

PRINCIPAL EXAMINER'S REPORT



BOTSWANA
EXAMINATIONS
COUNCIL

BGCSE ANIMAL PRODUCTION 2023



Paper 1: Written Theory

Section 1: General Comments

The performance for the 2023 cohort was somewhat better as demonstrated by the quality of work presented. In 2023 cohort work most candidates did not have any gaps where questions were left not attempted, able to fairly solve problems of a quantitative and qualitative nature, able to present reasoned explanations for a relationship and pattern, able to demonstrate correct reference of facts, concepts, laws, and principles of agricultural knowledge and understanding and lastly able to correctly use terms, symbols, quantities, and units of measurement. Their presentation of responses was logical and able to observe rubrics. Most of their work was neat, especially for example, Question 4 (b) (iii) on drawing of the bar chart on the graph pad provided. Furthermore, most candidates work on the ability to do mathematical computations was fairly done, for example, Question 2 (a) (iii) on calculation of amount of feed in kg needed to feed 100 broilers for 8 weeks and (b) (iii) on calculation of the total number of goats to be stocked on a 60-hectare ranch at correct stocking rate. Their ability to translate information from one form to another was also commendable, for example, Question 1 (a) (iii) where they were expected to come up with the most and least popular market channel of supplying goats from the bar chart, (c) (iii) where they were expected to identify the months farmers are likely to either supply livestock in large or small quantities based on information on line graph on pattern of meat demand throughout the year , 2 (a) (ii) where they were expected to come up with the likely difference between starter's mash and finisher mash from the tabulated information , 4 (a) (iii) where they were expected to come up with an animal which have high heart water prevalence from the tabulated information, (b) (iii) where they were expected to change the presentation of the data from an outcome prevalence survey of external parasites in chickens raised in backyard from the original tabular form to bar chart and 5 (a) (iii) where they were expected to summarise the data on farmed ostrich populations in Botswana from year 2000 to 2010 presented in words from a tabular form.

Section 2: Comments on Individual Questions

- 1 (a) (i) Most candidates were able to state one benefit of rearing farm animals such as source of income, source of nourishment/ food, source of employment etc hence the question was well done.
- (ii) The responses gave by most candidates were not correct hence the question was poorly done. Most candidates defined what is meant by livestock value chain instead of significance of understanding the livestock value chain and the expected response from candidates was as follows helps to identify key actors/stakeholders required to move a product/live animals/ carcasses/ meat product to final consumers; to increase business efficiency.
- (iii) Most candidates correctly identified the most and least popular channel of supplying goats to the consumers in the village as butcheries and government programmes respectively hence the question was well done.
- (b) (i) Most candidates were able to state one modern technology used in breeding that can improve characteristics of animal stock such as artificial insemination, embryo transfer, in-vitro etc.



though some gave responses such as inbreeding, upgrading, cross breeding etc. hence the question was fairly done.

(ii) The responses given by most candidates were partial complete hence the question was fairly done. Most candidates gave benefits of improved animal breeds to farmers but failed to show what is unique with improved animal breeds that ends up enjoyed by the farmer as benefit and the expected response from candidates was as follows increases disease resistance/ increases longevity/increases reproductive success/ increases resilience to climate stress/heat/drought; hence increase/improve production / improves sales/income to farmer.

(iii) Most candidates were able to correctly suggest at least half of the strategies that can be done to improve animal production in communal land set up hence the question was fairly done. And some of the expected strategies from candidates were as follows improving pasture quality, adopt modern method of breeding, practice supplementary feeding, improving monitoring of livestock, health checks between farmers/health checks and provide livestock with drinking water.

(c) (i) Most candidates were able to state at least one production record kept using ICT when rearing dairy animals such as milk, feed, vaccine, labour etc. hence the question was fairly done.

(ii) The responses given by most candidates were not correct hence the question was poorly done. Most candidates failed to show what is unique with records kept using ICT that can end up being of benefit to large scale livestock farmer and the expected responses from candidates were as follows makes it easier to capture information, makes it easier to meet tax/legal reporting requirements, makes it easier to generate reports, allows for quicker data processing, ensures data processing is less prone to error, and make it easy to back up records.

(iii) The responses given by most candidates were partial complete hence the question was fairly done. Most candidates identified months farmers are likely to either supply livestock in large or small quantities but failed to give correct reason for the answer, gave reason such as either the supply for meat is highest or lowest instead of either the demand for meat is highest or lowest and the expected response from candidates were as follows; large quantity of livestock- December; reason- the demand for meat is highest; small quantity of livestock- March, April, May, June and July/ March – July; reason - the demand for meat is the lowest.

2 (a) (i) The responses given by most candidates were not correct hence the question was poorly done. Most candidates gave responses like concentrates, hay, silage etc. Instead of supplements as correct response.

