0171-30/31/32/33– Level 3 Advanced Technical Extended Diploma in Agriculture

2019

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 2018/2019 academic year. It will explain aspects which caused difficulty and potentially why the difficulties arose.

The document provides commentary on the following assessments:
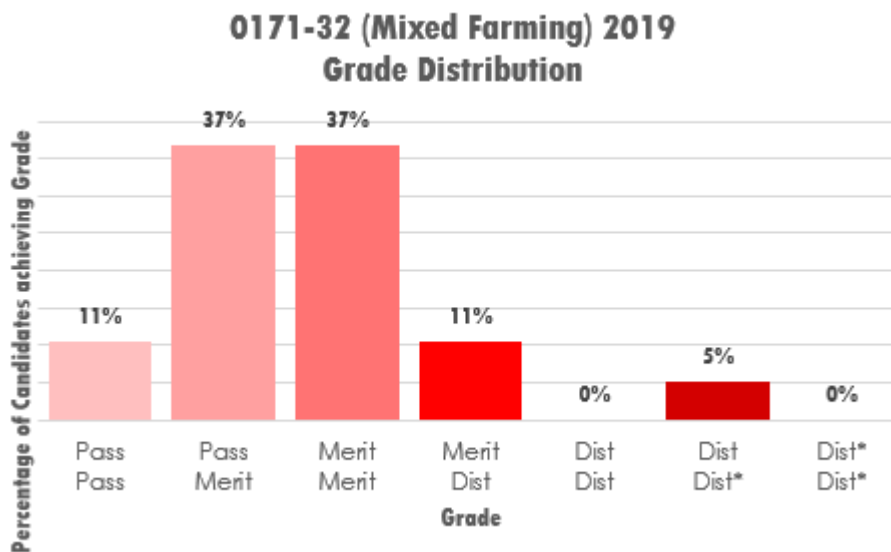
Year 1
- Pathway 1
    - 0171-002/502 Level 3 in Agriculture – Theory exam
        - March 2019 (Spring)
        - June 2019 (Summer)
    - 0171-001 Level 3 in Agriculture – Synoptic Assignment

Year 2
- Pathway 1
    - 0171-006/506 Level 3 in Agriculture (Mixed Farming) – Theory exam
        - March 2019 (Spring)
        - June 2019 (Summer)
    - 0171-005 Level 3 in Agriculture (Mixed Farming)– Synoptic Assignment

- Pathway 2
    - 0171-010/510 Level 3 in Agriculture (Livestock) – Theory exam
        - March 2019 (Spring)
        - June 2019 (Summer)
    - 0171-009 Level 3 in Agriculture (Livestock) Synoptic Assignment
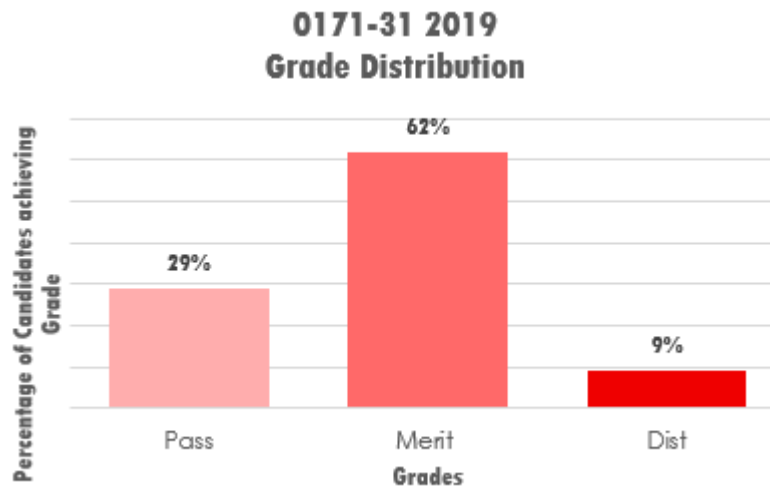
- Pathway 3
    - 0171-012/512 Level 3 in Agriculture (Arable) – Theory exam
        - March 2019 (Spring)
        - June 2019 (Summer)
    - 0171-011 Level 3 in Agriculture (Arable) Synoptic Assignment
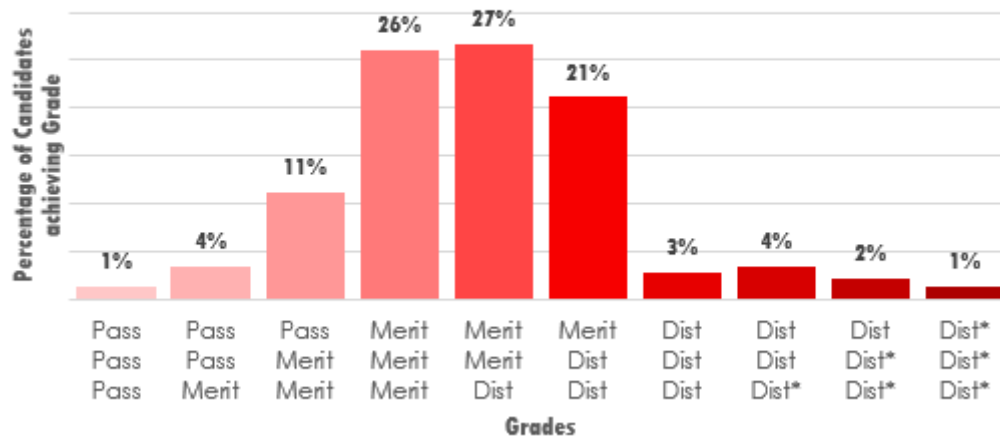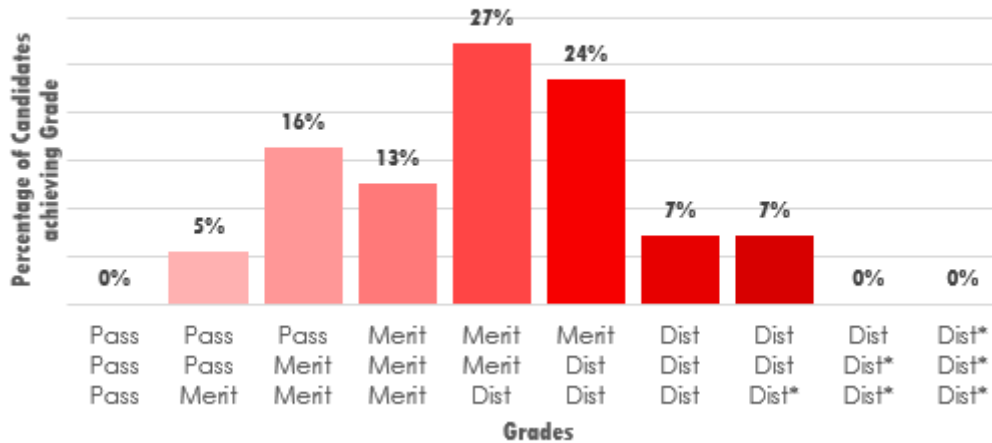
Qualification Grade Distribution

