriate health and safety procedures and wear the necessary Personal Protection Equipment during the assessment.</p> |
| Candidate Profile | <p>The service maintenance technician should be working in the motorcycle maintenance and repair sector of the industry and ideally have at least two years experience to ensure they are familiar with the skills, knowledge and techniques required to service, maintain and repair motorcycles.</p> |
| Links with Accreditation Routes and Modules | |
| This module features in: | |
| IMI Accreditation Route | IMI Accreditation Level |
| Motorcycle | Service Maintenance Technician |



| Skills Requirements | |
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| The candidate must demonstrate the ability to: | |
| 1.1 | Measure the dimensions of components (example brake disc / crankshaft) accurately using suitable measuring test equipment (example micrometer or vernier gauge) |
| 1.2 | Correctly use measuring equipment (example of either feeler gauge or micrometer) |
| 1.3 | Select / access the correct information for motorcycle / components and understand the workshop vehicle information |
| 1.4 | Compare the actual reading obtained with manufacturer specification(s) |
| 1.5 | Define whether a component is within or outside of tolerances / serviceability as defined by literature / manufacturer |
| 1.6 | Adjust a component to within the specified tolerance as defined by literature/ manufacturer |
| 1.7 | Select and use appropriate PPE during assessment |
| 1.8 | Comply with all health and safety requirements relative to assessment |
| 1.9 | Carry out the mechanical serviceability measurements within a given time period |

| Knowledge Requirements | |
|---|--|
| The candidate must indicate a sound knowledge of: | |
| 2.1 | Tools and equipment used to remove/replace components |
| 2.2 | Methods and techniques used to remove/replace components |
| 2.3 | Tools and equipment used to measure components |



| Accreditation Module Title | Wheel and Tyre Replacement | | | | |
|--|---|-------------------------|-------------------------|------------|--------------------------------|
| Module Code | ATA - AOM - 107 | | | | |
| Practical Assessment Time | 1 hour | | | | |
| On-line Knowledge Test | K - 107 | | | | |
| IMI AOM Level | 2 | | | | |
| Module Overview | <p>This module is to determine that the candidate is able to remove and replace a wheel, either the front or the rear from a motorcycle and replace the tyre.</p> <p>The candidate will be able to determine the serviceability and legality of the components fitted to the wheel and also the motorcycle.</p> <p>The candidate will need to make recommendations as to which components are serviceable and to which will require replacement including replacing valves and balancing the wheel and tyre.</p> <p>The candidate will be required to refit the wheel to the motorcycle and align and adjust the various types of drive mechanism such as chain, drive belt and shaft drive.</p> <p>They will also need to ensure that they follow all appropriate health and safety procedures and wear the necessary Personal Protection Equipment (PPE) during the assessment.</p> | | | | |
| Candidate Profile | <p>The service maintenance technician should be working in the motorcycle maintenance and repair sector of the industry and ideally have at least two years experience to ensure they are familiar with the skills, knowledge and techniques required to service, maintain and repair motorcycles.</p> | | | | |
| Links with Accreditation Routes and Modules | <p>This module features in:</p> <table border="1"> <thead> <tr> <th>IMI Accreditation Route</th> <th>IMI Accreditation Level</th> </tr> </thead> <tbody> <tr> <td>Motorcycle</td> <td>Service Maintenance Technician</td> </tr> </tbody> </table> | IMI Accreditation Route | IMI Accreditation Level | Motorcycle | Service Maintenance Technician |
| IMI Accreditation Route | IMI Accreditation Level | | | | |
| Motorcycle | Service Maintenance Technician | | | | |

| Skills Requirements | |
|--|--|
| The candidate must demonstrate the ability to: | |
| 1.1 | Determine a wheel and tyres legal / roadworthiness |
| 1.2 | Determine a wheel and tyres suitability for a motorcycle and its usage |
| 1.3 | Accurately check wheel bearings for serviceability including wear, noise and security |
| 1.4 | Remove a motorcycle road wheel and tyre (front and / or rear) where the motorcycle is either chain driven / shaft driven / belt driven |
| 1.5 | Remove and replace a motorcycle tyre to a road wheel and balance the assembly prior to refitting to the motorcycle |
| 1.6 | Use the tools and equipment to carry out adjustment / replacement procedure(s) |
| 1.7 | Identify the methods and procedures including the security of components during the replacement |
| 1.8 | Correctly replace a wheel and tyre to a motorcycle including any adjustments such as drive mechanisms |
| 1.9 | Select and use appropriate PPE during assessment |
| 1.10 | Comply with all health and safety requirements relative to assessment |
| 1.11 | Replace a road wheel and tyre to a motorcycle within a given time period |

