

PRINCIPAL EXAMINER'S REPORT



BOTSWANA
EXAMINATIONS
COUNCIL

BGCSE HORTICULTURE 2023

Paper 1: Written

Section 1: General Comments

The performance for the 2023 cohort when compared to 2022 cohort was the same as demonstrated by the quality of presentation whereby there were still some candidates with blanks, some questions left not attempted. Problem solving questions were not adequately attempted to by some candidates, still failing to come up with the correct responses. Most candidates lost marks in items involving mathematical ability and not observing the question rubrics. Just like the 2022 cohort, candidates were unable to demonstrate correct reference to facts, concepts, laws, and principles of agricultural knowledge and understanding. In some cases, candidates did not observe the marks allocated to questions hence lost some marks. There was lack of logical presentation of responses by some candidates. Accessibility of marks declined from item 1 up to item 3, with items 4 and 5 poorly done as evidenced by the lowest marks attained and some questions left not attempted.

Section 2: Comments on Individual Questions

- 1 (a) (i) Most candidates did very well in this question, they were able to name the correct class of horticultural crops such as vegetables, fruits, ornamentals.
- (ii) Most candidates gave correct responses; plant X haptotropism and plant Y phototropism. Only a few candidates wrote stimulus such as touch and light instead of the tropic response.
- (iii) This question was fairly done. Some candidates labelled a palisade cell instead of a palisade layer (a group of palisade cells).
- (b) (i) The question was fairly answered. A few candidates gave responses such as photosynthesis instead of translocation.
- (ii) Most candidates gave response such as 'osmosis is the movement of water molecules from high concentration to low concentration' instead of 'osmosis is the movement of water molecules from high water concentration to low water concentration'. Some candidates failed to show the differences but responded as if they were describing the two processes separately.
- (iii) This question was not well answered by most candidates; they failed to come up with ways to solve the problem. Some candidates gave responses such as adding fertiliser and soil analysis instead of mulching; planting seeds to a correct depth; controlling soil pests; breaking soil caps; control of birds and mice eating seeds; making sure the soil has a fine tilth.
- (c) (i) Fairly done. Some candidates wrote responses such as morning and late afternoon instead of shaded greenhouse/glasshouse; net tunnel / shade tunnel; misting unit; cold store/room; nursery.



- (ii) Fairly done. A few candidates gave responses such as drip irrigation system instead of hybridisation in plants; rainwater harvesting for irrigation / watering crops; selection of improved crop varieties; use of fertilisers; addition of organic matter; use of drones to control pests.
- (iii) Most candidates gave the correct response under list of vegetable: tomato; onion; For reasons most candidates gave response such as because demand is high instead of because demand is higher than supply/ their deficit is higher.

- 2 (a) (i) The item required candidates to name one tool used for clearing the land. It was well done with responses such as spade; axe; slasher.
- (ii) Candidates were required to describe how soil nutrient analysis for a crop could be carried out. It was fairly done. Some candidates gave responses such as by testing pH of the soil if its alkaline or acidic instead expected response of soil sample collection; laboratory analysis; interpretation of results; pH correction.
- (iii) The item was fairly done. Some candidates failed to convert hectares to m². Given the recommended application rate, candidates were required to calculate the amount of fertiliser for a 100 m² land.
- (b) (i) Item required candidates to state advantage of using grass mulch over plastic mulch. It was fairly done. Some gave responses such as it avoids evaporation, but most gave correct responses such as allows air circulation; adds organic matter to the soil.
- (ii) Candidates were required to describe how a layer of mulch between plant rows helps in controlling weeds. It was fairly done with expected responses such as deprive weeds from sunlight, resulting in death of weeds.
- (iii) Candidates were required to recommend a management practice that could be carried out to keep tomato plants off the ground and its benefits. It was fairly answered. Candidates who lost marks gave responses such as supporting, harvesting, pruning as management practices instead of staking/ trellising; prevent fruits from rotting; improve air circulation; keep fruits clean; improves yield.
- (c) (i) Item required candidates to outline classification of weeds based on their morphology. It was fairly done. Some candidates gave classification based on life span e.g. annual instead of correct response broad leafed; narrow leafed.
- (ii) Based on a chemical label used for controlling weeds candidates were required to describe the type of herbicide and the timing of application. It was poorly answered with responses such as apply in the morning/ afternoon, for type of herbicide some gave kills all plants, which was part of the label. A few candidates gave the expected response which was non-selective; apply before planting; and as such one mark would be for type of herbicide and one mark for timing of application.