The grade distribution for this qualification is shown below:

0171-30 2019 Grade Distribution

0171-31 2019 Grade Distribution

0171-32 (Mixed Farming) 2019 Grade Distribution
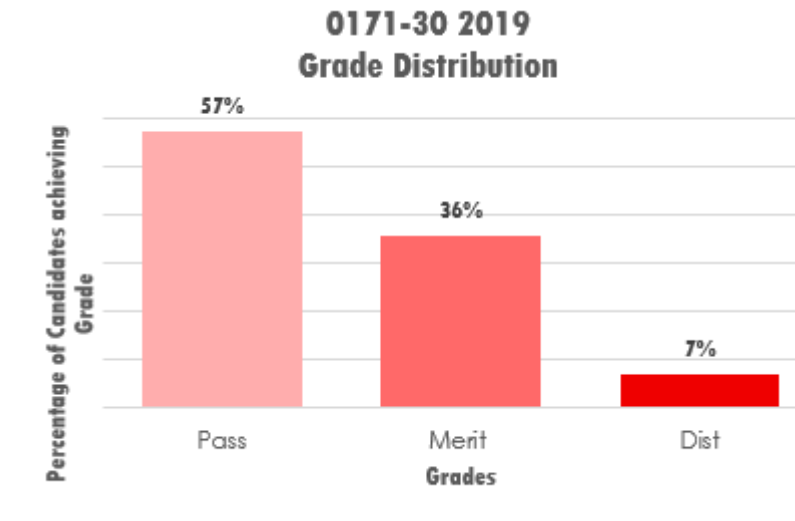
0171-33 (Livestock) 2019
Grade Distribution

Percentage of Candidates achieving Grade

Grade	Percentage
Pass / Pass / Pass	1%
Pass / Pass / Merit	4%
Pass / Merit / Merit	11%
Merit / Merit / Merit	26%
Merit / Merit / Dist	27%
Merit / Dist / Dist	21%
Dist / Dist / Dist	3%
Dist / Dist / Dist*	4%
Dist / Dist* / Dist*	2%
Dist* / Dist* / Dist*	1%

Grades

0171-33 (Arable) 2019
Grade Distribution

Percentage of Candidates achieving Grade

Grade	Percentage
Pass / Pass / Pass	0%
Pass / Pass / Merit	5%
Pass / Merit / Merit	16%
Merit / Merit / Merit	13%
Merit / Merit / Dist	27%
Merit / Dist / Dist	24%
Dist / Dist / Dist	7%
Dist / Dist / Dist*	7%
Dist / Dist* / Dist*	0%
Dist* / Dist* / Dist*	0%

Grades

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

0171-30/31/32/33- Level 3 Technicals in Agriculture

Grade Boundaries

Assessment: 0171-502
Series: March 2019 (Spring)

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

Total marks availible	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:

0171-502 March 2019
Grade Distribution
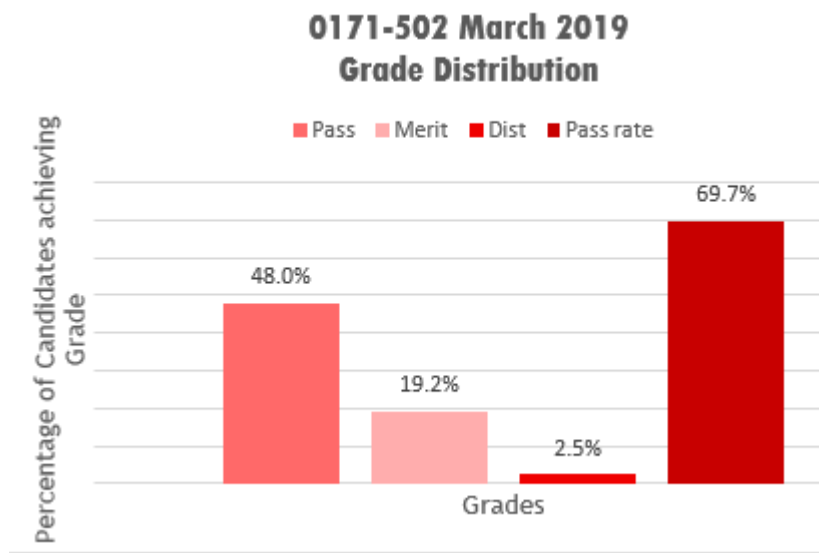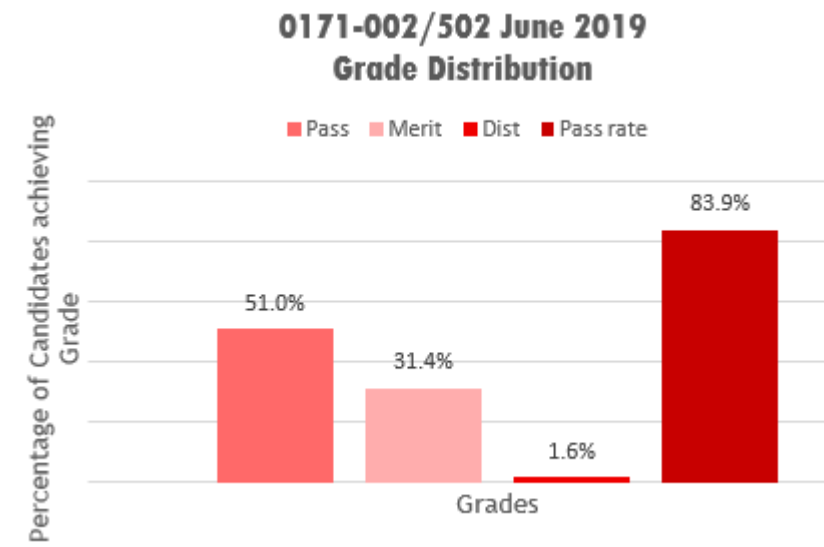
■ Pass ■ Merit ■ Dist ■ Pass rate