(ii) The responses given by most candidates were not correct hence the question was poorly done. Candidates gave responses such as starter mash are more likely to be concentrates whereas finisher mash are more likely to be roughages and in addition failed to show in two ways the likely difference between starter's mash and finisher mash and some of the expected



responses from candidates were as follows starter mash contains more protein whereas finisher mash contains less protein; starter mash are fed to chicks whereas finisher mash are fed to mature/ready for slaughter/sale broilers; starter mash is needed in small quantities whereas finisher mash is needed in large quantities etc.

- (iii) The responses given by most candidates were not correct hence the question was poorly done. Most candidates used the data for week 6-8 instead of data from week 1-8 to calculate the amount of feed in kg needed to feed 100 broilers for 8 weeks and the expected response from candidates were as follows.

$$6 \times 100 / (1 \times 100) + (2 \times 100) + (3 \times 100); 600;$$

- (b) (i) The responses given by most candidates were not correct hence the question was poorly done. Most candidates gave responses like paddocking, intensive system, creep feeding etc. Instead of creep grazing as correct response. Note that the concept of creep feeding is different from creep grazing.
- (ii) The responses given by most candidates were not correct hence the question was poorly done. Most candidates failed to show what is unique with creep grazing system that enables early weaning and faster rumen development in young animals and the expected responses from candidates were as follows early weaning – as it provides adequate/ enough feed / nutritious pasture/ forage/ feed; allows for faster rumen development in young animals- as it allows for early introduction to forage / feed.
- (iii) The responses given by most candidates were partial complete hence the question was fairly done. Most candidates managed to only correctly determine total number of Livestock Unit (i.e. LSU) to be stocked on 60 hectare ranch at the correct stocking rate but failed to proceed to determine the total number of goats to be stocked on 60 hectare ranch.
- (c) (i) The responses given by most candidates were not correct hence the question was poorly done. Most candidates gave responses like amylase, pepsin, renin etc. Instead of correct responses such as bacteria; protozoa; fungi.
- (ii) The responses given by most candidates were not correct hence the question was poorly done. Most candidates failed to relate how the structure of a gizzard aid in food digestion and gave responses such as has flaps like paper or bible which could contract and relax for digestion, contains some products like soil/small stones which could help in digestion and the expected responses from candidates were as follows made of muscular walls that contract to grind the food; contains gritty/small stones / sand – like particles that help to grind the food.
- (iii) The responses given by most candidates were not correct hence the question was poorly done. Most candidates failed to deduce from the bar chart why it's important for proposition of abomasum to rumen to be different at birth and adult stage and the expected responses from candidates were as follows at birth - the calves drink milk / does not eat grass /plant material; milk directly delivered to the abomasum; milk solidified / curdled / digested by rennin; at an



adult stage - animal consume large amount of plant materials /grass/food; act as storage of plant material/food; micro-organism digest cellulose.

- 3 (a) (i) The responses given by most candidates were not correct hence the question was poorly done. Most candidates gave responses like infundibulum, magnum, isthmus etc. Instead of ovary as correct response.
- (ii) The responses given by most candidates were not correct hence the question was poorly done. Most candidates referred to an equipment used in artificial incubation of eggs as machines instead of incubator and also failed to explicitly show in two ways how artificial incubation of eggs is different from natural incubation and some of the expected responses from candidates were as follows in artificial incubation of eggs large number of eggs are hatched at a time whereas in natural incubation lower number of eggs are hatched at a time; in artificial incubation of eggs they is low/less chance of egg spoilage whereas in natural incubation they is high chance of egg spoilage; in artificial incubation of eggs incubators are used whereas in natural incubation broody hens/parent are used.
- (iii) The responses given by most candidates were not correct hence the question was poorly done. Some of the candidates gave responses such as providing more warmth to the eggs, reduction of noise etc. Instead of the following expected correct responses ensure eggs are turned several times a day/at least four times during each 24-hour period; maintain optimum /correct relative humidity/ maintain relative humidity of 50 – 60 %; maintain appropriate temperature / humidity.
- (b) (i) The responses given by most candidates were not correct hence the question was poorly done. Some of the candidates gave responses such as winter season, becoming restless, 0700 hours etc. Instead of the following expected response mid oestrus/ 6 hours after oestrus/ standing heat.
- (ii) The responses given by most candidates were not correct hence the question was poorly done. Some of the candidates gave responses such as releases the egg for fusion with male gametes, when progesterone is released, it activates ovary/ovule to be released into the fallopian tube to be ready for fertilization to take place etc. Instead of the following expected responses by inhibiting oestrus; by inhibiting ovulation; thickening of uterus wall/endometrium.
- (iii) The responses given by most candidates in most cases deserved the awarding of at least half of the marks available for the question hence the question was fairly done. Even though some of the candidates gave responses such as excessive urination, swelling of mucous etc. and some of the expected responses from candidates were as follows; standing to be mounted by herd mates/ a bull/bull/another cow/ cow mount others/ cow stand when mounted; discharge of clear mucus; restlessness/ increased walking/ trailing of other cows /bellowing etc.
- (c) (i) Most candidates failed to give a correct event that marks the beginning of gestation in the reproductive system of a ruminant and gave responses such as mating, pregnancy etc. and



did very well with the event that marks the end of gestation. The expected responses from candidates were as follows; beginning of gestation – conception; end of gestation – parturition/giving birth.

