

**6720-35 Level 3 Advanced Technical
Diploma in Constructing the Built
Environment (540)**

Pathways: Construction

Design and Planning

2019

Qualification Report

Contents

Introduction.....	3
Qualification Grade Distribution.....	4
Pathway 1 – Construction	4
Pathway 2 – Design and Planning	5
Theory Exams	6
Pathway 1 – Construction	6
Grade Boundaries	6
Chief Examiner Commentary	8
Synoptic Assignments	10
Pathway 1 - Construction.....	10
Grade Boundaries	10
Principal Moderator Commentary.....	11

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 2019 academic year. It will explain aspects which caused difficulty and potentially why the difficulties arose.

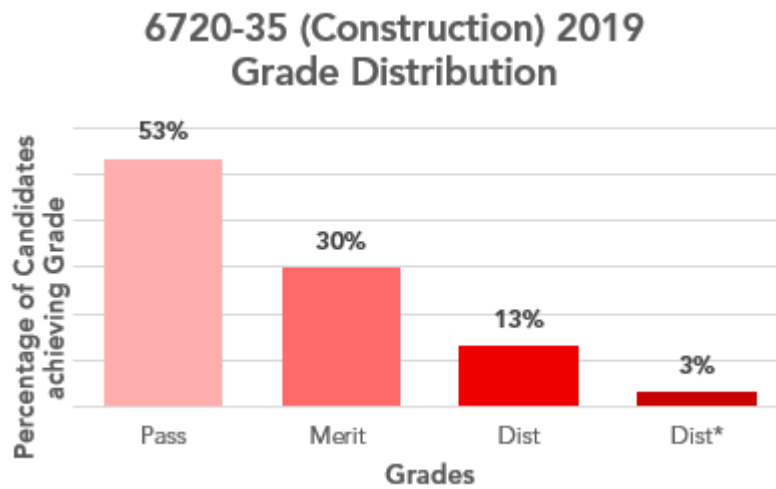
The document provides commentary on the following assessments:

- Pathway 1 – Construction:
 - 6720-042/542 Level 3 Constructing the Built Environment – Theory exam (1)
 - March 2019 (Spring)
 - June 2019 (Summer)
 - 6720-043 Level 3 Constructing the Built Environment – Synoptic Assignment (1)
- Pathway 2 – Design and Planning:
 - No registrations this year.

Qualification Grade Distribution

Pathway 1 – Construction

The grade distribution for this qualification pathway 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.

Pathway 2 – Design and Planning

There is no grade distribution for this qualification pathway as there were no entries in 2019.

Theory Exams

Pathway 1 – Construction

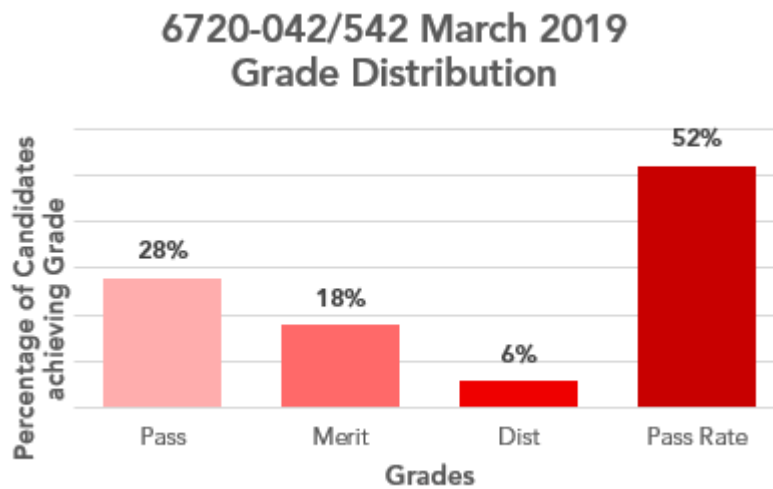
Grade Boundaries

Assessment: 6720-042/542
Series: March 2019 (Spring)

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

Total marks available	90
Pass mark	35
Merit mark	48
Distinction mark	61

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

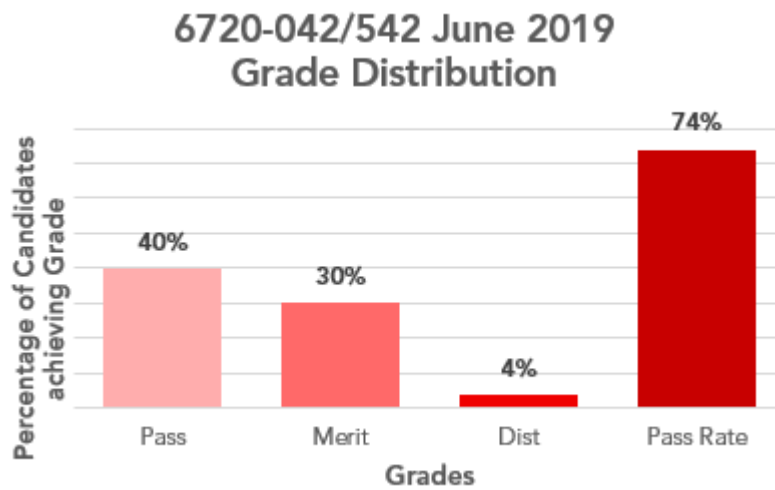


Assessment: 6720-042/542
Series: June 2019 (Summer)

