



THE KENYA NATIONAL EXAMINATIONS COUNCIL

AGRICULTURE

2026

School Based Assessment

Grade 10

Written Test

Time: 2 hours

Name: _____ Assessment No.: _____

School Name: _____ Signature: _____

Instructions

- (i) This paper consists of two sections: A and B.
- (ii) Section A consists of 20 multiple-choice questions, while Section B consists of structured questions.
- (iii) Answer all questions in both sections.
- (iv) In Section A, mark or circle the correct option. No separate answer sheet is provided.
- (v) In Section B, write your answers in the spaces provided.
- (vi) All answers in Section B must be written in English.

Teacher's Use only

Task	Question	Marks	Learner's Score
Task 1	1, 2, 3, 4, 5, 6, 7, 8, 21	27	
Task 2	9, 10, 11, 12, 13, 22	18	
Task 3	14, 15, 16, 17, 18, 19, 20, 23, 24, 25	25	

This paper consists of 13 printed pages. Confirm that all the pages are present and that no question is missing.

SECTION A (20 marks)

Answer ALL the questions in this section.

1. A learner compares two plots shown in a photo: one is gently sloping with deep soil, while the other is steep, rocky, and shallow. Which factor should the learner consider when selecting a suitable plot?



- A. Availability of farm labour
 - B. Distance from the homestead
 - C. Ease of land ownership transfer
 - D. Soil depth and erosion risk
2. During a soil test practical, learners notice that water drains too quickly through one soil sample, leaving crops drought-stressed soon after irrigation. Which soil property best explains this observation? High
 - A. clay aggregation
 - B. organic matter
 - C. sand content
 - D. soil acidity
 3. A farmer ploughs immediately after heavy rainfall, creating compact clods that later hinder seed emergence. Which land preparation decision would most improve crop establishment in the next planting season?
 - A. Applying fertiliser before ploughing
 - B. Ploughing deeper with heavier machinery
 - C. Repeating ploughing multiple times
 - D. Timing cultivation at optimum soil moisture

4. The photograph shows a tomato field where plants have abundant, large green foliage but produce very few small fruits.



Based on the visible crop condition, which management practice would most likely increase fruit yield?

- A. Early harvesting of mature fruits
 - B. Frequent irrigation during drought
 - C. Reducing planting density per row
 - D. Selective pruning of excess shoots
5. After transplanting seedlings during a hot afternoon, a learner notices that many plants wilt and fail to establish. Which adjustment would best increase the survival rate of the transplanted seedlings?
- A. Applying granular fertiliser immediately
 - B. Increasing seedling age before transplanting
 - C. Reducing spacing between seedlings
 - D. Transplanting late in the evening
6. The photograph shows a young bean crop heavily infested with broad-leaved weeds that are competing with the crop for light, water, and nutrients.



If the farmer wants to control the weeds while minimising environmental impact, which weed control method is most appropriate?

- A. Broadcasting non-selective chemicals
 - B. Deep mechanical cultivation weekly
 - C. Manual removal before seed set
 - D. Repeated application of selective herbicides
7. A farmer harvests maize on the farm. After several weeks in storage, the maize grains shrink, become wrinkled and lose quality. Which harvesting decision most directly contributed to this outcome?
- A. Delayed transport from the field
 - B. Harvesting before physiological maturity
 - C. Poor drying after shelling
 - D. Use of improper storage containers
8. The following photograph shows two cattle breeds.



X

Y

If the farmer's primary goal is milk production and sales, which conclusion is most valid based on the characteristics shown?

- A. Both breeds are equally suitable
 - B. Breed choice does not affect productivity
 - C. The dairy type breed is more appropriate
 - D. The muscular breed matures faster
9. A livestock handler attempts to restrain a restless bull by holding its horns with bare hands. Which safety practice would most effectively reduce the risk of injury to the handler?
- A. Calling for support from other people
 - B. Increasing handling strength and speed
 - C. Shouting commands to control the animal
 - D. Using appropriate restraining equipment
10. A goat displays signs of poor health, including loss of appetite, a rough coat, and weakness. Which action would best demonstrate responsible animal health management by the farmer?
- A. Increasing daily feed given to the animal
 - B. Isolating and seeking veterinary advice
 - C. Mixing the animal with the healthy herd only
 - D. Slaughtering the animal and burning the carcass
11. An apiary has been established close to a busy footpath, resulting in frequent disturbances to the bees and increased risk of human-bee conflicts. Which apiary site-selection factor was most poorly considered when choosing the location?
- A. Accessibility for harvesting honey
 - B. Availability of traditional hives
 - C. Distance from flowering plants
 - D. Safety of people and livestock
12. A group of learners undertaking a livestock production project accurately records all expenses but fails to keep daily records of feeding activities. This is more likely to affect the assessment of
- A. respect
 - B. integrity
 - C. responsibility
 - D. social justice
13. A Grade 10 learner is using a panga that has become blunt through prolonged use. The tool requires extra force to cut vegetation and produces rough, uneven cuts, increasing the risk of accidents. Which maintenance practice would most effectively improve both work efficiency and user safety?