| Knowledge Requirements | |
|---|---|
| The candidate must indicate a sound knowledge of: | |
| 2.1 | Construction of motorcycle wheels and tyres |
| 2.2 | Location of components associated with wheels / tyres and the replacement of |
| 2.3 | Functionality of the various components associated with wheel replacement |
| 2.4 | Tools and equipment necessary to carry out the removal and the replacement of motorcycle wheels and tyres |
| 2.5 | Information and data relating to wheel removal / replacement |



| Accreditation Module Title | Steering and Suspension | | | | |
|--|---|-------------------------|-------------------------|------------|--------------------------------|
| Module Code | ATA - AOM - 108 | | | | |
| Practical Assessment Time | 1 hour | | | | |
| On-line Knowledge Test | K - 108 | | | | |
| IMI AOM Level | 2 | | | | |
| Module Overview | <p>This module is to determine that the candidate is able to establish the serviceability of steering and suspension systems including components such as the condition of steering yokes, head bearings, suspension springs and dampers.</p> <p>The candidate will need to make recommendations regarding which components are serviceable and which will require adjustment or replacement.</p> <p>The candidate will also be required to replace components and to check their subsequent functionality conforms to the manufacturer requirements.</p> <p>The candidate will be required to ensure that they follow all appropriate health and safety procedures and wear the necessary Personal Protection Equipment during the assessment.</p> | | | | |
| Candidate Profile | <p>The service maintenance technician should be working in the motorcycle maintenance and repair sector of the industry and ideally have at least two years experience to ensure they are familiar with the skills, knowledge and techniques required to service, maintain and repair motorcycles.</p> | | | | |
| Links with Accreditation Routes and Modules | <p>This module features in:</p> <table border="1"> <thead> <tr> <th>IMI Accreditation Route</th> <th>IMI Accreditation Level</th> </tr> </thead> <tbody> <tr> <td>Motorcycle</td> <td>Service Maintenance Technician</td> </tr> </tbody> </table> | IMI Accreditation Route | IMI Accreditation Level | Motorcycle | Service Maintenance Technician |
| IMI Accreditation Route | IMI Accreditation Level | | | | |
| Motorcycle | Service Maintenance Technician | | | | |



| Skills Requirements | |
|--|--|
| The candidate must demonstrate the ability to: | |
| 1.1 | Identify the serviceability of steering components whilst fitted to a motorcycle including yokes / head bearings |
| 1.2 | Identify the serviceability of suspension components whilst fitted to a motorcycle including forks, stanchions, dampers, springs etc |
| 1.3 | Remove and replace steering components (e.g. head bearing) to frame using the manufacturers procedures |
| 1.4 | Remove and replace suspension components (e.g. front forks / swinging arm) to frame using the manufacturers procedures |
| 1.5 | Use the correct tools and equipment to carry out motorcycle steering and suspension serviceability checks / adjustment / replacement procedures |
| 1.6 | Identify the correct methods and procedures including the use of securing / locking devices during the replacement of steering and suspension components |
| 1.7 | Comply with all health and safety requirements relative to assessment |
| 1.8 | Carry out steering / suspension checks / replacement of components within a given time period |

| Knowledge Requirements | |
|---|--|
| The candidate must indicate a sound knowledge of: | |
| 2.1 | Location of components within steering / suspension system |
| 2.2 | Functionality of the various components within a steering / suspension system |
| 2.3 | Tools and equipment necessary to carry out the serviceability checks, the removal and the replacement of motorcycle steering and suspension components |



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| Accreditation Module Title | Braking Systems |
| Module Code | ATA - AOM - 109 |
| Practical Assessment Time | 1 hour |
| On-line Knowledge Test | K - 109 |
| IMI AOM Level | 2 |
| Module Overview | <p>This module is to determine that the candidate is able to establish the serviceability of braking system components, which will include mechanical, hydraulic and electrical.</p> <p>The candidate will need to make recommendations as to which components are serviceable and which will require replacement.</p> <p>The candidate will also be required to replace components and to check their subsequent functionality conforms to manufacturer requirements.</p> <p>The candidate will be required to ensure that they follow all appropriate health and safety procedures and wear the necessary Personal Protection Equipment during the assessment.</p> |
| Candidate Profile | <p>The service maintenance technician should be working in the motorcycle maintenance and repair sector of the industry and ideally have at least two years experience to ensure they are familiar with the skills, knowledge and techniques required to service, maintain and repair motorcycles.</p> |
| Links with Accreditation Routes and Modules | |
| This module features in: | |
| IMI Accreditation Route | IMI Accreditation Level |
| Motorcycle | Service Maintenance Technician |



