



**FINAL EXTERNAL INTEGRATED SUMMATIVE ASSESSMENT
OCCUPATIONAL CERTIFICATE: ORCHARD AND VINEYARD FOREMAN
MARKING MEMORANDUM**

Version I (Exemplar) · version dated 17 January 2025 · Instrument code: OVF-EISA-V1

SAQA ID: 110667 CREDITS: 147

Total marks: 100 (Paper 1: 60 marks, 180 minutes · Paper 2: 40 marks, 120 minutes)

Pass mark: 50% · Overall requirement: 65% across both papers · EXEMPLAR · published with the exemplar papers

Marking instructions

- Positive marking: award marks for correct content; do not deduct for incorrect additions unless they contradict the correct answer.
- The bracketed values after each model answer show the mark split. Each point is awarded once; the marks for an item sum exactly to the item total at its heading.
- Multiple choice: the mark is earned by the correct option. Where the item also asks for a brief reason, the split shows the option mark and the explanation mark separately; award the explanation mark for any reason consistent with the correct option.
- Model answers marked “Expected Answers” and “Examples” are guides, not exhaustive lists. Accept any technically correct equivalent response at the same level of detail.
- Assess content, not language, with one exception: Paper 2, item 2.1.3.1, where clarity and professional tone are themselves the marking criteria.
- Where a later part of an item builds on the candidate’s earlier incorrect response, mark the later reasoning on its own merits.
- Mark content wherever the candidate has written it, inside or outside the printed answer spaces.
- The per-point splits in this memorandum are the capture key for e-assessment marking.

PAPER 1

Paper 1 counts 60 marks. Answers below follow the numbering of the question paper.

QUESTION 1.1 (25 Marks, 75 Minutes)

Lead, monitor and control a skilled and motivated work team to achieve quality and quantity targets in an orchard or vineyard.

Question 1.1.1 (13 points, 39 minutes) · Multiple choice

Apply the management responsibilities of the foreman in orchard or vineyard management processes.

1.1.1.1 2 marks · Knowledge (Bloom's L1)

What is ONE of the MOST important things to do when planning work in an orchard or vineyard? Choose the best answer and briefly explain your reason.

Answer: Correct answer: c) Setting achievable goals for how much will be produced, considering what the market wants and what resources are available. (1 point) The planning phase in orchard/vineyard management is about setting the stage for successful production. Setting realistic production targets based on market demand and available resources is the foundational step in the planning process. It guides all subsequent decisions about resource allocation, workforce needs, and production methods. Therefore, it's the MAIN goal of the planning phase. (1 point)

1.1.1.2 2 marks · Comprehension (Bloom's L2)

What's the BEST way to organize a team for orchard work? Choose the best answer and briefly explain your reason.

Answer: Correct answer: a) Give jobs based on each worker's skills and experience, and what the job needs. (1 point) Effective team organization in orchard management requires matching worker skills and experience with the specific requirements of each task. Options a and b are inefficient and potentially lead to errors or delays. Option d ignores the importance of teamwork and collaboration, which are essential for success in orchard management. Option c recognizes that different tasks require different skill sets, and assigning workers accordingly maximizes efficiency and productivity, leading to better team performance and overall orchard management. (1 point)

1.1.1.3 2 marks · Application (Bloom's L3)

Harvesting is tough. How can a foreman BEST motivate their team? Choose the best answer and briefly explain your reason.

Answer: Correct answer: d) By praising their work, celebrating successes, and making sure everyone feels supported. (1 point) Option (c) is the best approach because positive reinforcement, recognition of effort, and a supportive work environment foster a sense of teamwork and accomplishment, increasing motivation and improving overall team performance, especially crucial during a challenging harvest season. It addresses both the production goals and the well-being of the team. (1 point)

1.1.1.4 2 marks · Analysis (Bloom's L4)

Your team seems unhappy. What should you do? Choose the best answer and briefly explain your reason.

