



**Level 3 Advanced Technical
Diploma in Architectural Joinery
(7906-31)(450)**

Qualification Report 2023

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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.

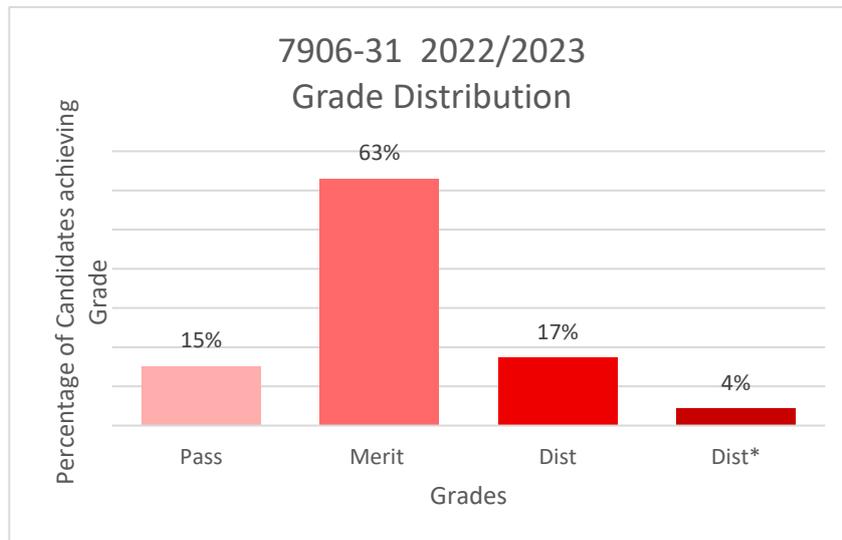
This report provides general commentary on candidate performance in both the synoptic assignment and theory exam. It highlights common themes in relation to the technical aspects explored within the assessment, giving areas of strengths and weakness demonstrated by the cohort of candidates who sat assessments in the 2023 academic year. It will explain aspects which caused difficulty and potentially why the difficulties arose.

The document provides commentary on the following assessments;

- 7905-003/503 Level 3 Architectural Joinery – Theory Exam
 - March 2023 (Spring)
 - June 2023 (Summer)
- 7906-004 – Level 3 Architectural Joinery – Synoptic Assignment

Qualification Grade Distribution

The grade distribution for this qualification during the 2022/2023 academic year is shown below.



This data is based on the distribution as of 18 August 2023.

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.

Theory Exam

Grade Boundaries

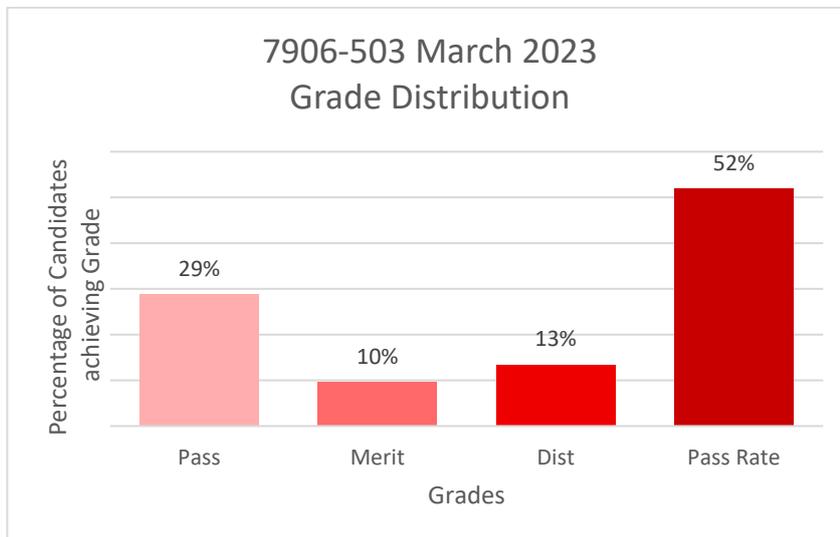
Assessment: 7906-503

Series: March 2023 (Spring)