| Skills Requirements | |
|--|--|
| The candidate must demonstrate the ability to: | |
| 1.1 | Identify braking components - mechanical, hydraulic and electrical within the system |
| 1.2 | Determine the serviceability of braking components |
| 1.3 | Identify braking components which require replacement |
| 1.4 | Use the tools and equipment needed to remove and replace braking components |
| 1.5 | Replace braking components (pads / shoes) and any associated components |
| 1.6 | Use Personal Protection Equipment (PPE) |
| 1.7 | Follow health and safety guidelines |
| 1.8 | Work within given time constraints |

| Knowledge Requirements | |
|---|--|
| The candidate must indicate a sound knowledge of: | |
| 2.1 | Location of components within a braking system |
| 2.2 | Functionality of the various components within a braking system |
| 2.3 | Correct replacement of hydraulic components (fluid / flexible pipes / master / slave cylinder) and associated components |
| 2.4 | Component functions within a hydraulic braking system |
| 2.5 | Components and functions within a motorcycle electronically controlled braking system such as ABS |



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| Accreditation Module Title | Motorcycle Safety Inspection and Service |
| Module Code | ATA - AOM - 110 |
| Practical Assessment Time | 1 hour |
| On-line Knowledge Test | K - 110 |
| IMI AOM Level | 2 |
| Module Overview | <p>This module is to ensure that the candidate has the ability to carry out a motorcycle inspection(s) using a logical method / routine and the appropriate workshop tools and equipment.</p> <p>The candidate will be able to identify the processes / techniques needed to rectify system faults and recommend any actions required for repair.</p> |
| Candidate Profile | <p>The service maintenance technician should be working in the motorcycle maintenance and repair sector of the industry and ideally have at least two years experience to ensure they are familiar with the skills, knowledge and techniques required to service, maintain and repair motorcycles.</p> |
| Links with Accreditation Routes and Modules | |
| This module features in: | |
| IMI Accreditation Route | IMI Accreditation Level |
| Motorcycle | Service Maintenance Technician |



| Skills Requirements | |
|--|--|
| The candidate must demonstrate the ability to: | |
| 1.1 | Ensure that the motorcycle systems are working and are roadworthy |
| 1.2 | Complete the documentation using either hand written or electronic formats enabling clear communication to others |
| 1.3 | Carry out a basic inspection of component(s) when fitted to the motorcycle to ensure that they operate as intended by the manufacturer |
| 1.4 | Identify components and their location on the motorcycle |
| 1.5 | Carry out a basic inspection of a motorcycle frame/structure and determine its roadworthiness |
| 1.6 | Use Personal Protection Equipment (PPE) |
| 1.7 | Follow health and safety guidelines |
| 1.8 | Work within given time constraints |

| Knowledge Requirements | |
|---|--|
| The candidate must indicate a sound knowledge of: | |
| 2.1 | Motorcycle components and the inspection methods used to determine their serviceability / roadworthiness |
| 2.2 | Legislation associated with the inspection of motorcycles |
| 2.3 | Wheel alignment within a motor vehicle |
| 2.4 | Suspension system used within a motor vehicle |



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| Accreditation Module Title | Mechanical System Diagnosis |
| Module Code | ATA - AOM - 111 |
| Practical Assessment Time | 1 hour |
| On-line Knowledge Test | K - 111 |
| IMI AOM Level | 3 |
| Module Overview | <p>This module is to determine that the candidate is able to diagnose mechanical component failure(s) using their skills with the use of industry tools and equipment and the applicable vehicle component information.</p> <p>The candidate will be able to use the measurement results obtained, compare against the available specifications and be able to determine the cause of the component failure.</p> <p>The candidate will be required to ensure that they follow all appropriate health and safety procedures and wear the necessary Personal Protection Equipment during the assessment.</p> |
| Candidate Profile | <p>The diagnostic technician should be working in the motorcycle sector of the industry and ideally have at least three years experience to ensure they are familiar with the skills, knowledge and techniques required to diagnose system faults, rectify the faults including replacing components and return the motorcycle systems to manufacturer specification.</p> |
| Links with Accreditation Routes and Modules | |
| This module features in: | |
| IMI Accreditation Route | IMI Accreditation Level |
| Motorcycle | Diagnostic Technician |

| Skills Requirements | |
|--|---|
| The candidate must demonstrate the ability to: | |
| 1.1 | Accurately measure a components dimension |
| 1.2 | Use measuring equipment (example of either micrometer, vernier or dial test indicator) |
| 1.3 | Select the correct information for a specific vehicle and understand the workshop vehicle information |
| 1.4 | Compare the actual reading obtained from a vehicle component with the vehicle manufacturer specification to determine whether a component would give a vehicle fault as per a description (diagnose component(s)) fault |
| 1.5 | Accurately define whether a component is within or outside of tolerances as defined by vehicle manufacturer literature |
| 1.6 | Diagnose the exact cause of a vehicle fault from the measurements taken and the information provided |
| 1.7 | Use Personal Protection Equipment (PPE) |
| 1.8 | Follow health and safety guidelines |
| 1.9 | Work within given time constraints |

| Knowledge Requirements | |
|---|--|
| The candidate must indicate a sound knowledge of: | |
| 2.1 | Engine component(s) and operation |
| 2.2 | Powertrain / driveline mechanical component(s) and operation |
| 2.3 | Chassis mechanical component(s) and operation |
| 2.4 | Procedures and techniques used to measure / check / diagnose mechanical components |
| 2.5 | Tools and equipment used to measure / check / diagnose mechanical components |
| 2.6 | Mechanical component diagnostic procedures |
| 2.7 | Health and Safety procedures |



