

8202-20 Level 2 Technical Certificate in Plumbing

2018

Qualification Report

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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.

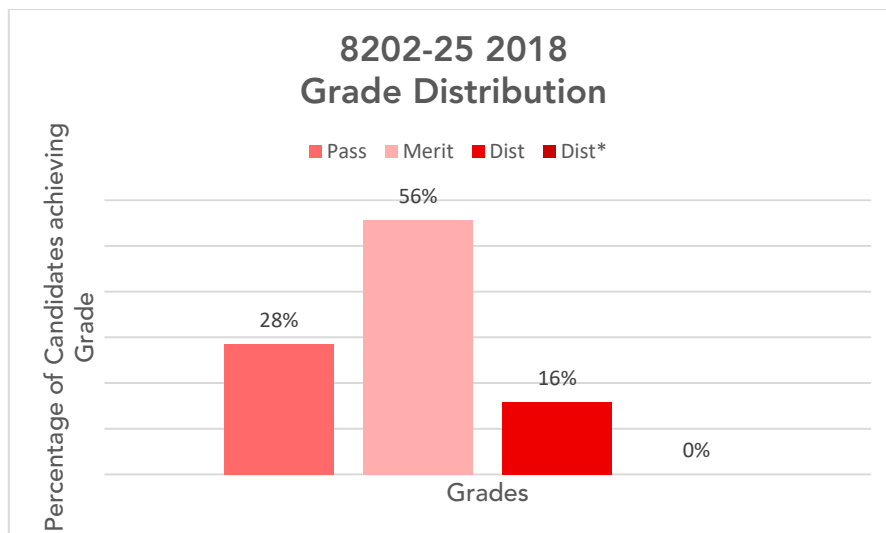
This report provides general commentary on candidate performance in both the synoptic assignment and theory exam. It highlights common themes in relation to the technical aspects explored within the assessment, giving areas of strengths and weakness demonstrated by the cohort of candidates who sat assessments in the 2018 academic year. It will explain aspects which caused difficulty and potentially why the difficulties arose.

The document provides commentary on the following assessments;

- 8202-025/525 – Level 2 in Plumbing - Theory exam
 - March 2018 (Spring)
 - June 2018 (Summer)
- 8202-026 – Synoptic Assignment

Qualification Grade Distribution

The 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 and distribution

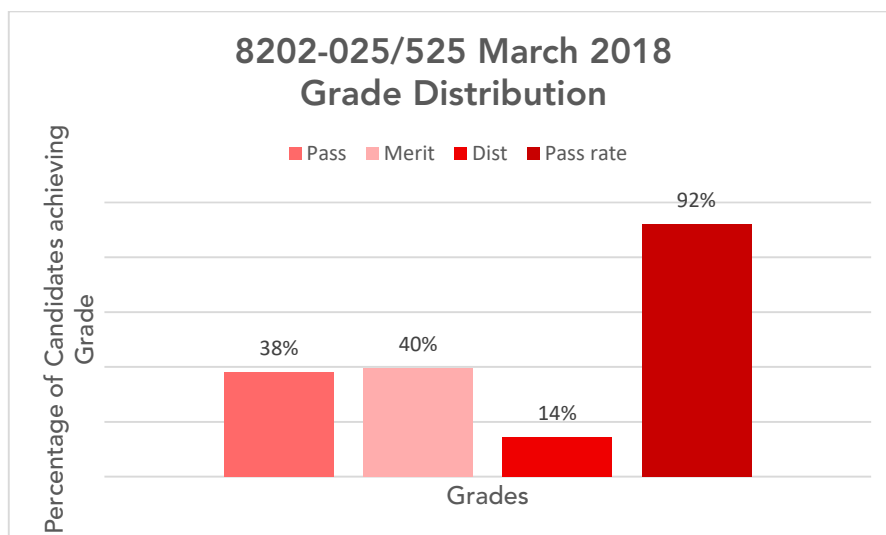
Assessment: 8202-025/525

Series: March 2018

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

Total marks available	59
Pass mark	26
Merit mark	34
Distinction mark	43

The graph below shows the distribution of grades and pass rates for this assessment;