(iii) Candidates were required to suggest and justify one weed control method that the farmer can use in a farm located near a river. The item was poorly done as many failed to justify and where they tried, they failed to observe mark allocation by giving one justification instead of three. The expected response was mechanical; hand pulling/cultivation/hoeing; no pollution; produces organic crop to market.

3 (a) (i) Candidates were required to state one factor that determines the spacing of fruit trees. It was poorly answered with responses such as planting depth, planting skill, size of the plant. The expected responses were expected tree canopy when mature; class of fruit tree; soil type/fertility.

(ii) Item on describing the significance of proper spacing when growing fruit trees was fairly done with correct responses such as encourage air circulation; easy harvesting; easy carrying out management practices; A few candidates gave incorrect responses such as knowledge about fruit tree, maturity.

(iii) Given the circumference of the root ball, candidates were required to calculate the ideal circumference of the planting hole. The item was poorly done. One mark was for correct working, and one marks for answer.

Answer: $30 \text{ cm}^2 \times 2 = 60 \text{ cm}^2$

(b) (i) The item was well done by most candidates. They were able to state the correct nutrient deficiency being nitrogen, magnesium, iron.

(ii) The candidates were required to explain how yellow leaves and slow plant growth might affect the yield of fruit trees. It was fairly answered with most candidates giving correct responses such as reduced photosynthesis; stunted growth; low yield.

(iii) Based on poor yield, dead branches and overgrown branches observed on a fruit tree, candidates were required to suggest a management practice that can be carried out to improve productivity. Although few candidates gave incorrect responses such as cutting as a management practice and others did not observe mark allocation, the item was fairly done. Most gave correct management practice being pruning; improve air circulation; control diseases; control plant size; rejuvenate growth; One mark would be awarded for a management practice and three marks for reasons.

(c) (i) The item was poorly done as candidates could not describe integrated pest management. The expected response was use of several methods of pest control; reduced use of chemicals; promote bio-based pest management.

(ii) Given a figure of a plant leaf infested with scale insects candidates were required to describe the type of pesticide that can control the pest effectively. The item was poorly done as some candidates were giving responses such as dust, which is a form of pesticide. The

expected response was systemic; applied on leaves and translocated through the sap to kill piercing and sucking pests.

(iii) Based on reddish brown and white powdery substance on fruit tree leaves, candidates were required to suggest possible cause of symptoms and describe how it can be controlled. The item was poorly done due to incorrect responses e.g. cause- bacteria while others didn't attempt to answer the item. The expected response was fungus; avoid over watering; apply fungicide; pruning; proper spacing. One mark would be for possible cause and three marks for description of how it can be controlled.

- 4 (a) (i)** Candidates were required to name a class of an ornamental plant raised in a container until maturity. The item was well answered with correct response which was potting plant.
- (ii)** The item required candidates to discuss reasons for adding compost and wood ash when preparing a soil mix for sowing seeds of an ornamental plant. Some candidates gave correct response for compost which was to improve organic matter/nutrients. Most candidates could not give the correct response for wood ash with responses such as to improve aeration, drainage, to control pest and diseases. The required response for wood ash was to raise soil pH/ to improve soil fertility.
- (iii)** Candidates were required to suggest with reasons what could be done to improve drainage of soil mix after the seedlings in pots became waterlogged. It was poorly answered with responses such as increasing compost, adding sandy/loam soil. Few candidates gave correct responses like adding river sand; to improve porosity; adding vermiculite; to absorb excess water; increasing drainage holes; to improve porosity.
- (b) (i)** The item required candidates to state one factor considered when sorting cut flowers. It was poorly answered with responses such as quality and lifespan. Few candidates gave correct responses such as colour; stem length.
- (ii)** The item was poorly done; few candidates gave expected response which was high temperature increase wilting hence poor quality; Cool temperature reduces wilting hence good quality; Most candidates did not observe marks allocated by giving only one point.
- (iii)** The item required candidates to suggest precautions that florist should observe when harvesting flowers to maintain their quality for a long time. It was poorly done with responses such as harvest in the morning, harvest when it is not hot, cool storage, wash hands. The expected responses were harvest in the morning to reduce water loss; make slanting cut to increase water uptake; place flowers on clean surface to prevent contamination; disinfect cutting tools frequently to prevent spread of diseases.
- (c) (i)** Candidates were required to list physical features of a grass used as turf. Item was poorly done with some candidates giving responses such as beautifies. Expected responses were colour; texture; spreading; density.



