

0174-37 Level 3 Advanced Technical Extended Diploma in Horticulture (1080)

2024

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 2024 academic year. It will explain aspects which caused difficulty and, potentially, why the difficulties arose.

The document provides commentary on the following assessments:

Year 1

- Pathway 1 (Professional Horticulture) and Pathway 2 (Sports Turf)
 - 0174-502 Level 3 Horticulture – Theory exam (1)
 - March 2024 (Spring)
 - June 2024 (Summer)
 - 0174-003 Level 3 Horticulture – Synoptic Assignment

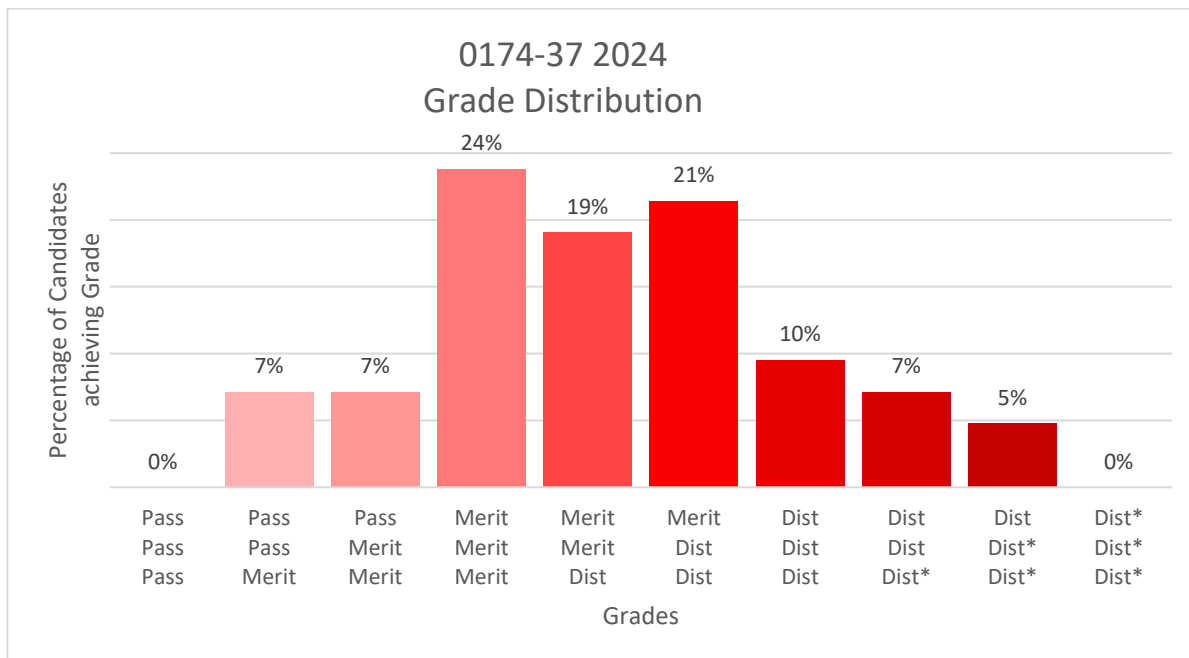
Year 2

- Pathway 1 (Professional Horticulture)
 - 0174-508 Level 3 Horticulture – Theory exam (2)
 - March 2024 (Spring)
 - June 2024 (Summer)
 - 0174-007 Level 3 Horticulture – Synoptic Assignment (2)

Qualification Grade Distribution

0174-37 Level 3 Advanced Technical Extended Diploma in Horticulture (1080) Professional Horticulture pathway

The grade distribution for this qualification is shown below:



The data is based on the distribution as of 19/08/2024.