Assessment: 0171-502/002
Series: June 2019 (Summer)

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

Total marks availible	60
Pass mark	25
Merit mark	35
Distinction mark	45

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

Chief Examiner Commentary

0171-502 Level 3 in Agriculture - Theory exam

Series 1 – March 2019

The paper was well answered by most candidates overall. Questions on pollution and waste control management were poorly answered by many candidates and this is where marks were lost.

Many candidates were able to give good, concise and accurate responses. Some candidates did not attempt many of the questions and therefore no marks were achieved. Some students gave very poor responses which showed muddled thinking.

This was a well-balanced paper that tested the candidate's knowledge and understanding. Questions that started with "state" or "explain" or "list" were generally answered better than those which started with "give "or "how".

Many colleges will only be two thirds of the way through the course and this may have had some effect on the candidate's ability to answer the question. Centres are advised to prepare the candidates for the paper and focus on the units that are examined in this paper, as indicated in the qualification handbook.

Extended response question
A range of responses from candidates, with limited discussions. Many gave a very short and concise answer. Many were disorganised and ambiguous. The majority were in Band 1.

Series 2 – June 2019

The paper was well answered by most candidates. Questions on crop production and plant and soil science were poorly answered by many candidates.

Many candidates were able to give good, concise and accurate responses, but several candidates did not attempt many of the questions and therefore no marks were achieved. Some candidates gave very poor responses which showed that they did not fully read the question.

Candidates need to ensure they give sufficient information to achieve full marks for the questions and need to be more aware of the marks available for each question.

This was a balanced paper that tested the candidate's knowledge and understanding with a range of question types. Questions which started with "state" or "explain" or "list" were generally answered better than those which started with "why "or "what".

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

https://www.cityandguilds.com/qualifications-and-apprenticeships/land-based-services/agriculture/0171-technicals-in-agriculture-and-landbased-engineering#tab=documents

They are strongly advised to be familiar with the command verbs their learners may encounter during examinations and the type of responses expected, along with an indication of the qualities that will be looked for during marking.

Theory Exams – Year 2

0171-32 – Level 3 Advanced Technical Extended Diploma in Agriculture (720) (Mixed farming)
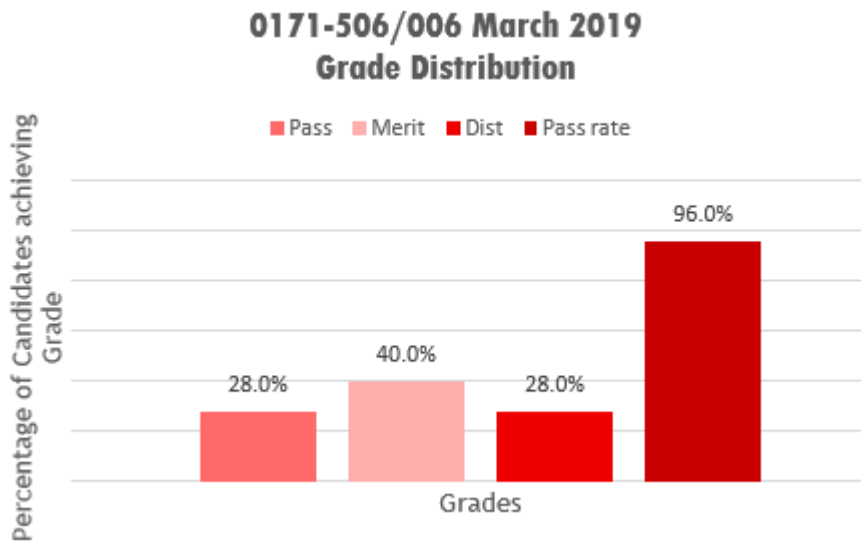
Grade Boundaries

Assessment: 0171-006/506
Series: March 2019 (Spring)

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

Total marks availible	60
Pass mark	24
Merit mark	33
Distinction mark	43

The graph below shows the approximate distributions of grades and pass rate for this assessment:
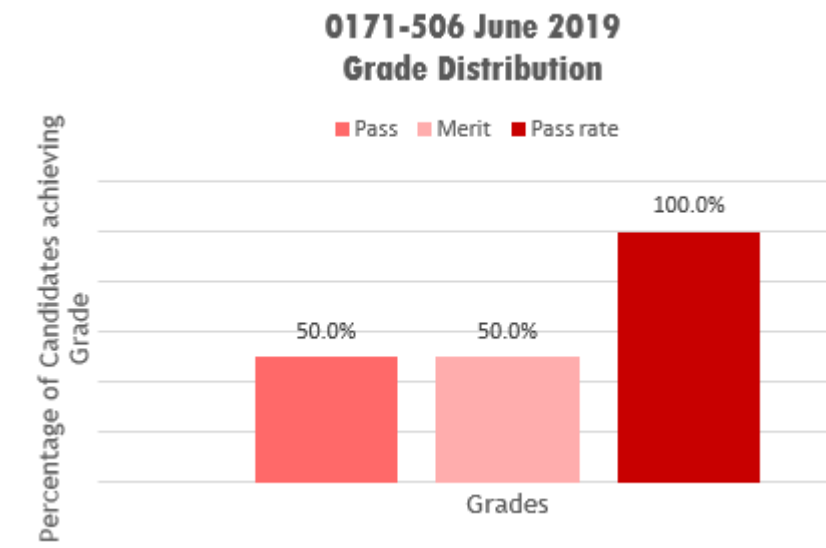
Assessment: 0171-506
Series: June 2019 (Summer)

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

Total marks availible	60
Pass mark	29
Merit mark	36
Distinction mark	44

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

Chief Examiner Commentary

0171-32 – Level 3 Advanced Technical Extended Diploma in Agriculture (720) (Mixed farming) - Theory exam

Series 1 – March 2019

The majority of candidates attempted all questions.
All candidates attempted the extended response question, which varied greatly in depth of answers.
Many candidates missed marks due to not reading/understanding the question.
Few candidates matched their answer to the number of marks – lost time on writing unnecessarily.