Answer: Correct answer: c) Find out why they're unhappy and fix the problem. (1 point) Option (c) is the best approach because it addresses the root cause of the issue. By investigating the underlying causes – whether it's excessive workload, poor working conditions, inadequate communication, or other factors – the foreman can identify specific problems and develop appropriate solutions. This proactive approach demonstrates care for the team and fosters a more positive and productive work environment. (1 point)

1.1.1.5 2 marks · Application (Bloom's L3)

You set daily goals for picking fruit. What's the BEST way to check progress and quality? Choose the best answer and briefly explain your reason.

Answer: Correct answer: a) Regularly check the fruit, using a checklist, and give feedback on what's good and what needs to be improved. (1 point) Option (b) is the most effective method because regular quality checks allow for early identification of issues and immediate corrective actions. Timely feedback helps maintain consistent quality, improve efficiency, and keep the team on track to meet the daily targets. This proactive approach is crucial for effective monitoring and quality control during the harvesting process. (1 point)

1.1.1.6 2 marks · Analysis (Bloom's L4)

Your orchard hasn't been producing enough fruit for a few seasons in a row. What should you do? Choose the best answer and briefly explain your reason.

Answer: Correct answer: c) Analyse the entire process (from planning to harvesting) to identify bottlenecks and inefficiencies, develop and implement corrective actions. (1 point) Option (c) is the best course of action because it's a systematic and proactive approach to problem-solving. By analysing the entire production process, from initial planning and resource allocation to harvesting and post-harvest handling, the foreman can identify specific bottlenecks, inefficiencies, or areas for improvement. This data-driven approach allows for the development and implementation of targeted corrective actions to address the underlying causes of the production shortfall and improve overall orchard performance in a sustainable manner. (1 point)

1.1.1.7 1 mark · Analysis (Bloom's L4)

Your fruit quality isn't as good as it should be, even though you seem to be following all the best practices, irrigation, nutrition and pest control. What should you do? Choose the best answer.

Answer: Correct Answer: d) Carefully check every part of how you manage your orchard to find the problem and fix it. (1 point)

Question 1.1.2 (12 points, 36 minutes)

Set daily targets, monitor performance and address deviations to achieve the production plan for the orchard or vineyard.

1.1.2.1 2 marks · Knowledge (Bloom's L1)

Sunrise Orchards needs to set daily targets for its blueberry harvest. What factor should be given the HIGHEST priority when determining the daily harvest volume? Choose the best answer and briefly explain your reason.

Answer: Correct Answer: c) Predictions of berry ripeness based on how the berries look and weather forecasts. (1 point) Accurate prediction of ripeness is crucial for efficient harvesting and minimizing losses due to overripe or underripe berries. Other factors are important but secondary to determining the daily harvest volume for a perishable crop like blueberries. (1 point)

1.1.2.2 2 marks · Application (Bloom's L3)

During harvest, you need to pick 500 kg of grapes every day, and you have five teams. What's the BEST way to set targets? Pick one and briefly explain your choice.

Answer: Correct Answer: c) Give each team 100kg but change the amount depending on how well they've done before and what problems there might be (weather, equipment etc.). (1 point) This option acknowledges that team performance can vary, allowing for flexibility and addressing potential issues proactively. Setting fixed targets (a and d) doesn't account for such variables. Option b is too conservative, potentially leaving significant unharvested crop. (1 point)

1.1.2.3 2 marks · Knowledge (Bloom's L1)

You want to make sure your fruit-picking team is doing a good job. What's the BEST way to monitor their work? Pick one and briefly explain your choice.

Answer: Correct Answer: a) Have regular meetings to discuss progress and address any issues. (1 point) Regular communication and feedback are essential for monitoring progress, addressing challenges, and maintaining team morale. Options a, c, and d are ineffective or ignore crucial aspects of performance monitoring. (1 point)

1.1.2.4 2 marks · Application (Bloom's L3)

One of your blueberry-picking teams is lagging behind other teams. What's the BEST way to find out why? Pick one and briefly explain your choice.

