

# $\begin{array}{c} \textbf{Practice Marking Materials for Technical Qualifications} \\ 2019 \end{array}$



## Level 3 Advanced Technical Diploma in Agriculture (540), 0171-31

#### Introduction

The synoptic assignments for the City & Guilds Technical Qualifications are externally set summative assessments which are internally marked by tutors. It is the centre's responsibility to ensure candidates' work is marked in a standard way across the centre, using the specified marking grid, in order to rank performance on a single mark scale.

Practise marking materials are useful to support centre staff with internal standardisation and as a pre-standardisation activity. The materials are produced to support staff in the process of marking including how to effectively use marking grids and assessment objectives (AO).

The marking materials must be considered alongside the Technical qualifications Marking and Moderation Guide

It is recommended that all tutors, including any unlikely to mark, are included in early discussions around the use of the marking grid, as all tutors should understand the basis of marking as it could shape their teaching by helping candidates practise bringing their skills and knowledge together to complete a problem, and helping them learn how to explain and justify their choices in terms of the subject knowledge in preparation for summative assessment. Tutors must study the Marking and Moderation Guide: <a href="https://www.cityandquilds.com/techbac/technical-qualifications/resources-and-support">https://www.cityandquilds.com/techbac/technical-qualifications/resources-and-support</a> which provides detailed information about generic assessment objectives, and the marking grid, to ensure they are clear about the different AOs and how they may show up in evidence for assignments in the subject area. If there is more than one tutor carrying out marking at the centre, this process should be carried out as part of a group activity to ensure all markers are clear and in agreement about what sorts of evidence are relevant for assessment and which AO they fit into.

The following materials could form the basis for pre-standardisation practice and discussion could take place using evidence from trial runs/formative assessment activities. Standardisation should also take place using the evidence from the actual assignment set for that year, so along with utilising this tool, please ensure that activities surrounding the 2019 assignment also take place.

Within this pack, you will find

- a sample task brief
- a copy of the marking grid used for the synoptic assessment
- a sample of materials responding to either last year's synoptic assignment or a sample set of tasks. This includes learner produced evidence and tutor observations of the practical performance.

This document contains the mandatory recording forms for the synoptic assignment within the Level 3 Technicals In Agriculture (0171-30/31/32,133).

- Declaration of authenticity form.
- Practical observation form.
- Candidate record form.

And finally, the Principal Moderator has provided a breakdown of the marks for the different assessment objectives along with general hints and tips on the synoptic assessment.

#### Task 1

Prepare, set up and operate **one** land based machine which will be used in the establishment of a crop. Before the operation, you will need to produce a written risk assessment report.

## Conditions of assessment:

You must carry out the task on your own, under supervised conditions.

If you are working in a way that risks the safety of yourself or others, you will be stopped and be asked to leave the assessment area.

## What you must produce for marking:

A risk assessment

## Additional evidence of your performance that must be captured for marking:

- Your tutor's observation notes relating to your operation of the land-based machine.
- Photographic and/or video evidence (optional).

## Task 2

Produce a report to describe the husbandry and management of the cow and calf for a beef suckler herd.

Your report you must include:

- details of an annual cycle for a suckler cow including all the main breeding and husbandry and events. You only need to include management of the calf up to weaning
- an explanation of how two activities within the annual cycle will influence the performance and
  profitability of the enterprise. This must include at least one breeding and one husbandry event.

#### Conditions of assessment:

You must produce the report on your own, under supervised conditions. You will have access to your notes.

You can carry our research under unsupervised conditions.

## What you must produce for marking:

- Written report
- A full list of references

## Task 3

In order to train the new staff on the animal husbandry tasks for the farm's sheep, you need to carry out the following **four** sheep stock tasks, explaining verbally how and why they are carried out:

- Dag a sheep
- Weigh and handle three sheep
- Carry out a preventive treatment on two sheep
- Report on the condition of two sheep's feet.

Appropriate records need to be completed. All these tasks must be carried out safely, in such a way as to minimise stress to the animals and comply with animal welfare legislation and codes of practice.

### Conditions of assessment:

You must carry out the task on your own, under supervised conditions.

## What you must produce for marking:

Your completed records

## Additional evidence of your performance that must be captured for marking:

- Your tutor's observation notes relating to the sheep stock tasks and explanations.
- Photographic, audio and/or video evidence (optional).

#### Task 4

You are required to maintain a large structure on the farm.

## You must:

- · explain the reasons for your choice of tools and PPE
- fully cost the materials required for the repair
- explain environmental considerations regarding the materials, and when undertaking the task.

## **Conditions of assessment:**

You must carry out the task on your own, under supervised conditions. You will have access to your research notes.

If you are working in a way that risks the safety of yourself or others, you will be stopped and be asked to leave the assessment area.

## What you must produce for marking:

- Your finished work
- Your costings and explanations
- · A full list of references.