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| Accreditation Module Title | Electrical System Diagnosis |
| Module Code | ATA - AOM - 112 |
| Practical Assessment Time | 1 hour |
| On-line Knowledge Test | K - 112 |
| IMI AOM Level | 3 |
| Module Overview | <p>This module is to assess the candidate's knowledge, skill and ability to diagnose an electrical fault for either an open circuit, high resistance or a short circuit.</p> <p>The candidate will need to access vehicle information such as component location and the appropriate electrical wiring diagrams and use these together with electrical test equipment such as multi-meter (volts, amps, ohms) to diagnose the system fault.</p> <p>The technician will also need to have knowledge of network communication systems used on motorcycles. Once the electrical fault has been diagnosed, the candidate should have the ability to rectify the fault using approved manufacturers methods and then check the system is functioning as per the motorcycle manufacturer's original specification.</p> |
| Candidate Profile | <p>The diagnostic technician should be working in the motorcycle sector of the industry and ideally have at least three years experience to ensure they are familiar with the skills, knowledge and techniques required to diagnose system faults, rectify the faults including replacing components and return the motorcycle systems to manufacturer specification.</p> |
| Links with Accreditation Routes and Modules | |
| This module features in: | |
| IMI Accreditation Route | IMI Accreditation Level |
| Motorcycle | Diagnostic Technician |

| Skills Requirements | |
|--|--|
| The candidate must demonstrate the ability to: | |
| 1.1 | Diagnose an electrical fault accurately and competently |
| 1.2 | Use electrical test equipment suitable for a motorcycle (such as a multi-meter) and be able to test the electrical system(s) with such equipment |
| 1.3 | Diagnose motorcycle engine starting, charging, immobiliser and lighting systems |
| 1.4 | Apply a wiring diagram / information to the motorcycle during the diagnosis of an electrical fault |
| 1.5 | Diagnose electrical circuit faults using at least two methods of electrical fault finding to locate a high resistance or short circuit |
| 1.6 | Use a wiring diagram correctly and competently during the diagnosis and repair of an electrical fault |
| 1.7 | Determine a logical path to be able to diagnose / rectify a motorcycle electrical fault |
| 1.8 | Use Personal Protection Equipment (PPE) |
| 1.9 | Follow health and safety guidelines |
| 1.10 | Work within given time constraints |

| Knowledge Requirements | |
|---|--|
| The candidate must indicate a sound knowledge of: | |
| 2.1 | Electrical values i.e. Ohms, Amps, Volts |
| 2.2 | Diagnosing engine starting, charging and immobiliser systems |
| 2.3 | Oscilloscope and its usage in diagnosis of electrical systems |
| 2.4 | The repair procedures of wiring harnesses / connectors to manufacturers specifications |
| 2.5 | Network communication systems used within a motorcycle electrical system |



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| Accreditation Module Title | Computer Based Test Equipment - Diagnosis |
| Module Code | ATA - AOM - 113 |
| Practical Assessment Time | 1 hour |
| On-line Knowledge Test | K - 113 |
| IMI AOM Level | 3 |
| Module Overview | <p>This module is to determine that the candidate is able to use computer based test equipment, such as fault code readers/scan tools, to diagnose vehicle system faults, typically associated with Engine Management systems.</p> <p>The technician will be able to access the various vehicle systems, retrieve system diagnostic information (e.g. fault codes / live data) and follow the prescribed method to diagnose the fault.</p> <p>The candidate will be able to use the applicable motorcycle information to locate components to carry out the necessary checks to determine the functionality of the component, the integrity of the wiring and associated components to allow the technician to accurately diagnose the system fault.</p> <p>The candidate will be required to ensure that they follow all appropriate health and safety procedures and wear the necessary Personal Protection Equipment during the assessment.</p> |
| Candidate Profile | <p>The diagnostic technician should be working in the motorcycle sector of the industry and ideally have at least three years experience to ensure they are familiar with the skills, knowledge and techniques required to diagnose system faults, rectify the faults including replacing components and return the motorcycle systems to manufacturer specification.</p> |
| Links with Accreditation Routes and Modules | |
| This module features in: | |
| IMI Accreditation Route | IMI Accreditation Level |
| Motorcycle | Diagnostic Technician |

