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Level 3 Advanced Technical Extended Diploma in Agriculture (1080) (Livestock) (0171-010/0171- 510)

Part of 0171-33

May 2019 Version 2.0

Guide to the examination

Version and date	Change detail	Section
V2.0 - 24 May 2019	Level 3 third retake opportunity guidance added	1. Details of the exam

Who is this document for?

This document has been produced for centres who offer **City & Guilds Level 3 Advanced Technical Extended Diploma in Agriculture (1080) (Livestock)**. It gives all of the essential details of the qualification's external assessment (exam) arrangements and has been produced to support the preparation of candidates to take the exam/s.

The document comprises four sections:

1. **Details of the exam.** This section gives details of the structure, length and timing of the exam.
2. **Content assessed by the exam.** This section gives a summary of the content that will be covered in each exam and information of how marks are allocated to the content.
3. **Guidance.** This section gives guidance on the language of the exam, the types of questions included and examples of these, and links to further resources to support teaching and exam preparation.
4. **Further information.** This section lists other sources of information about this qualification and City & Guilds Technical Qualifications.

1. Details of the exam

External assessment

City & Guilds Technical qualifications have been developed to meet national policy changes designed to raise the rigour and robustness of vocational qualifications. These changes are being made to ensure our qualifications can meet the needs of employers and Higher Education. One of these changes is for the qualifications to have an increased emphasis on external assessment. This is why you will see an external exam in each of our Technical qualifications.

An external assessment is an assessment that is set and/or marked by the awarding organisation (ie externally). All City and Guilds Technical qualifications include an externally set and marked exam. This must be taken at the same time by all candidates who are registered on a particular qualification. We produce an exam timetable each year. This specifies the date and time of the exam so you can plan your delivery, revision and room bookings/PC allocation in plenty of time.

The purpose of this exam is to provide assurance that all candidates achieving the qualification have gained sufficient knowledge and understanding from their programme of study and that they can independently recall and draw their knowledge and understanding together in an integrated way. Whilst this may not be new to you, it is essential that your learners are well prepared and that they have time to revise, reflect and prepare for these exams. We have produced a Teaching, Learning, and Assessment guide that is you should refer to alongside the present document ([Teaching, Learning and Assessment Guide](#)). If a learner does not pass the exam at their first attempt, there is only one opportunity to resit the exam, so preparation is essential.

Exam requirements of this qualification

This qualification has three possible pathways. The exam to be taken by a particular candidate will depend on the Pathway chosen:

- **Level 3 Agriculture– Theory exam (2)** (2 hours)

The exam is graded and a candidate must achieve at least a Pass grade in order to be awarded the qualification. (In addition to the exam, a synoptic assignment must also be completed and passed. You can find full details of the synoptic assignment in the *Qualification Handbook* and the *Synoptic Assessment Guide* -please see the links at the end of this document).

When does the exam take place?

The exam is graded and a candidate must achieve at least a Pass grade in order to be awarded the qualification. (In addition to the exam, a synoptic assignment must also be completed and passed). You can find full details of the synoptic assignment in the *Qualification Handbook* and the *Synoptic Assessment Guide* – please see the link to the qualification page at the end of this document.

The exam is offered on two fixed dates in March or June. The exact dates will be published at the start of the academic year in the *Assessments and Exam Timetable* <http://www.cityandguilds.com/delivering-our-qualifications/exams-and-admin>.

At the start of the programme of study, in order to effectively plan teaching and exam preparation, centres should know when the exam will be taking place and allocate teaching time accordingly.

Section 2 of this document gives a summary of the content that needs to be covered in order to prepare learners for the exam and full details of this are given in the Qualification Handbook.

Form of exam

The exam for this qualification can be taken either on paper or online.

Can candidates resit the exam?

Candidates who have failed an exam or wish to retake it in an attempt to improve their grade, can do so **twice**. The third and final retake opportunity applies to Level 3 only. The best result will count towards the final qualification. If the candidate fails the exam three times then they will fail the qualification.

How the exam is structured

Each exam has a total of 60 marks available and is made up of:

- approximately 11-13 short answer questions;
- 12 short answer questions;
- 1 extended response question.

Multiple choice and short answer questions are used to confirm **breadth of knowledge and understanding**.

The extended response question is to allow candidates to demonstrate **higher level and integrated understanding** through written discussion, analysis and evaluation. This question also ensures the exam can differentiate between those learners who are 'just able' and those who are higher achieving.