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 Exams – Year 1

0174-36 Level 3 Advanced Technical Diploma in Horticulture (540)

Grade Boundaries

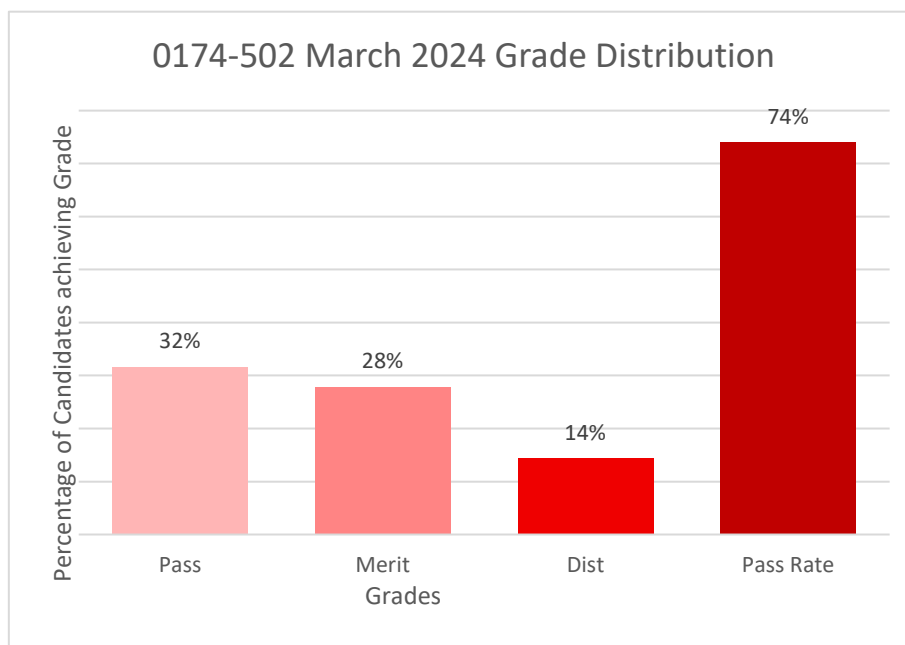
Assessment: 0174-502

Series: March 2024 (Spring)

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

Total marks available	60
Pass mark	26
Merit mark	35
Distinction mark	45

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

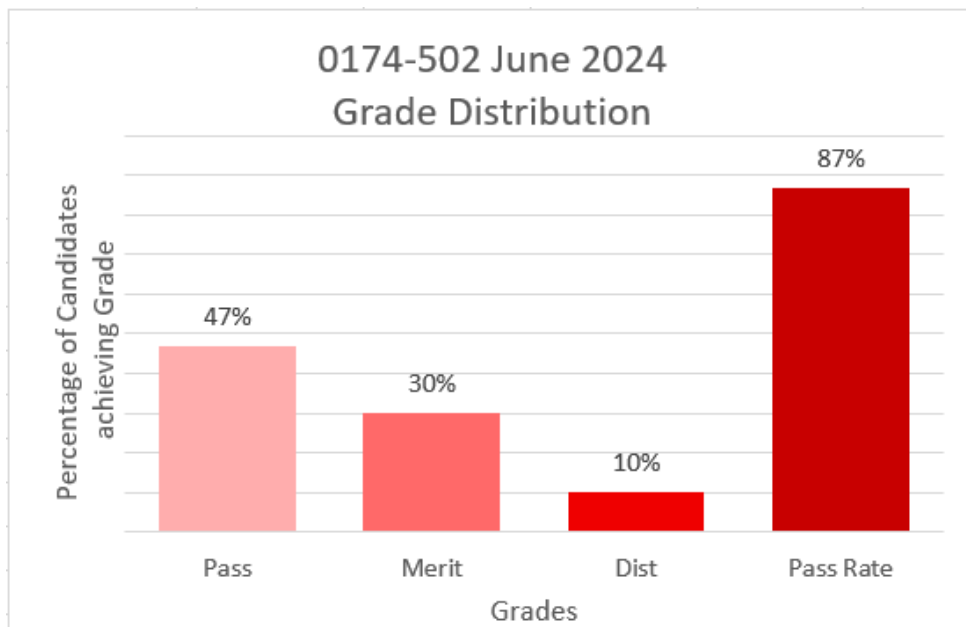


Assessment: 0174-502
Series: June 2024 (Summer)