| Skills Requirements | |
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| The candidate must demonstrate the ability to: | |
| 1.1 | Use scan tool / diagnostic test equipment |
| 1.2 | Plug the equipment into the diagnostic system |
| 1.3 | Determine that the test equipment has correctly communicated with the system(s) |
| 1.4 | Access the diagnosis information (fault codes) stored within the system(s) |
| 1.5 | Demonstrate knowledge and understanding of system components and their functionality within the system(s) |
| 1.6 | Carry out a visual inspection and ability to carry out system components tests with diagnosis equipment to the components connected to the systems |
| 1.7 | Diagnose vehicle system fault(s) using prescribed procedures which are driven from fault code(s) accessed from the system(s) |
| 1.8 | Use other electrical test equipment (such as a multi-meter and / or oscilloscope) to be able to test the electrical system when carrying out prescribed diagnosis procedures |
| 1.9 | Erase system fault codes and check the systems are functioning correctly post diagnosis |
| 1.10 | Use Personal Protection Equipment (PPE) |
| 1.11 | Follow health and safety guidelines |
| 1.12 | Work within given time constraints |

| Knowledge Requirements | |
|---|--|
| The candidate must indicate a sound knowledge of: | |
| 2.1 | Diagnosing petrol fuel / ignition management system(s) including any associated components |
| 2.2 | Network communication systems and the associated components |
| 2.3 | System components and their functionality within the vehicle system(s) |



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| Accreditation Module Title | Chassis Systems |
| Module Code | ATA - AOM - 114 |
| Practical Assessment Time | 1 hour |
| On-line Knowledge Test | K - 114 |
| IMI AOM Level | 3 |
| Module Overview | <p>This module is to determine that the candidate is able to diagnose chassis related motorcycle system faults, typically those associated with ABS or Traction Control.</p> <p>The technician will be able to access the systems, retrieve vehicle diagnostic information (e.g. fault codes / live data) and follow the prescribed method to diagnose the fault.</p> <p>The candidate will be able to use the applicable motorcycle information to locate components to carry out the necessary checks to determine the functionality of the component, the integrity of the wiring and associated components to allow the technician to accurately diagnose the system fault.</p> <p>The candidate will be required to ensure that they follow all appropriate health and safety procedures and wear the necessary Personal Protection Equipment during the assessment.</p> |
| Candidate Profile | <p>The diagnostic technician should be working in the motorcycle sector of the industry and ideally have at least three years experience to ensure they are familiar with the skills, knowledge and techniques required to diagnose system faults, rectify the faults including replacing components and return the motorcycle systems to manufacturer specification.</p> |
| Links with Accreditation Routes and Modules | |
| This module features in: | |
| IMI Accreditation Route | IMI Accreditation Level |
| Motorcycle | Diagnostic Technician |



| Skills Requirements | |
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| The candidate must demonstrate the ability to: | |
| 1.1 | Accurately carry out motorcycle chassis system(s) diagnosis (e.g. ABS / TRC) |
| 1.2 | Demonstrate checking of components and connections to vehicle systems |
| 1.3 | Accurately diagnose safety system fault(s) using prescribed procedures which are driven from fault code(s) accessed from the vehicles system(s) |
| 1.4 | Correctly use other electrical test equipment (such as a multi-meter and/or oscilloscope) to be able to test the vehicles electrical system when carrying out prescribed diagnosis procedures |
| 1.5 | Select and use appropriate PPE during assessment |
| 1.6 | Comply with all health and safety requirements relative to assessment |
| 1.7 | Carry out system checks / diagnosis with scan tool / diagnostic test equipment within given time constraints |

| Knowledge Requirements | |
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| The candidate must indicate a sound knowledge of: | |
| 2.1 | ABS including any associated components |
| 2.2 | Chassis systems including Traction Control and any associated components |
| 2.3 | Network communication system and the associated components |
| 2.4 | System components and their functionality within the vehicle system(s) |



