City & Guilds
A City & Guilds Group Business

4292-21 – Level 2 Technical Certificate in Automotive

2023

Qualification Report

Contents

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.

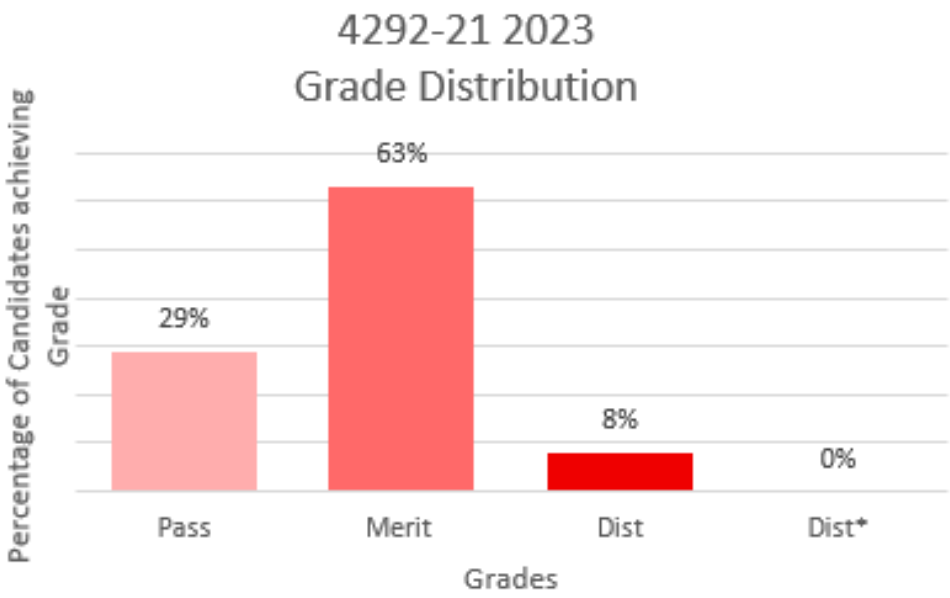
This report provides general commentary on candidate performance in both the synoptic assignment and theory exam. It highlights common themes in relation to the technical aspects explored within the assessment, giving areas of strengths and weakness demonstrated by the cohort of candidates who sat assessments in the 2023 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 2023 (Spring)
    - June 2023 (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

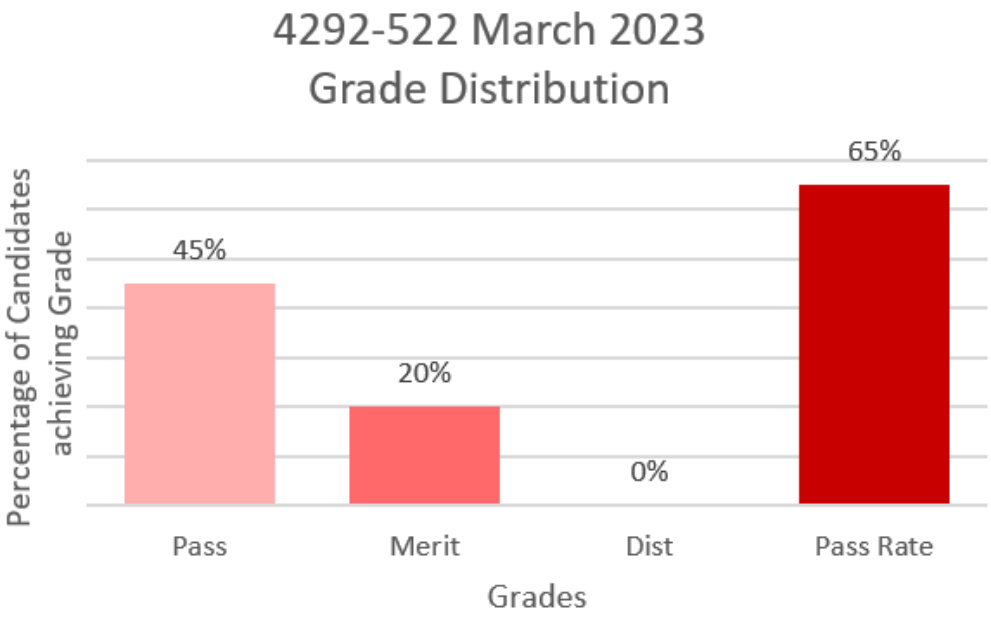
Grade Boundaries

Assessment: 4292-022/522
Series: March 2023 (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 graph below shows the approximate distributions of grades and pass rate for this assessment using the above boundary marks:

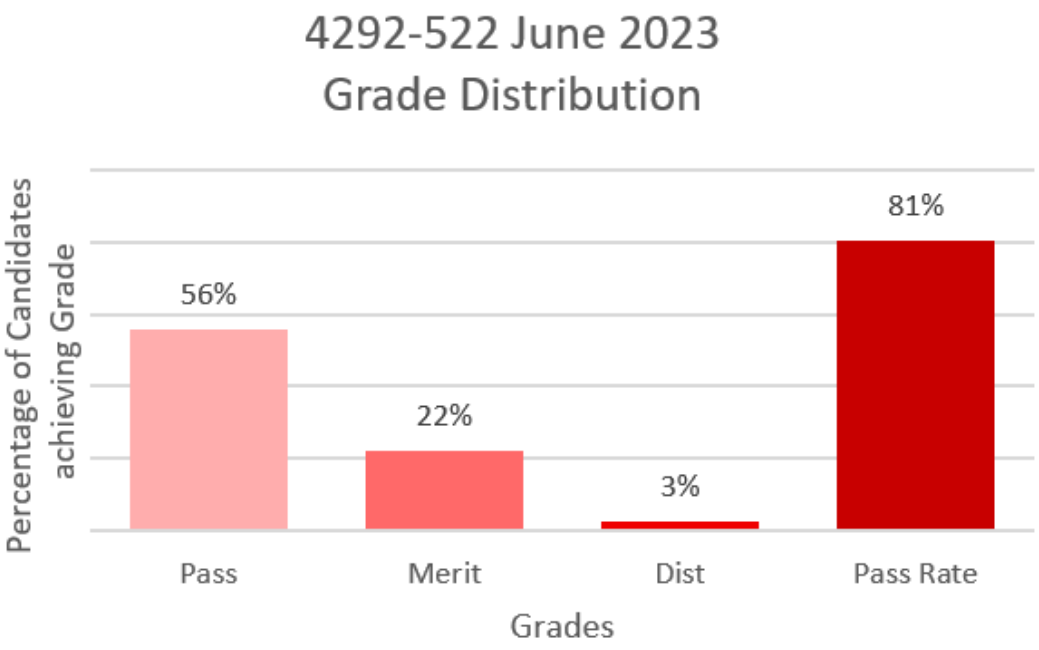


Assessment: 4292-022/522
Series: June 2023 (Summer)

Below identifies the final grade boundaries for this assessment:

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

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 2023

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; roles of a technician; steering system components; Ohms law; types of transmission; and suspension system component identification.

The importance of the command verb in the question remains an area for development for a number of candidates. Although there was some slight improvement in this area, some candidates still gave very detailed answers to 'state' type questions and limited responses for 'explain' type questions.

Candidates did not perform well in questions relating to engine technology, speed sensors and suspension systems. Candidates were confusing suspension with braking systems.

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 location of batteries instead of their construction and use. Higher performing candidates did not just describe the task, they contextualised this with other relevant information, e.g., maintenance considerations, whereas lower performing candidates demonstrated lower levels of knowledge and understanding regarding batteries.

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-technicals-in-automotive#tab=documents

Series 2 – June 2023

The exam generally well answered; most candidates attempting all the questions. Some candidates did not answer several questions losing marks across the paper.

There were some variations between the answers, with some candidates giving good detail showing knowledge and understanding, and some candidates only giving minor amounts of information. Candidates generally answered AO1 recall questions better than the AO2 understanding questions. Candidates' answers showed that they were confusing tyre speed and load index and in one question, providing 'oil and air filter' as an answer despite the question asking for the type of oil filter.

Answers in this exam demonstrated an improvement in candidates' ability to understand the command verb in questions and therefore a better understanding of what the question is asking them to do. Candidates' answers suggested they were not reading the whole question carefully. This prevented some candidates from accessing some of the available marks.

Some answers were well constructed making it easy to follow what the candidates were explaining. There was use of American terms eg sway bars in place of anti-roll bars.

Engine technology: only a small number of candidates understood the four stroke cycle in a compression ignition engine. Several candidates answered as if it was a spark ignition engine. Only a small number knew that the fuel was injected into the cylinder and there is no spark plug. A number of candidates also answered the glow plugs generated the spark to ignite the mixture, and some candidates only listed the four stoke cycle.

Braking systems: most candidates gained marks on understanding that the shoes are applied to the drum to slow the vehicle, but they did not fully explain the reason leading and trailing brake shoes are used, and there was no mention of the self-servo effect.

Steering systems: only a small number of candidates identified a worm gear in the image, no candidates identified the sector. The majority of candidates answered 'rack and pinion'.