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

Total marks available	60
Pass mark	27
Merit mark	36
Distinction mark	45

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



Chief Examiner Commentary

0174-002/502 Level 3 Horticulture - Theory exam (1)

Series 1 – March 2024

The question paper was generally balanced and covered a good level of knowledge and understanding from across the qualification. Candidates answered questions with varying degrees of accuracy and depth. The candidates' performance on the paper was comparable to last year. Some questions were interpreted incorrectly as candidates did not recognise specific terms from the qualification handbook which affected the content of their answer. A number of candidates did not attempt questions or did not understand what was being asked.

Candidates demonstrated a good recall of knowledge, gaining marks in topics such as machinery pre-use checks, the leaf adaptations and plant certification schemes. Higher scoring candidates demonstrated the ability to justify their answers and gain maximum marks.

Overall, candidates showed strength in the following areas:

- Machinery operations
- Pre-use checks of machinery

Many candidates demonstrated weaknesses in both the recall and understanding questions that related to plant nomenclature and features of plant families. Some of the responses to the knowledge questions on factors causing root disease in glasshouses were limited and basic. Some candidates missed the opportunity to gain marks as they were unable to demonstrate recall of knowledge for names of plant families.

The Extended Response Question gives candidates the opportunity to demonstrate their grasp of the qualification and knowledge of controlling pests, diseases and weeds issues in outdoor environment. There were some well-developed answers evident with some excellent use of examples and some higher-level candidates were able to discuss a range of measures to take to control pests, diseases and weeds with in-depth examples. The responses to the ERQ showed a reasonable understanding of IPM, cultural, biological, physical and chemical controls, biosecurity and plant selection. However, most candidates failed to discuss key areas such as legislation and life cycles. Few responses showed an appreciation of the full range of measures or used relevant terminology. Some candidates did not structure their answer effectively to allow them to explore the problems and solutions in detail. These candidates tended to focus on one or two issues rather than dealing with the full scope of the issues raised in the question.

A number of candidates showed that they were not fully familiar with the written examination technique. Candidates are urged to read the questions carefully and provide answers relevant to them.

Series 2 – June 2024

The performance of this cohort was comparable to last year. Candidates who achieved in the lower mark range had only a basic understanding of the topics or appeared to be unfamiliar with a technical term used in questions. Their performance was stronger on the recall questions compared to higher order questions as would be expected. Higher-achieving candidates showed evidence of reasoning and justification as well as the recall of knowledge required across all the units. They also showed accurate use of technical terms to industry-expected levels. With the exception of the question that required candidates to provide examples of areas that must be protected from chemical pesticides, all questions in the paper were answered to a high standard by at least some students.

Candidates demonstrated a good recall of knowledge, gaining marks in topics such as physical features of plants, machinery maintenance and the use of control measures for pests and weeds. Higher-scoring candidates demonstrated the ability to interpret questions correctly and justify their answers to achieve maximum marks.

Overall, candidates showed strength in the following areas:

- Machinery maintenance
- Pests, weeds and diseases

Many candidates demonstrated weaknesses in both the recall and understanding of questions that hinged on specific terms. Plant nomenclature questions were widely misinterpreted, with candidates not understanding the meaning of the terms 'variety' and 'cultivar' and writing about unrelated matters and failing to provide examples of each. Questions relating to planting and site conditions posed problems with candidates either misinterpreting the question, or only being able to provide a limited range of answers for higher mark questions. Overall, candidates showed weakness in plant identification and planting.

The Extended Response Question gives candidates the opportunity to demonstrate their grasp of the qualification and knowledge of pesticide use issues in horticulture. Candidates were asked about minimising the impacts of pesticide use on operators. There were some well-developed answers evident with some excellent use of examples and some higher-level candidates were able to discuss a range of measures to take to minimise operator exposure with in-depth examples. The responses to the ERQ showed a reasonable understanding of PPE, training, records, storage of chemicals and the use of alternative methods. However, most candidates failed to discuss key areas such as legislation and exposure limits for staff. Few responses showed an appreciation of the full range of measures or used relevant terminology. Many candidates did not structure their answer effectively to allow them to explore the problems and solutions in detail, instead focussing on one or two issues, whilst not dealing with the full scope of the issues raised in the question.