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| Accreditation Module Title | Steering and Suspension System Diagnosis |
| Module Code | ATA - AOM - 115 |
| Practical Assessment Time | 1 hour |
| On-line Knowledge Test | K - 115 |
| IMI AOM Level | 3 |
| Module Overview | <p>This module is to assess the competence of the candidate's knowledge, skill and ability to check and diagnose the steering and suspension systems on a motorcycle.</p> <p>The technician will need to be able to dismantle steering and suspension components such as front forks and damper units and inspect, diagnose and re-assemble the units. On completion of reassembling the steering / suspension components the technician will need to be able to return the components to the manufacturer's settings.</p> <p>The candidate will be required to ensure that they follow all appropriate health and safety procedures and wear the necessary Personal Protection Equipment during the assessment.</p> |
| Candidate Profile | <p>The diagnostic technician should be working in the motorcycle sector of the industry and ideally have at least three years experience to ensure they are familiar with the skills, knowledge and techniques required to diagnose system faults, rectify the faults including replacing components and return the motorcycle systems to manufacturer specification.</p> |
| Links with Accreditation Routes and Modules | |
| This module features in: | |
| IMI Accreditation Route | IMI Accreditation Level |
| Motorcycle | Diagnostic Technician |



| Skills Requirements | |
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| The candidate must demonstrate the ability to: | |
| 1.1 | Demonstrate inspection and checking of components fitted to steering and suspension systems for serviceability and faults |
| 1.2 | Carry out diagnosis to steering and suspension systems and associated components |
| 1.3 | Remove, overhaul and replace suspension systems and associated components |
| 1.4 | Return steering and suspension systems to the manufacturer specifications / settings |

| Knowledge Requirements | |
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| The candidate must indicate a sound knowledge of: | |
| 2.1 | Diagnosing front suspension faults / systems |
| 2.2 | Diagnosing rear suspension faults / systems |
| 2.3 | Diagnosing wheel alignment / geometry faults / systems |



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| Accreditation Module Title | Electrical Systems - Complex |
| Module Code | ATA - AOM - 116 |
| Practical Assessment Time | 1 hour |
| On-line Knowledge Test | K - 116 |
| IMI AOM Level | 4 |
| Module Overview | <p>This module is to assess the candidate's knowledge, skill and ability to diagnose a complex chassis electrical fault.</p> <p>The candidate will need to access vehicle information such as component location and the appropriate vehicle electrical wiring diagrams and use these together with electrical test equipment such as multi-meter / scan tools to diagnose the system fault.</p> <p>The technician must have knowledge of network communication systems. Once the electrical fault has been diagnosed, the candidate should have the ability to rectify the fault and then check the system is functioning as per the vehicle manufacturer's original specification.</p> |
| Candidate Profile | <p>The motorcycle master technician should be working in the motorcycle sector of the industry and ideally have at least five years experience to ensure they are familiar with the skills, knowledge and techniques required to diagnose system faults, rectify the faults including replacing components and return the motorcycle systems to manufacturer specification.</p> <p>The master technician will also require the skills and ability to effectively communicate with internal staff (at all levels), customers and industry organisations to transfer both technical and non technical information.</p> |
| Links with Accreditation Routes and Modules | |
| This module features in: | |
| IMI Accreditation Route | IMI Accreditation Level |
| Motorcycle | Master Technician |

| Skills Requirements | |
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| The candidate must demonstrate the ability to: | |
| 1.1 | Diagnose a motorcycle electrical fault(s) without the use of fault code / driven information - high resistance or short circuit faults |
| 1.2 | Use electrical test equipment (such as a multi-meter / oscilloscope) to be able to test the vehicles electrical system |
| 1.3 | Access the wiring diagram for the motorcycle electrical system(s) |
| 1.4 | Apply a wiring diagram to the motorcycle electrical circuit during the diagnosis of an electrical / component fault |
| 1.5 | Diagnose electrical circuit faults using at least three methods (voltage drop / current flow and resistance) of electrical fault finding |
| 1.6 | Use a vehicle wiring diagram during the stages of diagnosis of the electrical fault |
| 1.7 | Determine a logical path to be able to diagnose / rectify a vehicles electrical fault |
| 1.8 | Select the appropriate repair method to the wiring / component in accordance with the manufacturer |
| 1.9 | Select and use appropriate PPE during assessment |
| 1.10 | Comply with all health and safety requirements relative to assessment |
| 1.11 | Diagnose an electrical fault accurately and identify the process to be able to rectify the fault within given time constraints |

| Knowledge Requirements | |
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| The candidate must indicate a sound knowledge of: | |
| 2.1 | Electrical systems integration |
| 2.2 | How electrical systems link and integrate with motorcycle communication networks |
| 2.3 | Electrical values i.e. Ohms, Amps, Volts |
| 2.4 | Oscilloscopes and their usage in diagnosing faults within motorcycle electrical systems |



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| Accreditation Module Title | Failure Analysis and Report |
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| Module Code | ATA - AOM - 117 |
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| Practical Assessment Time | 1 hour |
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| On-line Knowledge Test | K - 117 |
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| IMI AOM Level | 4 |
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| Module Overview | |
| <p>This module is to assess the candidate's knowledge, skill and ability to analyse the exact failure of a powertrain system component from the symptom given to them from a secondary source i.e. the customer / another technician.</p> <p>During the assessment, the candidate will need to access motorcycle information such as the appropriate motorcycle manuals, and use these together with their skill and knowledge to determine the exact cause of the fault from the information given to them. This will include analysing the information to be able to determine the cause.</p> <p>Once the cause of the fault has been diagnosed, the candidate will need to complete a full report of the fault and the process/procedure needed to rectify the fault for purposes such as warranty claims etc.</p> | |