#### Additional evidence of your performance that must be captured for marking:

Your tutor's observation notes relating to you undertaking the task, and your costings and explanations. Photographic, audio and/or video evidence (optional).

## Task 5

The outgoing tenant provides you with the following information on their milling wheat performance.

Sale price for crop	£100 per tonne
Fertiliser	£100 per hectare
Yield	5.0 tonnes per hectare
Labour	£160 per hectare
Sprays	£245 per hectare
Seed	£61 per hectare
Machinery costs (farm's own machinery)	£280 per hectare

Your tutor will provide you with a standard typical gross margin for milling wheat.

- a. From the information provided, choose the relevant figures and prepare a written gross margin for the tenant's milling wheat.
- b. From the information above, produce a written explanation on what you could do to increase the profitability of your milling wheat on this farm.

## **Conditions of assessment:**

You must produce the gross margin and explanation on your own, under supervised conditions. You will have access to your research notes.

## What you must produce for marking:

- Your Gross Margin
- Your written explanation

## Section 2 Marking Grid

For any category, 0 marks may be awarded where there is no evidence of achievement

%	Assessment Objective	Band 1 descriptor	Band 2 descriptor	Band 3 descriptor	
		Poor to limited	Fair to good	Strong to excellent	
15	AO1 Recall of knowledge relating to the qualification LOs  • Does the candidate seem to have the full breadth and depth of taught knowledge across the qualification to hand?  • How accurate it their knowledge? Are there any gaps or misunderstandings evident?	(1-3 marks) Recall shows some weaknesses in breadth and/or accuracy. Hesitant, gaps, inaccuracy.	(4-6 marks) Recall is generally accurate and shows reasonable breadth. Inaccuracy and misunderstandings are infrequent and usually minor. Sound, minimal gaps.	(7-9 marks)  Consistently strong evidence of accurate and confident recall from the breadth of knowledge.  Accurate, confident, complete, fluent, slick.	
			nected: Use of terminology, health and nimal behaviour, signs of animal health Bottom of band:	h, legislation, routine tasks, financial	
		The candidate has shown a poor knowledge of terminology and routine tasks.	The candidate has shown a fair range of knowledge from across the qualification which is sound and sometimes detailed.	Bottom of band: The candidate shows strong and detailed knowledge across the range relevant to the task showing a high degree of confidence and accuracy.	
		Top of band: The candidate has shown limited knowledge of terminology and routine tasks.	Top of band: Candidate has shown a good range of knowledge, making links to legislation and good practice. Explanations are often detailed.	Top of band: The candidate shows an excellent detailed knowledge relevant to the task showing an outstanding degree of confidence and accuracy.	

%	Assessment Objective	Band 1 descriptor	Band 2 descriptor	Band 3 descriptor			
		Poor to limited	Fair to good	Strong to excellent			
20	AO2 Understanding of concepts theories and processes relating to the LOs  • Does the candidate make connections and show causal links and explain why?  • How well theories and concepts are applied to new situations/the assignment?	(1-4 marks)  Some evidence of being able to give explanations of concepts and theories. Explanations appear to be recalled, simplistic or incomplete.  Misunderstanding, illogical connections, guessing.	(5-8 marks) Explanations are logical. Showing comprehension and generally free from misunderstanding, but may lack depth or connections are incompletely explored. Logical, slightly disjointed, plausible.	(9-12 marks)  Consistently strong evidence of clear causal links in explanations generated by the candidate.  Candidate uses concepts and theories confidently in explaining decisions taken and application to new situations.  Logical reasoning, thoughtful decisions, causal links, justified.			
	How well chosen are exemplars – how well do they illustrate the concept?		cted: Planting specifications, interpreting data and research, application of physical and financial records, quality management, market requirements, ments.				

%	Assessment Objective	Band 1 descriptor	Band 2 descriptor	Band 3 descriptor
		Poor to limited	Fair to good	Strong to excellent
		Bottom of band:	Bottom of band:	Bottom of band:
		The candidate has shown a poor understanding of livestock husbandry and business management.	The candidate has shown a fair understanding of husbandry and business management.	The candidate has shown a strong understanding of husbandry and business management.
		Poor or no justification of management decisions, physical activities and use of financial records.	Fair justification of management decisions, physical activities and use of financial records.	Strong justification of management decisions, physical activities and use of financial records.  Top of band:
		Top of band: The candidate has shown a limited understanding of livestock husbandry and business	Top of band: The candidate has shown a good understanding of husbandry and business management.	The candidate has shown an excellent understanding of husbandry and business management.
		management.  Limited justification of management decisions, physical activities and use of financial records.	Good justification of management decisions, physical activities and use of financial records.	Outstanding justification of management decisions, physical activities and use of financial records.