City & Guilds has produced a technical exam guide to support the work on exam technique, which is available to download here:

[Technicals in Horticulture and Forestry & Arboriculture qualifications and training courses | City & Guilds \(cityandguilds.com\)](https://www.cityandguilds.com/qualifications/technical-exam-guide)

Theory Exams – Year 2

0174-37 Level 3 Advanced Technical Extended Diploma in Horticulture (1080) Professional Horticulture pathway

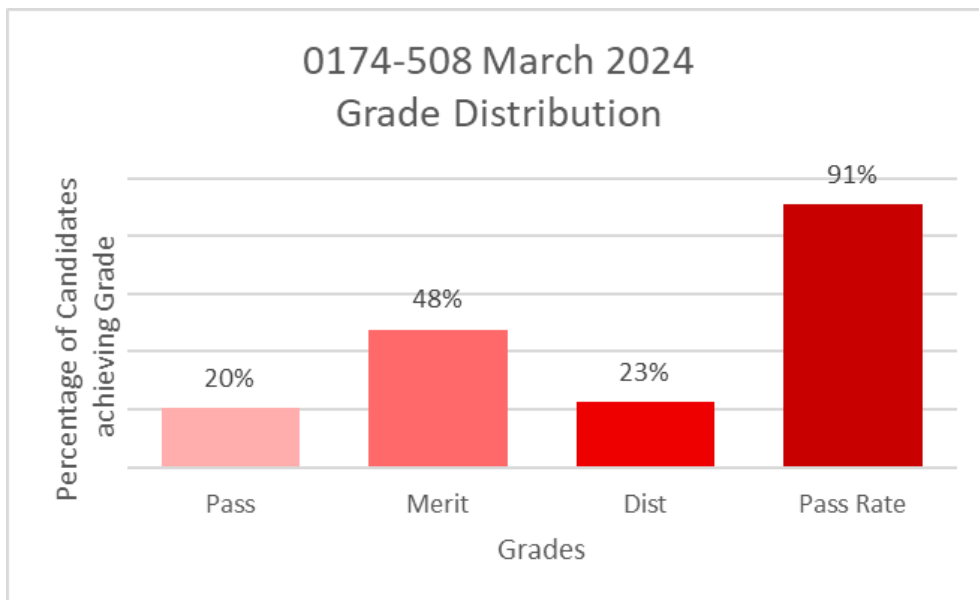
Grade Boundaries

Assessment: 0174-508
Series: March 2024 (Spring)

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

Total marks available	60
Pass mark	25
Merit mark	33
Distinction mark	42

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



Assessment: 0174-508
Series: June 2024 (Summer)

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

Total marks available	60
Pass mark	25
Merit mark	33
Distinction mark	42

Data and commentary for this assessment have been omitted by City & Guilds due to a very low number of candidate submissions.

Chief Examiner Commentary

0174-508 Level 3 Horticulture - Theory exam (2)

Series 1 – March 2024

The candidates who achieved higher marks were able to demonstrate breadth and depth of knowledge, backed up by relevant examples and including explanation and justification where needed. This is reflective of trends seen last year. Lower-achieving candidates tended to give brief and listed answers. There was evidence of candidates not fully reading questions, which meant they missed out on marks by not responding in the way needed or providing the level of detail required to access the full range of marks available. Candidates did not always engage with the command verbs, for example simply stating rather than explaining, this meant that candidates did not always provide enough detail when asked for explanations or descriptions.