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| Candidate Profile | |
| <p>The motorcycle master technician should be working in the motorcycle sector of the industry and ideally have at least five years experience to ensure they are familiar with the skills, knowledge and techniques required to diagnose system faults, rectify the faults including replacing components and return the motorcycle systems to manufacturer specification.</p> <p>The master technician will also require the skills and ability to effectively communicate with internal staff (at all levels), customers and industry organisations to transfer both technical and non technical information.</p> | |

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| Links with Accreditation Routes and Modules | |
| This module features in: | |
| IMI Accreditation Route | IMI Accreditation Level |
| Motorcycle | Master Technician |



| Skills Requirements | |
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| The candidate must demonstrate the ability to: | |
| 1.1 | Qualify the symptom from the customer, the effect and to accurately diagnose the cause of a powertrain fault |
| 1.2 | Dismantle powertrain components |
| 1.3 | Inspect powertrain components |
| 1.4 | Diagnose the cause of powertrain fault |
| 1.5 | Diagnose the powertrain fault using a methodical approach to the symptom |
| 1.6 | Use manufacturer information throughout the diagnosis to determine the cause of a powertrain fault |
| 1.7 | Use workshop tools and equipment to accurately diagnose a powertrain fault from the information identified |
| 1.8 | Explain the cause of a powertrain fault and the rectification procedure required through a written report |
| 1.9 | Select and use appropriate PPE during assessment |
| 1.10 | Comply with all health and safety requirements relative to assessment |
| 1.11 | Carry out a full powertrain evaluation within given time constraints |

| Knowledge Requirements | |
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| The candidate must indicate a sound knowledge of: | |
| 2.1 | Understanding symptom, effect and cause of powertrain faults |
| 2.2 | Diagnosing faults within a motorcycle environment |



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| Accreditation Module Title | Computer Based Test Equipment |
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| Module Code | ATA - AOM - 118 |
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| Practical Assessment Time | 1 hour |
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| On-line Knowledge Test | K - 118 |
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| IMI AOM Level | 4 |
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| Module Overview | |
| <p>This module is to assess the candidate's knowledge, skill and ability to use computer based test equipment to diagnose a complex system fault. The technician will be required to analyse the data (fault codes / live data) displayed by the test equipment to diagnose the system fault.</p> <p>The technician will need to use a scan tool / vehicle with current software to allow the vehicle to be configured to the drivers / customer's requirements. It will be necessary for the candidate to check the system(s) is functioning as per the vehicle manufacturer's original specification, and to the customer's requirements.</p> | |

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| Candidate Profile | |
| <p>The motorcycle master technician should be working in the motorcycle sector of the industry and ideally have at least five years experience to ensure they are familiar with the skills, knowledge and techniques required to diagnose system faults, rectify the faults including replacing components and return the motorcycle systems to manufacturer specification.</p> <p>The master technician will also require the skills and ability to effectively communicate with internal staff (at all levels), customers and industry organisations to transfer both technical and non technical information.</p> | |

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| Links with Accreditation Routes and Modules | |
| This module features in: | |
| IMI Accreditation Route | IMI Accreditation Level |
| Motorcycle | Master Technician |



| Skills Requirements | |
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| The candidate must demonstrate the ability to: | |
| 1.1 | Use scan tool / diagnostic test equipment competently |
| 1.2 | Connect the equipment to the vehicle(s) system using the correct process |
| 1.3 | Communicate with the vehicle system(s) using suitable vehicle test equipment |
| 1.4 | Correctly retrieve system information from the onboard system including fault codes and live data to be able to develop a diagnosis procedure |
| 1.5 | Carry out system functional checks with scan tool / diagnostic test equipment to be able to accurately diagnose a system fault |
| 1.6 | Use Personal Protection Equipment (PPE) |
| 1.7 | Follow health and safety guidelines |
| 1.8 | Work within given time constraints |

| Knowledge Requirements | |
|---|---|
| The candidate must indicate a sound knowledge of: | |
| 2.1 | Updating software to scan tool/diagnostic test equipment from software downloads from a remote source |
| 2.2 | Updating motorcycle system control units with software held in scan tool / diagnostic test equipment |
| 2.3 | Checking vehicle systems functionality after updating the system software |
| 2.4 | Network communication systems and the integration with other vehicle systems |