More details about and examples of question types are given in Section 3 of this document.

Assessment Objectives

The exams are based on the following set of assessment objectives (AOs). These are designed to allow the candidate's responses to be assessed across the following three categories of performance:

- **Recollection** of knowledge.
- **Understanding** of concepts, theories and processes.
- **Integrated application** of knowledge and understanding.

In full, the assessment objectives covered by the exam for this qualification are:

Assessment objective	Mark allocation (approx %)
<i>The candidate..</i>	
AO1 Recalls knowledge from across the breadth of the qualification	50%
AO2 2 Demonstrates understanding of concepts, theories and processes from a range of learning outcomes.	30%

AO4 **Applies knowledge, understanding and skills** from across the breadth of the qualification in an integrated and holistic way to achieve specified purposes.

20%

Booking and taking the exam

All assessments for City & Guilds Technical Exams must be booked through Walled Garden. There is a deadline for booking exams, synoptic assessments and any other centre marked assessments, please refer to the time line to check these dates.

The exam must be taken under the supervision of an invigilator who is responsible for ensuring that it is conducted under controlled conditions. Full details of the conditions under which the exam must be taken can be found in the Joint Council for Qualifications (JCQ) document, [Instructions for Conducting Examinations \(ICE\)](#).

Special consideration

Candidates who are unable to sit the exam owing to temporary injury, illness or other indisposition at the scheduled time may qualify for special consideration. This is a post-examination adjustment that can, in certain circumstances, be made to a candidate's final grade. The Joint Council for Qualifications' guide to the special consideration process can be found at www.jcq.org.uk.

To make a request for special consideration, please contact: policy@cityandguilds.com

Access arrangements

Access arrangements are arrangements that allow candidates with particular requirements, disabilities or temporary illness to take assessments, where appropriate, using their normal way of working. The Joint Council for Qualifications document, *Access Arrangements and Reasonable Adjustments* gives full details and can be downloaded [here](#).

For further information and to apply for access arrangements please see:

[Access arrangements - When and how applications need to be made to City & Guilds](#)

[Applying for access arrangements on the Walled Garden](#)

2. Content assessed by the exam

Pathway: Livestock (1080)

The exam assesses:

- Unit 316: Pollution and waste control management
- Unit 313: Farm Animal Health and Nutrition
- Unit 334: Farm Animal Science
- Unit 335: All-Terrain Vehicles and Rough Terrain Telescopic Forklifts

Each exam assesses a sample of the content of these units. This means that a single exam will **not** cover 100% of the unit content. The full range of content will be assessed over a number of examination series. Details of the coverage of a particular exam paper will **not** be released in advance of the exam itself. Centres should **not** make assumptions about what will be assessed by a particular exam based on what has been covered on previous occasions. In order to be fully prepared for the exam, learners **must** be ready to answer questions on **any** of the content outlined below.

The table below provides an overview of how the qualification's Learning Outcomes are covered by each exam and the number of **marks** available per Learning Outcome (ie **not** the number of *questions* per Learning Outcome). In preparing candidates for the exam, we recommend that centres take note of the number of marks allocated to Learning Outcomes and to assign teaching and preparation time accordingly.

In preparing candidates for the exam, centres should refer to the Qualification Handbook which gives full details of each Learning Outcome.

The following is a summary of only that qualification content which is assessed by the exam and **not** a summary of the full content of the qualification.

Unit	Learning outcome	Topics	Number of marks
316 Pollution and waste control management	LO1 Know the sources and attributes of organic and inorganic waste	1.1 Organic and inorganic wastes 1.2 Factors that influence the quantity of waste	10
	LO2 Know the scope of waste management legislation and regulation	2.1 Legislation and codes of practice that control the storage, handling and disposal of farm waste. 2.2 Waste management and husbandry system	