(ii) The responses given by most candidates were not correct hence the question was poorly done. Some of the candidates gave responses such as ensure that the foetus is walking and feeding properly, umbilical cord of foetus is softly cut etc. Instead of the following expected responses precautions - ensure that the foetus is correctly positioned prior to delivery/birth/parturation/ ensure that front feet and head protrude first/ avoid abnormal position of calf at birth; Justification - to prevent dystocia; precautions - ensure calf and its mother are kept indoor/safe immediately after giving birth; Justification - to protect calf from predators; precautions - provide clean, soft & absorbent litter; Justification - to avoid injuries to foetus/ dam during parturition etc.

(iii) The responses given by most candidates were not correct hence the question was poorly done. Some of the candidates gave responses such as difficulties in mating, low unreliable rainfall, behaviour of animals etc. Instead of the following expected responses factor-difficulties in giving birth/ dystocia; solution- ensure that animals are fed with balanced ration/ ensure that the foetus is correctly positioned prior to delivery; factor- overuse of the male/bull; solution-ensuring the correct proportion of male to female animals if using natural mating; factor -poor nutrition; solution-providing correct nutrition for the stage of production of the animals; factor- Infections/disease; solution- use of a suitable vaccination program etc.

4 (a) (i) Most candidates were able to correctly state at least one livestock disease caused by bacteria such as Anthrax; Mastitis; Brucellosis; Contagious Bovine Pleuro Pneumonia (CBPP) etc. hence the question was fairly done.

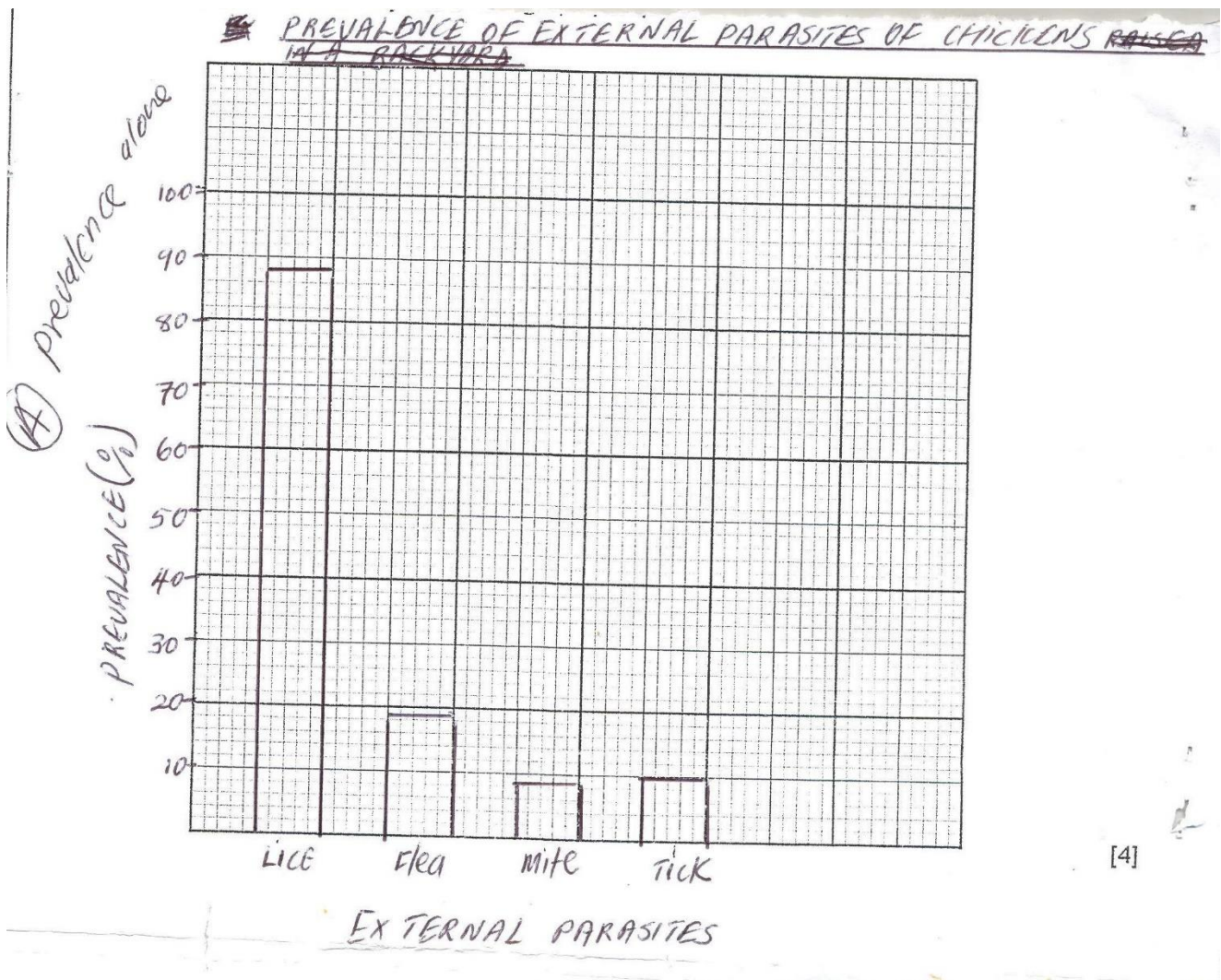
(ii) Most candidates were able to correctly outline the appearance of animal faeces and urine in a sick animal in a herd such as faeces – too hard/too watery/stained with blood/contaminated with worm segments/worm; urine – deep yellow/blood – stained/ cloudy; hence the question was fairly done. Even though a considerable number of candidates gave responses such as faeces –hard/ watery instead of faeces – too hard/too watery; urine –yellow instead of urine – deep yellow.