9	%	Assessment Objective	<b>Band 1 descriptor</b> Poor to limited	<b>Band 2 descriptor</b> Fair to good	Band 3 descriptor Strong to excellent
	25	AO3 Application of practical/ technical skills  • How practiced/fluid does hand eye coordination and dexterity seem?  • How confidently does the candidate use the breadth of practical skills open to	(1-5 marks)  Some evidence of familiarity with practical skills. Some awkwardness in implementation, may show frustration out of inability rather than lack of care.  Unable to adapt, frustrated, flaws, out of tolerance, imperfect, clumsy.	(6-10 marks) Generally successful application of skills, although areas of complexity may present a challenge. Skills are not yet second nature. Somewhat successful, some inconsistencies, fairly adept/capable.	(11-15 marks)  Consistently high levels of skill and/or dexterity, showing ability to successfully make adjustments to practice; able to deal successfully with complexity.  Dextrous, fluid, comes naturally, skilled, practiced.
		them?	Examples of skills expected: Livestoc	k husbandry tasks, estate skills and ma	chinery operations.

%	Assessment Objective	Band 1 descriptor	Band 2 descriptor	Band 3 descriptor
		Poor to limited	Fair to good	Strong to excellent
	How accurately/	Bottom of the band	Bottom of the band	Bottom of the band
	successfully has the candidate been able to use skills/achieve practical	Candidate shows basic practical skills across a limited range of topics.	Candidate shows good practical skills across a range of topics.	Candidate shows excellent practical skills across a wide range of topics.
	outcomes?	Tasks completed well below industry speed and standards.	Candidate completing tasks to industry standards but needs more practice to operate at industry	Candidate operating at industry speed and standards.
		Candidate lacks confidence dexterity.	speed.  Candidate shows confidence in	Candidate shows confidence across a wide range topics.
			most topics.	Demonstrates excellent dexterity.
			Demonstrates good dexterity.	Top of the band:
		Top of the band:	Top of the band:	All practical skills used in a way which produces the most optimum
		Confidence shown in use of basic skills.	Attempts made to use some more complex practical skills.	outcome.
25	AO4 Bringing it all together -	(1-5 marks)	(6-10 marks)	(11-15 marks)
	coherence of the whole subject	Some evidence of consideration of theory when attempting tasks. Tends to attend to single aspects	Shows good application of theory to practice and new context, some inconsistencies.	Strong evidence of thorough consideration of the context and use of theory and skills to achieve
	<ul> <li>Does the candidate draw from the breadth of their knowledge and skills?</li> </ul>	at a time without considering implication of contextual information.	Remembers to apply theory, somewhat successful at achieving fitness for purpose. Some	fitness for purpose.  Purposeful experimentation, plausible ideas, guided by theory
	<ul> <li>Does the candidate remember to reflect on theory when solving practical problems?</li> </ul>	Some random trial and error, new situations are challenging, expects guidance, narrow. Many need prompting.	consolidation of theory and practice.	and experience, fit for purpose, integrated, uses whole toolkit of theory and skills.

%	Assessment Objective	Band 1 descriptor	Band 2 descriptor	Band 3 descriptor
		Poor to limited	Fair to good	Strong to excellent
	How well can the candidate work out solutions to new contexts/ problems on their		Applying and linking knowledge, unde justifying decisions/approaches taken,	
	own?	Bottom of band:	Bottom of band:	Bottom of band:
		The candidate has shown poor evidence of using their knowledge, understanding and practical skills to make straightforward links between topics.	The candidate brings together their knowledge, understanding and practical skills to make some links between topics.	The candidate utilises a wide range of knowledge from across the qualification to justify and problem solve. Integration of knowledge, understanding and practical skills which informs an appreciation of the wider context of agriculture.
		Top of band:		Top of band:
		The candidate has shown limited evidence of using their knowledge, understanding and practical skills to make straightforward links between topics.	Top of band: The candidate brings together their knowledge, understanding and practical skills to make good links between topics and justify decisions, choices and actions.	The candidate utilises a wide range of knowledge from across the qualification to justify and problem solve creatively and holistically. Integration of knowledge, understanding and skills which informs a full understanding of the wider context of agriculture.

