

# Motor Vehicle Service and Maintenance Technician (Light Vehicle) Apprenticeship Standard, Level 3: End-point Assessment Plan

## Introduction & Overview

This document sets out the requirements for End Point Assessment (EPA) for the Motor Vehicle Service and Maintenance Technician (Light Vehicle), Level 3, apprenticeship standard. It will be of interest to Motor Vehicle Service and Maintenance Technician apprentices and their employers, training providers and end-point assessment organisations.

Prior to taking their EPA, full time apprentices will typically:

- Spend 36 months on the programme;
- Complete a minimum of 20% off-the-job training;
- Complete an F-Gas qualification;
- Complete a Logbook, used to inform the Professional Discussion;
- Achieve level 2 in English and maths, if not previously done so.

The EPA should only start once the employer is satisfied that requirements for EPA have been met and must be completed within 6 months of the EPA gateway.

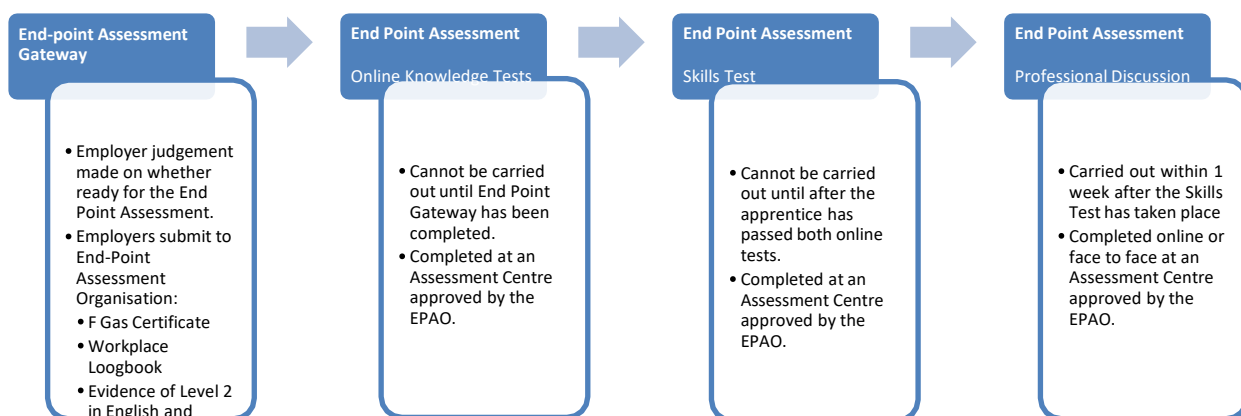
EPA must be conducted by an organisation approved to offer services against this standard, as selected by the employer, from the Education & Skills Funding Agency's Register of End-Point Assessment Organisations.

The EPA consists of 3 distinct methods:

- Online Knowledge Test
- Skills Test
- Professional Discussion

Performance in the EPA will determine the apprenticeship grade of fail, pass or distinction.

### Diagram 1. Summary of End-point Assessment



## On Programme Assessment

There is no requirement for on-programme summative assessment. However, Employers are recommending that, in addition to the formal EPA Gateway, there are also on-programme gateways in place. These can be used to confirm that the progress of the apprentice is meeting expectations.

Further details of the recommended on-programme gateways can be found in the Automotive

## Retail Motor Vehicle Service and Maintenance Technician (Light Vehicle) Training Specification,

which is freely available to all employers from Retail Motor Industry Standards and Certification (RMISC): [www.rmisc.co.uk](http://www.rmisc.co.uk).

## End-point Assessment Gateway

The EPA should only start once the employer is satisfied that requirements for EPA have been met and can be evidenced to an end-point assessment organisation and that the apprentice is consistently working at or above the level set out in the standard.

Apprentices must have evidence of the following prior to taking their EPA.

- **F-Gas Certificate** - This can be any certificate that meets the EU's 2014 F-gas regulation. [Acceptable qualifications required to work on mobile air conditioners that contain F gas are listed at: https://www.gov.uk/guidance/qualifications-required-to-work-on-equipment-containing-f-gas](https://www.gov.uk/guidance/qualifications-required-to-work-on-equipment-containing-f-gas).

- **Logbook** - The apprentice must build a logbook during the last eighteen months of their training that showcases work they have carried out and behaviours achieved. (See Assessment Method 3 – Professional Discussion for details of the required contents of the logbook).

Apprentices do not have to use an Assessment Organisation's logbook. They can use their own logbook providing it meets the requirements set out in Assessment Method 3: Professional Discussion.

- **English and Mathematics** - Apprentices without English and mathematics at level 2 must achieve level 2 prior to taking their end-point assessment. For those with an education, health and care plan or a legacy statement the apprenticeships English and maths minimum requirement is Entry Level 3 and British Sign Language qualification are an alternative to English qualifications for whom this is their primary language.

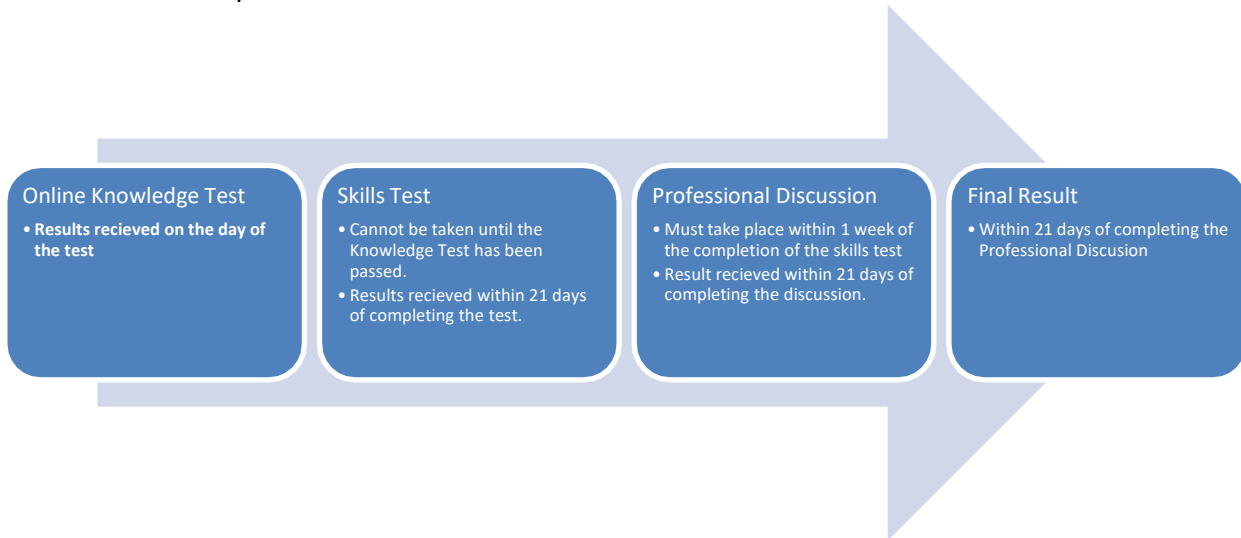
## End-point Assessment Methods, Timescales & Location

The EPA consists of 3 distinct methods:

- Online Knowledge Test
- Synoptic Skills Test
- Synoptic Professional Discussion

The EPA must be completed within 6 months of the EPA gateway.