(iii) Most candidates were able to correctly identify the animal which have high heart water prevalence and how to reduce the prevalence hence the question was fairly done. The expected response from candidates were as follows; animal – goats; reason – control movement/ control ticks.

(b) (i) The responses given by most candidates were not correct hence the question was poorly done. Some of the candidates gave responses such as tick, fleas etc. Instead of the following expected response mites/ lice.



- (ii) Most candidates failed to give a correct reason for disposing dirty litter to make compost is highly recommended and did very well with the reason for using disinfectant in controlling parasites in livestock house. The expected responses from candidates were as follows; removal of old litter to make compost - generates enough heat to break life cycle /kill parasite larvae/ eggs. use of disinfectants – reduces the multiplication of parasites/ kills parasites/ break life cycle.
- (iii) Most candidates were able to correctly illustrate the bar chart on the graph pad provided. Those candidates who failed the question had problem in selecting a correct scale to use when drawing a bar chart. The expected responses from candidates were as follows.



- (c) (i) The responses given by most candidates were not correct hence the question was poorly done. Some of the candidates gave responses such as how many dosages needs to be given, availability of equipment, use of dangerous vaccine etc. Instead of the following expected responses nutrition status; class/age of cattle; stress level; season etc.



- (ii) The responses given by most candidates were not correct hence the question was poorly done. Most candidates failed to show how leaving the pasture fallow is environmentally friendly when controlling internal parasite in cattle raised in paddocks and the expected correct response from candidates were as follows if host animal /cattle does not graze the pasture; causes larvae/nymph/parasite to die off naturally/due to starvation /heat /sunlight; not having to apply an insecticide during fallow period.
- (iii) The responses given by most candidates were not correct hence the question was poorly done. Some of the candidates gave responses such as increasing water feeding, giving goats a high fibre content feed etc. as control measures and failed to give justification. Instead of the following expected response, control measure- destock the paddock/ keep animals in a dry pen/kraal; justification- to allow larvae in pasture to die off/break the lifecycle of the parasite; control measure- administering of anthelmintic drugs/ anti parasites/ anti helminthic; justification- to kill the parasite / prevent spread of the parasite to other paddocks; control measure- removal of manure from pasture /paddock; justification-to get rid of worm eggs/ larvae that may be in faeces etc.
- 5 (a) (i) The responses given by most candidates were not correct hence the question was poorly done. Some of the candidates gave responses such as impala, springbok, elephant etc. Instead of the following expected responses ostriches; waterbuck; wildebeest.
- (ii) Most candidates failed to explicitly show how size of land is important in determining suitability of an area for game ranching and did very well in showing how availability of water is important in determining suitability of an area for game ranching. The expected responses from candidates were as follows; size of the land – more land is needed to support a wide range species/number of animals; determines availability of grazing land; availability of water – the area should have water not contaminated with pests / diseases for animal consumption; for animal consumption.
- (iii) Most candidates failed to explicitly show the trend of farmed ostrich population from year 2000 to 2010 hence the question was poorly done. Some of the candidates gave responses such as they were increasing when time goes on because they were seen as good. Some of the expected responses from candidates were as follows; population / number of farmed ostriches increased from year 2000 to 2003; thereafter declined up to year 2006; then increased from year 2008 to 2010; fluctuating but increasing trend from 2000 to 2010.
- (b) (i) The responses given by most candidates were not correct hence the question was poorly done. Some of the candidates gave responses such as source of money, poaching, too much killing of wild animals etc. Instead of the following expected responses population management; species introductions / reintroductions; research /monitoring; health evaluations; rehabilitation of injured/ orphaned animals to captivity.
- (ii) The responses given by most candidates were not correct hence the question was poorly done. Some of the candidates gave responses such as avoiding excessive movement by



capturers – to allow game animals to rest; to not make them run away etc. allowing game animals to rest before loading- to reduce losses of game during capture; to make it easier to capture them etc. Instead of the following expected responses avoiding excessive movement by capturers - to calm down stressed animals; allowing game animals to rest before loading- essential to avoid aggression between animals.