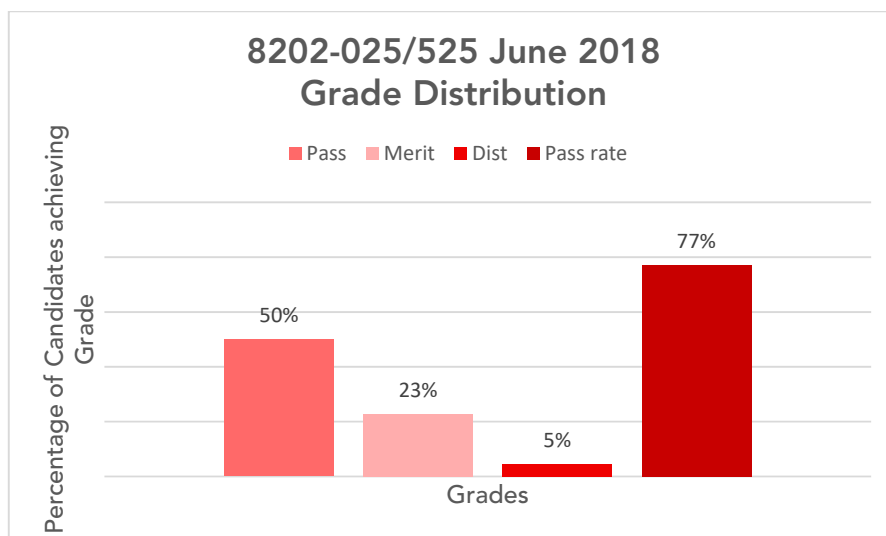
Assessment: 8202-025/525

Series: June 2018

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

Total marks available	60
Pass mark	24
Merit mark	34
Distinction mark	45

The graph below shows the distributions of grades and pass rate for this assessment;



Chief Examiner Commentary

Assessment component: 8202-025/525

Series 1 (March)

One item was excluded from this examination. Following question analysis it was highlighted that the image provided to support the question was not clear, which could disadvantage the candidates, therefore this assessment was scored out of 59 marks rather than 60.

The paper was set at the appropriate level, was consistent with the test specification and featured a mixture of AO1 recall, AO2 understanding and AO4 applied knowledge questions. The terminology and technical content assessed in the question paper was to the correct level 2 standard.

The question paper identified gaps in candidates' knowledge, which may have been due to a poor examination technique. An example of this is Q56, the item asked candidates to identify a component from the image provided. This should have been a relatively easy item as it was supported with an image, however, candidates have rushed the item, which resulted in them missing the anti-vac part of the trap, and simply selected bottle trap.

Areas of strength that performed well are listed below with candidates demonstrating in-depth knowledge and understanding around a variety of outcomes;

- Health and Safety
- Fitting identification
- Jointing processes
- Hot and cold systems

Some areas of the specification proved difficult for the cohort of candidates to answer, it is suggested that delivery should reinforce these principles prior to assessment. These areas include specialist drainage components, regulator documents and systems.

An example of this is Q55, candidates were asked to identify an above ground drainage system from a system layout diagram, the correct answer was a stub stack but a high percentage of candidates selected primary ventilated stack. It was evidence that candidates had not considered the pipe lengths given to them in the diagram to allow them to identify the correct answer.

Candidates showed weakness across questions assessing their knowledge of various British Standards and legislation. At level 2, the specification expects candidates to have an awareness of the various standards and legislation relevant to plumbing, and a high-level understanding of their purpose rather than an in-depth understanding of these documents. For example, how Part L the Conservation of Fuel and Power links to central heating zoning arrangements. It is worth noting that for candidates looking to progress onto level 3, this knowledge will be built upon as they are the foundations that plumbing installations are designed from. They will require additional attention during delivery and revision sessions.

There were 12 applied knowledge questions spread across the question paper, which included Q9, Q10, Q19, Q20, Q29, Q30, Q39, Q40, Q49, Q50, Q59 and Q60.

These questions are used to check candidates comprehensive understanding of the units studied on the qualification. The questions usually take the form of a scenario and generally have

a cause and effect assessment method such as, a fault that has developed in a plumbing system and how the fault can be corrected to enable the system to work correctly.

The applied knowledge questions assisted higher scoring candidates as they consistently picked up marks throughout the entire question paper. Candidates that struggled to pick up marks in this area were generally candidates in the lower scoring brackets. The applied knowledge questions showed clear differentiation between higher and lower scoring learners.

As this assessment approach is still relatively new to centres and candidates the distribution of grades and pass rate are extremely positive. Due to the synoptic nature of the assessment, candidates would benefit from regular revision sessions to allow them to pull together knowledge and understanding from across the assessed units prior to assessment. Centres should also utilise the support materials available in terms of sample and past papers to ensure candidates are familiar with the question types ahead of the examination.

Series 2 (June)

This examination was deemed slightly harder than the earlier April 2018 paper, as some of the subject content assessed focused on areas of range that are of more of a maintenance and industrial focus rather than the domestic mainstream, therefore the grade boundaries were adjusted accordingly.

All questions conformed to the specification and were technically correct.