	LO3 Plan for managing waste in a farm environment	3.1 Management of organic and inorganic farm waste 3.2 Storage and disposal facilities for organic and inorganic farm waste	
	LO4 Dispose of waste in a farm environment	4.1 Safe disposal of selected organic farm waste 4.2 Waste management plan for organic and inorganic waste	
313 Farm Animal Health and Nutrition	LO1 Manage livestock health in accordance with legislation	1.1 Indicators of health in livestock 1.2 Legislation that relates to livestock health 1.3 Health plan	12
	LO2 Know the common diseases that affect livestock	2.1 Pathogenic organisms and the immune system 2.2 Notifiable and zoonotic diseases and disorders 2.3 Safe administration of medicines 2.4 Disposal methods	
	LO3 Understand the nutrition requirements of livestock	3.1 Essential nutrients and sources 3.2 Factors affecting the nutritional requirements of livestock	
	LO4 Understand ration planning	4.1 Dietary calculations and feed planning 4.2 Nutrient deficiency	
334 Farm Animal Science	LO1 Know biological systems of livestock	1.1 Cardiovascular system 1.2 Respiratory system 1.3 Endocrine system 1.4 Nervous system	16
	LO2 Understand digestion and excretion in livestock	2.1 Digestive systems 2.2 Digestive process 2.3 Excretory system	

	LO3 Understand reproductive systems in livestock	<ul style="list-style-type: none"> 3.1 Male reproductive system 3.2 Female reproductive system 3.3 Oestrus cycle 3.4 Gestation and parturition 	
	LO4 Understand genetics and reproductive technology in relation to livestock	<ul style="list-style-type: none"> 4.1 Genetics 4.2 Selective breeding 4.3 Reproductive technology 4.4 Reproductive problems 	
335 All-Terrain Vehicles and Rough Terrain Telescopic Forklifts	LO1 Know the function of key components found within All-Terrain Vehicles and Rough Terrain Telescopic Forklifts	<ul style="list-style-type: none"> 1.1 Purpose of key components used in ATVs 1.2 Purpose of key components used in RTFLs 1.3 Operator adjustments and inputs on key components used in ATVs 1.4 Operator adjustments and inputs on key components used in RTFLs 	10
	LO2 Understand the operating principles and applications of All-Terrain Vehicles and Rough Terrain Telescopic Forklifts	<ul style="list-style-type: none"> 2.1 Operating principles and features of different power units 2.2 Operating principles and features of transmission systems 2.3 Operating principles of Engineering 	
	LO3 Prepare and operate All-Terrain Vehicles and Rough Terrain Telescopic Forklifts with associated attachments	<ul style="list-style-type: none"> 3.1 Preparation of ATVs 3.2 Preparation of RTFL 3.3 Operation of ATVs 3.4 Operation of RTFL 	
	LO4 Maintain and service All-Terrain Vehicles and Rough Terrain Telescopic Forklifts	<ul style="list-style-type: none"> 4.1 Routine maintenance on ATVs 4.2 Routine maintenance on RTFLs 	

Total marks for sections: 48 marks

Integration across units*: 12 marks

Total marks for exam: 60 marks

* *Integration across units*. These marks relate to Assessment Objective 4). These marks are awarded to differentiate between levels of performance by candidates taking the exam. The marks are given for how well a candidate has applied their knowledge, understanding and skills from across the units that make up the qualification in an integrated way to meet the requirements of the exam questions.

3. Guidance

Vocabulary of the exam: use of 'command' verbs

The exam questions are written using 'command' verbs. These are used to communicate to the candidate the type of answer required. Candidates should be familiarised with these as part of their exam preparation.

The following guidance has been produced on the main command verbs used in City & Guilds Technicals exams.

A more detailed version of this table, which also includes the command verbs used in the assignments is published in *City & Guilds Technical Qualifications Teaching, Learning and Assessment* guide.

Command verb	Explanation and guidance
Analyse	Study or examine a complex issue, subject, event, etc in detail to explain and interpret, elements, causes, characteristics etc
Calculate	Work out the answer to a problem using mathematical operations
Compare (...and contrast) (or describe the similarities/differences)	Consider and describe the similarities (and differences) between two or more features, systems, ideas, etc
Define	Give the meaning of, technical vocabulary, terms, etc.
Describe	Give a detailed written account of a system, feature, etc (..the effect of...on...) the impact, change that has resulted from a cause, event, etc (..the process..) give the steps, stages, etc
Differentiate between	Establish and relate the characteristic differences between two or more things, concepts, etc
Discuss	Talk/write about a topic in detail, considering the different issues, ideas, opinions related to it
Distinguish between	Recognise and describe the characteristic differences between two things, or make one thing seem different from another
Evaluate	Analyse and describe the success, quality, benefits, value, etc (of an end product, outcome, etc)
Explain	Make (a situation, idea, process, etc) clear or easier to understand by giving details, (..how..) Give the stages or steps, etc in a process, including relationships, connections, etc between these and causes and effects.