%	Assessment Objective	Band 1 descriptor	Band 2 descriptor	Band 3 descriptor
		Poor to limited	Fair to good	Strong to excellent
15	<ul> <li>perfecting</li> <li>Does the candidate routinely check on quality, finish etc and attend to imperfections/ omissions?</li> <li>How much is accuracy a result of persistent care and attention (eg measure twice)</li> </ul>	(1-3 marks)  Easily distracted or lack of checking. Insufficiently concerned by poor result; little attempt to improve. Gives up too early; focus may be on completion rather than quality of outcome.  Careless, imprecise, flawed, uncaring, unfocussed, unobservant, unmotivated.	(4-6 marks) Aims for satisfactory result but may not persist beyond this. Uses feedback methods but perhaps not fully or consistently. Variable/intermittent attention, reasonably conscientious, some imperfections, unremarkable.	(7-9 marks) Alert, focussed on task. Attentive and persistently pursuing excellence. Using feedback to identify problems for correction. Noticing, checking, persistent, perfecting, refining, accurate, focus on quality, precision, refinement, faultless, meticulous.
	<ul> <li>cut once)?</li> <li>Would you describe the candidate as a perfectionist and wholly engaged in the subject?</li> </ul>		eting specific requirements of the task;	care of equipment; time
		There is limited attention to detail and no evidence of planning. Presentation of the work is at a basic level.	There is consistent attention to detail. Some evidence of planning is shown. Work is well presented mainly correct in spelling and grammar.	The candidate has been highly focused on the task showing care and attention to detail. Minimal errors are evident. Detailed planning is shown to cover all required elements of the task. Presentation of the work is excellent.

ACTIVITY / OPERATION / LOCATION		ASSESSMENT UNDERTAKEN BY		APPROVED BY UNE MANAGER
Pre-start checks on	Norma:	Characte heyland	Martec	The state instruction
tractor.	Candidate Evi	dence- Task 1 Risk Assessment	wie:	
	Dales	Soen Sanuary 2019	Date;	

(List significant hazards below)	WHO IS AT RISK	RISK FACTORS (Conditions that make the hazard more or less likely to occur)	CONTROL MEASURES	RATING	PREQUENCY RATING	OVERALL RESK FACTOR
checking oil lovels	SHUCLERIS + SHAPP	Haring ou on	ensure correct ppe is worn  any spins are awared up quickly  ensure bonnet is correctly huge  parquete training or staff hup  ensure correct ppe is worn	2	2	4
P-7-0	Stucion.	PT-0 turning on P-T-0 not being connected property Racking on you	ensure correct ppe is worn econquete training or stoff help ensure you are standing in a correct and safe place	3	2	5
ensuring wo cracks on smaskes on tractor	T	cuts from sharp abjects glass or plastic facing on you	ensure comect ppe is worn adoquete training or staff hup abjects are awared	2		3

Checking tyres for punctures or war cus	Shirtons	outs from sharp obserting over	evorus coused ble is room.		(	26
Plough is correctly Pitted	State + State	Plaugh falling	Hardings cuanting or shaft	3	2	5. C
creating was adequate Alei	Students	-WAARI CWI Lands	Honds are washed and any spins chance he		2	3

	NUMERICAL A	BOESSMEN				OVE	RALL RESK F	ACTOR		
				Overall Ris				Frequency		
	Severity Rating		Frequency Rating	Severity x	requency	5	4	3	2	1
1	No Injuries / Minor Damage	1	Remote	-	5	25	20	16	10	5
2	Single Minor Injury	2	Unlikely	0	4	20	16	12	8	4
3	Single Major Injury / Personal Injury	3	Occasional	-	3	15	12	9	6	3
4	Single Fatality / Major Pollution	4	Probable	4	2	10	8	6	4	2
5	· Multiple Fatalities	5	Frequent		1	5		3	2	1

15-25	UNACCEPTABLE - REVISIT ACTIVITY & CONTROL MEASURES	WHO IS AT RISK						
8-15	INTRODUCE FURTHER CONTROL MEASURES TO LOWER THE RISK	Staff -	Visitora/Public	Contractors				
1-6	ACCEPTABLE / LOW RISK	Students <	Students (U18) -	Disabled				

make better use I he book.

## Section 3 Learner Materials

Synoptic Task 2

## Husbandry and management of a cow and calf for a beef suckler herd

The calves are reared both outside (extensive) and indoors (intensive) when they reach 250kg or when they are 15 months old they are put to a bull.

- ➤ The cow will then suckler her calf Peak yielding times will happen between 6-8 weeks after calving
- ➤ Around 63 days of calving bulling or oestrus will start to be noticed a record of this should be made
- ➤ At around 84 days after calving the cow is served ✓
- ➤ Milk yield will steadily decline to around 2.5% per week
- The cow cannot be put into calf now They will be kept simply to provide milk or milk for her calf until her lactation finishes
- The cow will now be dried off around 305 of lactation
- The cow now should not be producing anything the calf should now be growing inside her

## ➤ The suckler cow

It is essential to keep good records of these dates for the cow due to duration of the cow's production cycle being 365 days this includes around 283 gestation days this can continue for 82/83 days this allows—the production of 1 calf a year. The cow is introduced to the bull, in some cases it can be difficult for the cow to become pregnant, if 100 cows were put with the bull and achieved 60% conception in each oestrus period, this means that a conception rate of 60% only leaves 3 cows empty after a 12 week breeding season, if the conception rate was to drop to 40% then by 12 weeks there would be 14 empty cows. If using the AI is used good heat detection is vital.