Answer: Correct Answer: b) Have a quick chat with the team to see if there are any problems (equipment, tired workers, etc.). (1 point) This proactive approach allows for immediate identification of potential problems and timely intervention. Reprimanding (a) is counterproductive; ignoring (c) leads to further losses; assigning tasks to another team (d) might not solve the underlying problem. (1 point)

1.1.2.5 2 marks · Analysis (Bloom's L4)

Lots of your citrus fruit is rotting, so your pickers aren't meeting their targets. What's the MOST likely reason? Pick one and briefly explain your choice.

Answer: Correct Answer: d) There's a disease problem because of pests or poor disease control. (1 point) In the Sunrise Orchards scenario, the significant challenge is pest and disease pressure. Fruit rot directly points to a failure in disease management. While other factors (a, b, d) can influence yield, they're less likely to be the primary cause of widespread fruit rot. (1 point)

1.1.2.6 2 marks · Analysis (Bloom's L4)

Sunrise Orchards' blueberries are being attacked by pests and diseases. What's the BEST long-term plan to deal with this?

Answer: Correct Answer: b) Use a combination of methods (preventative, biological, chemical only if necessary) to control pests and diseases sustainably. (1 point) IPM is a sustainable and long-term strategy addressing the root cause (pest and disease pressure) in a responsible way. Options a, c, and d are reactive, unsustainable, or avoid the problem entirely. (1 point)

SUB-TOTAL: 25

QUESTION 1.2 (20 Marks, 60 Minutes)

Control vineyard or orchard practices.

Question 1.2.1 (4 points, 12 minutes)

Control and evaluate cultivation practices to determine adherence to safety rules and regulations and to improve and maintain safe working conditions.

1.2.1.1 1 mark · Application (Bloom's L3)

Plan a safety training session for your team that includes these three important topics: (Write a short sentence regarding each point that you can use to train your team with.)

Answer: (Expected Answers should include at least these three elements: Safe pesticide handling (including mixing, application, and disposal), Safe equipment operation (highlighting specific risks associated with different equipment types), Importance of PPE (appropriate types of PPE for different tasks and how to correctly use and maintain them). (1 point)

1.2.1.2 1 mark · Synthesis (Bloom's L5)

List TWO possible dangers on your farm (in the vineyard or orchard) and explain one practical way the foreman can reduce the risk for each danger.

Answer: (Expected Answers should include two hazards with mitigation, examples of hazards): Vineyard hazard (e.g., uneven terrain leading to injuries, solution: improving pathways, providing appropriate footwear), Orchard hazard (e.g., machinery entanglement/injury risk during pruning, solution: implementing regular maintenance, ensuring workers are trained in safe machine operation). (1 point)

1.2.1.3 1 mark · Comprehension (Bloom's L2)

Explain how a checklist system can be used to monitor compliance with safety regulations at your farm. Include TWO specific examples of items that should be checked regularly using the checklist.

Answer: (Expected Answers should mention checklist and at least two items): A regular checklist system allows for systematic monitoring of safety practices. Two items: (1) Verification of PPE use (are workers wearing appropriate PPE for their tasks?), (2) Check for proper maintenance and safe operation of machinery (are safety guards in place and functioning correctly? Is equipment being operated according to safety guidelines?). (1 point)

1.2.1.4 1 mark · Synthesis (Bloom's L5)

Describe a system for anonymously reporting safety concerns at your farm. Explain why anonymity is important, and how the foreman should respond to reported concerns.

Answer: (Expected Answers should address anonymity and response): A suggestion box, an online anonymous reporting platform, or a designated individual who can receive and process reports confidentially. Anonymity is important because it encourages workers to report concerns without fear of reprisal, leading to a safer work environment. The foreman should acknowledge all reports promptly and investigate them thoroughly, taking appropriate corrective actions to address the issues raised. (1 point)

Question 1.2.2 (8 points, 24 minutes)

Processes and procedures to monitor production output for adherence to quality, hygiene and technical standards.