Give example(s) illustrate/	Use examples or images to support, clarify or demonstrate, an explanation, argument, theory, etc
Give a rationale	Provide a reason/reasons/basis for actions, decisions, beliefs, etc
Identify	Recognise a feature, usually from a document, image, etc and state what it is
Justify	Give reasons for, make a case for, account for, etc decisions, actions, conclusions, etc, in order to demonstrate why they suitable for or correct or meet the particular circumstances, context
Label	Add names or descriptions, indicating their positions, on an image, drawing, diagram, etc
List	Give as many answers, examples, etc as the question indicates (candidates are not required to write in full sentences)
Name	Give the (technical) name of something
Propose	Present a plan, strategy, etc (for consideration, discussion, acceptance, action, etc).
Select	choose the best, most suitable, etc, by making careful decisions
State	Give the answer, clearly and definitely
Summarise	Give a brief statement of the main points (of something)

Question types

The following explains, and gives examples of, types of questions used in City & Guilds Technical exams. In preparing candidates to take the exam, it is recommended that you familiarise them with the requirements of each question type so that they can be effective and make best use of the time available when sitting the exam.

- An effective candidate will gauge the type and length of response required from the question and the number of marks available (which is given for each question on the exam paper).
- Short answer questions may not require candidates to write in complete sentences. Extended response questions will require a more developed response.
- Candidates should read the exam paper before attempting to answer the questions and should allocate time proportionate to the number of marks available for each question or section.

Question type:

Short answer questions (restricted response)
These are questions which require candidates to give a brief and concise written response. The number of marks available will correspond to the

Example question:

List **four** legislations that relate to livestock health. (4 marks)

Answer

number of pieces of information/examples and the length of response required by the question.

One mark for each of the following up to 4 marks

- Animal Welfare Act 2006 or Animal Health and Welfare Act (Scotland) (2006)
- Welfare of Animals (transport) Order 2006
- Veterinary Surgeons Act 1966
- The Welfare of Farmed Animal Regulations 2007
- The Welfare of Animals Regulations 1999 (slaughter or killing)
- The Veterinary Medicines Regulations 2013.
- Accept any other suitable answer

Structured Response Questions

These are questions that have more than one part (eg a), b), etc.). The overall question is made up of linked, short answer questions which move the candidate through the topic in a structured way. For example, the question will usually start with a 'recall'/'state'/'describe' question followed by an 'explain' to draw out understanding of the topic. They usually have a shared introductory 'stem', and the number of marks may increase through the question.

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- a) Name the **four** compartments of the ruminant stomach. (4 marks)
- b) State one function of each compartment. (4 marks)

Answer

- a) 1 mark for each compartment – up to 4 marks

Reticulum
Rumen
Omasum
Abomasum

- b) 1 mark for each function – up to 4 marks

Reticulum- to trap large feed particles
Rumen- fermentation of feed
Omasum- water is absorbed from feed
Abomasum-contains enzymes to aid digestion

Accept any other suitable answer

Extended response questions

Extended response questions are those that require the candidate to write a longer written response using sentences and paragraphs. These

Discuss how reproduction in cattle can be improved. (12 marks)

usually require candidates to discuss, explain, etc. a topic in some detail. The question is often based on a short case study, scenario or other prompt. The level of detail should be gauged from the question and the number of marks available.

Indicative content

- Prevention of nutrient deficiency diseases and disorders
- supplementation
- body condition scoring
- alter nutrition throughout gestation

- using EBVs (estimated breeding values)

- selective breeding

- recording breeding activity

- breeding interventions/ technologies

- dystocia

- fertility

- general health status

Band 1– 4 marks

There is little discussion on improvements of reproduction. Little reference to nutrition, genetics and health. Answer lacks logical structure. The use of technical language is limited and occasionally imprecise.

Example answer:

Feeding is important for fertility, you need to make sure you are feeding the right amounts including minerals and vitamins. Cows condition score needs to be monitored and adjusted to keep them at the right level CS and you need to regularly watch out for the cows coming bulling and get them served at the right time, records are important here. Cows come bulling every 21 days once they start bulling, so you need to make a note of when you saw them bulling last so you know when to look out for them bulling again. You can do your own AI which may help you to get service at the best time, but you need to be trained to do this. It is important to keep the cows healthy, best to talk to your vet as bad health effects fertility. Check your AI breeding

bulls as some have better scores for fertility than others.