These will be completed in order:



Annex A shows which Knowledge, Skills and Behaviours are being assessed by each of the different assessment methods.

### **Assessment Method 1: Online Knowledge Test**

The Online Knowledge Test will take place at a location approved by the EPAO. They must ensure that it is conducted in a suitable controlled environment i.e. quiet room free from distraction and influence, with the necessary equipment e.g. computer. They can only be invigilated by a person appointed by the EPAO. They may be conducted face-to-face or via an online platform. EPAOs must ensure appropriate methods to prevent misrepresentation are in place should an online option be used. For example, screen share and web camera function with an administrator/invigilator when taking the knowledge test on-line.

#### **Test 1**

- Groups 2 – 5 (see Annex A).
- The test must consist of 40 randomly generated knowledge based questions.
- There will be a range of question types:
  - Multi choice from 4 items
  - Drag and drop 4 items
  - Drag and drop 5 items
  - Ordering of 4 items
  - Ordering of 5 items
- Apprentices must have a maximum of 45 minutes to complete the test.
- The test is closed book i.e. the apprentice can't refer to reference books or materials
- The tests will be carried out online and marked electronically.
- An Invigilation Log, provided by the End-point assessment organisation, showing attendance and seating plan should be kept for one year.
- EPAOs must develop questions, in consultation with representative employers
- EPAOs must develop 'test banks' of sufficient size to prevent predictability and review them regularly to ensure they, and the questions they contain, are fit for purpose.

#### **Test 2**

- Test 2 will follow Test 1 with a break of at least 30 minutes between tests.
- 50% of the questions covering Group 6 and 50% covering Group 7 (see Annex A).

- The test must consist of 60 randomly generated knowledge based questions.
- There will be a range of question types:
  - Multi choice from 4 items
  - Drag and drop 4 items
  - Drag and drop 5 items
  - Ordering of 4 items
  - Ordering of 5 items
- Apprentices must have a maximum of 1¼ hours to complete the test.
- The test is closed book i.e. the apprentice can't refer to reference books or materials
- The tests will be carried out online and marked electronically.
- An Invigilation Log, provided by the End-point assessment organisation, showing attendance and seating plan should be kept for one year
- EPAOs must develop questions, in consultation with representative employers
- EPAOs must develop 'test banks' of sufficient size to prevent predictability and review them regularly to ensure they, and the questions they contain, are fit for purpose

If an apprentice has any disability that would put them at a disadvantage when completing either of the knowledge tests then the End-point Assessment Organisation can provide a scribe, reader, and/or add extra time to enable them to complete the test at the same level as the other apprentices. The invigilation log should record that a scribe, reader or extra time has been used.

### **Assessment Method 2: Skills Test**

The Skills Test cannot be taken until both Knowledge Tests have been passed.

The Skills Test will take place at an Assessment Centre approved by the EPAO and in a controlled environment that simulates the workplace to ensure they provide an insight into the individual's competence. .

Where possible, the assessment organisations will use the apprentice's normal tools, systems, processes and work documentation during the observation.

By prior arrangement with the Assessment Organisation, apprentices may bring their own diagnostic tools for use during the assessment. Apprentices will be responsible for calibration, maintenance and security of their own tools. Assessment Organisations may refuse the use of apprentice's equipment if they consider that it will cause considerable additional risk to health and safety during tests.

Apprentices must be observed by an Independent Assessor completing 4 to 6 tasks, depending on the tasks, that include at least all requirements from Skill Set A and 1 from each of Skill Sets B, C, D, E, F, G, H, I:

<b>Skill Set A</b> <ul style="list-style-type: none"> <li>Remove and replace range of bolts and tighten correctly (using torque wrench when appropriate)</li> <li>Read and follow instructions to carry out procedures to set up a component (e.g. clutch, height adjustment)</li> <li>Carry out complex task (procedure involves a range of skills that need to be carried out in a specific methodical order)</li> </ul>	<b>Skill Set B</b> <ul style="list-style-type: none"> <li>Check for leak</li> <li>Measuring components and determine serviceability</li> <li>Diagnose mechanical braking fault</li> <li>Diagnose charging and starting systems</li> </ul>	<b>Skill Set C</b> <ul style="list-style-type: none"> <li>Diagnose brake hydraulic fault</li> <li>Diagnose steering/suspension mechanical faults</li> <li>Diagnose steering hydraulic faults</li> <li>Diagnose suspension hydraulic faults</li> <li>Diagnose sensor fault</li> <li>Use computer based test equipment</li> </ul>
<b>Skill Set D</b> <ul style="list-style-type: none"> <li>Test an auxiliary electrical component and determine if faulty</li> <li>Diagnose overheating faults</li> <li>Diagnose SRS fault</li> <li>Diagnose manual transmission or driveline faults</li> <li>Diagnose climate control faults</li> <li>Diagnose steering, suspension or brakes electrical faults</li> <li>Diagnose broken/shorted wire</li> </ul>	<b>Skill Set E</b> <ul style="list-style-type: none"> <li>Diagnose turbo fault</li> <li>Diagnose engine mechanical fault</li> <li>Diagnose ECU faults</li> <li>Diagnose engine management fault</li> <li>Diagnose automatic transmission faults</li> <li>Diagnose advanced suspension systems</li> <li>Diagnose multiplex fault</li> <li>Diagnose emissions fault</li> </ul>	<b>Skill Set F</b> <ul style="list-style-type: none"> <li>Remove and replace clips</li> <li>Remove and replace connectors</li> <li>Remove and replace trim</li> <li>Remove and replace tyre</li> <li>Handle fluids (antifreeze, oil, grease, acid. Sealant etc.)</li> <li>Balance a wheel</li> <li>Use ICT to create emails, or word-process documents or carry out web based searches.</li> </ul>
<b>Skill Set G</b> <ul style="list-style-type: none"> <li>Remove and replace hoses</li> <li>Remove and replace drive belts</li> <li>Bleed fluid system</li> <li>Carry out wheel alignment</li> <li>Use press to press rubber bush</li> <li>Replace road spring</li> <li>Time up engine component</li> </ul>	<b>Skill Set H</b> <ul style="list-style-type: none"> <li>Remove and replace gasket</li> <li>Remove and replace an auxiliary electrical component</li> <li>Repair SRS fault</li> <li>Carry out minor repairs to wiring loom</li> </ul>	<b>Skill Set I</b> <ul style="list-style-type: none"> <li>Free off seized components</li> <li>Remove component from a tapered shaft</li> <li>Use press to press bearing</li> <li>Remove and replace bearing</li> <li>Remove and replace seal</li> <li>Fit head gasket</li> <li>Replace loom</li> </ul>