(ii) The item required candidates to describe how to prepare a site to ensure uniformity of turf. It was poorly answered. There were instances where candidates gave responses like level the soil, cultivate the soil and mowing. The expected responses were raking to produce level surface; compress to firm the surface, remove stones.

(iii) Given the recommended application rate of manure candidates were required to calculate the number of 50 kg bags of manure to apply to a land measuring 50 m x 10 m to lawn. The item was poorly answered. Some candidates could not calculate the area, while some did not convert amount of manure to number of bags. The candidates were expected to calculate as follows:

Answer: 50 bags

5 (a) (i) The item was well answered by most candidates defining landscaping as activity carried out to improve appearance of outdoor space.

(ii) The item was poorly answered. Candidates could not clearly describe how plants control soil erosion. They gave responses such as plants act as windbreakers, plants cover the soil/ prevents soil from being eroded. The expected responses were; turf grass provide ground cover; plants hold the soil together with their roots; trees reduce the impact of raindrops on the soil;

(iii) Candidates were required to recommend landscape materials that could be used to landscape the outdoor space with shortage of water. It was poorly answered, where candidates were able to give the correct material, they did not give a reason. The expected response was rocks/stones as they do not need water; cactus as it has less water requirements; apply organic/inorganic mulch material to reduce evaporation from the soil;

(b) (i) Given a figure showing a photograph of an outdoor area candidates were required to name the type of landscape design. It was well done. Most candidates gave the expected response which was formal.

(ii) The item was well done. Most candidates were giving the expected responses to describe the benefits of the landscape design on the environment. The responses such as it provides beauty; prevent soil erosion; provide habitat for living things.

(iii) The candidates were further required to evaluate the design in the figure and describe two principles used. It was fairly answered although most candidates could only pick balance as the correct principle. In addition to balance some candidates gave line of symmetry which its description is the same as of balance. The expected responses were balance; benches/shrubs on both side of the pathway; proportion; same sized benches/ shrubs.

(c) (i) The item was well answered. Candidates were required to name the management practice and appropriate equipment used in cutting lawn grass to a desired height. Most candidates gave the expected response which was mowing for management practice and lawn mower for an appropriate tool.



- (ii) Candidates were further required to explain how the management practice helps in controlling weeds. The item was poorly answered with only a few candidates giving a response mowing cut weeds which is a factor and not writing an explanation. The expected response was it cut shoot of weeds; reducing photosynthesis; defoliate weeds; reducing seed production. One mark would be for factor and one mark for explanation.
- (iii) The item was poorly done. Candidates were required to recommend an alternative manure to kraal manure that would not include weeds. Most candidates were giving responses such as organic manure, chicken manure, and from the few who managed to give the correct organic manure could not get correct points for description. The expected responses were compost/well decomposed chicken manure; increased microbial activity leading to improved growth; increased soil fertility hence improved growth; absence of weed seeds. One mark would be for correct organic manure and three marks for how it would reduce the problems.