Band 5 – 8 marks

There is adequate discussion on improvements of reproduction. Some reference to nutrition, genetics and health. The use of technical language is mostly accurate and consistent.

Example answer:

There are many ways to improve cow reproduction. I have explained some of these below.

Very good heat detection is important to identify cows in oestrus (on heat) and ensure service at the best times for conception. Several methods of oestrus detection are available. Cows should be watched at least 3 x per day for a long period when they are quiet, tail paint and splat markers can also be used to identify when cows are in oestrous. Accurate records should be kept of cows seen bulling. These can be manual or on computer and can be linked to parlour recording systems.

Close monitoring of calving and the expulsion of afterbirth will help to avoid complications and improve reproduction and fertility. As calving problems and retained afterbirth can cause infection and infertility. Avoid over feeding in late pregnancy as this can cause calving problems due to a fat cow and large calf.

Feeding needs to be linked to regular condition scoring, recommended CS at calving is 2.75-3. Forage should be analysed for minerals particularly Calcium and Phosphorus, and vitamins and supplemented as necessary in concentrate or added to the diet. For many dairy cows there will be an energy deficit in early lactation which can affect fertility if a properly balanced ration is not fed in the correct amounts. When choosing a dairy bull go for high scores for inherited fertility. When choosing dairy cows to breed their breeding records should be consulted too and cows with recurring fertility or calving problems maybe culled.

Herd health should be maintained at a high level. Some diseases can adversely affect fertility. E.g

leptospirosis. Vaccines should be used, and regular advice taken from the vet. A herd health plan should be formulated.

The vet should promptly examine any cows with fertility problems to avoid loss of time and extending the calving index.

Block calving may help allocating resources for improved monitoring of breeding when they are needed.

Band 9 – 12 marks

There is wide discussion on improvements of reproduction. Nutrition, genetics and health are discussed in detail. The whole answer is coherent and well-structured.

Example answer:

There are a whole range of measures a farmer can adopt to improve reproduction in beef and dairy cattle.

Nutrition is a key factor which is linked to body condition score. For a dairy cow condition score should be 60 days post calving 2-2.5, 100 days post calving 2.5-3, drying off 2.75-3, calving 2.75-3. If a cow is fed too much late in pregnancy she may put on excessive weight leading to calving problems known as dystocia, the calf will also grow rapidly to a large size which again can lead to calving problems.

During the 1st part of lactation the dairy cow will be taking in less nutrients than she is using, as for an Autumn calving cow peak lactation milk yield is reached before peak appetite. This means the cow will have to produce milk using her own body reserves in addition to the nutrition provided by feeding. Therefore if the nutrition provided by feeding is not the correct amount an energy deficit will occur which will effect fertility by delaying the start of oestrus and lowering conception rates. Too much protein in the food also creates an energy imbalance which will affect fertility as the cow has too use energy to get rid of the protein. Cows need to have adequate minerals and vitamins which may need to be supplemented in the ration. Forage should

be analysed for key Vitamins and minerals. In particular any imbalance of calcium, phosphorus, vitamins A,D and E, and carotene can cause fertility problems. Avoid mouldy forages, which can also cause fertility problems. Nutrition during the transition period a few weeks either side of calving is particularly important to ensure a smooth calving and early lactation leading to the service period. An expert nutritionist should be used to check the ration

Bulls should be checked for their Estimated Breeding Values (EBV) for inherited fertility and ease of calving in the daughters, as these vary. Choose bulls with good figures for these traits as the daughters will inherit these traits. If using natural service bulls should have their semen tested for quality, particularly where conception rates in the herd are low.

Very good heat detection is important to identify cows in oestrus (on heat) and ensure service by AI or naturally at the best dates times in the oestrous cycle for conception. For a 365 day calving index service needs to be between 45 and 85 days after calving. Several methods of oestrus detection are available. Cows should be watched at least 3 x per day for 30 minute periods. These should be at a time when cows are quiet as this will provide the best results. Accurate records should be kept of cows seen bulling, once the oestrous cycle has started they will come into oestrus every 21days. Other methods to help are tail paint which rubs off when one cow mounts another, pressure markers which change colour when one cow mounts another, pedometers will measure an increase in activity for a particular cow which can then alert the stockperson to this, the most likely reason for this increase in activity is the cow is bulling. The hormone Progesterone can be tested in milk to identify what part of the oestrous cycle the cow is. When the cow is coming into oestrus progesterone levels will be low.