1.2.2.1 2 marks · Application (Bloom's L3)

Your farm needs to improve its quality control procedures for the fruit. Describe THREE specific quality control measures that should be implemented before harvest, focusing on ripeness, size, colour, and defects.

Answer: (Expected Answers should include three pre-harvest measures focusing on the listed aspects. Examples): (1) Regular visual inspection of fruit to assess ripeness and identify any diseased or damage. (2) Implementation of a sizing system for harvesting to ensure consistency in size and quality. (3) Colour chart used to assess ripeness and uniformity of fruit before harvest. (2 points)

1.2.2.2 2 marks · Knowledge (Bloom's L1)

Outline THREE hygiene protocols that should be implemented at your farm to prevent contamination during the harvesting and handling of citrus fruit.

Answer: (Expected Answers should include three hygiene protocols for citrus fruit harvesting and handling. Examples): (1) Sanitizing all harvesting equipment (bins, crates, tools) before and after use. (2) Implementing handwashing stations for workers at strategic points during the harvest. (3) Proper storage procedures for harvested fruit to prevent spoilage and maintain quality. (2 points)

1.2.2.3 2 marks · Comprehension (Bloom's L2)

You use daily production logs to track harvested quantities. Explain how comparing the actual daily harvest to the expected daily harvest can help identify potential problems. Give TWO examples of problems that might be revealed through this comparison.

Answer: (Expected Answers should describe the comparison process and at least two examples. Examples): Comparing actual versus expected daily harvests helps identify deviations from the planned production schedule. Two potential problem examples: (1) A consistent shortfall in actual harvest compared to expected yield might point to issues with insufficient irrigation, pest damage, or worker inefficiency. (2) A sudden drop in actual yield compared to expected output could signal a problem with equipment malfunction or extreme weather conditions. (2 points)

1.2.2.4 2 marks · Comprehension (Bloom's L2)

Describe TWO methods you could use to communicate quality expectations to harvesting teams and provide feedback on their performance. Explain why regular communication is essential for maintaining a focus on quality and hygiene.

Answer: (Expected Answers should include two communication methods and why communication is essential. Examples): (1) Regular team meetings to discuss quality standards, review performance, and address any concerns. (2) Use of a simple feedback system where workers can report issues anonymously and receive prompt responses. Regular communication is essential because it helps to establish and reinforce quality standards, promotes a culture of accountability, improves teamwork, and allows for timely interventions to address any problems that affect quality or hygiene. (2 points)

Question 1.2.3 (8 points, 24 minutes)

Conduct regular inspections in the orchard or vineyard of equipment and processes to address deviations from standards and initiate preventative steps.

1.2.3.1 2 marks · Synthesis (Bloom's L5)

Develop a sample inspection schedule for a fruit orchard, covering key aspects of tree health, pest and disease monitoring, and fruit quality. Your schedule should include at least Two different types of inspection and specify how frequently each should occur.

Answer: (Expected Answers should include at least two inspections, frequency, and key aspects. Examples):

- Visual Tree Inspection: Weekly check for signs of stress, pest/disease, or nutrient deficiency.
- Pest & Disease Monitoring: Bi-weekly inspection, targeted based on known regional threats or observations (visual check of leaves, branches, and fruit; trapping if applicable).

- Fruit Quality Assessment: Performed prior to harvest (frequency varies based on fruit type, e.g. weekly for high-value, short-season crops); check for ripeness, size, colour, and defects.

(2 points)

1.2.3.2 2 marks · Comprehension (Bloom's L2)

Outline TWO key aspects of regular equipment maintenance in a fruit orchard, highlighting the importance of preventative maintenance and its benefits. Explain how this maintenance relates to worker safety and overall productivity.

Answer: (Expected Answers should detail three key aspects of equipment maintenance and their relation to safety/productivity. Examples):

- Preventative Maintenance: Regular inspections and scheduled servicing of machinery prevent major breakdowns and extend equipment life.

- Safety Checks: Regular safety inspections of equipment (guards, brakes, etc.) are crucial for protecting workers from injury.