There was strength in the exam with questions on grassland units but most candidates were unaware of the benefits of chicory.

The extended response question did not always reflect a depth of knowledge – the candidates did not seem to have planned their response. There was a lack of adequate discussion of plant species and possible uses of an ATV.

Series 2 – June 2019

A good paper with a wide range of topics to suit candidates with different interests in the land based sector. The performance of the candidates on the extended response question was mainly good and accessing higher marks was restricted by not making relevant suggestions on using an RTFL in the silage clamp.

The overall answers from candidates were generally of a high standard with only very few giving poor answers or not answering the majority of the questions.

There was evidence that a large proportion of candidates planned their answers well. This was especially true of the extended response question and the questions attributed with higher marks.

Some candidates struggled with some of the command verbs and could not differentiate between 'describe' and 'list'. Therefore, some candidates answering questions that asked for a description did not access the full marks available.

Short answer questions
The questions were of a good level for this paper. The highest marks overall tended to be from the RTFL and ATV questions, although identifying components found on an ATV and not on an RTFL posed some problems.

Extended response question
A few candidates gave excellent, well thought out answers to this question, exploring a range of recommendations. The majority explained well the basics but did not access the higher marks in the bands because the suggestions for minimising contamination of the silage were overlooked. However, the majority of the candidates did show a degree of planning in this question.

Overall, candidates lost marks in the factors that affect which field to choose for silage making, the identification of grass weeds, the different steering modes on an RTFL.

Theory Exams – Year 2

0171-33 – Level 3 Advanced Technical Extended Diploma in Agriculture (1080) (Livestock)
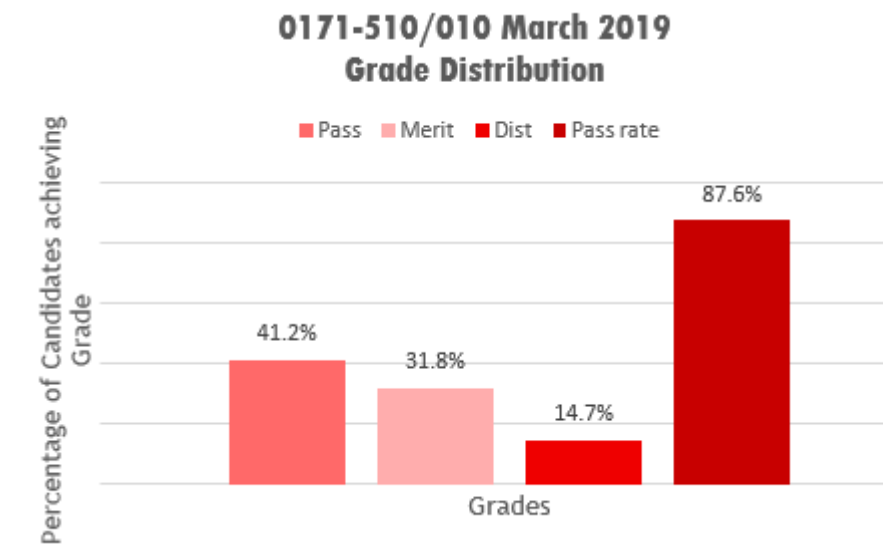
Grade Boundaries

Assessment: 0171-010/510
Series: March 2019 (Spring)

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

Total marks availible	60
Pass mark	28
Merit mark	36
Distinction mark	44

The graph below shows the approximate distributions of grades and pass rate for this assessment:
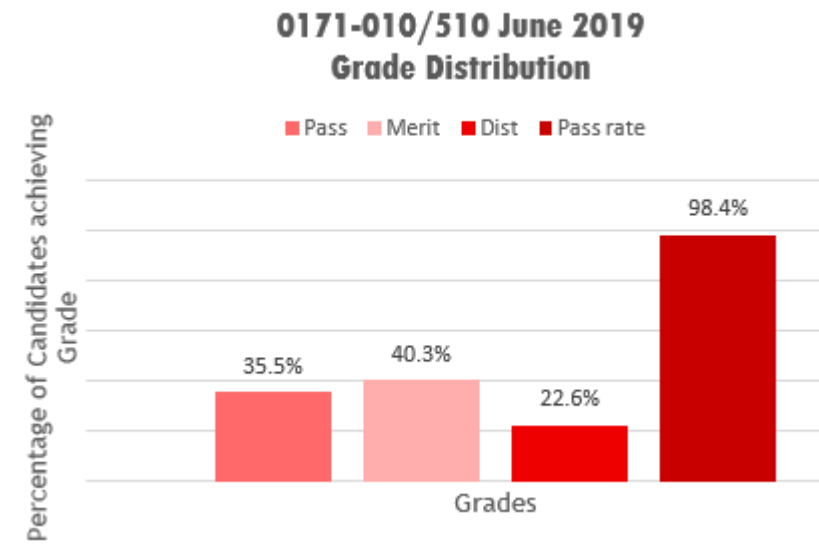
Assessment: 0171-010/510
Series: June 2019 (Summer)

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

Total marks availible	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:

Chief Examiner Commentary

0171-33 – Level 3 Advanced Technical Extended Diploma in Agriculture (1080) (Livestock) - Theory exam

Series 1 – March 2019

The question paper had an appropriate balance of questions with varied levels of demand. It accurately sampled the knowledge and understanding from across the qualification.

Most candidates were able to give good, concise and accurate responses to the majority of questions. Most candidates attempted all questions.

The range of answers to the question relating to RTFL were very good. Some 1 mark questions on the recall of knowledge were less well answered.