Paper 2: Practical Test

Section 1: General Comments

This is a practical examination paper targeting Assessment Objectives AO 2 and Assessment Objectives AO 3. 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 and skills they have acquired in the Horticulture syllabus to ensure a successful growth of plants. The Paper consists of two questions, the first question focuses on the specimens provided while the second one focuses on data manipulation based on an insert provided. The overall performance of candidates on this component was impressive, all the questions were attempted fairly and the candidates demonstrated skills in plant protections as well as in data manipulation satisfactorily

Section 2: Comments on Individual Questions

- 1 (a) Candidates lost marks as they were unable to name the class of pest that caused damage on the specimen. They wrote insect as opposed to naming the class of pest. It should be noted that knowledge of class is critical for selection of the appropriate pest control.

Example of Pests- Majority of the candidates were able to give the correct example of the pest.

Type of damage-Candidates lost marks as they were unable to state the damage caused as observed on the specimen. Instead, they wrote the feeding mode of the different classes of pests.

- (b) Display 2: Majority of candidates were able to correctly suggest pesticide to control pests for specimen D. However, most of the candidates were unable to suggest an appropriate pesticide for use to control pests that caused damage on specimens A-C in display 1.

- (c) (i) Candidates demonstrated knowledge of the parts, but they were unable to write the order of connecting of the parts using the letters as per the stem. As a result, they lost marks. They were also unable to correctly suggest the function of each part.

(ii) Candidates did well in this part.

- 2 (a) (i) Most of the candidates did well in this item. Those who did not do well in this part, wrote a correct description of the item with an incorrect amount leading to loss of marks. They only wrote the unit price without computing the total amount for each item.

(ii) This item was well done by most candidates. However, some candidates lost marks as they wrote a correct item description with incorrect amount. i.e. they wrote the description of the item sold with its associated unit price but did not compute the total income for each item.

(iii) This item was well done by most candidates, except for those who did not compute correctly



- (b) Most candidates were unable to develop an inventory and lost marks due to the following reasons: they did not add what was purchased to what was already in existence. They wrote description of inventory items without quantities. They included consumables in the inventory. They included expenses and sales prices instead of quantities.



Paper 3: Provider Based Assessment

Section 1: General Comments

This a Provider-Based Assessment, it is carried out in line with the assessment guide provided to Centres. This was the second group of candidates to be assessed under the new Horticulture syllabus. The syllabus has four components of which three were subjected to external moderation. The three components which were externally moderated were Farm diary, Field Practical Training and Field Observation. The Field Practical task marks are accepted based on the evidence contained in the portfolio.

Section 2: Comments on Individual Sections

1.0 PBA 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 for the Horticulture Syllabus are farm diary, field observations, field practical training and practical tasks. These were subjected to moderation except for practical tasks where the marks are accepted based on the available evidence for the candidate in the portfolio of evidence.

4.1 FARM DIARY

All candidates typed their Farm diaries, and they were presentable. This is encouraged to motivate the learners to demonstrate the use of ICT skills as part of the descriptors of the 21st century learner. The enterprise selected by all candidates was on vegetable production and the candidates had grown tomatoes.

4.1.1 Cover Page

- Name of production enterprise [$\frac{1}{2}$] – well done by all
- Name of candidate [$\frac{1}{2}$] – well done by all
- Candidate number [$\frac{1}{2}$] - well done by all
- Name of Centre [$\frac{1}{2}$] - well done by all
- Starting and completion date of enterprise [1] - well done by all.



4.1.2 Enterprise Details

- variety grown [1] – well done by all candidates.
- Age [1] – well done, though all candidates stated the age of tomatoes as 7 months and this figure was unrealistic as most varieties of tomatoes take 3-4 months to reach maturity, however marks were not lost.
- plant population [1] – well done by all.

4.1.3 Sequence Of Activities

- Activities carried out in correct order [2] – well done as the main activities /operations were outlined clearly and logically.
- Dates reflected for every activity [1] – well done.

4.1.4 Activities / Operations

- Relevant activities reflected in the diary [3] – well done by most candidates. There were many and exceeded the required threshold of 10.

4.1.5 Tools Used

- Tools used for every operation reflected [3] – well done. Some candidates listed tools after describing the operation without continuous linkage of tools to the activity.
- Appropriate tool used for each activity [4] – well done by the candidates.