- Cleaning and Sanitation: Cleaning equipment thoroughly after each use and conducting regular sanitization are essential to prevent disease spread and maintain high fruit quality. All three aspects are related to safety and productivity.

(2 points)

1.2.3.3 2 marks · Comprehension (Bloom's L2)

Describe TWO key processes in fruit production where regular audits are essential for maintaining quality and efficiency. For each process, identify TWO specific factors that should be included in the audit.

Answer: (Expected Answers should detail two processes with two audit factors for each. Examples):

- Irrigation: (1) Water usage efficiency: check if the irrigation system is distributing water evenly and efficiently. (2) Soil moisture levels: use sensors or soil probes to monitor soil moisture levels in various areas and adjust irrigation as needed.

- Fertilization: (1) Nutrient levels: use soil tests to monitor nutrient levels and adjust fertilizer applications to meet the needs of the crops. (2) Fertilizer application methods: assess whether fertilizers are applied evenly, correctly, and in accordance with best practices to prevent burn or runoff.

(2 points)

1.2.3.4 2 marks · Knowledge (Bloom's L1)

Explain the importance of maintaining detailed records of inspections, audits, and corrective actions on a fruit farm. Outline TWO benefits of a well-maintained documentation system.

Answer: (Expected Answers should list at least three benefits. Examples):

- Improved Efficiency: Helps to identify recurring problems and develop proactive solutions.

- Compliance and Traceability: Provides documentation that can be used for compliance audits and to trace the origin of any issues.

- Continuous Improvement: Supports ongoing analysis of production processes, enabling informed decision-making and continuous improvement in management practices.

(2 points)

SUB-TOTAL: 20

QUESTION 1.3 (15 Marks, 45 Minutes)

Production activities of a horticultural crop from establishment to harvesting through all growth stages of the crop are discussed.

Question 1.3.1 (2 points, 6 minutes)

Explain the plant structure and functions and the influence thereof on horticultural processes.

1.3.1.1 1 mark · Knowledge (Bloom's L1)

Complete the table below, giving a short description of the function of each plant part:

Answer: (Expected Answers should list the following:

Roots: Serve to anchor the plant in the soil, absorb water, and nutrients. They also store energy in the form of carbohydrates.

Stems and Trunks: Support the plant, transport nutrients and water from roots to leaves, and store food. Stems also hold leaves for optimal light exposure.

Leaves: The primary site for photosynthesis, where plants convert sunlight, carbon dioxide, and water into glucose and oxygen. They also play a role in transpiration, regulating water loss.

Flowers and Fruits: Flowers are critical for reproduction, enabling pollination and fruit set. Fruit development is essential for seed dispersal and can affect decisions regarding harvesting times.

(1 point)

1.3.1.2 1 mark · Knowledge (Bloom's L1)

Complete the table below, giving a short description of the production practices that influences the health or growth of each plant part: (practices include, irrigation, nutrient management, plant manipulation etc.)

Answer: (Expected Answers should list the following:

Roots: Irrigation, plant nutrition.

Stems and Trunks: Plant manipulation (pruning), irrigation, plant nutrition, pest & disease control.

Leaves: Plant manipulation (pruning), irrigation, plant nutrition, pest & disease control.

Flowers and Fruits: Plant manipulation (pruning), irrigation, plant nutrition, pest & disease control.

(1 point)

Question 1.3.2 (3 points, 9 minutes)

Define and explain crop establishment principles.

1.3.2.1 1 mark · Comprehension (Bloom's L2)

Coastal Fruit Farms is planning new plantings. Which of the following BEST describes the primary reason for conducting a thorough soil test before establishing a new orchard. Choose the best answer.

Answer: Correct Answer: b) Soil testing is crucial for identifying potential problems before planting, thereby preventing costly mistakes in the long term. (1 point)

1.3.2.2 1 mark · Comprehension (Bloom's L2)

When planting citrus trees, which of the following practices is MOST important for ensuring adequate root development and air circulation? Choose the best answer.