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

Total marks available	90
Pass mark	36
Merit mark	48
Distinction mark	61

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



Chief Examiner Commentary

6720-042/542 Level 3 Constructing the Built Environment – Theory exam (1)

Series 1 – March 2019

Candidates performed well on AO1 (recall of knowledge) questions throughout the paper. However, the AO2 (understanding) and the extended writing questions were not as well answered. This indicates either a lack in depth of knowledge or experience of visiting construction sites where valuable insights could be gained which would have improved performance.

Both systems of entry were evidenced with candidates using both 'Evolve' (online) and paper-based examinations. Centre examination officers need to make it clear to paper-based candidates that they can request additional sheets to attach to their papers for additional space.

Candidates were often able to achieve identification marks at pass level, whilst some were able to achieve merit and distinction results with a series of linked explanation responses relevant to the contextualisation of question stems.

Technical areas that were answered well by candidates included the benefits of thin joint masonry systems, gaining acceptable thermal performance of external walls and the functions of windows. The explanation on recording trees hedges and fences was also answered well by candidates. A mixed response was received from candidates on the additional pathway questions that this paper contained, unit 304 Site Supervision.

Areas of weakness included the question about suspended ceilings and the use of helical thin-joint masonry wall ties. The use of a permit to work on site was also misunderstood by candidates as a right to work within the UK. This is not the case and centres should stress the importance of 'permits to work'.

Higher-scoring candidates were able to give linked responses to the stem within responses opening with identification and then developing into the 'how' and 'why' with an explanation, to gain the additional mark(s).

Lower-scoring candidates struggled with contextualised questions, often not relating their responses to the question stem, or failing to provide linked responses to identified issues. Some candidates struggled to explain their responses clearly and often gave brief superficial responses such as, 'it is cheaper, quicker, easier, safer and more sustainable'. Generic answers such as these will not attract marks and should be avoided.

For the extended response question, very few candidates sitting this examination were able to give linked responses to the provided case study. Candidates did not appear to know the different techniques that are deployed on construction projects such as materials storage and handling to avoid damage, timesheets, job cards, general forepersons etc. Candidates did not appear to connect a portal frame with the requirement of a pad foundation and often diversified at a tangent. A site visit or simple technical video of similar retail and commercial developments would have greatly enhanced the candidates' responses by demonstrating their depth of understanding.

Centres are advised to revisit current handbooks, test specifications, schemes of work and previous papers to fine-tune the delivery of their programmes. Getting candidates to embrace a CPD culture of exploring construction technology in general through site visits, videos and reading current textbooks will benefit them in future examination series.

Series 2 – June 2019

The overall performance by candidates for this paper was good. Most of the questions were attempted by candidates and some provided responses to the extended writing questions that contained detail and depth of understanding.

Both systems of entry were evidenced, with candidates using evolve and paper based examinations. Centre examination officers need to make it clear to candidates that they can request additional sheets to attach to their papers for additional space.

Candidates were often able to achieve recall of knowledge marks at pass level. Those candidates demonstrating a series of linked explanation responses relating back to the scenario's context were able to obtain a merit or distinction grade. Candidates should be encouraged to leave no questions blank as responses may gain marks.

Technical areas that were answered well by candidates included the identification of primary and secondary elements of superstructures, aspects of volumetric construction, site waste management and types of industrial buildings. The questions for unit 304 site supervision were generally answered well, especially on communication and motivation and job roles in the construction industry.

Areas of weakness include questions on volumetric construction, fire regulations for single storey structures, technical languages, diaphragm walling and site welfare facilities.

What is evident still is that many candidates had a limited grasp of knowledge and understanding of technical descriptions and the language within an exam question. For example, candidates did not know what "site welfare" was in the context of a construction site. Centres would be advised to take candidates to a live site for a knowledge visit or shown videos of different types of construction to address this lack of awareness. Revision and extending their core knowledge is the key to a successful candidate's performance.

Higher scoring candidates were able to give linked responses to the questions, correctly identifying an item and then providing an explanation to gain the second or additional mark.

Lower scoring candidates struggled with contextualised questions, often not relating their responses to the question stem or being unable to provide linked responses to identified issues.

Candidates on this pathway would benefit from a site manager as a guest speaker to interview and establish the full roles and responsibilities of such a position. This would give candidate the opportunity to cover the unit aspects of what a site manager/supervisor does on a day to day basis.

For the extended response question, the scenario of an agricultural building conversion produced good responses, with candidates applying health and safety and construction technology to show depth of understanding. Candidates were able to grasp concepts and relate to parts of the scenario, for example modern methods of construction and contaminated ground, and use this imaginatively and in context within their answers. However, candidates did not know what procurement was and this part of the extended response question was not answered well.

