

4292-21 – Level 2 Technical Certificate in Automotive

2022

Qualification Report

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Foreword

Results August 2022

As you will likely be aware, Ofqual has announced that grading for General Qualifications this summer will be more generous than prior to the pandemic. This is partly due to managing the impact of disruption and learning loss on learner performance and also managing fairness between learners in different years who had different methods of determining their grades. Therefore, for A levels and GCSEs, grading will seek a midway position between 2019 and 2021, meaning, in general, results will be somewhat higher than prior to the pandemic. This year, 2022, is a transitional year and outcomes and standards will likely return to pre-pandemic levels in 2023.

Similarly, for Vocational and Technical Qualifications (VTQs), this summer will be a transitional year and Ofqual has now been clear that for VTQs “we should expect that this summer’s results will look different, despite exams and assessments taking a big step towards normality.” Ofqual has published a blog [What’s behind this summer’s VTQ results](#).

In acknowledgement of the disruption to learning and to support fairness for all learners certificating this summer (some of whom will be competing against learners taking General Qualifications for the same progression and higher education opportunities), we will be taking loss of learning into consideration, whilst still acknowledging the need to uphold the validity of the qualifications. On this basis, we have made the decision to apply a form of ‘safety net’ through some additional ‘generosity’ to both the theory examinations and synoptic assignments within our Technical Qualifications wherever appropriate, (noting that it may not be appropriate to apply where there is a clear impact on knowledge and skills to practice, particularly health and safety requirements or other relevant legislation). We are therefore also reviewing candidate work a few marks below (equivalent to 5% of maximum marks) the Pass and Distinction notional boundaries – the boundaries used during the awarding process as the best representation of maintaining the performance standard from 2019.

The reason for lowering boundaries, where appropriate, by 5% of the maximum marks available, is that it is broadly commensurate with the level of generosity learners are likely to see in General Qualifications at level 2 and level 3. Providing that senior examiners can support the quality of learners’ work seen below the notional boundaries and agree it is sufficient to maintain the integrity, meaning and credibility of the qualifications, the grade boundaries will be lowered across the full set of grades – e.g Pass, Merit, Distinction and Distinction Star.

Given the circumstances, this is the best approach to take into account the disruption to teaching and learning across every learner in a fair and transparent way, and at the same time maintain the integrity and meaning of qualifications. This approach helps to level our Technical Qualifications awarding approach with that adopted for General Qualifications and other qualifications awarded in England and in the wider UK.

Spring examination series 2022

Having taken this decision, we are also mindful of learners who have taken components in **Spring 2022** and believe they should also have access to the same level of generosity. For these learners, we wish to adopt a similar approach. Therefore, for learners taking Technical Qualification assessments in spring there will be similar generosity, through the addition of 5% of the maximum mark available for the assessment. It is a different mechanism to that we are using for the summer assessments but provides the same level of generosity to those learners taking assessments in the summer.

Introduction

This document has been prepared by the Chief Examiner and Principal Moderator; it is designed to be used as a feedback tool for centres in order to enhance teaching and preparation for assessment. It is advised that this document is referred to when planning delivery and when preparing candidates for City & Guilds Technical assessments.