The Skills Test should follow the repair processes carried out in the workplace. At the start of each task the apprentice will be presented with a fault and will be expected to:

- Ask questions to determine the exact fault.
- Explain any health and safety risks involved in the particular system.
- Carry out inspection, tests and measurements as appropriate to identify the repairs that need carrying out.
- Obtain relevant data.
- Present verbally what is involved with the repair and list the replacement parts involved.
- Obtain repair procedures.
- Carry out the repair.
- Present the repaired 'vehicle' and explain further action that may be required following on from the repair.
- Complete a job card.



Where questions are asked about a fault the Independent Assessor can give further details of the symptoms but must not mention the components that are faulty.

Knowledge Skills and Behaviours observed and answers to questions must be documented by the Independent Assessor.

After each task the Independent Assessor must ask a set of 5 open questions about each of the following, to determine:

- 1 question about the health and safety risks relevant to the task.
- 1 question about the possible risks of damage to the vehicle.
- 2 questions about knowledge of the vehicle systems relevant to the task.
- 1 extended question about the knowledge of the vehicle system associated with the task.

The following marking boundaries must be applied to each set of 5 open questions asked per task:

<b>PASS</b>	<b>FAIL</b>
Minimum of 3 questions answered correctly per task	2 or less questions answered correctly per task

The Independent Assessor may also ask supplementary questions where clarification of the answers or clarification of the actions being carried out is required.

The training provider will play no part in the assessment process itself and the Independent Assessor from the EPAO, is fully responsible for making the distinction/pass/fail decision.

There will be a 1:3 Independent Assessor from the EPAO/Candidate ratio for the Skills Test.

At the start of each task the apprentice should be provided with:

- Data sheets for the vehicle system plus 2 distractors (e.g. data sheets for similar vehicles);
- Repair procedures for the vehicle plus 2 distractors (e.g. data sheets for similar vehicles);
- Written and verbal instructions on what they are expected to complete and the time expected to complete it in.

The time allowed for each should be 110% of manufacturer's repair time plus estimated diagnostic time. The task will be stopped if the apprentice goes over the allowed time.

The tasks given should have a total manufacturer's repair time including estimated diagnostic time of a minimum of 9½ hours and not more than 10½ hours. This should be completed over two consecutive days to allow for breaks between observations, rotation of apprentices and setting up of tasks.

EPAOs must develop skills tasks, in consultation with representative employers. EPAOs must develop 'task banks' of sufficient size to prevent predictability and review them regularly to ensure they, and the questions they contain, are fit for purpose.

To relieve some of the pressure on setting up times, the same series of tasks can be repeated

for up to 21 days. EPAOs should ensure that there is a sufficient variety of tasks available to reduce predictability so that apprentices taking the test at the end of the series are not given an advantage over those taking the test at the beginning of the series.

The results of the Skills Test should be given to the candidate within 21 days of the assessment.

### **Assessment Method 3: Professional Discussion**

#### **Logbook Requirements**

The Logbook shall be submitted to the EPA Organisation at the End-Point Assessment Gateway.

The logbook should contain evidence of:

- A service or inspection where faults have been found.
- Four repairs, from different systems, that involve complex (procedure involves a range of skills that need to be carried out in a specific methodical order) diagnosis and repair.
- How the apprentice has achieved each of the Criteria listed in the Behaviours (see Annex B – Grading Criteria: Assessment Method 3: Professional Discussion Part 1).

The evidence can be of any form the apprentice chooses, including:

- job cards
- technicians reports
- written accounts
- witness testimonies
- images
- short clips of voice recordings or videos (the apprentice will be responsible for supply this in a suitable format previously agreed with the Assessment Organisation)
- repair manuals/specifications

The evidence will be used as a basis of the Professional Discussion and must be sufficient to show how each of the criteria have been met in Annex B – Grading Criteria: Assessment Method 3 Parts 1 and 2.

#### **Professional Discussion**

The Professional Discussion will be assessed by an Independent Assessor from an Assessment Organisation who will make the distinction/pass/fail decision. These will be conducted online or face to face at a location approved by the EPAO.

The discussion will last approximately 1 hour and will be in two parts: Part 1 lasting approximately 20 minutes, +/- 5 minutes and Part 2 lasting approximately 40 minutes, +/- 5 minutes. The Independent Assessor will review the Logbook which will then form the basis of the Professional Discussion.

#### **Part 1**

Will determine how well the apprentice achieved the four behaviour elements:

- Working Together & Building Trust.
- Customer Experience & Communication.
- Making it Happen & Commercial Awareness.
- Learn to Learn & Striving for Excellence.

Part 2 will determine the apprentice's knowledge and understanding involved in carrying out

the vehicle inspection and one of the four repairs chosen at random:

- Details of fault presented to the apprentice;
- Health, safety and legal implications of the diagnosis and repairs;
- Knowledge and understanding of the system(s) involved;
- Possible actions that the apprentice could have chosen;
- Strengths and weaknesses of each action;
- Diagnostic and repair actions they carried out;
- Why they chose the particular route that they followed.

The apprentice needs to demonstrate that they can apply the broad range of knowledge, skills and behaviours in the Standard.

The End-point assessment organisation will develop a standardised template and guidance based on the scoring criteria (Annex B).