4.1.6 Importance of Activity

- Significance of carrying out each operation [10] – generally well done by all, however some reasons were not spelt out by candidates and as result some marks were lost.
[This was marked for 1 mark per activity to a maximum of 10]

4.1.7 Relevance of Comments

- Comments made relevant to the activity [3] – it was fairly done; however, some comments were not convincing e.g. some candidates would state that the applied fertiliser burnt the crops on the same day of application.

4.1.8 Precautions Observed

- Safety precautions observed for activities [for 3 marks] – It was fairly done as most candidates managed to have more than one precaution, however some precautions were general e.g. candidates just wrote protective clothing was put on, without being specific as to what harm were they preventing themselves from.
- Cleaning of tools after use [1] - well done as it was attempted by most candidates.
- Safe storage of equipment after use [1] - well done.



4.1.9 Project Termination

- Description of how the project was ended [2] – most candidates did well.
- Description of how the products and residues were disposed of [4] – well done by majority of candidates.
- Observations about project viability [4] – fairly done, as reasons why the project was viable were not advanced by some candidates.

4.1.10 Neatness of Work

- Very neat presentation [3] – well done by all candidates.
- Neat presentation with negligible untidiness [2]
- Neat with some untidiness reflected [1]

4.2 FIELD OBSERVATION

Most common topic: Comparison on the yield of tomatoes grown in a tunnel and in open area.

General presentation of the candidates work: All reports were typed. The binding of projects was satisfactory. The marks obtained by candidates indicate that most of them were of average performance.

4.2.1 Title of investigation

Candidates wrote titles that were not short and descriptive as required by the assessment guide. The following observations were made regarding the different aspects of the title of observation:

- Factor to be investigated reflected on title- well done.
- Comparison to be introduced to investigation- well done.
- Parameter measured- it was not clearly spelt out as candidates wrote that they measured the yield instead of mass because the yield is calculated.
- Neatness (no dirt / cancellations / overwriting / stains / grease)- most candidates work was neatly presented.

4.2.2 List of equipment / materials used for observations

List of all materials/equipment used (Refer to list from centre) - most candidates failed to get maximum marks as they wrote incomplete list.

4.2.3 Objectives / aims of investigation.

The following observations were made regarding the different aspects of objectives / aims of the investigation:

- Relevant to title (crop/animal, parameter & treatment)- well done.
- Achievable (is it possible)- well done.
- Measurable (specific parameter)- well done.
- Specific (comparison, spec. parameter, crop/animal) – well done.



4.2.4 Statement of factor to be Observed.

This was fairly done except for stating the proposed benefits:

- Stating the factor / problem to be investigated- most candidates managed to identify the problem.
- Possible causes of factor / problem investigated-well done by most candidates.
- Possible solutions to factor / problem investigated- well done.
- 2 benefits of the proposed solution –poorly done as no benefits were reflected.

4.2.5 Factor to compare and contrast in the observation/factor manipulated

- Statement of factor (parameter) to be observed- well done by almost all candidates.
- State factors of comparison/manipulation (treatments)- well done
- How factors to be manipulated are introduced- poorly done by candidates

4.2.6 Number of units per observation / manipulation

- Stating how many replications / plots per treatment / no replications- poorly done
- Justification on the number of replications/ no replications- candidates failed to justify the number of replications used.

4.2.7 Layout / Sketch plan of investigation

- Title of for the sketch plan –indicated by most candidates.
- Showing the treatments- well done
- Showing appropriate dimensions/key- fairly done by most candidates, some did not fully label their sketch plans.
- labelling = the layout was not fully labelled by candidates.
- Neatness of sketches (no dirt/stains/grease/cancellations) – well done

4.2.8 Approach/Procedure

- Step by step account of what is to be done (pre, conduct, post treatment including equipment and materials)- most candidates failed to get maximum marks (4) as they could not outline steps taken clearly under procedure.
- Steps numbered in correct sequence- the order of steps was fairly done.
- Ease of following procedure-not well done by most candidates as they failed to reach minimum number of activities required.