- (iii) The responses given by most candidates were not correct hence the question was poorly done. Some of the candidates gave responses such as method – dart gun; dart gun and game medicine etc. reasons – to transport it safely; to make easier to catch the leopard; for the leopard not to harm people etc. Instead of the following expected responses method - cages /dart guns with game capture drugs; reasons - generally suited for animals that are difficult to approach; economical viable/cheap when an individual animal is usually caught; effective to be used at passive capture sites; only one animal caught.
- (c) (i) The responses given by most candidates were not correct hence the question was poorly done. Some of the candidates gave responses such as source of food, source of income, to where animals normally live etc. Instead of the following expected responses live animal sales; hunting / safari hunting/trophy hunting/recreational hunting; meat production.
- (ii) The responses given by most candidates were not correct hence the question was poorly done. Some of the candidates gave responses such as maintain the correct stocking rate, use of license to determine the number of games that can be harvested etc. Instead of the following expected responses establish/find out the available excess of animals each year that can be harvested from a ranch /maximum number of animals that can be removed/harvested from the ranch each year; without causing disruptions/decline of the breeding population; conducting wild animal surveys to determine numbers.
- (iii) The responses given by most candidates were not correct hence the question was poorly done. Some of the candidates gave responses such as increase size of a game ranch; harvesting game animals using seasons; control poaching of game animals; giving them correct feeds; treat them for diseases etc. Instead of the following expected responses assist game ranchers to seek for lucrative market for their harvest/ undertake market research on lucrative market for their harvest; intensify/improve advertising; establish processing units; create more incentives for potential customers; establish a brand in a market.



Paper 2: Practical

Section 1: General Comments

This is a practical examination paper targeting assessment objectives AO2 and assessment objectives AO3. Through this paper candidates are expected to identify and make observations from specimen provided and to draw some logical conclusions that relate to the specimens. The paper also allows candidates to demonstrate their ability to manipulate data and to arrive at critical decisions based on the data provided. The paper evaluates the readiness of the candidates to apply the knowledge they have acquired in the syllabus. The Paper consists of two questions, the first one focused on the specimens while the second one focused on data manipulation.

Section 2: Comments on Individual Questions

- 1 The candidates were provided with specimens and were required to identify the specimens, to record observations and make logical deductions about their relevance and use in Animal production. Candidates exposed to the syllabus are expected to identify and describe the given specimens with ease. Most of the candidates reflected a significant understanding of the specimen presented to them. As a result, most of the candidates responded to this item correctly.
 - (a) The question was answered well by stronger candidates who identified the specimens as either legumes or greases or sedges or woody or forms. However, most of the candidates could not describe unique features of the specimens.
 - (b) Most candidates could not classify the specimens according to those dominant in severely overgraze and well managed pasture stand. The stronger candidates could often classify two of the specimens correctly.
 - (c) Stronger candidates managed to classify specimens of livestock feeds as either roughage, concentrates and supplements. Candidates failed to state the best time to feed each of the specimens to livestock.

- 2 The question required candidates to translate information from one form to another. The candidates were provided with farm records and were expected to manipulate them to produce other important records that are useful for making decisions in the farm.
 - (a)
 - (i) Most of the candidates were able to use the extract provided to create a expense and sales records for the broiler enterprise. A few candidates failed to compute the amounts per described items of expense/sales records and subsequently obtained wrong total expenses /total sales.
 - (ii) Stronger candidates could correctly comment on the viability of the enterprise as not viable and gave correct reason for their comment.
 - (b) Most candidates were able to prepare an inventory. Only a few candidates included consumables items in the inventory.



Paper 3: Provider Based Assessment

Section 1: General Comments

This a Provider Based Assessment of candidates on four tasks, namely Farm Diary, Field Observations, Field Practical Training (FTP), and Practical Tasks. Only 40 candidates set for Animal Production paper 3 (1255/03). As a result, all scripts were moderated, thus no sampling was done due to a small candidature.

Section 2: Comments on Individual Sections

1.0 Provider Based Assessment Sections

1.1 Farm diary:

The farm diary targets the sequential record keeping skills of the candidate for a production enterprise that was carried out in the centre by the candidate. A farm diary contributes 15% of the total of provider-based assessment. There was slight improvement in the farm diary that might be attributed to the fact that for the 2023 cohort all the 10 required entries for the farm diary were addressed. Unlike for the 2022 cohort where entries on “Enterprise details” were not addressed by all candidates. The entry on “precautions observed and project termination” were only partly addressed by all candidates in the previous year.