## **Apprenticeship Grading**

### **Assessment Method 1: Knowledge Test**

The candidate must achieve a minimum of 65% in Part 1 and Part 2 to achieve a pass.

The candidate must achieve 85% or above in Part 1 and Part 2 to achieve a distinction.

### **Assessment Method 2: Skills Test**

At the end of the series of tasks the apprentice will be given an overall grade for each grade descriptor (see Annex B).

To achieve a pass grade for the Skills Test: all grade descriptors must be demonstrated at a minimum of pass. Any fail grading will lead to an overall fail of the Skills Test.

To achieve a distinction for the Skills Test: 6 grading descriptors need to be demonstrated as distinctions with a minimum of pass grade for any other grading descriptors not at distinction.

### **Assessment Method 3: Professional Discussion**

To achieve an overall pass grade for the Professional Discussion: all grade descriptors must be demonstrated at a minimum of pass. Any fail grading will lead to an overall fail of the professional discussion.

To achieve an overall distinction for the professional discussion a total of 8 grading descriptors need to be demonstrated as distinction this made up of 5 grading descriptors need to be demonstrated as distinctions from part 1 and 3 grading descriptors need to be demonstrated as distinctions from part 2 with a minimum of pass grade for any other grading descriptors not at distinction.

### **Final Grade**

The final grade of fail, pass or distinction will be determined by collective performance in the three assessments in the endpoint assessment. To achieve a pass the apprentice will need to score 65% in each of the three endpoint assessments.

Assessment Method 1: Online Tests.

Assessment Method 2: Skills Test.

Assessment Method 3: Professional Discussion.

To achieve an overall distinction the apprentice will need to score a distinction in each of the three assessment methods.

### Resit and Retake information

Apprentices who fail one or more of Knowledge Test 1, Knowledge Test 2, Skills Test or Professional Discussion will be offered the opportunity to take a re-sit/retake. A re-sit does not require further learning, whereas a re-take does.

The apprentice's employer will need to agree that a re-sit/re-take is an appropriate course of action. Apprentices should have a supportive action plan to prepare for the re-sit/re-take.

The maximum grade awarded to a re-sit/re-take will be pass, unless the EPAO identifies exceptional circumstances accounting for the original fail.

Resits/retakes must be taken no less than 1 week after of the original test. There will be no limit on resits/retakes however they must be taken during the maximum EPA period i.e. 6 months from the EPA Gateway, otherwise the entire EPA must be retaken.

### Roles and Responsibilities

<b>Apprentice</b>	Completing the logbook.
<b>Employer</b>	Making a judgement on whether the requirements for EPA have been met and can be evidenced to an end-point assessment organisation and that the apprentice is consistently working at or above the level set out in the standard.
<b>Training Provider</b>	On Programme training
<b>Invigilators</b>	Invigilate online tests
<b>Independent Assessor</b>	<p>The Independent Assessor is responsible for:</p> <ul style="list-style-type: none"> <li>Assessing the skills test</li> <li>Reviewing the Logbook and carrying out the Professional Discussion</li> <li>Making the final decision about whether the apprentice has failed, passed or achieved a distinction.</li> </ul>

### End-point Assessment Organisations

Employers must choose an End-point assessment organisation (EPAO) approved to deliver the end-point assessment for this apprenticeship from the Education & Skills Funding Agency's Register of End-Point Assessment Organisations (RoEPAO).

End-point assessment organisation must:

1. Ensure that all Assessment Centres
  - have sufficient workspace, workshop and candidate facilities which are clean,

- tidy and well maintained
  - have private and quiet breakout areas where the Independent Assessor can explain the assessments being carried out, carry out professional discussion and give feedback
  - maintain a full set of tools and resources defined by the Assessment Organisation
  - publish, at least 12 months before the tooling and resources are required, a list of resources and tools to be kept at an Assessment Centre.
2. Have procedures in place that ensure that each apprentice is asked a wide range of skills and knowledge questions and that over a period of time there has been an even number of questions against each criterion.
  3. Have procedures in place to check authenticity of apprentice when carrying out remote assessments.
  4. Complete an annual internal Verification Plan.
  5. Carry out risk based observations of an average 10% of the EPAs to ensure assessments are following:
    - Procedures for the management of information relating to assessment;
    - Requirements for equality and diversity and, where appropriate, bilingualism, legal issues, policies and procedures relevant to assessment, including those for confidentiality, health, safety and welfare;
    - The requirements of the Assessment Plan;
    - Procedures for assessment decisions to ensure they are:
      - i. made against specified criteria,
      - ii. valid,
      - iii. reliable,
      - iv. fair;
    - Procedures for asking questions and giving feedback;
    - Quality assurance and standardisation procedures;
    - Procedures when there are disputes.
  6. Establish, maintain and publish a written procedure for the investigation and actions to take in the event of suspected or alleged malpractice or maladministration, and include:
    - how whistle-blowers will be treated;
    - when and how interested parties will be notified;
    - how any interviews should be conducted;
    - how facts will be gathered and evidence found, collated and stored;
    - how documentary evidence will be verified;
    - how confidentiality of investigation materials is assured;
    - how records of investigations will be presented.
  7. Have written assessments that do not restrict a sub-contractor to using a particular

make of equipment or product

8. Develop and manage a complaints and appeals procedure.
9. Have written procedures for handling any exceptional circumstances where events that are not in the control of the apprentice would put them at a disadvantage.
10. Annually publish information for the EQA Body, Retail Motor Industry Standards and Certification (RMISC) on:
  - Number of Assessment Centres;
  - Number of assessments that have taken place;
  - Percentage of apprentices that Gain Distinction, Pass and Fail;

### **Requirements for Independent Assessors and Invigilators**

End-point assessment organisations must appoint Invigilators to invigilate the online knowledge test. They must have no direct connection with the apprentice or their employer. There are no specific qualification or experience requirements for invigilators. They must be trained in the task by the End-point assessment organisation and operate according to their guidance.

End-point assessment organisation must also appoint an Independent Assessor to conduct the end-point assessment Skills Test observation and Professional Discussion. They must be trained in the task by the End-point assessment organisation and operate according to their guidance. They must ensure that Independent Assessors:

1. Have an understanding of the sector and the assessment requirements for this Standard;
2. Have the expertise to operate administer the Assessment Tools required;
3. Have technical/occupational qualifications at or above the Apprenticeship Standard for Motor Vehicle Service and Maintenance Technician (Light Vehicle).