Overall, candidates showed strength in the following areas:

- The implications of wildlife legislation
- Technique of pruning trees by crown lifting
- Understanding the ways in which a tree could suffer an injury
- The detrimental effects of trees on cultivated areas
- Legal rights of an employee in work
- Benefits and limitations of partnerships when compared to a sole trader
- Characteristics of a customer base
- Ways to enhance customer loyalty
- Use of geo-membranes in hard landscaping
- Maintenance requirements for a natural stone patio

Candidates appear to require further support in:

- Naming Acts of Parliament
- Partnership agreements and changing business structures
- The structure and purpose of the balance sheet

The Extended Response Question provided candidates with the opportunity to use a named example to demonstrate their knowledge and understanding of the topic area and discuss continuity of work. Those that used a garden centre as an example often had more breadth and depth in their answers than those that used a landscaper. Weaker candidates provided answers that gave general information with few links to relevant ways of ensuring continuity of work throughout the year. The stronger candidates discussed relevant methods and applied it to the question. Some suggestions were quite innovative, covering diversification, technology, and novel working practices.

Some candidates misinterpreted the question as requiring methods to ensure employees were able to work throughout the year, however, in many cases the answers provided were still relevant and gained marks.

Candidates are strongly advised to be familiar with the command verbs they may encounter during examinations and to read each question carefully, responding with the depth required. Centres are advised to revisit current handbooks, test specifications and previous papers, to prepare candidates for exams. In addition to paying attention to the command verbs, candidates should also ensure that the correct number of responses are given to any question.

Centres are reminded of the City & Guilds 'Exam Guides' available here:

[Technicals in Horticulture and Forestry & Arboriculture qualifications and training courses | City & Guilds \(cityandguilds.com\)](https://www.cityandguilds.com/qualifications/0174-508)

Synoptic Assignments – Year 1

0174-36 Level 3 Advanced Technical Diploma in Horticulture (540)

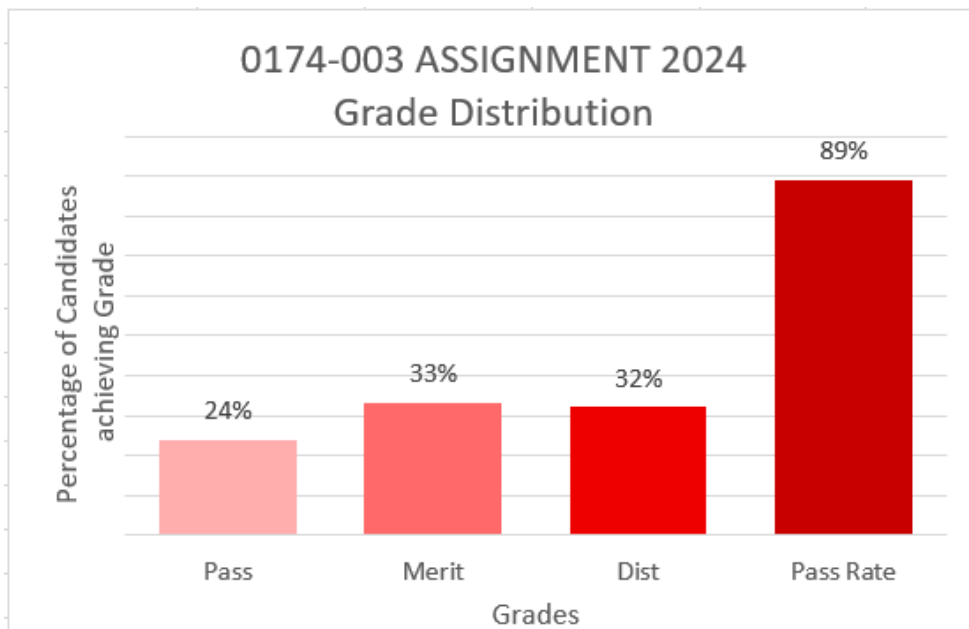
Grade Boundaries

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

Assessment: 0174-003
Series: 2024

Total marks available	60
Pass mark	27
Merit mark	35
Distinction mark	43

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



Principal Moderator Commentary

The assignment was assessed effectively at some Centres, but this was not consistent across all. The context of the 'Assignment Brief' was integral to Tasks 1 and 4, setting the context as being 'a consultant horticulturist employed by a Community Garden'. Where the context was fully embedded, responses were relevant in terms of plant selection. There was some confusion between a theoretical context for the choice of plants to meet the brief and a practical aspect of matching plant selection to the site that was surveyed.