4.2.9 Information collected from observation/data

- State clearly what to be observed, units of measure-candidates could not relate mass and yield. They stated that they observed yield, but yield is calculated and not collected.
- Instruments, devices used for collecting data, their specifications- well done.
- How the collected data is going to be recorded (form of presentation)- well done.

4.2.10 Analysis of findings / implications of findings

- Analysis of results / computations- computations of results was not done, some candidates did not indicate the units of measurements. The overview of the results was satisfactory even though some candidates failed to adequately show the trends, e.g. highest result obtained and the concluding statement.
- Selecting statistical parameter for summarising the data- poorly done as candidates failed to calculate yield as per the objective.
- Mention / naming the form of data presentation- well done.
- Relevance of presentation method- well done.
- Labelling (title / Y and X axis) – for some candidates the title of the presentation was not striking e.g. underlined, bolded or use of upper-case letters.
- Overview interpretation of the findings-poorly done as candidates referred to yield as mass.

4.2.11 Conclusion

- Re-stating purpose or question looking for answer-some candidates failed to repeat the purpose of the investigation.
- Briefly explaining the findings (differences and reasons of the observations)- poorly done as candidates failed to explain the differences observed.
- Providing the answer to the observed factor-poorly done as candidates confused mass with yield.
- Explanation of unexpected outcomes- well done as most candidates managed to indicate their new experiences.
- Statement of take-home findings (lesson learned) from observation-most candidates indicated the main lesson or lessons learnt from the investigations.

4.2.12 Recommendations

- State the actions to be taken based on investigation- candidates managed to recommend the appropriate practice to be adopted for increased production.
- Relevance and consistence recommendations to findings- actions suggested were relevant to the findings.



- Suggest any modification of investigation to ensure accurate results- not correctly done as candidates failed to state how they can change the investigation methodology in order to get accurate results.
- Recommendation aligned to objectives – most recommendations were aligned to objectives as stated at the beginning of the study.

4.2.13 Precautions/SHE during observations

- Identifying safety, health and environmental threats-majority of candidates failed to state threats posed by the study to the environment, their health and safety.
- Reflecting accurate adherence to SHE concerns- most candidates did well though they just generally wrote 'putting on of protective clothing' instead of stating the type of protective wear and its intended purpose e.g. 'face mask to prevent inhalation of chemicals'.
- Suggesting intelligible mitigation to SHE threats-poorly done by almost all candidates.

4.2.14 Alignment of observations to existing literature

- How the observation relates to existing literature- all candidates failed to relate their investigation to any correct literature
- Two correctly formatted references used- all candidates failed to correctly format the wrong literatures they used.

4.3 FIELD PRACTICAL TRAINING REPORT

General presentation of the candidates work: All reports were typed as per syllabus recommendation. The binding of projects was satisfactory. The needed attachments were provided by all candidates except for six candidates who did not have the Training Officer in Industry rating (TOI). The range of marks indicate that candidates took their Field Practical Training seriously i.e. both on the field and during compilation of the report.

4.3.1 Cover Page

All candidates provided the expected details.

- Name of place of attachment was well done, however some candidates wrote the name of institution instead of the name of the farm where the FPT was carried out.

4.3.2 Title page

- Some candidates did not write their candidate numbers, date of submission, and the candidate signature also missing. Some used initials and surname instead of signature

4.3.3 Contents page

- Almost all candidates outlined the main headings in correct order. Some candidates wrote headings like 'cover page and title page' on the contents page and hence lost marks for correct order.
- Some headings were not written in upper case.

- Some drew leader dots without page numbers.
- Some wrote range of pages (5-6) instead of a single page number.

4.3.4 Declaration of Originality

- Some candidates did not write the statement in full, rather they wrote the required information in bullet form.
- Some did not indicate their candidate numbers.
- Generally, it was well done.

4.3.5 Acknowledgements

- 'Who provided service' was well done by all candidates, however few candidates failed to state the required minimum of 4 acknowledgements.
- Some listed/clumped the names of those who assisted them as a group and wrote the type of service they provided without separating them.