For clarity, an Independent Assessor is someone who is employed or contracted by an End Point Assessment Organisation and has had not been involved in the training of the apprentice or employed in the previous 12 months by any organisation that share or is part of the same holding/registered company as the training provider.

## Internal quality assurance

Internal quality assurance refers to the requirements that EPAO must have in place to ensure consistent (reliable) and accurate (valid) assessment decisions. EPAOs for this standard must undertake the following:

- Appoint Independent Assessors that meet the requirements as detailed in this plan
- Provide training for Independent Assessors in terms of good assessment practice, operating the assessment tools and grading:
  - Procedures for the management of information relating to assessment;
  - Requirements for equality and diversity and, where appropriate, bilingualism;
  - Legal issues, policies and procedures relevant to assessment, including those for confidentiality, health, safety and welfare;
  - How to involve the learner in the assessment process;
  - The strengths and limitations of different assessment methods;
  - How to effectively facilitate a professional discussion;
  - How assessment arrangements can be adapted to meet individual needs;
  - How to ensure that assessment decisions are:
    - a. Authentic,
    - b. Valid,
    - c. Sufficient,
    - d. Made against the specified criteria;
  - How and when to ask questions during assessment;
  - How to feedback after the assessment has taken place;
  - Quality assurance and standardisation procedures;
  - Procedures to follow when there are disputes.
- Provide a programme of ongoing CPD to provide 30 hours of work experience or technical/qualification related CPD within a 12 month period.
- Have quality assurance systems and procedures that support fair, reliable and consistent assessment across organisation and over time.
- Operate standardisation events that enable Independent Assessors to attend a minimum of 1 event per year.
- Have an online forum or produce FAQs every 2 months.
- Operate moderation of assessment activity and decisions, through examination of documentation and observation of activity, on a risk basis but with a minimum of each Independent Assessor's assessments moderated annually.



### **Assessment tools and materials**

EPAOs must produce assessment tooling and equipment list and supporting materials for the EPA that follow best assessment practice, as follows:

- A core tooling and equipment list should be produced annually showing the minimum equipment required at each centre.
- A specialised tooling and equipment list showing equipment required at each centre at least 3 months in advance of being required.

### **External Quality Assurance**

External quality assurance for this apprenticeship standard will be undertaken by Retail Motor Industry Standards and Certification (RMISC) on behalf of the Retail Automotive Light Vehicle Employer Group.

### **Implementation**

#### **Affordability**

It is anticipated that the EPA will not represent more than 15% of the maximum funding band for this apprenticeship.

#### **Volumes**

It is anticipated that there will be 4,500 starts per year on this apprenticeship.

End-point assessment organisations will need to develop the documentation and tools to complete the EPA. It is anticipated that they will be ready for delivery by January 2018.

#### **Professional Recognition**

This standard has been designed to be recognised by relevant Professional Engineering Institutions and successful apprentices can apply for the appropriate level of professional registration (EngTech).

## Annex A – Knowledge, Skills and Behaviours to be assessed by each assessment method

Assessment method	Key
Knowledge Test Part 1	1
Knowledge Test Part 2	2
Skills Task Observation	O
Professional Discussion	P

Knowledge statement	Assessment method
<b>Groups 2 – 5</b> <ol style="list-style-type: none"> <li>How vehicle service and repair is impacted by legislative, regulatory and ethical requirements, including health and safety law and environmental procedures;</li> <li>The structure of the industry and how the business works from an operational perspective, business targets, the systems and processes that make up the efficient running of a business;</li> <li>How to develop positive working relationships and communicate effectively and how to carry out self-evaluation and improve own performance;</li> <li>The procedures for the maintenance of tools and the workshop;</li> <li>Routine servicing and inspection procedures;</li> <li>Steering and suspension geometries; electrical circuit requirements and calculations;</li> <li>Construction and operation of vehicle components and systems;</li> <li>Common fault types, causes and effects of different types of faults;</li> <li>The implications and legal requirements of fitting accessories and carrying out vehicle modifications;</li> </ol>	1OP
<b>Group 6</b> <ol style="list-style-type: none"> <li>How to diagnose faults using suitable fault finding strategies;</li> <li>Construction and operation of advanced electrical, braking and suspension systems.</li> <li>Vehicle emissions and legal requirements;</li> </ol> <b>Group 7</b> <ol style="list-style-type: none"> <li>Construction and operation of engine and transmission systems and engine and gear calculations;</li> <li>Alternative fuels and hybrid and electric systems.</li> </ol>	2OP

Skills statements	Assessment method
<ol style="list-style-type: none"> <li>Contribute to the maintenance of a safe and efficient workshop.</li> <li>Demonstrate due regard for own safety and that of others in the workshop and minimise risk of injury and vehicle damage.</li> <li>Carry out fundamental tasks associated with removal and replacement procedures on a vehicle;</li> <li>Obtain diagnostic and repair information</li> <li>Interpret diagnostic information and use electrical wiring diagrams to determine system serviceability.</li> <li>Use a range of diagnostic equipment.</li> <li>Follow recognised diagnostic procedures, logical diagnostic sequence and apply advanced diagnostic principles and problem-solving techniques to establish faults.</li> <li>Report faults using company procedures and recommend suitable further actions.</li> <li>Follow recognised repair procedures to complete a wide range of repairs including those which involve complex procedures, or in depth knowledge.</li> <li>Test the function of repaired and fitted components.</li> <li>Adhere to business processes and complete documentation following workplace procedures.</li> <li>Use ICT to create emails, word-processed documents and carry out web based searches.</li> </ol>	OP
<ol style="list-style-type: none"> <li>Complete a range of services and inspect and prepare a vehicle to the required quality standard for handover to the customer.</li> </ol>	P

Behaviour statements	Assessment method
<ol style="list-style-type: none"> <li>1. Take responsibility when required and be honest and accountable when things don't go as planned</li> <li>2. Operate as an effective team member</li> <li>3. Behave in accordance with the values of the company and treat colleagues and customers with respect and courtesy.</li> </ol>	<b>P</b>
<ol style="list-style-type: none"> <li>4. Build effective relationships with colleagues and customers</li> <li>5. Gain trust and pay attention to colleagues and customers concerns and needs</li> <li>6. Communicate effectively on a range of topics and with all sorts of different people</li> </ol>	<b>O</b>
<ol style="list-style-type: none"> <li>7. Deliver excellent results and achieve challenging goals.</li> <li>8. Contribute to problem solving discussions and enjoy finding solutions to own and other people's problem.</li> <li>9. Suggest ways to make the business more efficient and contribute to its commercial growth.</li> <li>10. Constantly learn in order to improve own performance and that of the business</li> <li>11. Share knowledge and skills.</li> <li>12. Demonstrate a passion for engineering.</li> </ol>	<b>P</b>