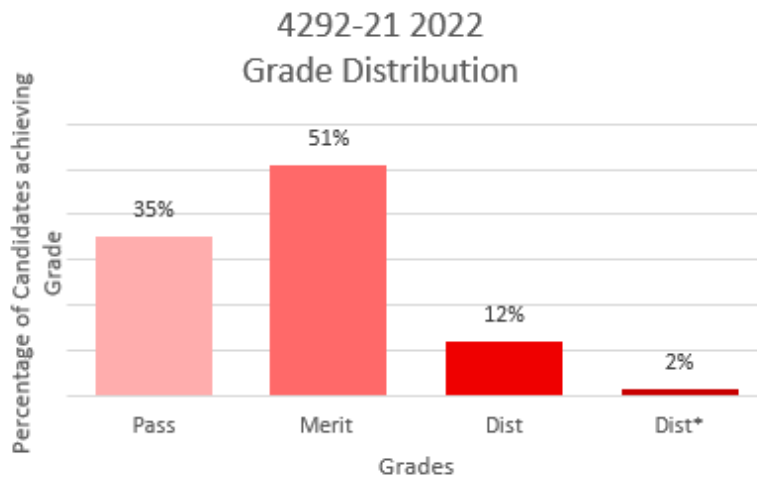
This report provides general commentary on candidate performance in both the synoptic assignment and theory exam. It highlights common themes in relation to the technical aspects explored within the assessment, giving areas of strengths and weakness demonstrated by the cohort of candidates who sat assessments in the 2022 academic year. It will explain aspects which caused difficulty and potentially why the difficulties arose.

The document provides commentary on the following assessments:

- 4292-022/522 – Level 2 Technical Certificate in Automotive – Theory exam
 - March 2022 (Spring)
 - June 2022 (Summer)
- 4292-023 – Level 2 Technical Certificate in Automotive – Synoptic Assignment

Qualification Grade Distribution

The approximate grade distribution for this qualification is shown below:



Please note City & Guilds will only report qualification grades for candidates who have achieved all of the required assessment components, including Employer Involvement, optional units and any other centre assessed components as indicated within the Qualification Handbook. The grade distribution shown above could include performance from previous years.

Theory Exam

Grade Boundaries

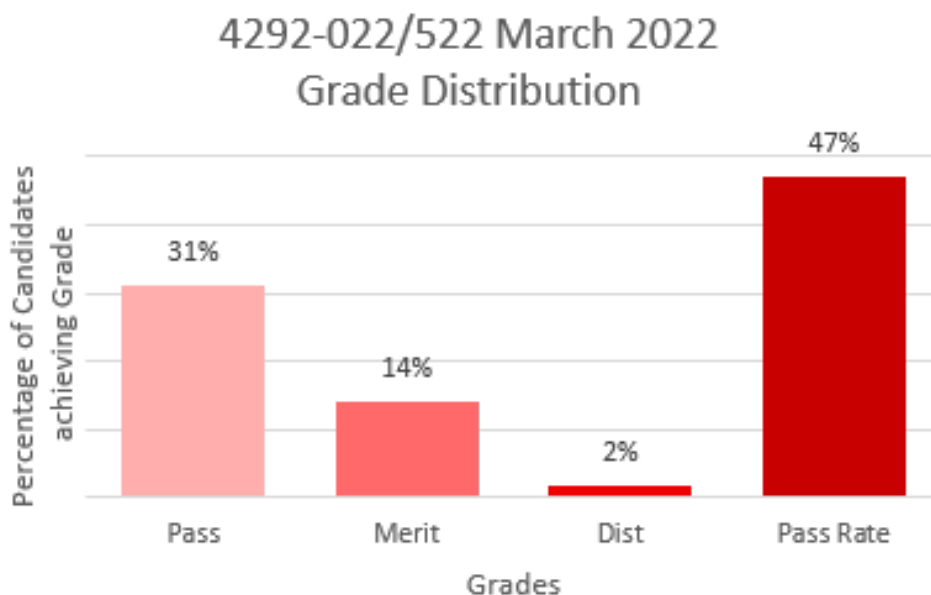
Assessment: 4292-022/522
Series: March 2022 (Spring)

Below identifies the final grade boundaries for this assessment, as agreed by the awarding panel:

Total marks available	65
Pass mark	26
Merit mark	36
Distinction mark	46

The generosity applied to the summer assessments will also retrospectively be applied to candidates who achieved their best result in spring. 5% of the base mark of the assessment will be added to their score rather than applied to boundaries.