Markers comments. Sketchy overview of annual cycle only. Only one activity covered. No linkage of performance and profitability covered.

## Task 3 Recordings

48	
60	
4.7	

## Veterinary and Medicine Records

## Medicine Record Sheet

Date of treatment	Location	Condition treated	Antres Mentification	Mindication gives	Amount gives	Withchavel period	Date animal stear of reedicine	Treatment given
29/1/18	ROOK WITH	pomer	Limbs	rycherose	lant	3,000	thursday or fee	CHOPODE
8/11/25	DOOR REST	Popular	Centes,	LACCES DE	ighw.	3 dates	Wassony Dr. Rets	HE-YIPAD
297/1/18	EDELCE VIVE	roomer.	inmba	rankers-	Bmi	-	thuRoday	and the same of th

## 3 Year 1 Agriculture 2017 — 2018 Estate Skills Synoptic Practical.

## Instruction to student: Task 4

- Correctly measure, cut and nail new feather edge boards to wooden stud frame
- Boards to be equidstant apart i.e. 125mm
- Boards to be level

## Observer notes

Student:	A Student	Date	01.03.2018
Select tools - Explain reasons	for choice of tools		
Selected correct saw and h	ammer		
Measure and mark wood			
Measured and marked 1st bo	pard- cut but found board was ha	alf an inch too short.	
2 <sup>nd</sup> board too long, the meas	surement was inaccurate		
Attaching wood to frame			
Method to judge height of box	ard- Measured and marked		
Board checked to be level- Sp	irit level was used		
	d to frame- Selected galvanised r	nails	
	_		

How is unwanted wood disposed on								

Markers commnets- bit unsure, incorrect measurement

## Task 4 continued

150mm wide feather edge board 20m stud work 65mm galvanised round nails wickes Ridgeons travis perkins £1.85per/n £1.26 per/i £1.39 per/m £7.49(3000 N/A £6.01 (50mm /75mm) £12.99 £13.65 £7.25

- Doesn't show quantity of material would - material is not control out - Vat calculations not complete

V. hunted with :

## Task 4 Estate skills

## Explain environmental considerations when undertaking the task

When undertaking this task any nails that dropped or lost should be found and put either in a bin or back with the other nails. Any wood that Is not used should be disposed of properly. This wood should not be burnt as treated wood an give off chemlcals that can be hazardous to both human and animal health, the wood should be taken to a specialist disposal centre or put away In a building if you wish to use it again for another building. Any larger pieces of sawed off wood should be picked up and disposed of correctly as an animal may eat the small pieces. Any sharp edges or surfaces should be sanded or sawed down as they could potentially cause harm to animal's e.g. garden birds.

Nome constantant

	milling wheat	
Yleld/ha	5	
price per ton	100	
input	500	/
variable cost		
fertiliser	100	/
seed	61	V
spray	160	×
gross margins	340	√

Marker comments. Muddled, some well made points



Profitability of milling wheat-From the data on the gross margin the yield of milling wheat is low. There are different ways to boost the yield without it being hugely costly. Each hectare had 5 tonnes, this shows that there could have been more seed added when drilling or the seed that was put down has suffered both disease and pests or had become dormant. The average yield for milling wheat is around 8 tonnes per Hectare.(1)



To improve profitability by milling wheat you could different soil tests or an agronomist to regularly check that your soil is the best It could be and give advice on what would make the soil better, having this would also benefit the soil structure and how the roots develop. Having drainage systems in the soil would also help as it would prevent the field from becoming water logged or flooded, having this emplace would make to soil have better structure therefore a better seedbed for when the seed is drilled (2). Minimize soil damage by not using machinery especially the heavier machinery check tyre pressures b driving on the field, poaching by livestock can be detrimental to the soils structure (2/3). Crop rotation Is one of the most important factures for both soil structure and profitability from a field, having a cereal or legume based rotation as a legume grows it will put nitrogen back into the soil so

less nitrogen will need to added manually. Having a good crop ration emplace will also break the pest, weed and disease cycle so again less sprays will need to added to