4.3.6 Introduction

- Name of place of attachment was well done, however some candidates wrote the name of institution instead of the name of the farm where the FPT was carried out.
- Justification of selection of place of attachment was not clearly spelt out by most candidates.
- Most candidates stated their expectations prior/before going for attachment only a few stated what they experienced /learnt at the place of attachment.
- Clarity of benefits from attachments was not clearly written.

4.3.7 Description of farm routine schedule

- All candidates failed to state the staff complement of the farm in terms of the number of workers.
- Almost all candidates drew the organogram, but some were incomplete, and others contained wrong information like 'vegetation' instead of 'vegetable' manager'.
- The staff complement qualifications were inadequately done.
- Tools and equipment used was well done.
- The daily work schedule of the farm was not properly done, candidates should stipulate the daily tasks performed by workers.
- Workplace interaction description was clear for some candidates in terms of who reports to who and the organogram was used in some cases to establish the line of communication.
- Farm records kept and their use-fairly done as some candidates stated how the farm records were kept but failed to state their usefulness to the farm.
- Technology leverages-fairly done; candidates failed to state how the farm takes advantage of computers/ technologies in the farm used for keeping records.

- Most candidates failed to outline how a particular product is prepared for the market but could not deduce the profitability of the farm.

4.3.8 Description of activities carried out.

- Well done by candidates but they failed to state the duration of each operation carried out and the number of employees engaged.

4.3.9 Findings/ Observations

- These should be related to the learner expectations as stated at the Introduction, however some candidates failed to relate these two sections, those who tried could not state how they benefited from the expectations met.
- 'Learning experiences not met' was addressed by some candidates but 'closing of gaps' was not addressed.
- Most candidates identified 'unexpected learning experiences gained' but failed to deduce how the experiences will be useful to them.

4.3.10 Conclusion

- The worth of the attachment exercise was highlighted by most candidates.
- The lessons learnt were stated by candidates but failed to relate how the experience will make them better producers. Candidates did not state what can be done as to improve their learning experiences.
- How the learning experiences could be made better- mostly failed to state how the lessons learnt can be made better

4.3.11 Recommendations

- Areas of improvement on the farm- some candidates did not highlight areas which needed improvement on the farm.
- Farm practices to be maintained- candidates failed to state farm practices to be maintained.
- Farm practices to be discouraged- all candidates did not pick regressive practices which need to be discouraged.

4.3.12 Rating by Training Officer in the Industry (TOI)

- It was well done by all candidates who attached it, about 6 candidates did not attach the TOI rating.

4.3.13 Overall report quality

- Creativity in presentation of information- only boarder lines and tables were evident in almost all candidates and some presented organograms.
- ICT skills/creativity demonstrated in compilation of the report-most candidates attempted to use their ICT skills like spread of text, bolding, underlining, punctuations and spacing when compiling

their report. Some candidates used different fonts when writing the report and there was no uniformity.

- Clarity of illustrations used and sequencing-well done.
- Quality of report binding- all reports were easy to flip, durable and pages were secure.

4.3.14 Appendices

- All required attachments were availed except for TOI rating and field completion certificate by 6 candidates.
- No candidate presented pictures of the farm and equipment; a few candidates presented pictures of the operation e.g. packaging of vegetables.

4.4 PRACTICAL TASKS

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

4.4.2 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.

4.4.3 General Concerns about Practical Tasks

- Practical module summary mark sheet was not submitted on time by the centre.
- Evidence for Practical tasks was not provided by the centre.
- For module 1(Grow plants), only 3 practical tasks were assessed instead of the expected 4.
- For module 2(Produce vegetable crops), half the candidates were assessed on 3 practical tasks instead of the 4 required.
- For module 3 (Produce fruit trees), all candidates were assessed in only one practical task.
- For module 4 (Produce Ornamentals and Lawn) some candidates were assessed on 3 tasks others on 2 Practical tasks.
- For module 5 (Establish land scape), no candidate was assessed, and no reason was forwarded.
- Recommendations were made to the concerned centre to adjust marks accordingly to comply with assessment procedures.
- This led to all candidates getting less than the average marks for the total practical task marks.