1.2 Field observation:

The candidate is expected to identify a problem, plan, and carry out an investigation and recommend a solution to the problem identified. Field observation contributes 25% of the total provider-based assessment. There was a drastic decline in performance of candidates in the field observation this year compared to 2022. The drastic decline in 2023 performance could be attributed to candidate’s failure to address some of the contents of the Field observation of which the 2022 candidature did. For instance, in 2023, the contents “Alignment of observation to existing literature, Precautions during observation, Procedure, Manipulation and Recommendations” were not adequately addressed by most candidates.

1.3 Field Practical Training (FPT)

Field Practical Training allows the candidates to gain real farm industry exposure by attaching them to a functional farming enterprise for a period of two weeks. After the attachment the candidates submit a report of their learning experiences. Field practical training contributes 35% of the provider-based assessment. There was a slight decline in performance compared to 2022. The slight decline might be due to failure by most candidates to address some of the important entries required for FPT. For example, the entry “Description of activities carried out” which scored 15 marks was not addressed by a significant number of candidates. The entry on “Recommendations” which scored 5 marks was also not addressed by a significant number of candidates and this was not the case with the 2022 candidates.

1.4 Practical Tasks:

The teaching syllabus has some performance criteria that are to be assessed practically. Therefore, practical tasks sample such performance criteria, and therefore, four practical tasks are sampled per module. Practical task contributes 25% of the total provider-based assessment. The centre did not submit



the minimum required number of practical tasks per module. This resulted in the poor performance of candidates in the practical task this year compared to the previous year.

2.0 Summary Marksheet

- The Centre submitted a completed summary mark sheet with columns indicating name of candidate, farm diary mark, field observation mark, field practical training mark, practical task mark, total mark, and weighted mark.
- The marks for each component were presented to 1 decimal place and rounding off was shown on total mark and weighted mark. This was a good practice as it was able to discrete the weighted marks for candidates.
- It was suggested that the summary mark sheet should also have columns for Moderated mark next to each component.

3.0 Organising, Packaging and Binding of scripts:

- Quotation files were used for binding Farm dairy, FPT and Field observation scripts which were then arranged according to candidate's numbers in ascending order. However, there were no files for Practical tasks and no arrangement of tasks hence this delayed the process of checking tasks for every candidate. The scripts were properly packaged in boxes supplied by BEC.

4.0 Report on Individual Scored Tasks

The individual scored tasks are farm diary, field observations, field practical training and practical tasks.

4.1 FARM DIARY

4.1.1 Cover Page

It was well done, the candidates were specific in naming the production enterprise as "Dairy production enterprise", indicated candidate name, candidate number, centre name, starting and completion date of enterprise. However, a few gave wrong dates on completion of enterprise resulting in loss of 1 mark.

4.1.2 Enterprise Details

All candidates addressed this content well hence scored all the 3 marks.

4.1.3 Sequence of Activities

- All candidates scored 2 marks for activities carried out in correct order due to correct sequence of dates. It was difficult to judge order of activities in animal production hence the reason why sequence of dates was used.
- Dates were reflected for every activity by almost all candidates.



4.1.4 Activities / Operations

This part was well done since most of the candidates managed to address a minimum of 10 relevant activities hence getting all the 3 marks available marks.

4.1.5 Tools Used

- This part was well done since most of the candidates managed to give a minimum of 10 tools used in various operations.
- All candidates accessed the 4 marks as they were able to state the appropriate tool used for particular activities to a maximum of 4.

4.1.6 Importance of Activity

Majority of candidates got 6 or more marks as they were able to indicate significance of at least 6 to 10 activities.

4.1.7 Relevance of Comments

30 out of 40 candidates scored all 3 marks since they came up with a minimum of 10 comments or observations on relevant activities while 25% had half to more than half hence getting 2 marks.

4.1.8 Precautions Observed

- All candidates accessed 3 marks on safety precautions when carrying out activities.
- Cleaning of tools used and safe storage of equipment after use was not addressed by majority of candidates hence lost 2 marks.

4.1.9 Project Termination

- This content was poorly done since the highest mark scored was 6 out 10. Description of how project was ended, how products and residues were disposed off were addressed by few candidates.
- Observations about project viability were not addressed by all candidates resulting in loss of 4 marks.

4.1.10 Neatness of Work

All candidates scored all 3 marks on neatness of entire work due to absence of soiling, torn pages or writing with pen/pencil.

4.2 FIELD OBSERVATION

4.2.1 Title of Investigation

More than 50% of the candidates managed to score all the 2 marks, and significant number of candidates lost 1 mark due to the title either missing the parameter to be measured or lacking the part on comparison.