the field manually, however having a legume in the rotation will mean heavier machinery/labour as it Is a root crop (2). Crop rotation will also benefit the soils organic matter research has found that the more frequently a small grain Is used like wheat in a ration, the higher the soils organic matter(4), organic matter is an Important source nitrogen, sulphur, phosphorus and Boron. The soil should be tested after the wheat has been harvested this will Indicate any changes In soil levels (5). If a disease has entered the crop this can Impact the yield, the disease will slowly kill the leaf which therefore prevent photosynthesis occurring it can also damage root and stem. Pests will also Impact the crops yield as pests such as pigeons will eat the seed which will therefore nay stop new growth happening, flea beetle are common in wheat they will Impact yield as they will eat small holes in the leaf this will prevent photosynthesis from occurring In the plant(2). Weeds will also impact yield as they will be competing the wheat crop as well as taking moisture from the soil (2). Pests, Weeds and disease will impact the crop this will be noticed by the hagberg falling number which measures the specific enzyme. Namely a-amylase, this enzyme attacks the starch molecule breaking them down to sugars this will affect the loaf structure and how sticky to dough will become, having a high hagberg falling number will indicate that there is lack of alpha-am There are an entire that there is lack of alpha-am There are the same of the sam different diseases that are found within the wheat plant such as Septoria, yellow rust, brewerfust and mildew. yellow rust will start In early spring it is airborne uredospore's which infect the plants early in their life, during the summer months the disease will then be spread by wind (7) regularion walks of the field should be carried out to ensure any of these diseases are identified early on when choosing a wheat variety the diseases should be taken Into consideration outbreaks can have detrimental Impact on profitability and yield (7). Seed can also impact on profitability, when purchasing seed research should be done by the farmer to ensure that he has the correct land and knowledge of the seed, a seed that has a high yield and is resistant from disease should be picked and drllled Into the land, try and chose a wheat variety that does not taken into consideration as if they are bad then the grain can become mouldy therefore as hers will either give you less per ton or will not buy it at all of the buyers of either give you less per ton or will not buy It at all If the buyer refuses to take the grain then there will be a financial loss to the farm(5). The profitability of milling wheat can also be Impacted by the machinery that is used, it can be Impacted by how to seed grows/develops. Using too much or machinery that is to heavy can cause compaction in the soil this can cause the seed to beco compaction regularly as It can cause lack of moisture which will prevent how the seed grows it will also make the soil hard to contain the seed needs both air and an incompact of the seed needs between the seed need have impact on how the seed grows and could potentially impact the yield (9). In conclusion the major way that milling wheat will become Impacted is through the seed and the way in which it grows and develops. Changing seed or having a different variety can Impact the yield greatly, research should be done to ensure that the correct variety is chosen. KWS siskin Is the best choice of wheat to us as It has a higher disease resistance

Good points on Soil, but not clear on how to use GM to enable improved Performance. Set out as I lump of text.

## Task 5-crops

## References

- (1) John nix's fam management
- (2) Arable cropping and the environment by Defra
- (3) https://ahdb.org.uk/
- 4) https://www.haltonsoilandcrop.com/news
- (5) Niels lesson notes/PowerPoints
- (6) http://www.vara.co.uk/crop-nutrition/crops/wheat/qualitv/increasing-hagberg-falling-number/
- (7) https: en.wikipedia.org/wiki/Wheat diseases
- (8) http://copeseeds.co.uk/
- (9) https;//extension.psu.edu/ effects-of-soil- compaction
- (10) <a href="http://www.gleadell.co.uk/products/grain(milling-wheat/">http://www.gleadell.co.uk/products/grain(milling-wheat/</a>

## **Declaration of Authenticity** Candidate name Candidate number A student ZV5000 Centre name Centre number **Great College** X30000 Candidate: I confirm that all work submitted is my own, and that I have acknowledged all sources I have used. Candidate signature X 12 DOCK **Tutor:** I confirm that all work was conducted under conditions designed to assure the authenticity of the candidate's work, and am satisfied that, to the best of my knowledge, the work produced is solely that of the candidate. 20/5/2018 Date rot M malholds Has the candidate received any additional support in the production of this work?

#### Note:

Tick Yes □ No □ √

Where the candidate and/or tutor is unable to, or does not confirm authenticity through signing this declaration form, the work will not be accepted at moderation and a mark of zero will be given. If any question of authenticity arises, the tutor may be contacted for justification of authentication.

If the answer is yes, give details below and on a separate Theyet if necessary.

## **Practical Observation Form**

## **Technical Qualifications**

Candidate name:	Candidate number:
Alistair Student	ZV5000
Centre number:	Assessment ID
X3000	0171-001

Please complete the table below with reference to the relevant Assessment Objectives, as indicated in the Assessment Packs. Do not allocate marks at this stage.

Assessment						
Objective (AO) - refer						
to the marking grid for						
additional guidance.						

**Notes –** detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different quality of performances and to facilitate accurate allocation of marks once all evidence has been submitted.

#### **AO1**

Describe how well the candidate shows **recall** of knowledge e.g. stating facts without explanation / simple descriptions of what they are carrying out / showing aspects of straightforward knowledge through logical sequencing and application of skill etc.

- Task 1. The candidate was able to state facts and carry out prestart checks. They recalled names of parts and function soundly with minimal gaps. Some legislation stated.
- Task 3. The candidate demonstrated accurate and confident recall of factual knowledge when explaining verbally how and why dagging and dosing are carried out and they reported on the condition of the sheep's feet. They showed breadth of knowledge in the application of skills to complete the practical tasks.
- Task 4. The candidate demonstrated accurate and confident recall of factual knowledge when answering questions on hand tool selection. They showed reasonable breadth of knowledge in the application of skills to complete the practical task.