Answer: Correct Answer: c) Correct planting techniques are fundamental for healthy root development and adequate air circulation, essential factors for successful establishment and long-term health and growth. (1 point)

1.3.2.3 1 mark · Comprehension (Bloom's L2)

Immediately after planting new grapevines, which irrigation practice is MOST important for ensuring successful establishment without negatively impacting plant health? Choose the best answer.

Answer: Correct Answer: c) Drip irrigation provides controlled watering, avoiding the risks of waterlogging (which can damage roots) and ensuring optimal soil moisture for successful establishment. (1 point)

Question 1.3.3 (10 points, 30 minutes)

Explain orchard/vineyard production processes and technology/machinery and motivate reasons for, procedures and timing of activities.

1.3.3.1 1 mark · Comprehension (Bloom's L2)

Which of the following is the PRIMARY reason for planting fruit trees in early spring or late autumn? Choose the best answer.

Answer: Correct Answer: b) Establishing roots before the summer heat is essential for the survival and healthy growth of newly planted trees. (1 point)

1.3.3.2 1 mark · Comprehension (Bloom's L2)

Why is a drip irrigation system often preferred over other irrigation methods in fruit production? Choose the best answer.

Answer: Correct Answer: c) Consistent moisture is essential for healthy plant growth, especially during critical phases like flowering and fruit set. (1 point)

1.3.3.3 1 mark · Comprehension (Bloom's L2)

Why is pruning typically done during the dormant season (late winter for stone fruits; post-harvest for grapes)? Choose the best answer.

Answer: Correct Answer: c) Dormant pruning encourages healthy growth and fruit production. (1 point)

1.3.3.4 1 mark · Comprehension (Bloom's L2)

Why is it important to conduct soil tests before applying fertilizers? Choose the best answer.

Answer: Correct Answer: b) Soil tests are crucial for determining nutrient deficiencies, ensuring appropriate fertilizer application, and preventing over-fertilization which can harm plants and the environment. (1 point)

1.3.3.5 1 mark · Comprehension (Bloom's L2)

What is the PRIMARY advantage of using Integrated Pest Management (IPM) practices. Choose the best answer.

Answer: Correct Answer: c) Minimizing environmental impact and promoting sustainability are core tenets of IPM. (1 point)

1.3.3.6 1 mark · Comprehension (Bloom's L2)

What is the main advantage of using sprayers for pesticide application in fruit production? Choose the best answer.

Answer: Correct Answer: c) Even and efficient application is a key advantage of sprayers, leading to improved pest control and reduced pesticide use. (1 point)

1.3.3.7 1 mark · Comprehension (Bloom's L2)

Why is hand-picking often preferred over mechanical harvesting for stone fruits? Choose the best answer.

Answer: Correct Answer: c) Reducing bruising is the primary reason for preferring hand-picking; this maintains higher quality and value for stone fruits, which are particularly susceptible to damage. (1 point)

1.3.3.8 1 mark · Comprehension (Bloom's L2)

What is the main benefit of using trellising systems in grape production? Choose the best answer.

Answer: Correct Answer: c) Improved light exposure and air circulation are the primary advantages of trellising, resulting in better fruit quality and easier harvesting. (1 point)

1.3.3.9 1 mark · Comprehension (Bloom's L2)

Why is pruning often carried out during the dormant season for many fruit trees? Choose the best answer.

Answer: Correct Answer: c) Pruning during dormancy allows the plant to focus its energy on new growth without the additional burden of maintaining existing leaves and flowers. (1 point)

1.3.3.10 1 mark · Application (Bloom's L3)

A fruit farmer experiences unusually high temperatures during the growing season. What is the MOST appropriate adjustment to their irrigation schedule? Choose the best answer.

Answer: Correct Answer: c) Increased evapotranspiration (water loss due to heat) necessitates more frequent irrigation to maintain optimal soil moisture and support healthy growth during the hot period. (1 point)

SUB-TOTAL: 15

PAPER 1 TOTAL: 60

PAPER 2

Paper 2 counts 40 marks. Answers below follow the numbering of the question paper.