Overall candidates showed strengths in

- EBV
- Accurate application of organic waste
- RTFL

Candidates did less well in

- Sources of Protein
- Genetics
- Organic waste
- ATV

Candidates should read the questions carefully, particularly the command verb and the allocation of marks.
Candidates frequently lost marks when they did not take into consideration the marks available for the question.

Candidates at this level are expected to be able to apply their knowledge and understanding.

Extended Response Question

Many candidates did not provide the depth of detail required. Only a few candidates achieved marks in Band 3.

This question gave candidates the opportunity to demonstrate and apply their knowledge and understanding in a particular context.

Most candidates gave an adequate discussion on the use of selective breeding, but very few expanded onto such areas as embryo transfer and AI.

Many of the responses were disorganised and ambiguous and lacking in depth and detail.

Over half of the candidates achieved marks in Band 1 mainly due to the structure of their responses.

Series 2 – June 2019

The question paper had an appropriate balance of questions with varied levels of demand. It accurately sampled the knowledge and understanding from across the qualification.

Most candidates were able to give good, concise and accurate responses to the majority of questions

Most candidates attempted all questions

The range of answers to the question relating to RTFL safety features were very good.

Overall candidates showed strengths in

- Administration of medicines

- Waste disposal

- RTFL safety features

Candidates did less well in.

- Animal immunity

- Arteries and capillaries

- Centrifugal clutch

- Pressure relief valve

Candidates should read the questions carefully, particularly the command verb and the allocation of marks.
Candidates frequently lost marks when they did not take into consideration the marks available for the question.

Extended Response Question

Many candidates did not provide the depth of detail required. Only a few candidates achieved marks in Band 3.

This question gave candidates the opportunity to demonstrate and apply their knowledge and understanding in a particular context.

Most candidates gave an adequate discussion on ram selection but very few expanded onto such areas as nutrition and vaccination.

Over half of the candidates achieved marks in Band 1 and lower end of Band 2, mainly due to the structure of their responses and lack of depth.

0171-33 – Level 3 Advanced Technical Extended Diploma in Agriculture (1080) (Arable)

Grade Boundaries

Assessment: 0171-012/512
Series: March 2019 (Spring)

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

Total marks availible	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:

0171-512/012 March 2019
Grade Distribution

■ Pass ■ Merit ■ Dist ■ Pass rate

95.2%

51.6%

35.5%

8.1%

Percentage of Candidates achieving Grade
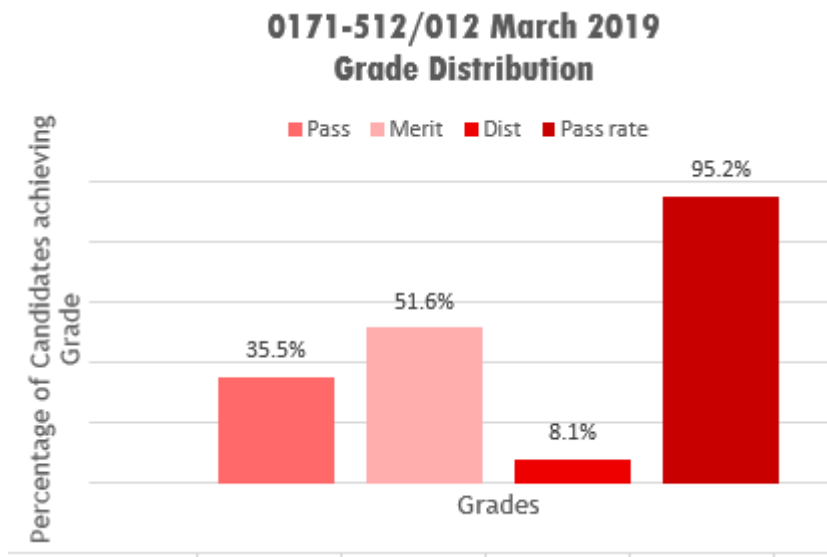
Grades

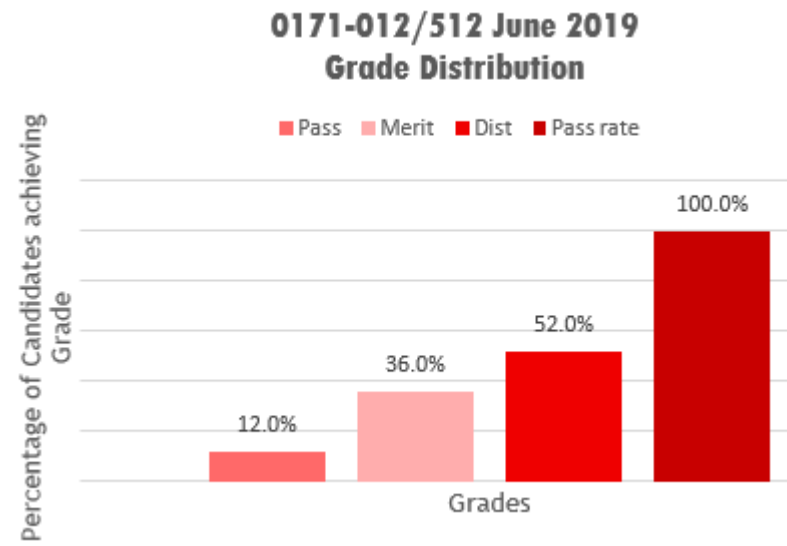Assessment: 0171-012/512
Series: June 2019 (Summer)

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

Total marks availible	60
Pass mark	25
Merit mark	34
Distinction mark	43

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

0171-012/512 June 2019
Grade Distribution

Chief Examiner Commentary

0171-512/012 Level 3 in Agriculture –Theory exam (Arable)

Series 1 – March 2019

A fair paper for a Level 3 candidate. Very few misread the questions and many gave additional information in their answers which was not required and for which they received no additional marks. Most students were able to attempt all the questions. There were very few who left a blank response to any questions. Candidates picked up marks throughout the paper.
Overall a well-balanced paper with a range of question types. The high achievers were given the opportunity to demonstrate their knowledge and understanding.