The graph below shows the approximate distributions of grades and pass rate for this assessment, it does not account for any marks that have been amended due to generosity:

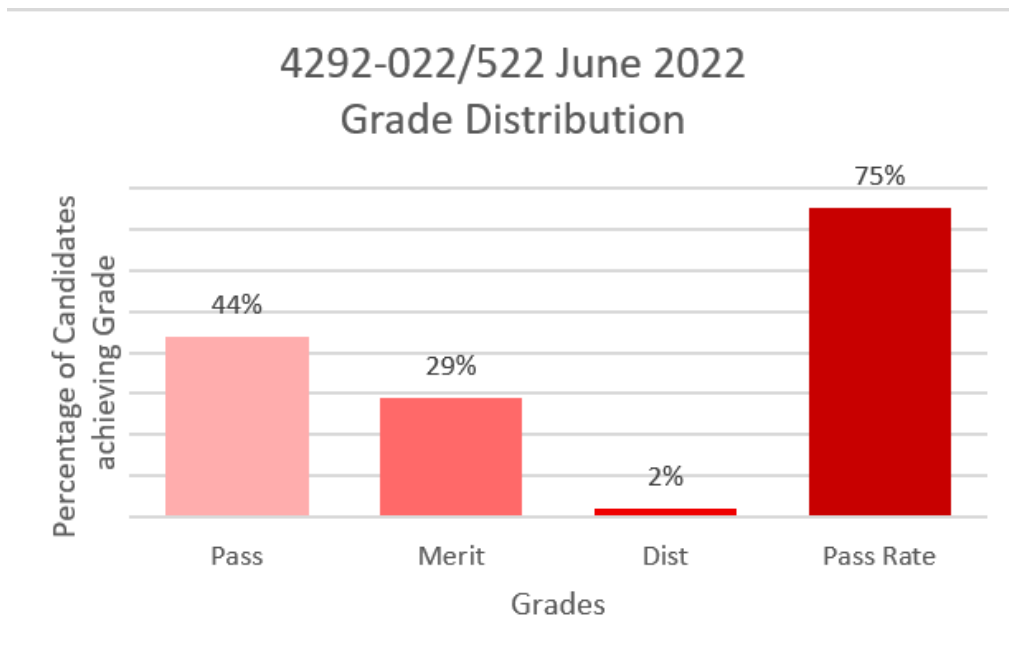


Assessment: 4292-022/522
Series: June 2022 (Summer)

Below identifies the final grade boundaries for this assessment:

Total marks available	65
Pass mark	21
Merit mark	31
Distinction mark	42

The graph below shows the approximate distributions of grades and pass rate for this assessment using the above boundary marks:



Chief Examiner Commentary

4292-022/522 – Level 2 Technical Certificate in Automotive - Theory exam

Series 1 – March 2022

There were some large variations between responses. Some candidates gave a good level of detail showing knowledge and understanding. Some candidates only gave a minor amount of information. A few candidates did not attempt all questions; this did show some gaps in knowledge and understanding.

Candidates performed well in questions relating to health and safety; electric vehicles; training relating to the master technician role; engine components and locations; and suspension components. Questions on electrical vehicles was noticeably improved since previous series.

The importance of the command verb in the question remains an area for development for a number of candidates. As a result, some candidates gave very detailed answers to 'state' type questions and limited responses for 'explain' type questions.

Candidates did not perform well in questions relating to HGV steering components; motorcycles; and independent and non-independent suspension systems. There was confusion between light vehicle and heavy vehicle components in answers.

Candidates also struggled to use the context given in questions to demonstrate how they can apply their understanding to real-life scenarios. Often context given in the question was ignored and the answers were generic.

In the extended response question, some candidates provided well written answers demonstrating a good depth of knowledge. Some structured their answers logically, whereas some candidate's answers were concentrated on the removal and refitment of the steering rack and lacked detail on wheel alignment. Higher performing candidates did not just describe the task, they contextualised this with other relevant information e.g., disposal of waste, whereas lower performing candidates had errors in the process with incorrect content.