QUESTION 1.1 (20 Marks, 60 Minutes)

Organise, allocate and monitor availability and productive use of resources in an orchard or vineyard.

Question 1.1.1 (7 points, 21 minutes)

Identify all orchard or vineyard resources related to human, agricultural input, machines and equipment and reason their importance in the production cycle and achievement of targets.

1.1.1.1 2 marks

Which of the following statements best explains why skilled, experienced workers are important for managing an orchard successfully? Choose one and briefly explain why.

Answer: Correct Answer: c) Skilled workers are essential for achieving production targets and maintaining quality. (2 points)

1.1.1.2 2 marks

What is the main reason for regularly testing soil nutrients in an orchard? Choose one and briefly explain your answer.

Answer: Correct Answer: d) Soil testing is crucial for making informed decisions regarding fertilization. (2 points)

1.1.1.3 2 marks

Why is it important to regularly maintain harvesting equipment in fruit production? Choose one and briefly explain your answer.

Answer: Correct Answer: a) Preventing equipment failure during harvest is crucial for maintaining productivity. (2 points)

1.1.1.4 1 mark

How do good resource use practices (like managing workers, materials, machines, and equipment) help meet production goals? Choose the best answer.

Answer: Correct Answer: c) Efficient resource use is directly linked to improved productivity and the achievement of production targets. (1 point)

Question 1.1.2 (6 points, 18 minutes)

Ensure availability through organising and allocating resources and monitor productive use.

1.1.2.1 2 marks

Which option best explains why organizing and allocating resources well is important in orchard management? Choose one and briefly explain your answer.

Answer: Correct Answer: c) Effective resource organization is essential for efficiency and minimizing waste. (2 points)

1.1.2.2 2 marks

A farm manager needs to assign workers for harvesting. Which approach is the most effective for using the workforce efficiently? Choose one and briefly explain your answer.

Answer: Correct Answer: c) Matching worker skills and experience with task demands maximizes efficiency. (2 points)

1.1.2.3 2 marks

Which of the following is the best way to monitor how well irrigation water is used in a vineyard? Choose one and briefly explain your answer.

Answer: Correct Answer: a) Using monitoring tools provides accurate data to assess water use efficiency and allows for adjustments as needed. (2 points)

Question 1.1.3 (4 points, 12 minutes)

Define maintenance procedures to ensure machine and equipment availability and reliability and correct and safe utilisation practices.

1.1.3.1 2 marks

Which of the following BEST describes preventative maintenance for farm machinery? Choose one and briefly explain your answer.

Answer: Correct Answer: b) Preventative maintenance aims to prevent problems before they occur, which is more efficient and cost-effective. (2 points)

1.1.3.2 2 marks

Which practice is MOST important for ensuring the safe and correct use of farm machinery? Choose one and briefly explain your choice.

Answer: Correct Answer: c) Training and adherence to safety regulations are paramount for safe and correct machinery operation. (2 points)

Question 1.1.4 (3 points, 9 minutes)

Discuss the correct storage and cleaning of equipment and machines.

1.1.4.1 1 mark

Which of the following is the MOST important aspect to consider when storing farm machinery and equipment? Choose the best answer.

Answer: Correct Answer: c) Protecting equipment from the elements and theft extends its life and reduces replacement costs. (1 point)

1.1.4.2 2 marks

Why is regular cleaning and sanitization of harvesting equipment crucial in fruit production? Pick one and briefly explain your choice.

Answer: Correct Answer: d) Preventing disease spread and maintaining quality are primary reasons for cleaning harvesting equipment. (2 points)

SUB-TOTAL: 20

QUESTION 2.1 (20 Marks, 60 Minutes)

Gather, interpret and supply daily vineyard or orchard production information to management, workers and service providers.

Question 2.1.1 (8 points, 24 minutes)

Gather and communicate accurate production information to management and workers.