4.2.2 List of Equipment / Materials Used for Observation

Out of 9 materials/equipment used for observation, 85% of candidates managed to list more than half of them resulting in those candidates getting 2 marks out of 3.

4.2.3 Objectives/ Aims of Observation

It was poorly done as more than 50% of the candidates scored less than 3 marks. The candidates had their objective either missing the animal name and or parameter hence losing marks on relevant to title and or measurability.

4.2.4 Statement of Factor to be Observed

Half of the candidates scored zero (0) out of 4 marks for this part. Almost all candidates did not address “possible causes of problem observed and how proposed solution will be of benefit to the user”.

4.2.5 Factor to Compare and Contrast in the Observation / Factor Manipulated

Most of the candidates scored between 0 and 1 mark out of 3 in this section. Only a few candidates addressed “how factors to be manipulated are introduced/conduct of treatment”.

4.2.6 Number of Units Per Observation / Manipulation

- Most candidates stated the number of replications for their treatments hence awarded the 1 mark available for this section.
- Most candidates did not justify the number of replications or why there was no replication hence lost the 1 mark for this part. Only a few candidates did not address this content.

4.2.7 Layout / Sketch Plan of Observation

ALL candidates scored a zero (0) for this part due to an incomplete layout as they sketched cages to 2 instead of 3 dimensions. The centre should advise candidates to sketch cages to 3 dimensions showing length, width, and height. The same issue was experienced in the year 2022.

4.2.8 Approach / Procedure

- Out of 40 candidates, 31 scored a zero (0) out of 4 marks in this section. 9 candidates scored 1 mark for “steps in correct sequence”.
- Most candidates listed activities instead of describing them in details and the tools used. The candidates were supposed to describe the pre-treatment, conduct and post-treatment activities.
- Only a few candidates did not address this content.

4.2.9 Information Collected from Observation / Data

- All candidates did not mention the instrument used for data collection (that is instrument used for weighing eggs) resulting in loss of 1 mark.
- Candidates presented their data in a table form.
- Only a few candidates did not address this content.



4.2.10 Analysis of Findings / Implications of Findings

- All candidates presented their findings in a table form which hence accessed the 1 mark for relevance of presentation method.
- Majority of candidates lost marks on overview of findings and title as it was not bolded, italicised, or underlined.
- Only a few candidates did not address this content.

4.2.11 Conclusion

- This part was poorly done since only a few candidates scored 0 to 1 mark.
- Most candidates re-stated purpose of investigation hence accessing 1 mark.
- All candidates did not address statement of take-home findings/lessons learnt.

4.2.12 Recommendations

- All candidates lost marks on suggesting modification to procedure to ensure accurate results and recommendation aligned to objective. The suggestions on modification given by most candidates were on non-treatment factors.
- A few candidates did not address this part altogether.

4.2.13 Precautions / SHE during observation

- The highest mark scored was 3 out of 5. Candidates were able to address safety, health and environment threats.
- Only a few candidates did not address this content altogether.

4.2.14 Alignment of observation to existing literature

- All candidates scored a zero on this content.
- Most of the candidates did not address this content. Those who attempted it appeared not to know what was required.

4.3 FIELD PRACTICAL TRAINING (FPT)

4.3.1 Cover Page

Only a few candidates got all the 2 marks while majority ended up with 1 mark. Candidates managed to indicate their candidate's name and number, Centre name and number, period when FPT was carried out. However, the name of farm where FPT was conducted was incorrect resulting in loss of 1 mark. It was different from the one written under appendices being the "BUAN Incuhive Enterprise farm" not just BUAN farm.

4.3.2 Title Page

More than 50% of the candidates managed to score all the 2 marks. The expected details were candidate name and number, Centre name and number, date of report submission and candidate



signature. Some candidates omitted some of the requirements or had an incorrect date of submission hence lost 1 mark.

4.3.3 Contents Page

The highest mark obtained in this section was 1 out of 2. Major headings such as “Description of activities carried out” and “Recommendations” were omitted by some candidates. They also lacked page numbering and leader dots/dashes and that affected neatness hence loss of marks.

4.3.4 Declaration of Originality

Most candidates scored 1 mark in this section. The expected details were candidate name and number, Centre name and number, period when FPT was carried out, name of farm where FPT was conducted and declaration that report was true reflection of work done by candidate. For most candidates, name of farm where FPT was conducted was incorrect resulting in loss of 1 mark for “all required information”. It was different from the one written under appendices being the “BUAN Incuhive Enterprise farm” not just BUAN farm. Few candidates omitted some of the requirements hence ended up with 1 instead of 2 marks.

4.3.5 Acknowledgement

Candidates were to acknowledge a minimum of 4 individuals or organisations and the type of service rendered to get 2 marks. However, some candidates failed to specify type of service rendered by each individual resulting in loss of 1 mark. Only a few candidates acknowledged less than the required number of individuals leading to 0 mark.