<u>Extended response question</u>
Most of the candidates could give a good range of advantages of using a RTFL to load 600kg bags of fertiliser in well-structured responses. Those who achieved marks in the higher bands were also able to include how to minimise the environmental impact when loading and spreading the fertiliser.

Series 2 – June 2019

A fair paper for a Level 3 candidate. Some of the questions on spreaders and sprayers were poorly answered.

Many gave additional information in their answers which was not required and for which they received no additional marks.

Most candidates were able to attempt all the questions. Candidates picked up marks throughout the paper. Overall a balanced paper with a range of question types.

<u>Extended response question</u>
The high achievers were given the opportunity to demonstrate their knowledge and understanding in the extended response question with the majority in Band 2 and a few in Band 3. Most of the candidates could give a good range of advantages of using a RTFL to load farmyard manure with good responses. Those who achieved a mark in the higher bands were also able to include how to minimise the environmental impact when loading and spreading the farmyard manure. This question gave candidates the opportunity to demonstrate their knowledge and understanding.

Synoptic Assignments – Year 1

0171-30/31/32/33 –Level 3 Technicals in Agriculture
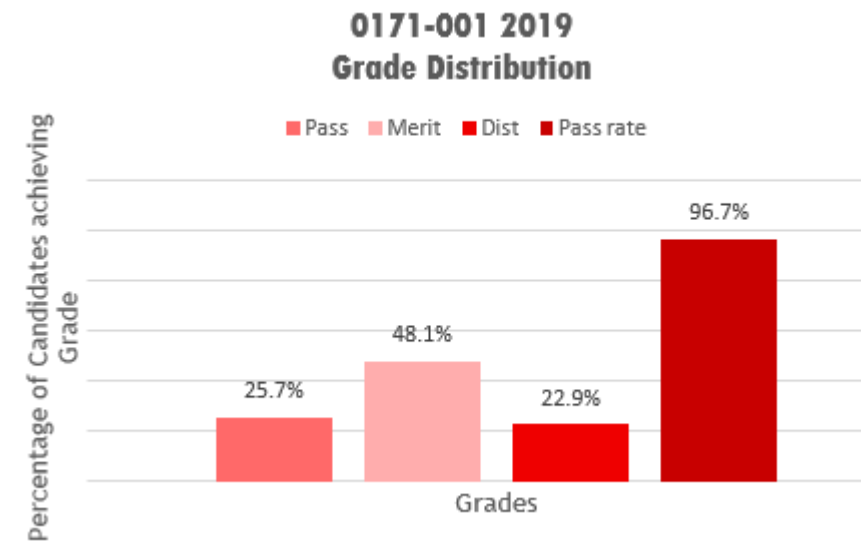
Grade Boundaries

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

Assessment: 0171-001
Series: 2019

Total marks availible	60
Pass mark	24
Merit mark	33
Distinction mark	43

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

Principal Moderator Commentary

Candidates were awarded a wide range of marks, and the marking was generally very accurate and within tolerance.

Overall the synoptic assignments were well written by the candidates with a range in quality of work as you would expect for Level 3 students, some of the work was outstanding, so well-done Candidates and Centres.

The synoptic assignment contained a good spread of practical tasks and background knowledge, at the appropriate level, spread across machinery, estate skills, crops, livestock, environment and management.

To assist in moderation, please can markers of written material insert comments on student scripts of strengths and weaknesses. This enables the moderator to see how the marks have been derived.

Task 1

The scope of this task has been widened in the 2019 synoptic assignment to make it easier for centres to facilitate an appropriate opportunity for candidates to demonstrate a range of Assessment objectives in this task. This modification appears to have been successful.

There were a range of templates used for the risk assessments (RA), some were easier to complete than others.

Task 2

This task was completed well and was fit for purpose.

Task 3

The words 'large structure' is used here to ensure that candidates are working on a realistic farm size structure, and to provide the maximum opportunity for candidates to demonstrate all the assessment objectives.

Task 4

The majority of candidates completed the gross margin correctly, however a few candidates struggled with this. This is a valid assessment as it is very important that candidates appreciate the financial implications of growing crop and the effect which management decisions can have on profitability.
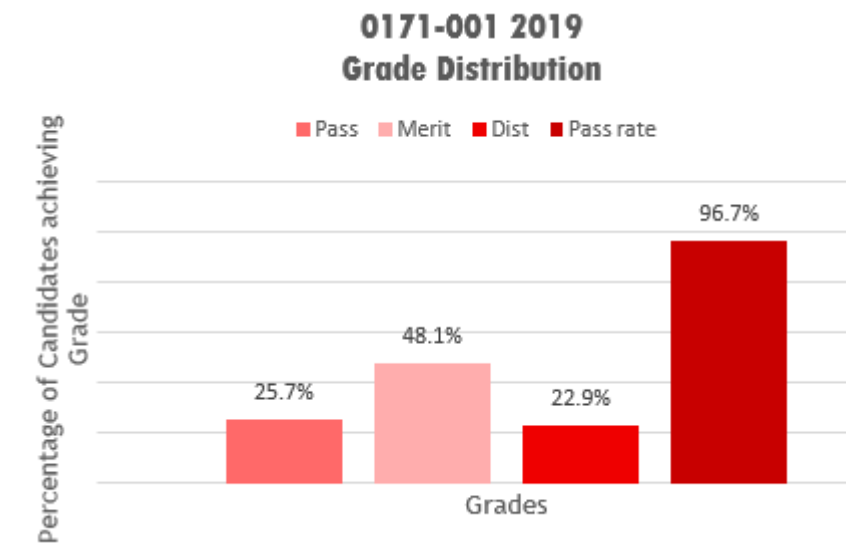
Synoptic Assignments – Year 2

0171-30/31/32/33 –Level 3 Technicals in Agriculture
Grade Boundaries

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

Assessment: 0171-001
Series: 2019

Total marks available	60
Pass mark	24
Merit mark	33
Distinction mark	43

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

0171-001 2019
Grade Distribution

■ Pass   ■ Merit   ■ Dist   ■ Pass rate

96.7%

48.1%

25.7%

22.9%

Percentage of Candidates achieving Grade

Grades

Principal Moderator Commentary

Candidates were awarded a wide range of marks, and the marking was generally very accurate and within tolerance.