2.1.1.1 2 marks

Green Harvest Farms needs to collect daily production data for its mango crop. Which method is the best for getting accurate and timely information? Choose one and explain your answer.

Answer: Correct Answer: c) Digital data collection systems improve accuracy and provide real-time data for monitoring and decision-making. (2 points)

2.1.1.2 2 marks

What is the MOST important aspect to consider when gathering production data for table grapes at Green Harvest Farms? Pick one and briefly explain your choice.

Answer: Correct Answer: b) Accuracy is essential for making informed management decisions. (2 points)

2.1.1.3 2 marks

What is the MOST effective method for communicating daily production data to the harvesting teams at Green Harvest Farms? Pick one and briefly explain your choice.

Answer: Correct Answer: c) Multiple methods ensure all team members understand the information and it can be easily reviewed. (2 points)

2.1.1.4 2 marks

At Green Harvest Farms, the blueberry harvesting team is struggling to understand the daily production reports. What is the BEST course of action to address this communication challenge? Pick one and briefly explain your choice.

Answer: Correct Answer: c) Proactively addressing the communication barrier ensures effective information transfer and avoids misunderstandings. (2 points)

Question 2.1.2 (8 points, 24 minutes)

Analyse production information to identify deviations from standards and practices and address.

2.1.2.1 2 marks

Green Harvest Farms is analysing its citrus production data. Which option shows a significant problem that needs immediate attention? Choose one and explain your answer.

Answer: Correct Answer: b) Consistent deviations from established standards signal a potential problem requiring investigation. (2 points)

2.1.2.2 2 marks

To effectively analyse production data at Green Harvest Farms, which tool or technique is MOST helpful for identifying trends and patterns? Pick one and briefly explain your choice.

Answer: Correct Answer: b) Visual representation facilitates the identification of trends and patterns. (2 points)

2.1.2.3 2 marks

Green Harvest Farms notices a consistent shortfall in its table grape harvest compared to planned targets. After analysing production data, the farm manager discovers that there is a

significant labour shortage during peak harvest times. What is the MOST effective solution to this issue? Pick one and briefly explain your choice.

Answer: Correct Answer: c) A multi-pronged approach addresses both the immediate need for labour and long-term efficiency improvements. (2 points)

2.1.2.4 2 marks

Green Harvest Farms observes a significant decrease in blueberry yield compared to the previous year. After reviewing environmental data, the farm manager identifies a prolonged period of unusually low rainfall during the critical growing season. What is the MOST effective way to mitigate the impact of this environmental deviation in future seasons? Pick one and briefly explain your choice.

Answer: Correct Answer: b) Improved irrigation will help compensate for periods of low rainfall. (2 points)

Question 2.1.3 (4 points, 12 minutes)

Communicate in a clear, succinct and well understood manner.

2.1.3.1 4 marks

A recent pest infestation has significantly reduced the yield of your blueberry crop. You need to inform your supervisor about the situation. Write a concise email to your supervisor explaining:

Answer: Example of a Good Response (around 100 words):

Subject: Urgent: Blueberry Crop Infestation

Dear [Supervisor's Name],

A significant pest infestation (likely [Name of Pest]) has severely damaged approximately [Percentage]% of the blueberry crop. We've already implemented [Action Taken, e.g., targeted pesticide application]. However, further action is needed. I propose [Proposed Action 1, e.g., introducing beneficial insects] and [Proposed Action 2, e.g., more rigorous monitoring] to mitigate further losses. I will provide a detailed report by [Date] and am available to discuss this further.

Sincerely,

[Your Name]

A marking rubric for this question should assess the following aspects:

- Clarity: is the information easy to understand? (1 point)
- Accuracy: is the information factually correct? (1 point)
- Completeness: does the response address all the points requested? (1 point)
- Professional tone and conciseness: is the email appropriately brief, professional in tone and style? (1 point)

SUB-TOTAL: 20

PAPER 2 TOTAL: 40

EISA TOTAL: 100