Very good cow health is important for fertility. A herd health plan should be drawn up in consultation with the farm's vet. Some diseases can lead to lower fertility e.g leptospirosis which causes abortion and infertility, and can be prevented by vaccination. Where there any reproduction problems the vet should be

consulted at an early stage, examining cows and bulls as necessary

Meticulous record keeping is important for all events, to enable breeding to be monitored.

Cows with persistent fertility and calving problems should be culled. There are computerised systems linked to mobile phones available to help with cow record keeping.

Adoption of block calving may help improve herd reproduction as labour and other resources can be planned and concentrated for the key periods e.g checking for signs of oestrus, AI, supervising calving, as these events should all be occurring for all the cows in a timed planned period.

Supervision of calving can be improved by the use of CCTV cameras in the calving area enabling regular checking without being present, and early intervention if necessary.

Improving reproduction performance will involve a whole range of the above, and it is important to use records to identify where the herd is doing well and where improvements can be made.

Figures can be benchmarked with other farms, and expert assistance should be used.

Examination technique

Candidates with a good understanding of the subject being assessed can often lose marks in exams because they lack experience or confidence in exams or awareness of how to maximise the time available to get the most out of the exam. Here is some suggested guidance for areas that could be covered in advance to help learners improve exam performance.

Before the exam

Although candidates cannot plan the answers they will give in advance, exams for Technical qualifications do follow a common structure and format. In advance of taking the exam, candidates should:

- be familiar with the structure of the exam (ie number and type of questions).
- be aware of the amount of time they have in total to complete the exam.
- have a plan, based on the exam start and finish time for how long to spend on each question/section of the exam.
- be aware of how many marks are available for each question, how much they should expect to write for each question and allow most time for those questions which have the most marks available.

At the start of the exam session

At the start of the exam, candidates:

- should carefully read through the instructions before answering any questions.

- may find it helpful, where possible, to mark or highlight key information such as command words and number of marks available on the question paper.
- identify questions which require an extended written answer and those questions where all or part of the question may be answered by giving bullets, lists etc rather than full sentences.

Answering the questions

Candidates do not have to answer exam questions in any particular order. They may find it helpful to consider, for example:

- tackling first those questions which they find easiest. This should help them get into the 'flow' of the exam and help confidence by building up marks quickly and at the start of the exam.
- tackling the extended answer question at an early stage of the exam to make sure they spend sufficient time on it and do not run out of time at the end of the exam.

Candidates should avoid wasting time by repeating the question either in full or in part in their answer.

Candidates should **always** attempt every question, even questions where they may be less confident about the answer they are giving. Candidates should be discouraged however, from spending too long on any answer they are less sure about and providing answers that are longer and give more detail than should be necessary in the hope of picking up marks. This may mean they have less time to answer questions that they are better prepared to answer.

Extended answer questions

Before writing out in full their answer to extended questions, candidates may find it helpful to identify the key requirements of the question and jot down a brief plan or outline of how they will answer it. This will help clarify their thinking and make sure that they don't get 'bogged down' or provide too much detail for one part of the question at the expense of others.

Towards the end of the exam

Candidates should always set aside time at the end of the exam to read back through and review what they have written in order to make sure this is legible, makes sense and answers the question in full.

If a candidate finds they are running out of time to finish an answer towards the end of the exam, they should attempt to complete the answer in abbreviated or note form. Provided the content is clear and relevant, examiners will consider such answers and award marks where merited.

Further guidance on preparing candidates to take the exam is given in the City & Guilds publication, [Technical Qualifications, Teaching, Learning and Assessment](#) which can be downloaded free of charge from City & Guilds website.

4. Further information

For further information to support delivery and exam preparation for this qualification, centres should see:

City & Guilds

Qualification homepage: <http://www.cityandguilds.com/qualifications-and-apprenticeships/land-based-services/agriculture/0171-technical-in-agriculture-and-landbased-engineering#tab=information>

which includes:

- Qualification handbook
- Synoptic Assignment
- Sample assessments

Technical Qualifications, Resources and Support: cityandguilds.com/techbac/technical-qualifications/resources-and-support

Joint Council for Qualifications

Instructions for Conducting Examinations: www.jcq.org.uk/exams-office/ice---instructions-for-conducting-examinations