#### AO2

Describe how well the candidate shows understanding when carrying out practical tasks e.g. their explanation of why they are completing a process or how they may change their course of action / are they able to justify their actions etc.

- Task 1. The candidate gave a logical account of the benefits of harrowing as a method of seedbed preparation. They described with few mistakes, the controls and settings, explained why a level seedbed was needed for correct sowing and germination.
- Task 3. The candidate showed good understanding when carrying out the practical tasks of dagging, dosing, weighing and handling . They were efficient in all their sheep handling tasks.
- Task 4. The candidate showed slightly disjointed understanding when carrying out the building maintenance work. For example They did not appear to understand the importance of accurate measurement of boards before cutting them

### AO3

Describe how well the candidate demonstrated their **practical skills**. e.g. how practiced/fluid is hand eye coordination and dexterity / how confident are they / how accurate or 'poliTheyd' is the outcome / safe working etc.

- Task 1. The candidate gave a logical account of the benefits of harrowing as a method of seedbed preparation. They described with few mistakes, the controls and settings, and explained why a level seedbed was needed for correct sowing and germination.
- Task 3. The candidate demonstrated excellent practical skills when carrying out the dagging, dosing, weighing and sheep handling tasks. They carried the tasks confidently and completed the tasks to industry speed and standard and demonstrated excellent dexterity. They had slight difficulty turning the sheep at the first attempt but persevered and got the job done
- Task 4. The candidate demonstrated fairly good practical skills when using tools and carrying out the building maintenance work. They completed the task to an acceptable standard but needed more practice to improve their confidence and dexterity.

# Assessment Objective (AO) - refer to the marking grid for additional guidance.

**Notes –** detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different quality of performances and to facilitate accurate allocation of marks once all evidence has been submitted.

#### **AO4**

Describe how well the candidate **brings it all together** – e.g. how **coherent** are their actions / how well do they draw from the breadth of their knowledge and skills / reflection on theory when solving practical problems / How well can they work out solutions to new contexts/ problems on their own / time management etc.

Task 1. The candidate drove safely but not at industry speed. They matched their work quite well. They were fairly adept at the task and appeared capable.

Task 3. The candidate demonstrated good application of theory and practice and brought it all together well.

Task 4. The candidate found the task challenging to bring it all together. For their costing task, the work submitted was incomplete lacking costings and quantities of materials needed and a very poor standard.

## **AO5**

Describe how well the candidate attended to detail e.g. professionalism / perfecting / accuracy / checking / taking care / methodical working etc.

Task 1. The candidate was consistently observant during the task and correctly positioned their tractor at the start of each run. They drove at the appropriate speed and ably used the gears and accelerator to ensure that the tractor was working efficiently. Their work was well matched and they were conscientious in their attitude.

Task 3. The candidate demonstrated good application of theory and practice and brought it all together well. They accurately recorded the sheep weights and detailed of the Veterinary Medicine used, together with the withdrawal period.

Task 4. The candidate appeared reasonably focused on the practical task but made errors in cutting boards to length and they were careless in the costing task.

Tutor / marker signature:	Date:
Fauloutous Toutou	01/05/2018

## **Candidate Record Form**

# **Candidate Name: Candidate Number:**

## Assessment ID: Centre Number:

Marker Notes – Please always refer to the relevant marking grid for guidance on allocating marks and make which describe the quality of the evidence and justification of marks.