The areas of the exam where candidates answered well was: health and safety; roles of a franchise dealership; appraisal systems; types of low voltage batteries used in vehicles; suspension system component identification; reasons why suspension is used; and four wheel drive identification and reasons for its use.

The extended response question is current and relevant to working in the automotive industry. Most candidates had a basic knowledge of single and multiplate clutch systems, and their construction. There were some answers from some candidates showing a higher level of knowledge and some structured their answer well had a natural flow to it, following a logical order. This made the answers easy to read and follow. Candidates answered well on the difference between to two clutch systems, with higher level candidates mentioning torque and friction. Some answers were very limited on detail, only giving a very basic knowledge of clutch systems, their construction and which one would be most suitable for a heavy vehicle.

Synoptic Assignment

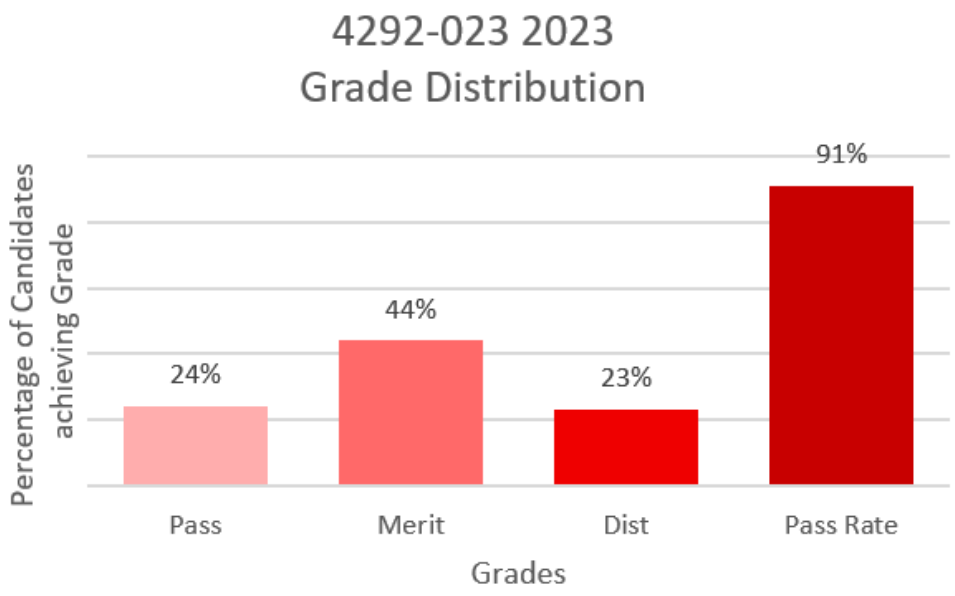
Grade Boundaries

Below identifies the final grade boundaries for this assessment:

Assessment: 4292-023
Series: 2023

Total marks available	60
Pass mark	31
Merit mark	39
Distinction mark	47

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 good throughout the synoptic assignment. The synoptic assignment consisted of four tasks: three of which were practical activities; and the fourth was an identification task.

Candidates performed well in Task 1 (carrying out a safety check, with faults), demonstrating a good awareness of health and safety procedures with documentation provided. Risk assessments and check sheets were completed, and the required images were uploaded to support candidate evidence.

In Task 2 candidates performed well, removing and replacing a track rod and carrying out wheel alignment checks. Several candidates submitted poorly presented documentation and some job cards were not completed, which did not meet industry standard and would not be acceptable in a professional environment.

In Task 3 candidates performed well, carrying out and recording a range of electrical checks. Many candidates provided the required readings - some were in greater detail than others. Several candidates submitted poorly presented documentation, and some job cards were not completed which does not meet industry standard and would not be acceptable in a professional environment.

Task 4 was to name four suspension components and state their function. Many candidates completed this task well with some providing detailed answers. There was some American terminology used eg 'sway-bar' in place of 'anti-roll bar' which was not corrected by assessors.

The synoptic assignment was pitched at the correct level and difficulty to allow differentiation between all candidates.

The scanning of handwritten documents was much improved 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. There were some occasions where the tasks were commented on individually, but the marks were still awarded synoptically. For clarification centres only require a single observation form to cover all the tasks. All Candidate Declaration of Authenticity forms were fully completed across the synoptic assignments. Centres also uploaded the required centre standard declaration form.

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 the requirements of the tasks, which impacted marks.

AO3 – Application of practical/technical skills
Tutors commented upon strengths but omitted areas for improvement in some candidates' skills and as such, comparisons between moderator and tutor were, in some instances, not fully 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, some had not been completed and therefore did not show the same level of attention to detail across all centres.