Task 1 has four linked components, that were addressed in varying ways across centres. On occasions it did not appear that the Centre Guidance for this task was being followed. The breadth of factors considered in the soil analysis were sometimes lacking in the basics, notably infiltration rate (guidance states soil investigation covers a maximum of pH, texture, drainage/structure and infiltration rate) as well as including laboratory activities which are outlined as being not within the scope.

The identification of 'taught/not taught' plants was also variable, with the absence of descriptive content as to how 'not taught' plants were identified. Guidance in the assignment of the types of resources that should be available is provided, and how this is used by candidates to gain correct identification of 'not taught' plants is very important in making decisions based on the marking grid. Positive credit can be gained in AO2 and AO4 for correctly using keys or other sources even if the actual identification is not accurate but is plausible. Some inconsistency was seen when referencing the sources used; the actual plants to be identified were not always uploaded with the evidence; clarity of which were previously known/taught, and which had to be identified was not always present.

Good examples of plant recommendations showed clear relevance to a Community Garden, with weaker examples only considering the site conditions that were surveyed. Marking of these areas was inconsistent at some Centres, taking no account of suitability to site, plant name accuracy, botanical conventions etc.

Task 2 was in most cases undertaken appropriately, though photographic evidence highlighted that the methods of planting and support were very different between Centres.

Task 3 was mostly carried out, though having to be rescheduled several times to deal with the extreme weather conditions that prevailed in the Spring. Centres are to be commended on how well this was managed given these difficulties.

Task 4 required that candidates consider the potential impacts of the use of chemicals in a Community Garden setting. As with Task 1, where this was fully embedded in terms of the brief, there were very good responses seen, linking what the issues might be for a site largely managed by volunteers. Candidates who covered the full breadth of the topics (pesticides, herbicides, fertilisers, preservatives etc.) gained higher marks. Marking was, however, inconsistent across Centres, with some failing to consider the accuracy and appropriateness of chemicals or alternatives that were being named by candidates. Examples were seen where products that are not approved for use in garden situations were being recommended, or where products that were banned some years ago were being named, and in neither case was this being noted by markers. These recommendations suggest that candidates were using non-UK websites for undertaking research.

Centres are asked:

- To include areas where candidate work could be better on the Candidate Record Form (CRF) unless the mark awarded is in the excellent band.
- To carefully check the addition of the total marks on the CRF.

- To annotate on candidate's work, incorrect statements and the quality of the work, eg areas which are good or lacking detail.
- To ensure that source materials are always considered and recommendations for use of specific products are always checked by markers
- When using dictation software to carefully check what has been typed.
- **To upload all the forms and evidence as one document (i.e. one PDF, not a ZIP file).**

Synoptic Assignments – Year 2

0174-37 Level 3 Advanced Technical Extended Diploma in Horticulture (1080) Professional Horticulture pathway