Centres are advised to revisit current handbooks, test specifications and previous papers to fine-tune the delivery of their programmes. Getting candidates to embrace a CPD culture of exploring construction technology in general through site visits, videos and reading current textbooks will benefit them in future examination series.

Synoptic Assignments

Pathway 1 - Construction

Grade Boundaries

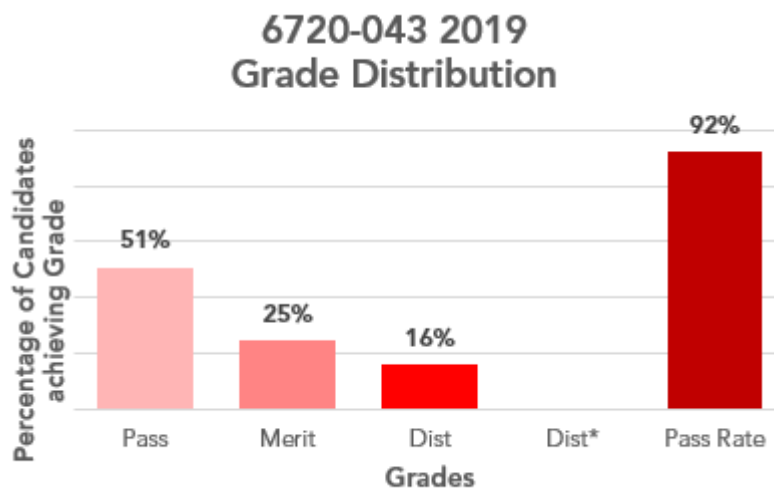
Below identifies the final grade boundaries for this assessment, as agreed by the awarding panel.

Assessment: 6720-043

Series: 2019

Total marks available	60
Pass mark	24
Merit mark	34
Distinction mark	44

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



Principal Moderator Commentary

6720-043 Level 3 Constructing the Built Environment – Synoptic assignment (1)

The assignment brief was based on a project to create residential and commercial buildings in a town's high street. The brief was realistic, allowed candidates to consider what they could research and provided direction for the areas to be assessed within the tasks.

The overall performance for this synoptic assignment was generally high, with candidates performing well in task 1, producing good specification reports on the external wall and U-Value calculations.

AO1 Recall of knowledge

General recall tended to be good throughout the assignment and has improved this year. In particular, candidates showed good knowledge on the health and safety report and risk assessment in task 2. Higher end responses showed clear knowledge of the technical points required in the tasks. For example, specifying brickwork, blockwork and thermal insulation materials; health and safety and land surveying procedures. Less effective responses did not have the same level of technical detail.

AO2 Understanding of concepts, theories and processes

Overall, candidates didn't do so well on this assessment objective, except in the health & safety report and risk assessment. Higher end responses showed clear understanding (evidenced by reading and references) of woodchip fuel and community or district heating schemes and that woodchip fuel is from a renewable source, but is not specifically a zero carbon fuel. Less effective responses evaluated woodchip biomass boilers and district heating only in a superficial manner.

AO3 Application of practical/technical skills

There was a mixed approach Candidate performance for this assessment objective varied. Higher end responses did the levelling survey calculations correctly and used these to position the contour lines accurately on the scale drawing. Weaker candidates did the levelling analysis correctly without applying the detail of the calculations to the drawing.

AO4 Bringing it all together – coherence of the whole subject

Higher scoring candidates were able to grasp the passivhaus concept and draw conclusions from their calculations in the tasks and link them to the scenario. For example, linking the external wall specification (task 1) aimed at excellent energy efficiency standards along with the heating system subject matter (task 3).

Less effective responses connected some aspects of the various tasks, but in a limited way. For example, some candidates stated correctly that tasks 1 and 3 were both about heating energy efficiency, but without considering energy demand estimates (task 1) and energy supply systems (task 3) in combination.

AO5 Attending to detail/perfecting

There was a mixed response for this assessment objective. Higher scoring assignments showed good attention to detail by giving details of the various options for achieving a U-value that was as low as possible (task 1) for a sensible budget (task 4). Weaker responses did not connect construction quality with the available project budget.

Best practice

It was clear from the evidence submitted that centres have interpreted the assignments appropriately and the majority of candidates have approached each task fully and following the assignment briefs.

Centres are reminded that the information given within the assignment brief is designed largely to assess the candidates' ability to research, balance arguments, make decisions and specify actions to be taken.

There were no issues within the assignment that made it difficult for the candidates to complete or the moderators to moderate. Centres have risen to the challenge of marking holistically, and are improving on a year-by-year basis. CRFs and authenticity statements are rarely missing or incomplete and employer involvement issues are now well-understood. Also, there are far fewer examples of where a centre has been 'over-optimistic' in their assessment and moderators have found that centres are less likely to be assessing out of tolerance.

Centres are reminded that all evidence must be uploaded to the Moderation Portal in a format that can be accessed by all, for example Microsoft Word, Excel, PowerPoint or PDF. Any CAD drawings must be converted to PDF before being uploaded.