Candidates generally performed well on units 211, 214, 215, 216 and 217. In unit 211, candidates excelled with questions assessing their knowledge of types of hazardous substances and safety procedures relating to electrical supplies. However there was weakness in knowledge of roles and responsibilities in relation to health and safety and asbestos and environmental protection.

Candidates demonstrated good knowledge of hot and cold water systems, however within cold water; they were challenged by a question defining a grey water system as they seemed to confuse this system with rainwater harvesting.

In terms of central heating systems, the performance across the questions was mixed. The cohort were able to confidently demonstrate knowledge of decommissioning procedures. However the cohort struggled to show understanding of the operating principles, unable to identify a magnetic filter and system features where they were not able to interpret that a diagram showed an incorrect pump positioning within a system.

Understanding of sanitation and drainage was generally good, however candidates were challenged by questions around the service, maintenance and commissioning requirements of gravity rainwater systems.

Areas of weakness were highlighted in units 212 and 213, which is a large concern due to the weighting this content holds within the test. Candidates were unable to identify common fixings and fittings that are used within the plumbing industry. They also struggled to demonstrate understanding of the principles of electricity within a plumbing context as well as poor knowledge of force, pressure and flow rates.

Synoptic Assignment

Grade Boundaries

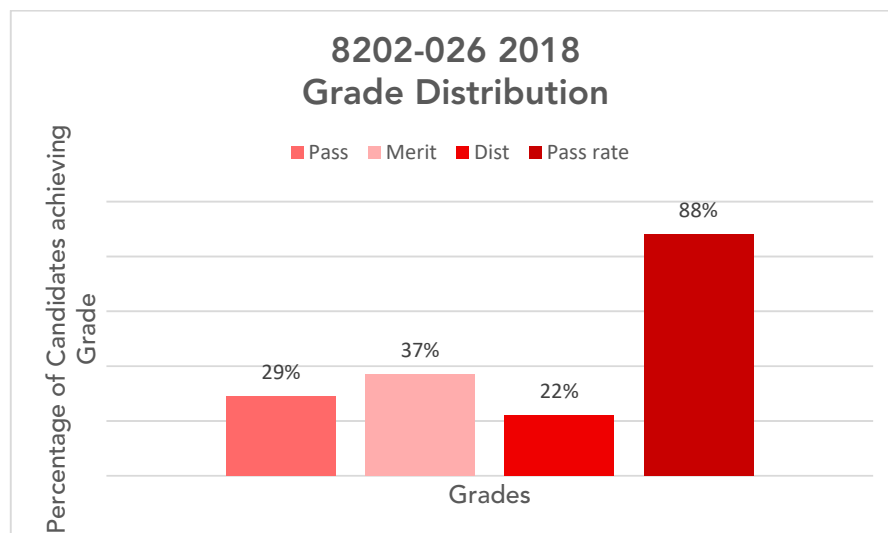
Below identifies the final grade boundaries for this assessment, as agreed by the awarding panel;

Assessment: 8202-026

Series: 2018

Total marks available	60
Pass mark	27
Merit mark	37
Distinction mark	48

The graph below shows the distributions of grades and pass rate for this assessment;



Principal Moderator Commentary

In some cases the planning task submitted was very basic and did not demonstrate any understanding of the task that had been given nor did it demonstrate that the candidate could bring their knowledge together and attempt the task in hand. Often photographic evidence showed that candidates had not followed the plans they had drawn up for themselves. There was also a concern around the planning for the time available. Candidates should be made aware of how long they have to carry out the installation and should plan timings for subtasks appropriately, often this was weaker in the learner scoring candidates and resulting in them not completing the installation within the recommended time.

Due to the practical nature of this assignment, much of the moderation is based upon the assessor's comments within the Practical Observation Form and Candidate Record Form. Often these forms failed to detail where candidates had lost marks, on some occasions it was made clear from the photographic evidence, assessors should ensure they are detailing what went well as well as what could have gone better.

In terms of photographic evidence, the quality of some images provided were dark or indistinct meaning they informed the moderator of very little, particularly in relation to replacement of defective equipment task. It is important to stress that the photo does not need to include the candidate but should include the details of the work carried out, whilst it's important that work can be identified, the moderator would benefit more from seeing the completed work, than seeing the candidates stood in front of the work. An example of this was a task where candidates had to safely erect and use access equipment. Often the photos demonstrated the candidate on the equipment but gave no information around how the equipment was set up on the ground, or the environment that the candidate was using the equipment in. There was a distinct variance in the quantity of photos provided by centres, some showing progress throughout the task as well as completed tasks. Other centres failed to provide the minimum requirement that was detailed within the synoptic assignment guidance.