## Annex B – Grading Criteria

### Assessment Method 1: Online Test

Marks allocated to each question type:

	1 correct answer	2 correct answers	3 correct answers	4 correct answers	5 correct answers
<b>Multi-choice from 4 items</b>	1 mark				
<b>Drag and drop 4 items</b>	¼ mark	½ mark		1 mark	
<b>Drag and drop 5 items</b>	¼ mark	½ mark	¾ mark		1 mark
<b>Ordering of 4 items</b>	¼ mark	½ mark		1 mark	
<b>Ordering of 5 items</b>	¼ mark	½ mark	¾ mark		1 mark

The candidate must achieve a minimum of 65% in Part 1 and Part 2 to achieve a pass and 85% in Part 1 and Part 2 to achieve a distinction.

### Assessment Method 2: Skills Test

Criteria	Distinction	Pass	Fail
S2 Demonstrates due regard for own safety and that of others in the workshop. Minimised risk of injury and vehicle damage.	Worked safely and minimised all health and safety risks, including possible long term health risks. Uses full range of personal protective equipment. Used full range of vehicle coverings. Minimised damage to the vehicle.	Worked safely. Minimised damage to the vehicle.	Independent Assessor had to intervene because there was a risk of danger or Independent Assessor had to intervene because there was a risk of damaging the vehicle.
S4 Obtain diagnostic and repair information.  B4 Build effective relationships with colleagues and customers	Takes pride in their appearance and checks that they look good before approaching a customer. Deals with difficult situations appropriately and balances the needs of customers with the requirements of the organisation. Capable of ensuring the customers enjoy a positive experience irrespective of the issue. Uses actively listening skills and uses the appropriate tone and questioning techniques particularly when talking to customers. Uses a methodical approach. Selectively chooses only relevant technical information to support diagnostics needed for the task.	Uses a clear voice and polite tone. Speaks confidently and uses different types of questions appropriately. Approaches colleagues and customers with respect and follows the appropriate procedures when dealing with a problem. Quickly refers difficult issues to others. Shows some methodology to their approach. Selects technical information to support diagnostics.	Communicates unclearly or is discourteous and has an unhelpful attitude. Does not select any relevant technical information needed for the task.

S3 Carry out fundamental tasks associated with removal and replacement procedures on a vehicle.	Selects only the correct tools and equipment required and, where appropriate, checks that they are correctly calibrated.	Selects the correct tools and equipment required and, where appropriate, checks that they are correctly calibrated. Only makes minor errors when using tools.	Independent Assessor had to intervene because there was a risk of damage to tools or vehicle.
S5 Interpret diagnostic information and use electrical wiring diagrams to determine system serviceability. S6 Use a range of diagnostic equipment. S9 Follow recognised diagnostic procedures, logical diagnostic sequence and apply advanced diagnostic principles and problem-solving techniques to establish faults.	Correctly uses diagnostic equipment. Carries out diagnostics in a systematic way and following instructions to efficiently diagnosis the fault.  Carries out secondary tests to confirm results.	Correctly uses diagnostic equipment.  Carries out diagnostics following instructions to identify the fault.	Correct fault not identified.
S8 Report faults using company procedures and recommend suitable further actions.  B5 Gain trust and pay attention to colleagues and customers concerns and needs	Is trusted and deals with customers with honesty and with fairness.  Is aware of how tone and body language impacts communications and adjusts to suit colleagues and customers and the situation. Explains what has caused the fault to occur.. Has a clear understanding of the parts required. Lists all of the parts and no additional ones, although may discuss the benefits of optional parts.	Is trusted and deals with customers with honesty and with fairness. Exhibits appropriate body language and attitude when dealing with colleagues and customers. Explains what is involved with the repair.  Has an understanding of the parts required.	Is untrustworthy, corrupt and customers are dealt with unfairly or neglects customers.  Gives an incorrect explanation of what is involved with the repair or does not identify any of the parts required.
S7 Follow recognised repair procedures to complete a wide range of repairs including those which involve complex procedures, or in depth knowledge.	Carries out repairs in a systematic way and following instructions to efficiently repair the vehicle. If required, carries out adjustments of components and units.	Successfully carries out repairs to the vehicle.	Independent Assessor should intervene because the apprentice is carrying out an incorrect repair to the vehicle.
S10 Test the function of repaired and fitted components.	Carries out suitable test methods ensure repair is effective.  Considers and carries out tests to other systems that may be affected by the repair.	Carries out suitable test methods ensure repair is effective.	Does not carry any tests or carries out test methods that are unsuitable for the repair.
S1 Contribute to the maintenance of a safe and efficient workshop. B4 Build effective relationships with colleagues and customers	Complies with legal requirements when dispose of used materials and debris. Shows an awareness of the implications of not following the legal requirements. Ensures the work area is tidy and all tools are stored correctly.  Shows an awareness of tool maintenance.	Wears appropriate clothes at all times and presents a clean appearance especially when meeting customers.  Ensures the work area is tidy and all tools are stored correctly Complies with legal requirements when dispose of used materials and debris.	Wears inappropriate clothing and uses bad language.  The work area is untidy, all tools are stored incorrectly and does not follow legal requirements when dispose of used materials and debris.
S11 Adhere to business processes and complete documentation following workplace procedures.  B6 Communicate effectively on range of	Talks about technical issues automatically using the language that is appropriate to the audience. Explains the legal implications of the repair.	Converses with others regarding technical issues explaining technical terminology when asked. Explains further action that may be required following on from	Does not give correct information about further action that may be required following on from the repair.  Writes illegible and

topics and with all sortsof different people	Confidently completes external documentation using an appropriate 'tone of voice'.	the repair. Completes internal documentation as required using legible, grammatically correct written communication for internal e-mails/repair order completion.	documentation completed incorrectly.
K6, K7, K8, K10, K11 & K13 Knowledge of vehicle systems.	Gives comprehensive answers to the knowledge questions on vehicle systems.	Correctly answers knowledge questions on vehicle systems.	Incorrectly answers all of the questions on vehicle systems.
A set of 5 open questions per task covering: <ul style="list-style-type: none"> <li>● 1 question about the health and safety risks relevant to the task.</li> <li>● 1 question about the possible risks of damage to the vehicle.</li> <li>● 2 questions about knowledge of the vehicle systems relevant to the task.</li> <li>● 1 extended question about the knowledge of the vehicle system associated with the task.</li> </ul>	N/A	Minimum of 3 questions answered correctly per task	2 or less questions answered correctly per task

To achieve a pass grade for the Skills Test: all grade descriptors must be demonstrated at a minimum of pass. Any fail grading will lead to an overall fail of the Skills Test.