notes

	- Recall - Breadt	n, depth	, accuracy			- 1 -		1	1	_				
15%	1	2	3		4	5		6		7		8	9	
AO1 Mark	This candidate													
	breadth. Eg. T													
5	was very brief													
	demonstrated,													
	knowledge on													d
	traffic farming,					rgins,	, some	of the	figures	used v	vere i	ncorrec	t	
	erstanding - Sec		concepts, c	ausal lin	ks									
20%	1	2	3	4	5	6	7	8		9	10	11		12
AO2 Mark	This candidate													
	demonstrated													
5	the controls ar													the
	candidate sho													
	profitability. In													
	enabled them													
		was demonstrated with very limited coverage of environmental considerations. In Task 5 the cereals												
	gross margin s							<u>ımenta</u>	ry was	not link	ed to	the gro	ss mai	rgin.
	ical skill - Dexte	rity, fluid	lity, confide	ence, eas	se of appli	cation		1						
25%	1 2	3	4	5	6 7	,	8	9	10	11	12	13	14	15
AO3 Mark	The candidate	demor	strated g	ood to v	ery good	pract	tical sk	ills ove	rall wit	h some	incor	nsistend	cy.	
	Operating at ir	Operating at industry standard but needs more experience in some areas to reach industry speed. Task												
8	1 drove safely but not at industry speed, matched work well, fairly adept. Task 3 demonstrated very good													
	practical skills, efficient and confident, working to industry speed and standard. Task 4 estate skills was													
	completed to a	an acce	ptable sta	andard b	out the ca	ndida	ite nee	eds to i	nprove	confide	ence	and dex	kterity.	
AO4 - Bring	ging it together	- use of	knowledge	e to apply	y skills in r	new co	ontext							
25%	1 2		4	5	6 7	,	8	9	10	11	12	13	14	15
AO4 Mark	The candidate	brings	together	their kno	owledge a	and u	nderst	anding	and pr	actical	skills	with so	me link	(S
	made but over													
7	pull it all togetl													
	practical task 3 the candidate brought it all together well being an effective operator, and in Task 1 drove													
	cautiously with some precision, and related the task to the risk assessment. In task 4 the fencing													
	costings were													
	dina ta datail /	norfoct	ing - Rep	eated ch	ecking, pe	rfectin	ng, noti	cing, er	gaged					
AO5 - Atten	ding to detail /	DCITCUL	<u>.</u>											
15%	1	2	3		4	5		6		7		8	9	
AO5 - Atten 15% AO5 Mark	1 The candidate	<b>2</b> demon	3 estrated v			to det		l is rea		y consc	ientio	us aimi	ng for	
15%	The candidate satisfactory re	demonsult. In	3 nstrated v Task 1 th	e candid	date was	to det consi	stently	d is rea	vant wi	y consc th corre	ientio	us aimi sitionin	ng for g	speed
15%	The candidate satisfactory re leading to an e	demon sult. In efficient	3 nstrated v Task 1 th performa	e candid ince, bu	date was t risk ass	to det consi essm	stently ent fig	d is rea obserures we	vant wi ere add	y consc th corre ded rath	ientio ect po er tha	us aimi sitioning an multi	ng for g g and s plied.	speed Task
15% AO5 Mark	The candidate satisfactory re leading to an e 2 is very brief.	demon sult. In efficient In Task	strated v Task 1 th performa c 3 all det	e candid Ince, bu ails wer	date was t risk ass e neatly a	to det consi essmand ac	stently ent fig ccurate	d is read observing observing observing observing displaying observing observance observing observing observance observing observing observance observa	vant wi ere add	y consc th corre ded rath	ientio ect po er tha	us aimi sitioning an multi	ng for g g and s plied.	speed Task
15% AO5 Mark	The candidate satisfactory re leading to an e	demon sult. In efficient In Task	strated v Task 1 th performa c 3 all det	e candid Ince, bu ails wer	date was t risk ass e neatly a	to det consi essmand ac	stently ent fig ccurate	d is read observing observing observing observing displaying observing observance observing observing observance observing observing observance observa	vant wi ere add	y consc th corre ded rath	ientio ect po er tha	us aimi sitioning an multi	ng for g g and s plied.	speed Task
15% AO5 Mark	The candidate satisfactory re leading to an e 2 is very brief. some omission	demon sult. In efficient In Task	strated v Task 1 th performa c 3 all det	e candid Ince, bu ails wer	date was t risk ass e neatly a nce of pla	to det consi essmand ac	stently ent fig ccurate	d is read observing observing observing observing displaying observing observance observing observing observance observing observing observance observa	vant wi ere add	y consc th corre ded rath	ientio ect po er tha	us aimi sitioning an multi	ng for g g and s plied.	speed Task

## Section 5 Principal Moderator's guidance, hints and tips.

This practise marking material has been produced to be used for standardisation activities and for centre guidance in the early years of the qualification. The marks allocated to each learner are in accordance with the Principal Moderator marks and show the standard set for this qualification.

To make holistic judgments, it is necessary to ensure that all tasks are completed and submitted prior to assigning any final marks. Practical tasks are not marked independently of written submissions so ensure that all tasks have been completed before assigning any marks.

When judging ephemeral performances / practical skills, centres must ensure that the evidence is in a format visible to the marker/moderator and gives sufficient qualitative detail to aid moderation. Observers and markers should ensure their notes are comprehensive, employing key words written in the marking grids and describing how, where or why the work is good or better. Along with this they should ensure that any verbal questions are documented and that weaknesses / mistakes as well as strengths / exemplary practice are noted on the PO form. These notes will enable the centre marker and the moderator get a feel for the practical skills shown by each individual on the synoptic assessment day/s and will assist in allocation of marks and rank ordering.

Use of pictures as evidence is optional. Please think carefully before taking and including pictures as evidence, as they can be very time consuming to take and coordinate. Eg. A picture of a candidate doing something maybe of limited value, but a picture of a finished job to demonstrate the quality maybe useful. Additionally, all photos should be accompanied by a short narrative, stating its purpose. If candidates choose to annotate their images, this may be a good way of showing additional knowledge / understanding"