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

Total marks available	70
Pass mark	27
Merit mark	37
Distinction mark	48

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

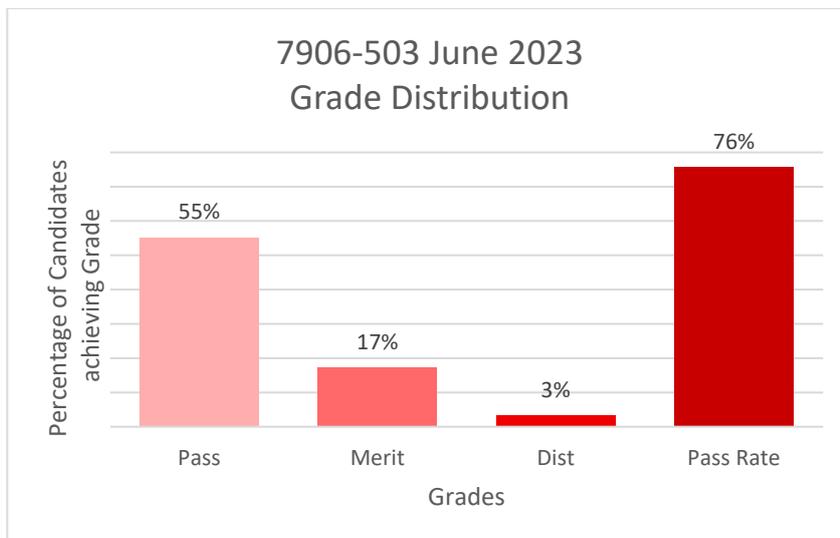


Assessment: 7906-503
Series: June 2023 (Summer)

Below identifies the final grade boundaries for this assessment.

Total marks available	70
Pass mark	27
Merit mark	37
Distinction mark	48

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



Chief Examiner Commentary

Qualification Title: 7906-003/503 Level 3 Architectural Joinery –Theory exam

Series 1: March 2023 (Spring)

52 candidates sat this test, which is the most to have taken it, with previous years having very low numbers or no entrants at all.

Generally, most candidates attempted all the questions, with reasonable responses with good breadth and depth of knowledge displayed.

Most candidates did well with the multiple-choice questions, with no discernible patterns, other than question 8, which performed poorly. The question related to the location of the smooth internal roller of a thicknesser, which are essential parts of the machine operation. Locating and cleaning of these rollers is essential in correct use and maintenance to avoid chip bruising. This question was poorly answered by majority of candidates.

Strengths shown by candidates in this test were in questions relating to Gantt charts, methods of measurement, and the setup of machinery, such as a circular saw and morticer.

Weak responses were seen in questions covering the following units and topic areas:

- Unit 301 Principles of organising, planning and pricing construction.
 - Topic 3.1 Tendering process.
 - Topic 3.2 Calculate quantities of building materials.
- Unit 306 Set up and use fixed and transportable machinery.
 - Topic 2.1 Change tooling
 - Topic 3.1 Saw materials to size and shape.
 - Topic 4.1 Plane timber to size and shape

Another weak area was the calculation question, which was generally not well responded to. This has been an ongoing issue throughout all the series.

The extended response question (ERQ) was generally well answered, with some good responses regarding preparing a quote for a client (machining oak panelling). This question is designed to allow candidates to show breadth and depth of knowledge over units 301 and 306. The question required candidates to explain how a quote could be prepared using the variables that would have to be included. Candidates had to consider the lead-in time for materials, the planning process and operations required to machine the materials.

Some responses showed a coherent attention to detail, with thorough justifications given to how the quote is prepared, what planning would be required, and a full explanation of the machining process. Such responses received the best marks. Candidates who achieved lower marks for the extended response question gave a basic response with limited detail of preparing a quote and did not take all aspects of the scenario into consideration.

To improve exam results, teaching should focus on the use/maintenance of planer/thicknessers, how jobs are tendered/quoted for (an ongoing weakness in previous papers) and other aspects of unit 301 topic 3.1 Tendering process and how distorted timber should be cut safely. A particular area that would improve performance would be a focus on calculation skills, related to how to work out material requirements.

Candidates should be reminded to read the questions fully and carefully align their answers to the marks available to ensure that they can access all the marks. Candidates also need to remember to demonstrate their full depth/ breadth and range of knowledge and understanding

across all topics. During the extended response questions, candidates should demonstrate they understand and have analysed the scenario fully and show a confident understanding, giving justifiable reasoning behind their answers to fully access the marks available.