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| Accreditation Module Title | Instructional Support |
| Module Code | ATA - AOM - 119 |
| Practical Assessment Time | 1 hour |
| On-line Knowledge Test | K - 119 |
| IMI AOM Level | 4 |
| Module Overview | <p>This module is to ensure that the candidate has the ability to train / mentor others (apprentices / technicians) in the workplace.</p> <p>This will require the candidate to have a good knowledge of the subject, be able to simplify the subject matter and transfer their knowledge to a trainee.</p> <p>The candidate will be required to carry out a practical demonstration during the assessment.</p> <p>The candidate will be required to demonstrate their ability to use training aids and their relevance in the transfer of information.</p> <p>The candidate will need to demonstrate that the information has been transferred to the trainee. The candidate will be given sufficient time within the assessment to prepare for the instructional support task.</p> |
| Candidate Profile | <p>The motorcycle master technician should be working in the motorcycle sector of the industry and ideally have at least five years experience to ensure they are familiar with the skills, knowledge and techniques required to diagnose system faults, rectify the faults including replacing components and return the motorcycle systems to manufacturer specification.</p> <p>The master technician will also require the skills and ability to effectively communicate with internal staff (at all levels), customers and industry organisations to transfer both technical and non technical information.</p> |
| Links with Accreditation Routes and Modules | |
| This module features in: | |
| IMI Accreditation Route | IMI Accreditation Level |
| Motorcycle | Master Technician |



| Skills Requirements | |
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| The candidate must demonstrate the ability to: | |
| 1.1 | Select the appropriate training aids to allow the required knowledge to be imparted to the trainee |
| 1.2 | Demonstrate the knowledge of subject throughout instructional support to be able to answer questions from the trainee |
| 1.3 | Transfer knowledge to the trainee |
| 1.4 | Transfer the subject through actions / verbal communication |
| 1.5 | Use instructional aids |
| 1.6 | Ensure that the trainee has gained knowledge of subject / knowledge being transferred |
| 1.7 | Communicate clearly throughout the transfer of knowledge |
| 1.8 | Use language and terminology that the trainee understands |
| 1.9 | Coach / mentor others |
| 1.10 | Use Personal Protection Equipment (PPE) |
| 1.11 | Follow health and safety guidelines |
| 1.12 | Work within given time constraints |

| Knowledge Requirements | |
|---|--|
| The candidate must indicate a sound knowledge of: | |
| 2.1 | The transfer of information to others |
| 2.2 | The methods used to train / impart knowledge to others |
| 2.3 | Assessing the ability of others in the workplace |
| 2.4 | The use of training aids |
| 2.5 | Health and safety |



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| Accreditation Module Title | Customer Liaison |
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| Module Code | ATA - AOM - 120 |
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| Practical Assessment Time | 1 hour |
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| On-line Knowledge Test | K - 120 |
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| IMI AOM Level | 4 |
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| Module Overview | |
| <p>This module is to ensure that the candidate has the ability to communicate with customers at all levels.</p> <p>This will require the candidate to initially qualify the customer's needs, have a good knowledge of the subject and be able to simplify the subject matter.</p> <p>The candidate will be required to explain a complex repair / subject to a customer, who has limited technical knowledge.</p> | |

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| Candidate Profile | |
| <p>The motorcycle master technician should be working in the motorcycle sector of the industry and ideally have at least five years experience to ensure they are familiar with the skills, knowledge and techniques required to diagnose system faults, rectify the faults including replacing components and return the motorcycle systems to manufacturer specification.</p> <p>The master technician will also require the skills and ability to effectively communicate with internal staff (at all levels), customers and industry organisations to transfer both technical and non technical information.</p> | |

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| Links with Accreditation Routes and Modules | |
| This module features in: | |
| IMI Accreditation Route | IMI Accreditation Level |
| Motorcycle | Master Technician |



| Skills Requirements | |
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| The candidate must demonstrate the ability to: | |
| 1.1 | Greet the customer without compromise |
| 1.2 | Qualify the needs of the customer to accurately provide the service that they require |
| 1.3 | Use simple non-technical jargon to qualify the customers needs |
| 1.4 | Use simple non-technical language to explain the solution to meet the customers needs |
| 1.5 | Use simple non-technical responses to questions asked by customer |
| 1.6 | Demonstrate interpersonal and listening skills when communicating with a customer |
| 1.7 | Identify opportunities to promote further goods, products or services to a customer |
| 1.8 | Communicate clearly and provide accurate information when dealing with customers |
| 1.9 | Communicate with customer(s) using non verbal language, including the use of accurate records / written format and the use of body language |
| 1.10 | Select and use the correct PPE during assessment |
| 1.11 | Comply with all health and safety requirements |

| Knowledge Requirements | |
|---|--------------------------|
| The candidate must indicate a sound knowledge of: | |
| 2.1 | Questioning techniques |
| 2.2 | Communication techniques |
| 2.3 | Legislation |
| 2.4 | Health and safety |