To achieve a distinction for the Skills Test: 6 grading descriptors need to be demonstrated as distinctions with a minimum of pass grade for any other grading descriptors not at distinction.

## Assessment Method 3: Professional Discussion

### Part 1

Criteria	Distinction*	Pass	Fail
B3 Behave in accordance with the values of the company and treat colleagues and customers with respect and courtesy.	<p>1) Carries out tasks with consideration for others. Demonstrates honesty when working as part of a team. Encourages others to be involved, recognises those that are slow to contribute or are being excluded and takes steps to bring them into the team.</p> <p>Evidence would include:</p> <ul style="list-style-type: none"> <li>Helping new staff to settle in quickly.</li> <li>Supporting someone if they are being treated unfairly.</li> </ul>	Carries out tasks with consideration for others. Demonstrates honesty when working as part of a team. Maintains positive working relationships even though the other person may be very different from themselves.	Ignores the impact of their actions on others. Behaves in a dishonest way. Does not support colleagues when they can see they are in trouble. Fails to handle differences between themselves and others.
B2 Operate as an effective team member	<p>1) Contributes towards setting clear team goals and makes a significant contribution to the effort required to complete them.</p> <p>Or</p> <p>2) Recognises the strengths and weaknesses in themselves and others and allocates tasks to those who are best able to complete them.</p> <p>Or</p> <p>3) Recognises when others are struggling and offer support where appropriate.</p> <p>Evidence would include:</p> <ul style="list-style-type: none"> <li>Volunteering for a task because you are experienced at it.</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>Helping a new apprentice complete a task.</li> </ul>	Actively contributes to team goals. Accepts the tasks they are given and quickly recognises whether they have the ability to complete them and seeks help appropriately. Routinely collaborates with others to achieve targets.	Competes against colleagues to the detriment of shared goals. Refuses tasks they don't want to do. Ignores that they are part of a team.

<p>B1 Take responsibility when required and be honest and accountable when things don't go as planned.</p>	<ol style="list-style-type: none"> <li>1) Alerts others to the problems they may encounter when completing a task and offers solutions to ensure a team meets its agreed goals. Or</li> <li>2) Provides accurate, balanced constructive feedback to others using the appropriate approach and supported by relevant evidence.</li> </ol> <p>Evidence would include:</p> <ul style="list-style-type: none"> <li>• Suggesting solutions when reporting problems.</li> </ul> <p>Or</p> <p>Guiding someone to complete a task that you are experienced at.</p>	<p>Seeks support &amp; help from colleagues when appropriate Flags up difficulties in sufficient time to take remedial action. Provides feedback to others at the appropriate moment and supports it with relevant evidence.</p>	<p>Not seeking the support of others when they need it. Fails to provide honest feedback to their colleagues when they do something they are not happy about.</p>
<p>B8 Contribute to problem solving discussions and enjoy finding solutions to own and other people's problem.</p>	<ol style="list-style-type: none"> <li>1) Analyses cause and effect and uses learnt techniques to solve complex problems. Or</li> <li>2) Appreciates the value of documenting what they are doing to create an audit trail. Or</li> <li>3) Takes an idea, whether their own or others, evaluates its feasibility and adds detail to make it work better.</li> </ol> <p>Evidence would include:</p> <ul style="list-style-type: none"> <li>• Being aware of what the next steps will be depending on the results found.</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>• Writing down the results in case technical support needs them</li> </ul> <p>or</p> <p>Using both your own initiative and following advice to solve a problem.</p>	<p>Takes a systematic approach to problem solving. Knows their limitations and when best to escalate issues. Contributes ideas, thinks them through in detail and their implications and presents them clearly.</p>	<p>Makes no attempt to understand a problem and search for a solution to it. Does not put forward ideas.</p>



<p>B9 Suggest ways to make the business more efficient and contribute to its commercial growth.</p>	<p>1) Suggests how systems and processes can be improved in particular to reduce risks to the business.</p> <p>Or</p> <p>2) Suggests how to reduce costs and generate revenue.</p> <p>Evidence would include:</p> <ul style="list-style-type: none"> <li>• Suggesting moving equipment to make it safer to use</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>• Suggesting moving equipment to make the job more efficient.</li> </ul>	<p>Knows what they need to do and the roles of people close to them. Confidently uses systems and processes relevant to the role.</p> <p>Complies with legislation. Completes documentation with a clear understanding of its purpose. Understands the business side of managing a workshop and takes steps to improve its overall efficiency.</p>	<p>Does not understand their role within the organisation. Is not aware of the systems and legislation around their role.</p> <p>Does not use internal processes and systems required for their job role.</p>
<p>B7 Deliver excellent results and achieve challenging goals.</p>	<p>1) Always focused on the job in hand and makes confident judgements when choosing between quality and speed.</p> <p>Or</p> <p>2) Re-schedules work appropriately and keeps everyone informed.</p> <p>Or</p> <p>3) Takes account of the impact of their tasks on other business activities when organising their work. They keep everyone informed.</p> <p>Or</p> <p>4) Takes pride in the place where they work and looks out for environmental issues they can solve.</p> <p>Or</p> <p>5) They are observant and vigilant and actively look for ways to make the place safer for themselves and others</p> <p>Evidence would include:</p> <ul style="list-style-type: none"> <li>• Finishing jobs on time without taking shortcuts</li> <li>• Reorganises their day if they hit a problem and informing workshop control</li> <li>• Reporting to workshop control that the job they are doing will go over the allowed time.</li> <li>• Cleaning up oil spilt by others without being asked</li> </ul>	<p>Punctual and routinely meets deadlines. Thinks about the tasks ahead of them and how they should be prioritised. Reacts well to the unexpected. Confidently breaks down complex tasks and allocates time and resources appropriately. Understands the environmental impact of the materials they use and takes steps to minimise waste.</p> <p>Understands the importance of PPE and good housekeeping in the workshop. Routinely operates safely without the need for reminders.</p>	<p>Fails to meet deadlines. They are disorganised and work in a cluttered environment. They dispose waste with little regard to the impact on the environment. Carries out work with little regard to health and safety requirements.</p>