Series 2: June 2023 (Summer)

29 candidates sat this test this series. Generally, most candidates attempted all the questions, with reasonable responses and good breadth and depth of knowledge displayed.

Most candidates did well with the multiple-choice questions, although candidates struggled with questions 1 and 8. Question 1 was related to the properties of insulation, and question 8 was related to types of sawblades.

Strengths shown by candidates in this series were around information found on cutting lists, use of a morticer and extraction systems, and the importance of planning work operations. Most candidates answered these questions well, which demonstrated candidates had good recall and understanding around these topic areas.

Weak responses were seen in short answer questions covering the following units and topic areas:

- Unit 301 Principles of organising, planning and pricing construction.
 - Topic 3.1 planning permission
 - Topic 3.3 classifications of supplier
- Unit 306 Set up and use fixed and transportable machinery.
 - Topic 3.1 Saw materials to size and shape.
 - Topic 4.1 Plane timber to size and shape

The extended response question (ERQ) was generally poorly answered. This question is designed to allow candidates to show breadth and depth of knowledge over units 301 and 306. The question required candidates to discuss how a batch of wide panels should be produced, from the planning stage through to completion.

Some responses showed a reasonable approach to the planning of the machining process; however, no candidates included the requirement to join smaller sections together to prevent the redwood panels warping. This is an essential part of planning for the production of joinery products. Some candidates presented a series of questions/considerations without much detail on how the process would be carried out. The cutting list aspect of the ERQ tended to be rather disorganised.

To improve exam results, teaching should focus on the weak areas outline above, and other aspects of unit 301. A particular area that would improve performance would be a focus on calculation skills related to how to work out material requirements.

Candidates should be reminded to read the questions fully and carefully align their answers to the marks available to ensure that they can access all the marks. Candidates also need to remember to demonstrate their full depth/breadth and range of knowledge and understanding across all topics. During the extended response questions, candidates should demonstrate they understand and have analysed the scenario fully and show a confident understanding, giving justifiable reasoning behind their answers to fully access the marks available.

Synoptic Assignment

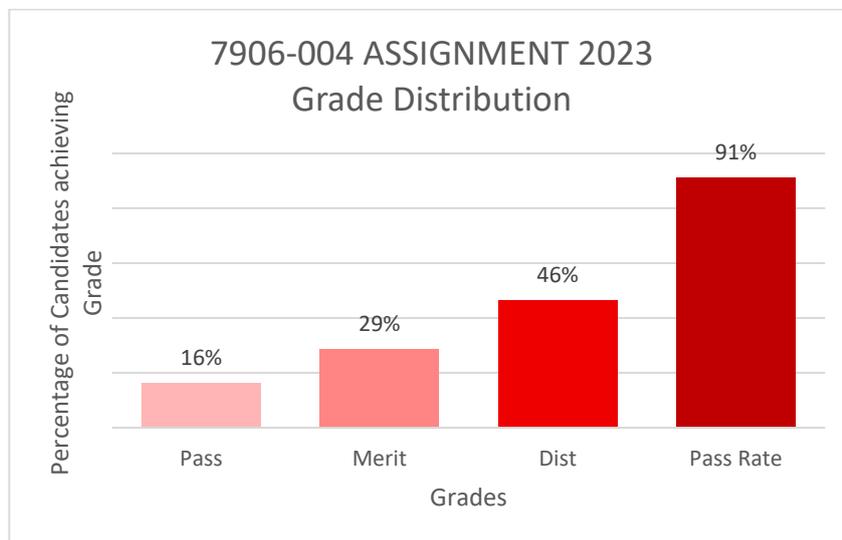
Grade Boundaries

Below identifies the final grade boundaries for this assessment.

Assessment: 7906-004 Level 3 Architectural Joinery – Synoptic Assignment
Series: 2023

Total marks available	60
Pass mark	27
Merit mark	35
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

The synoptic assignment is designed to assess the units of the qualification not included within the knowledge test. To ensure full coverage of the syllabus this assignment contains a practical task and a knowledge task.

The tasks are based around a potential real scenario that an Architectural Joiner will encounter while working in their chosen trade area.

For this series the synoptic assignment has been broken down into four distinct tasks.