Overall the synoptic assignments were well written by the candidates with a range in quality of work as you would expect for Level 3 students, some of the work was outstanding, so well-done candidates and centres.

The synoptic assignment contained a good spread of practical tasks and background knowledge, at the appropriate level, spread across machinery, estate skills, crops, livestock, environment and management.

To assist in moderation, please can markers of written material insert comments on student scripts of strengths and weaknesses. This enables the moderator to see how the marks have been derived.

Task 1

The scope of this task has been widened in the 2019 synoptic assignment to make it easier for centres to facilitate an appropriate opportunity for candidates to demonstrate a range of Assessment objectives in this task. This modification appears to have been successful.

There was a range of templates used for the risk assessments (RA), some were easier to complete than others.

Task 2

This task was completed well and is fit for purpose.

Task 3

There was a range of templates used for the risk assessments (RA), some were easier to complete than others.
The word large structure is used here to ensure that candidates are working on a realistic farm size structure, and to provide the maximum opportunity for candidates to demonstrate all the assessment objectives.

Task 4

The majority of candidates completed the gross margin correctly, however a few candidates struggled with this. This is still a valid assessment as it is very important that candidates appreciate the financial implications of growing crop and the effect which management decisions can have on profitability.

0171-32 – Level 3 Advanced Technical Extended Diploma in Agriculture (720) (Mixed farming)
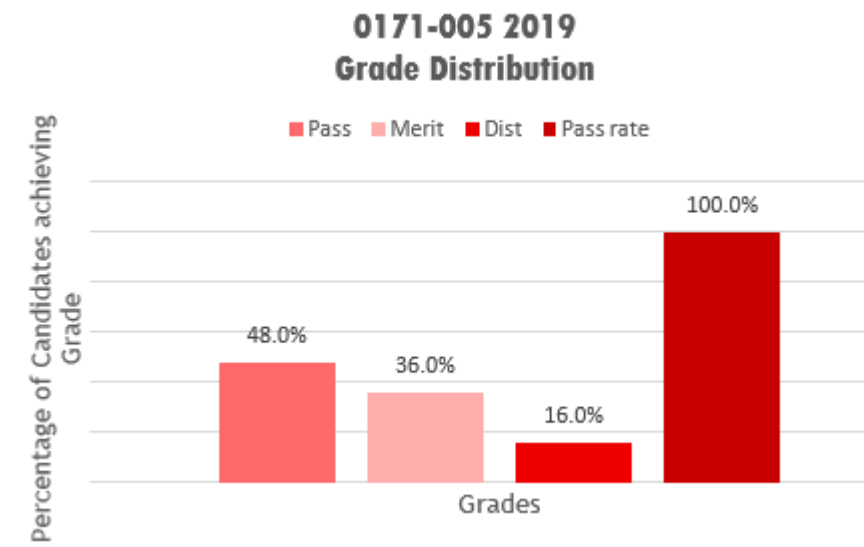
Grade Boundaries

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

Assessment: 0171-005
Series: 2019

Total marks availible	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

Candidates were awarded a wide range of marks, and the marking was generally very accurate and within tolerance.

Overall the synoptic assignments were well written by the candidates with a range in quality of work as you would expect for Level 3 students, some of the work was outstanding, so well-done candidates and centres.

The synoptic assignment contained a good spread of practical tasks and background knowledge, at the appropriate level, spread across machinery, livestock, grassland and management.

To assist in moderation, please can markers of written material insert comments on student scripts of strengths and weaknesses. This enables the moderator to see how the marks have been derived.

There was a wide variety of checklists used for the pre-start checks, from blank sheets which gave the candidates an excellent opportunity to demonstrate their knowledge and understanding to check sheets where the items to look for were already filled in which gave the candidates a more limited opportunity to demonstrate the full range of assessment objectives.

Task 1

Where candidates choose sheep as their choice of enterprise there may be less opportunity to show their knowledge and understanding, as there may be no conserved grass used in a sheep enterprise.

Task 2

The stage of the growth of the grass in the field during the synoptic assignment window will depend on the geographical location of the centre. ie. centres further south will have more advanced grass growth. However there is adequate opportunity in all centres for candidates to report on the field and suggest a wide range of management operations to maximise yield and production.

Task 3

With regard to moving two different items using the machine, some centres allow candidates to move two different items using the same attachment e.g. a pallet and a pallet box. This does not provide sufficient opportunity for candidates to demonstrate the full range of assessment objectives.

There was a range of templates used for the risk assessments (RA), some were easier to complete than others.

There was a wide variety of checklists used for the pre-start checks, from blank sheets which gave the candidates an excellent opportunity to demonstrate their knowledge and understanding compared to check sheets where the items to look for were already filled in which gave the candidates a more limited opportunity to demonstrate their knowledge and understanding.

Best practice for centres is to set up faults and vary them for different candidates, which means even if candidates who have taken the assessment in a centre communicate with those who have not, they do not know which faults they will be presented with.

Task 4

The task requires a written risk assessment for the operation of the ATV however the task is about undertaking the pre-start and routine maintenance checks.

There was a range of templates used for the risk assessments (RA).

There was a wide variety of checklists used for the pre start checks, from blank sheets which gave the candidates an excellent opportunity to demonstrate their knowledge and understanding compared to check sheets where the items to look for were already filled in which gave the candidates a more limited opportunity to demonstrate the full range of assessment objectives.

Best practice for centres is to set up faults and vary them for different candidates, which means even if candidates who have taken the assessment in a centre communicate with those who have not, they do not know which faults they will be presented with.