Candidates need to be prepared for the different types and structures of questions contained within the paper and need to be familiar with the variety of command verbs, as well as the need to read each question carefully and to respond clearly to the question given in the depth required.

Centres are reminded of the City & Guilds Technicals 'Exam Guides' available here <https://www.cityandguilds.com/qualifications-and-apprenticeships/transport-maintenance/automotive/4292-technical-in-automotive#tab=documents>

Series 2 – June 2022

Overall, it was a fair and relevant exam paper when compared to previous papers. The paper is relevant to today's technology within the automotive sector and gives candidates the opportunity to explore these areas further in their answers. The new style extended response question gave the candidates the opportunity to expand their knowledge and thinking in rear brake shoe contamination. The questions asked were fair, relevant and meet the requirements of the qualification

The exam was generally well answered, with most learners attempting all the questions. There were a number of candidates who did not attempt all questions, which lost them marks.

There were some large variations between the papers, with some learners giving good, detailed responses showing knowledge and understanding, and some learners only giving a minor amount of information. This is down to not fully reading the question and what is being asked and also not allocating sufficient time to read all questions carefully, as on some papers learners did not complete all the questions.

The importance of the command verb in the question still remains an issue for a small number of candidates, with only state type answers given for describe questions. Centres have worked harder to prepare candidates in knowing what the relevance of the command verb means, this is one of the most important areas outside of the technical knowledge. Attempting to answer the question and understanding the command verb will allow candidates to acquire more marks.

Candidates were not reading the whole question carefully, which prevented candidates from accessing some of the available marks.

There were some more detailed answers from some learners, which was good to see.

All the subject areas covered in the questions in the paper were of the level required for this qualification.

There were some spelling and grammar errors in the majority of answers; however, some answers were well constructed making it easy to follow what the candidates were explaining. There is also a tendency to use the wrong terminology for exhaust silencers calling it a muffler. There were some issues around handwriting, which made some papers extremely difficult to mark.

Motorcycle and heavy vehicle technology: this had improved with a number of candidates understanding what a motorcycle rake was. Suspension trail was not answered as well. There was an improvement in knowledge on heavy vehicle by the candidates understanding the components of a steering box.

Independent suspension systems: there was some confusion on this system with some candidates thinking it was independent from the rear, and just for the comfort of the driver. Some candidates thought it was independent of drive control, such as air suspension that alters the vehicle's height.

Valve Train Components: a number of candidates did not demonstrate knowledge of valve train components, confusing them for drivetrain components, such as driveshafts and gearboxes.

Electrical Principals: candidates were not using Ohm's law correctly to calculate electrical power and using the formula to calculate voltage or resistance.

Transmissions: there was a lack of knowledge on the internals of a manual transmission, around interlockers, and different types of transmission systems.

The areas of the test which candidates answered well were health and safety, company legislation, appraisal systems, puncture repairs and engine operation.

The extended response question: this is current and relevant to working in the automotive industry. Candidates did seem to understand the question but did not seem to fully understand how to answer it. There was a lot of swapping between brake shoes and drums brake discs and pads. Only a few candidates mentioned fluid contamination from fluid from a leaking wheel cylinder, some candidates mentioned bleeding of the brakes, and a few mentioned completing the operation on both sides and carrying torquing of the wheels and road testing. There was little mention of adjusting the brakes and parking brake and disposal of waste.