Grade Boundaries

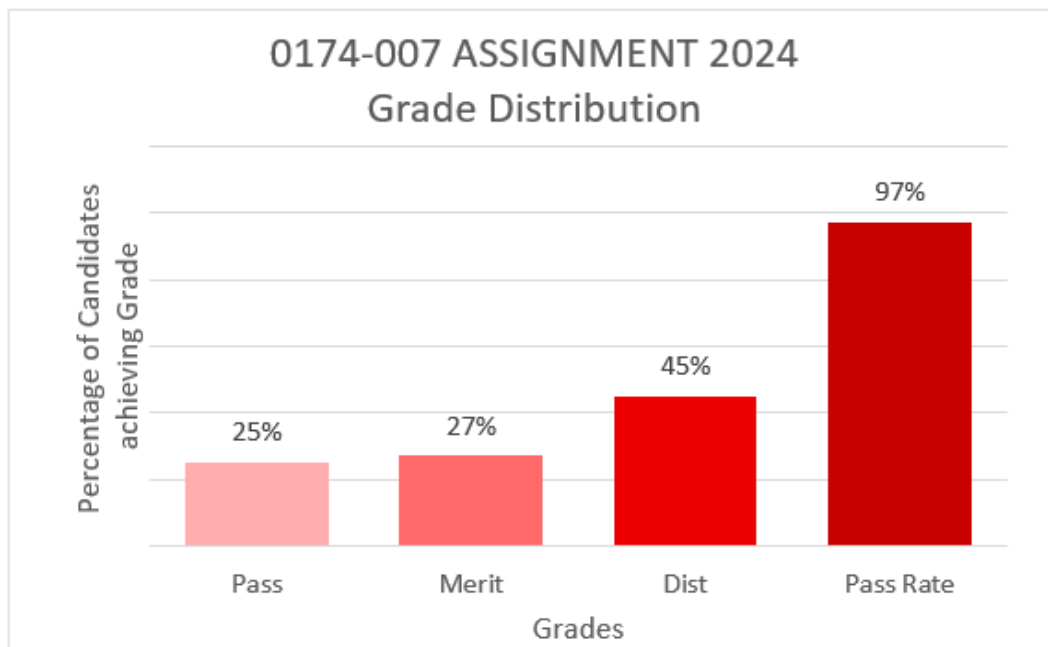
Below identifies the final grade boundaries for this assessment, as agreed by the awarding panel:

Assessment: 0174-007

Series: 2024

Total marks available	60
Pass mark	24
Merit mark	33
Distinction mark	42

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



Principal Moderator Commentary

Some inconsistency was seen in the assessing of the assignment this year, with significant variance from required practice linked to how activities were implemented, assessed and documented. This added some difficulty when moderating.

Task 1 required candidates to be clear, focused and fully aware of specific industry roles, and where this was evident, high marks in band 3 were achieved across all AO1, AO2 and AO5. Lower-achieving candidates provided limited detail linked to industry roles, with confusion between roles indicating a lack of understanding. Suggested experience to undertake the roles, possible progression, training opportunities and salary levels varied considerably and did not always reflect reality. An understanding of how to present the material was not always fully considered, with some candidates mainly engaged in presentation and providing inadequate content, and others failing to engage potential users by an absence of visual attraction.

Task 2, a marking-out exercise, required detailed planning and consideration by candidates before beginning the process. Limited assistance could be available from a fellow candidate, subject to careful explanation of the limits of involvement by the marker(s) and subsequent close monitoring. This gave candidates additional opportunity to show higher-level teamworking skills and this was sometimes reflected in marker commentary on the PO form. It was also evident that candidates reviewed and re-positioned lines during the task, giving markers the opportunity to utilise the full extent of AO2 to AO5. Centres were required to submit a photograph of the completed work for each candidate, though sometimes this was missing. Good marker commentary focusing on clarity was valuable, for example 'measurement of diagonals showed accuracy to within 25mm' rather than less-clear descriptions such as 'reasonably accurate'.

Task 3, the practical identification test, gave opportunities to assess AO1 to AO5. A list of what the pests, diseases etc should have been submitted with the evidence to enable effective moderation; this was not consistently the case. Centres should be mindful to ensure all assignment material has been downloaded to ensure candidates are able to complete all tasks as required. Clarity of marking is required within this task.

Task 4 was a straightforward practical task and was generally well-managed and appropriately marked. There was some variation in what was presented to candidates to be worked on. Ideal examples were seen in which mixed areas of planting were available, candidates asked to assess the situation and describe what was required and why, before carrying out pruning.

Centres are asked:

- To include areas where the performance of the candidate could have been better should be recorded on the Candidate Record Form (CRF) unless the mark awarded is in the excellent band.
- To carefully check the addition of the total marks on the CRF.
- To annotate on candidate's work, incorrect statements and the quality of the work, eg areas which are good or lacking detail.
- When using dictation software to carefully check what has been typed.
- **To upload all the forms and evidence as one document.**