	<ul style="list-style-type: none"> <li>Recommending new procedures to improve to health and safety</li> </ul>		
B12 Demonstrate a passion for engineering.	<p>Demonstrates a passion for their job and engages in a wide range of activities e.g. self-study, related hobbies etc. to develop the competence they need to be excellent at my job.</p> <p>Evidence would include:</p> <ul style="list-style-type: none"> <li>Finding out on their own initiative about new vehicle technologies</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>Modifying their own car or taking part in motor sport</li> </ul>	Demonstrates an interest in learning and actively uses the opportunities to extend their knowledge and skills that are put in front of them.	Has little interest in engineering and new technologies.
B10 Constantly learn in order to improve own performance and that of the business	<p>Careful analyses their strengths and weaknesses and what they need to learn next. Records their reflections in a learning journal, portfolio or blog.</p> <p>Or</p> <p>Actively seeks opportunities to share with their mentor and tutors their progress.</p> <p>Evidence would include:</p> <ul style="list-style-type: none"> <li>Keeping a comprehensive list of jobs they have and have not completed so that they can identify jobs that they need to gain more experience in.</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>Asking their mentor and tutor to help them gain further experience in areas that they are weak at.</li> </ul>	Independently and regularly reflects on progress and sets goals and priorities for future development. Provides reports on their progress when asked.	Does not think about their progress and does not set personal goals. Does not keep their mentor or tutors up-to-date on the progress they are making.
B11 Share knowledge and skills.	<p>Thinks how they can best support others, shares their knowledge and skills at the appropriate time and in a way that works best for them.</p> <p>Evidence would include:</p> <ul style="list-style-type: none"> <li>Arranging with a new apprentice to show them how to use a piece of equipment.</li> </ul>	Shares their knowledge and skills when requested.	Does not share their knowledge and skills with others.

\*To achieve a distinction in a Behaviour grading descriptor for Part 1 the apprentice will need to demonstrate they have achieved 1 or more of the statements within each individual descriptor. For example, to achieve a distinction for B1 Take responsibility when required and be honest and accountable when things don't go as planned' the apprentice will only have to

demonstrate either: '1) Alerts others to the problems they may encounter when completing a task and offers solutions to ensure a team meets its agreed goals' or '2) Provides accurate, balanced constructive feedback to others using the appropriate approach and supported by relevant evidence.'

## Part 2

Criteria	Distinction	Pass	Fail
S1 Complete a range of services and inspect and prepare a vehicle to the required quality standard for handover to the customer.		Demonstrates the ability to obtain inspection schedules, data and recall information, and use these to identify inspection item faults. Can reset service indicator. Documentation has no more than 1 error.	Does not demonstrate, or demonstrates incorrectly, how faults were found. Documentation has 2 or more errors.
S12 Use ICT to create emails, word-processed documents and carry out web based searches. S4 Obtain diagnostic and repair information S5 Interpret diagnostic information and use electrical wiring diagrams to determine system serviceability. S6 Use a range of diagnostic equipment.	All word processed documents and emails are formatted correctly and are free from errors. Demonstrates that the questions asked, information found and tests made were suitable to correctly diagnose the fault in a systematic and efficient way. Evidence would include: <ul style="list-style-type: none"> <li>Starting from a central location when checking for an open circuit and working methodically in or out depending on the results.</li> </ul>	Documentation has no more than 1 error. Demonstrates that the diagnostic method used correctly diagnosed the fault.	Documents have 2 or more errors. The diagnostic method used was inconclusive or could be interpreted in more than one way, so lead to a different conclusion.
S1 Contribute to the maintenance of a safe and efficient workshop. S2 Demonstrate due regard for own safety and that of others in the workshop and minimise risk of injury and vehicle damage.	Demonstrates the ability to carry out a risk assessment of the task and to minimising the risks involved. Describes possible risks of damaging the vehicle when carrying out the task and demonstrates that procedures were carried out to minimise damage to the vehicle. Evidence would include: <ul style="list-style-type: none"> <li>Evaluating all of the health and safety risks before completing a task</li> <li>Evaluating all of the risk of damaging the vehicle before carrying out a task</li> <li>Supporting callipers when removing discs.</li> </ul>	Demonstrates taking action to minimise risks to self, others and the vehicle.	Did not take action to minimise risks to the self, others or the vehicle.
S4 – S14 Knowledge of vehicle systems.	Shows full knowledge and understanding of the system(s) involved. Gives correct answers to questions on associated systems.	Shows knowledge and understanding of the system(s) involved.	Explanation of the system(s) involved is incorrect.
S8 Report faults using company procedures and recommend suitable further actions.	Demonstrates the ability to use company procedures to report faults and recommend suitable actions. Is aware of the root cause of the fault, other possible actions that could be taken to repair the vehicle and the strengths and weaknesses of each one. Evidence would include: <ul style="list-style-type: none"> <li>Discussing the fault with workshop control and evaluating the best action to take.</li> </ul>	Demonstrates the ability to use company procedures to report faults and recommend suitable actions.	Is not fully aware of reporting procedures, or has not used them.

<p>S9 Follow recognised repair procedures to complete a wide range of repairs including those which involve complex procedures, or in depth knowledge.</p> <p>S10 Test function of repaired and fitted components.</p> <p>S11 Adhere to business processes and complete documentation following workplace procedures.</p>		<p>Demonstrates the ability to follow recognised repair procedures to complete a wide range of repairs including those which involve complex procedures, or in depth knowledge. Can test the function of repaired and fitted components. Adheres to business processes and completes documentation following workplace procedures.</p>	<p>Does not explain the route they followed or the strengths and weaknesses of the route they took.</p>
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Each grade descriptor is equally weighted.

To achieve an overall pass grade for the Professional Discussion: all grade descriptors must be demonstrated at a minimum of pass. Any fail grading will lead to an overall fail of the professional discussion.

To achieve an overall distinction for the professional discussion a total of 8 grading descriptors need to be demonstrated as distinction.

This is made up of 5 grading descriptors demonstrated at distinction from part 1 and 3 grading descriptors demonstrated as distinctions from part 2 with a minimum of pass grade for any other grading descriptors not demonstrated at distinction.

END