Synoptic Assignment

Grade Boundaries

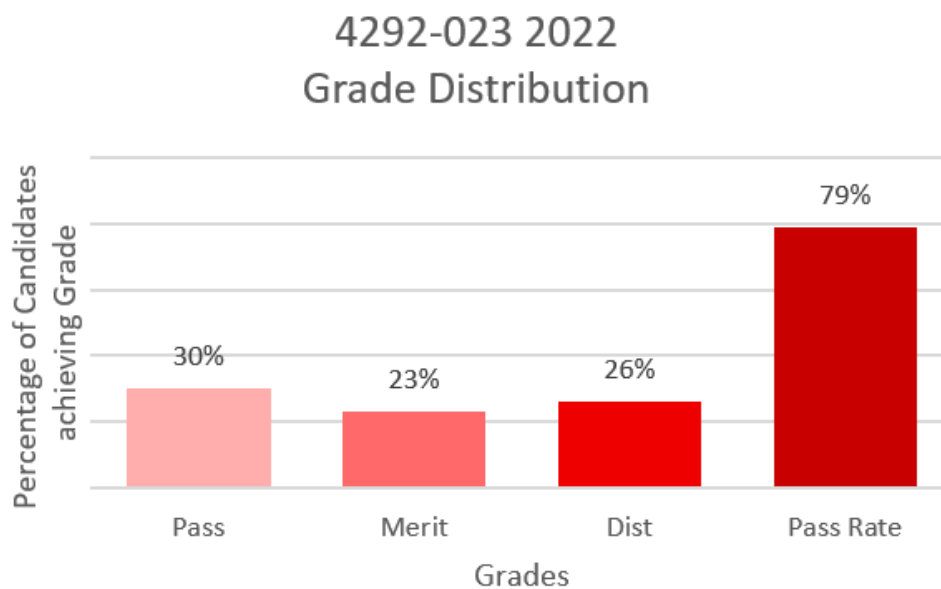
Below identifies the final grade boundaries for this assessment:

Assessment: 4292-023

Series: 2022

Total marks available	60
Pass mark	28
Merit mark	36
Distinction mark	44

The graph below shows the approximate distributions of grades and pass rate for this assessment using the above boundary marks:



Principal Moderator Commentary

Overall, candidates' performance was fair throughout the synoptic assignment. The synoptic assignment consisted of five tasks, three of which were practical activities and the fifth was an identification and explanation task.

Candidates performed well in Task 1 (servicing a car), demonstrating a good awareness of health and safety procedures with documentation provided. They also performed well in task 4 (correctly identifying, and accurately explaining the function of each engine component given).

In Task 3, candidates performed well, carrying out and recording disc brake measurements. However, several candidates submitted poorly presented documentation which was not up to industry standard and would not be acceptable in a professional environment.

Task 4 was to research the advantages and disadvantages of being an apprentice and being self-employed. The candidates created some excellent presentations, with the majority being on power point.

The synoptic assignment was pitched at the correct level and difficulty to allow differentiation between both low and high performing candidates.

Although it is expected that some observer / tutor comments are hand-written, the scanning of documents was much better this year, with good clear documentation and images. It was clear by the comments on the CRF that markers had considered awarding marks across the full range of AOs in all tasks and used a holistic marking approach when awarding final marks.

All Candidate Declaration of Authenticity forms were fully completed across the synoptic assignments. For clarification on centre documents, clearly annotated photos are required to show the candidate actually carrying out the task.

AO1 – Recall of knowledge relating to the qualification

Broad and consistent knowledge was shown across the tasks. This was supplemented in practical activities by candidates' ability to choose correct equipment and use it safely.

AO2 – Understanding of concepts, theories and processes relating to the LOs

Written explanations were limited in some cases and did not fully align with requirements of the tasks which affected marks.

AO3 – Application of practical/technical skills

Tutors commented upon strengths but omitted weaknesses in some candidates' skills and as such, comparisons between moderator and tutor were in some instances not aligned.

AO4 –Bringing it all together

Candidates had clearly drawn from the breadth of their knowledge and skills by solving quite complex problems at times. These were seen in their evaluations and evidenced well on PO forms.

AO5 – Attending to detail/perfecting

The moderator judged that although written evidence was well presented, practical activities did not show the same level of attention to detail across the centres.