0171-33 – Level 3 Advanced Technical Extended Diploma in Agriculture (1080) (Livestock)
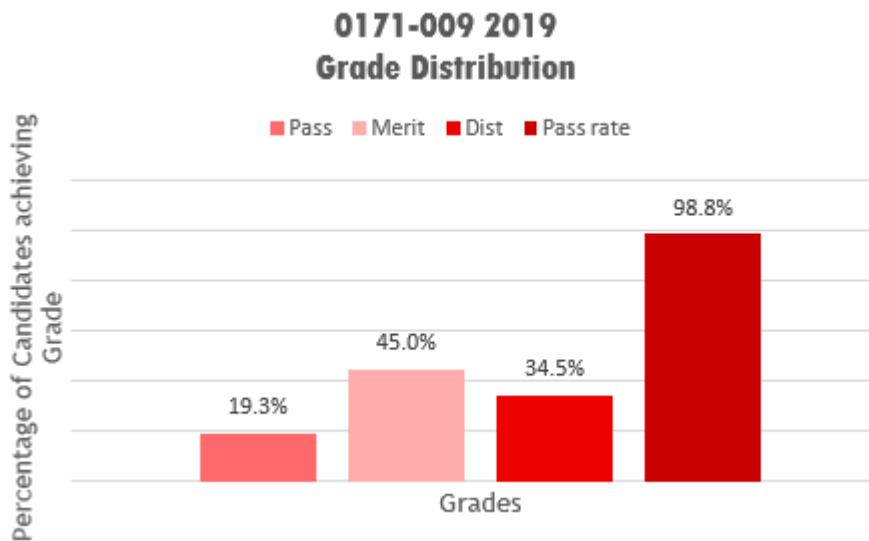
Grade Boundaries

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

Assessment: 0171-009
Series: 2019

Total marks availible	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

Candidates were awarded a wide range of marks, and the marking was generally very accurate and within tolerance.

Overall the synoptic assignments were well written by the candidates with a range in quality of work as you would expect for Level 3 students, some of the work was outstanding, so well-done candidates and centres.

The synoptic assignment contained a good spread of practical tasks and background knowledge, at the appropriate level, spread across machinery, livestock, waste management, the environment and management.

To assist in moderation, please can markers of written material insert comments on student scripts of strengths and weaknesses. This enables the moderator to see how the marks have been derived.

Task 1

There was a variability in the quality of the health plans produced, depending on whether the candidates were given a health plan template by the centre, which did occur in some cases.

Task 2

This task was completed well and is fit for purpose.

Task 3

This task currently states that candidates must complete at least three naturally occurring routine husbandry activities within the synoptic window.

Task 4

The task requires a written risk assessment for the operation of the ATV however the task is about undertaking the pre-start and routine maintenance checks.

There was a range of templates used for the risk assessments (RA) of varying degrees of complexity for candidates to complete.

There was a wide variety of checklists used for the pre-start checks, from blank sheets which gave the candidates an excellent opportunity to demonstrate the full range of assessment objectives to check sheets where the items to check were already filled in which gave the candidates a more limited opportunity to demonstrate full range of assessment objectives.

Best practice for centres is to set up faults and vary them for different candidates, which means even if candidates who have taken the assessment in a centre communicate with those who have not, they do not know which faults they will be presented with**.**

0171-33 – Level 3 Advanced Technical Extended Diploma in Agriculture (1080) (Arable)
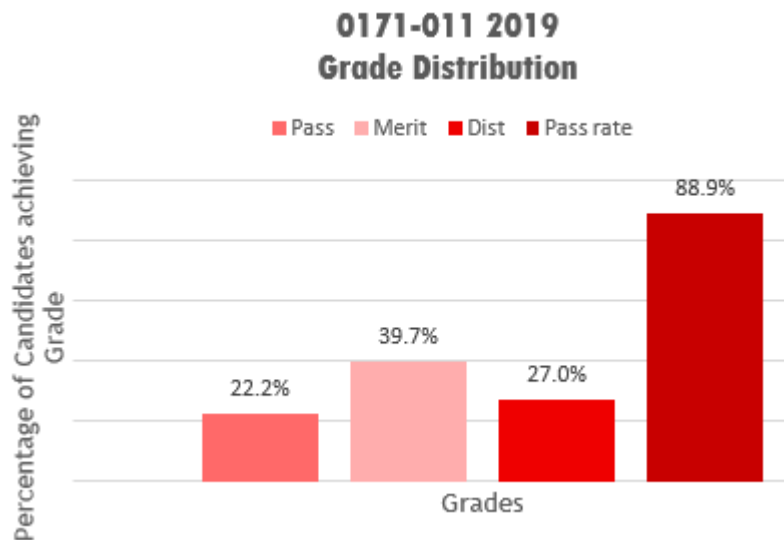
Grade Boundaries

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

Assessment: 0171-011
Series: 2019

Total marks availible	60
Pass mark	25
Merit mark	34
Distinction mark	44

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

Principal Moderator Commentary

Candidates were awarded a wide range of marks, and the marking was generally very accurate and within tolerance.

Overall the synoptic assignments were well written by the candidates with a range in quality of work as you would expect for Level 3 students, some of the work was outstanding, so well-done candidates and centres.

The synoptic assignment contained a good spread of practical tasks and background knowledge, at the appropriate level, spread across machinery, the environment and arable management.

To assist in moderation, please can markers of written material insert comments on student scripts of strengths and weaknesses. This enables the moderator to see how the marks have been derived.

Task 1

Centres approached the task well and in most cases the field chosen gave the student's plenty of information for their report. Having to do the task early in the season sometimes meant there was limited fauna around to identify. Best practice for centres it provide a field with interesting boundaries for flora and fauna as that is often where the majority of the flora and fauna are found.

Task 2

In some cases when using very modern tractors and fertiliser spreaders, this means the candidates need to do very little setting up. This is a variability which is difficult to eradicate as the centre have to use what machinery they have available and this is of varying ages and amount of technology involved. The older the equipment the more setting up is required. For the future a written report will be added to this type of task to ensure all candidates have a good opportunity to demonstrate the full range of assessment objectives.

Task 4

There was a range of templates used for the risk assessments (RA) of varying complexity to complete.

There was a wide variety of checklists used for the pre-start checks, from blank sheets which gave the candidates an excellent opportunity to demonstrate the full range of assessment objectives to check sheets where the items to look for were already filled in which gave the candidates a more limited opportunity to demonstrate the full range of assessment objectives.

Best practice for centres is to set up faults and vary them for different candidates, which means even if candidates who have taken the assessment in a centre communicate with those who have not, they do not know which faults they will be presented with.

Task 5

Depending on the machine chosen there was a variability for candidates to be able to demonstrate their practical skills, knowledge and understanding.