Task 1

Produce an annotated scale drawing of a geometrical staircase.

Task 2

Set out for a semi-circular window sash (Task 2a). Produce a cutting list for the semi -circular sash (Task 2b) and produce templates required for the semi-circular sash (Task 2c).

Task 3

Manufacture and finish the semi-circular sash.

Task 4

Following completion and after time for reflection, candidate had to complete a self- evaluation document (approximately 500 words).

Break down on each AO

AO1 Recall

Most candidates demonstrated good evidence of recalling knowledge across all tasks. Selecting the correct tools and equipment for producing the setting out rod and producing accurate cutting lists. Basic geometry was required to set out the curved sections. Most candidates had no difficulty in setting out the geometry.

AO2 Understanding

A basic drawing was provided, showing an image of the complete curved head section required by the client; no detail was given on the type or location of joints to be used. Candidates selected a wide range of jointing and construction methods.

Some candidates included both joints and hidden detail within their setting out rod while the lower scoring candidates omitted this from their setting out detail and tended to produce joints that were not recognised industry practice. The higher achieving candidates produced their templates during the setting out process saving time by not having to set up trammels twice and ensuring accuracy. They also selected joint types and locations that minimised the amount of shot grain in the finished item.

AO3 Practical

Most candidates completed the task in the recommended time with various degrees of success. Most could be classified as fit for purpose with only minor errors, while others did not fully meet this standard, the most common mistake being candidates not working to a recognised sequence and making simple errors that required replacement timber ie. segmental sections not being equally divided, large wedges where haunched mortices/bridles have been cut full width and breakout where short grain sections have been incorporated.

Some excellent use of hand and power tools was observed, along with the setting up and using of static machines.

AO4 Bring it all together

Candidates that achieved the higher marks within AO4 had familiarised themselves with the assessment brief and fully understood what was required and devised a sequence of operations that would enable them to complete the task timely, and to a standard that met the tolerances. Candidates that did not prepare and plan adequately tended to be marked lower within this AO.

AO5 Attention to detail

As Architectural Joinery is very much process driven, with tight tolerances required within industry. Attention to detail is paramount from start to finish in the manufacture of any joinery item, and the candidates that regularly checked measurements throughout the setting out stage tended to produce working drawings that were clean, accurate and easy to follow.

Using face side and edge marks correctly enabled the more organised candidates to mark all joints at the same time, again demonstrating a comprehension of what is required to produce an accurate piece of Architectural Joinery.

Risks / Issues

Task 1 was often not very well covered, with candidates producing sketches or drawings that contained no or minimum dimensions or annotation. It is critical that candidates and centres approach and carry out this task with the same depth as the practical task.

For Task 2, a diverse example of setting out rods were produced. The lower marked candidate's rods contain no joint or hidden detail, displaying a lack of knowledge and understanding of construction methods. and the finished tasks had a mix of suitable and unsuitable jointing methods. The candidates that produced neat and tidy setting out rods, with the correct joint construction shown, tended to produce a finished product that was fit for purpose and completed within the recommended timeframe without the need for additional resources.

For Task 3 some centres supplied European Redwood and not Poplar as stated within the resources list. Whilst every effort is made to ensure the tasks are as cost effective to centres as possible, when a specific material is stated, it is to allow the candidates the best opportunity to showcase their skills and ability within the synoptic assessment. Centres that do not provide the correct materials and deviated from the specification are potentially disadvantaging their own candidates.

Task 4 was the self-evaluation document and is to be used by the candidate to reflect their overall performance, with a recommendation of 300 words. Some candidates struggled to produce a good reflection, often writing a basic method statement and often difficult to read. It would be advantageous if the candidates had the opportunity to word process these if they find articulating their thoughts using traditional handwriting methods challenging.

Summary

Candidates that read and fully understood the brief and planned a sequence of operation combined with regularly checking their setting out detail, tended to produce the most accurate setting out detail. With an accurate setting out rod and planned sequence of operations i.e. machining in a batch, candidates completed the task comfortably within the time given, allowing them time to ensure the overall finish met the set tolerances. Candidates that did not work to a recognised sequence tended to make basic errors requiring replacement components and ended up rushing to finish, leaving an overall finish that is not acceptable for the customer and resulting in lower marks being awarded.