4.3.6 Introduction

- Candidates did well on the justification of selection of place of attachment. However, name of farm where FPT was conducted was incorrect resulting in loss of 1 mark.
- Clarity of learner expectations prior to attachment and benefits from attachment was a challenge to most students resulting in them losing marks.

4.3.7 Description of Farm Routine Schedule

- This area was poorly done with only a few candidates scoring 10 out of 14 marks. Most candidates did not address some areas such as staff compliment of the farm, daily work schedule by farm employees, preparation of products for market and profitability statement hence lost some of marks.
- Most candidates presented an organogram in this section which assisted them in getting the 1 mark for staff compliment and workplace interaction. However, for “staff compliment of the farm” candidates could only assess the 1 mark if the number of staff was included in the organogram.
- For technology leverages, candidates were to name the technology to get 1 mark and a reason for another 1 mark. All candidates did not address the reason part.



- Only 1 candidate addressed “daily work schedule by farm employees” and “profitability statement”. Candidates presented their daily work schedule whilst at the FPT instead of that for the employees, hence lost 2 marks. The same mistake was experienced in the year 2022.

4.3.8 Description of Activities Carried Out

- It was fairly done since most of the candidates scored 10 marks or more out of 15. Candidates managed to describe a minimum of 4 activities together with reasons and tools / materials / equipment / machinery / implement used.
- However, most of the candidates failed to address duration of each activity and number of employees engaged, hence lost 2 marks.
- Only a few candidates did not address this part altogether.

4.3.9 Findings / Observations

- The performance for this content was not pleasing since only a few candidates scored between 5 and 6 out of 10 marks.
- Most candidates lost marks on how the expectations were met, how to close gap on learning experiences not met and how learning experience will be useful to candidates.
- Only a few candidates did not address this content.

4.3.10 Conclusion

- It was fairly done since most candidates scored between 3 and 4 marks out of 5. All candidates did not address the part on how learning experience can be made better resulting in loss of 1 mark.
- Lessons learnt and their relevance to farming experience was also a challenge to some candidates.
- A few candidates did not address this content.

4.3.11 Recommendations

It was poorly done. Majority of candidates only addressed a minimum of 2 recommendations for farm improvement hence accessing 2 marks.

4.3.12 Rating by Training Officer in the Industry (TOI)

- The Supervisor’s appraisal form was used for rating candidates.
- It was well done. most candidates scored 10 and the lowest score obtained was 8 out of 10 marks.

4.3.13 Overall Report Quality

- Majority of candidates showed creativity in presentation of information by having tables, borders lines and organograms.
- The ICT skills were also demonstrated in compilation of report by most candidates. This included justification, spacing, symmetry, bolding and punctuations.



- Some candidates lost 2 marks on sequencing due to omitting some major headings or them not in correct order.
- Quality of report binding was well done by ALL candidates as they used the quotation files hence resulted in report being easy to flip, durable and secure.

4.3.14 Appendices

It was well done since most candidates scored 7 out of 10 marks. All candidates managed to attach all the required forms. However, all candidates did not have picture of farm as well as that of equipment hence loss of marks.

4.4 PRACTICAL TASK

The performance of candidates in practical tasks was very poor, this can be attributed to the number of tasks submitted for each module. Four practical tasks per module are expected to be submitted for moderation for each candidate. The scores of the awarded by the teachers for practical tasks are maintained as they are based on evidence from the portfolio of evidence presented.

Each candidate is assessed when carrying out the task in terms of the following criteria:

- (i) select appropriate materials, tools, implements, machinery, and equipment when performing a task
- (ii) produce quality work or product within a prescribed time frame when performing a task
- (iii) recommend new and creative solutions to challenges encountered when performing a task
- (iv) taking responsibility when working alone or working with others to accomplish a task
- (v) demonstrate adherence to awareness of and consciousness to safety, health environment and quality details when performing tasks

4.4.1 Number of Practical Tasks Submitted

The centre assessed candidates on 3 modules (1, 2 and 4) instead of 5. However, for Modules 1 and 4, 3 and 2 practical tasks respectively were assessed instead of 4. Candidates were not assessed on Modules 3 and 5. This led to a negative impact on the performance of candidates. The marking was carried out assuming that all tasks were submitted as dictated by the practical task marking guide.

4.4.2 Performance in Practical Tasks

For the tasks submitted the candidates fared as follows on the marking criteria:

- (i) Selection of appropriate materials, tools, implements, machinery, and equipment: This section was well done by the candidates.
- (ii) Quality work or product: This section was well done by the candidates
- (iii) Creative solutions to challenges: The level of creativity is lacking from the evidence presented for each candidate.



- (iv) Responsibility when performing task: The level of responsibility reflected by the candidates seems satisfactory
- (v) Adherence to, awareness of, and consciousness to safety, health environment and quality details: Sufficient adherence, aware and consciousness to safety, health, environment and quality concerns was reflected in the evidence presented.