- A. Increasing cutting speed
- B. Painting the handle brightly
- C. Sharpening the cutting edge
- D. Storing the tool in a dry place

14. The photograph shows ripe mangoes being processed into juice and packaged in clean, well-labelled bottles. Which advantage best explains how this form of value addition can contribute to improved food security?



- A. Eliminating seasonal production
 - B. Extending shelf life and usability
 - C. Increasing the natural mango taste
 - D. Reducing the need for farm labour
15. A learner decides to start a poultry enterprise after assessing the available space, startup capital, and strong market demand for poultry products. Which factor of production most strongly influenced the learner's decision?
- A. Entrepreneurship
 - B. Land for rearing the poultry
 - C. Labour to manage the poultry
 - D. Start-up capital
16. A market vendor displays vegetables in neatly sorted and graded bundles according to size, quality, and appearance. The vegetables sell more quickly than similar produce that is mixed and ungraded. Which marketing principle does this situation best demonstrate?
- A. Bulk transportation
 - B. Cost minimisation

- C. Direct farm sales
- D. Product differentiation

17. A farmer notices that a compost heap is producing a foul smell and is taking much longer than expected to decompose. Which management adjustment would most effectively improve the quality and rate of composting?

- A. Adding a layer of soil
- B. Covering heap permanently
- C. Improving aeration and material balance
- D. Increasing heap size only

18. A school garden is treated with compost manure instead of inorganic fertiliser. After several months, learners observe improved soil structure. Which agricultural concept best explains this improvement in soil structure?

- A. Accelerated nutrient leaching
- B. Improved biological activity
- C. Increased soil acidity
- D. Reduced soil porosity

19. After analysing production costs and market opportunities, a student decides to process honey into a value-added product and market it online rather than sell raw honey in the local market. Which entrepreneurial skill is most clearly demonstrated by this decision?

- A. Compliance monitoring
- B. Opportunity evaluation
- C. Physical resource control
- D. Record keeping

20. After analysing production costs and market opportunities, a student decides to process honey into a value-added product and market it online rather than sell raw honey in the local market. Which entrepreneurial skill is most clearly demonstrated by this decision?

- A. Compliance monitoring
- B. Opportunity evaluation
- C. Physical resource control
- D. Record keeping

SECTION B (50 marks)

Answer ALL the questions in this section.

21. The following photograph shows a school farm with two adjacent plots **E** and **F**.



E

F

a) Analyse the suitability of Plot **E** for sustainable crop production compared to Plot **F**.

(3 marks)

b) Explain how soil physical and biological properties could be responsible for the differences in crop growth observed between the two plots.

(3 marks)

- c) Evaluate the land preparation practices that should be carried out on Plot E before the next planting season to improve productivity. (3 marks)

- d) Justify **two** field management practices that would improve crop performance after establishment. (2 marks)

- e) The seedlings from the nursery are to be transplanted to Plot A. Explain **two** management decisions that would ensure high survival and early vigour of the transplanted crop. (2 marks)

- f) Using evidence from the visible weeds, assess the most appropriate weed control strategy for the school farm, considering environmental sustainability. (3 marks)

- g) Explain how harvesting time and method would influence the quality of produce obtained from Plot A. (2 marks)

22. The following picture shows a mixed farm with cattle, goats, and a small apiary at the edge of the farm. A learner is seen handling a cow using bare hands, while another animal appears dull and weak.



- a) Explain how breed selection would influence productivity in this livestock unit. (2 marks)

- b) Analyse the risks involved in the animal handling method shown by the learner and recommend safe handling practices that should be adopted. (3 marks)

c) The dull animal refuses to feed. Evaluate the importance of early disease detection and control in maintaining productivity on the farm. (3 marks)

d) Assess the suitability of the apiary location shown and propose management measures that would improve both safety and honey production. (5 marks)

23. A group of learners plans to rear rabbits as a school project. They have already identified suitable housing materials, but they have not prepared a budget or designed a record-keeping system for the project. Using the information provided, evaluate the importance of planning and record-keeping in ensuring the success of the rabbit-rearing project. (3 marks)

24. A photo shows learners using farm tools to harvest vegetables, while another image shows tomatoes processed into labelled sauce bottles.



- a) Analyse how proper selection, use, and maintenance of tools contribute to efficiency and safety during farm operations. (3 marks)

- b) Explain how value addition of tomatoes into sauce improves income generation and food security. (3 marks)

- c) Vegetable residues from processing are composted and later applied to the garden. Evaluate how composting contributes to soil improvement and environmental conservation. (3 marks)

25. A learner intends to start a small vegetable enterprise after observing high demand in the local market. The learner plans to sell both raw and processed produce.

- a) Analyse the key factors the learner should consider before establishing the vegetable enterprise. (3 marks)

- b) Evaluate the importance of grading, packaging, and appropriate market selection in improving the profitability of the enterprise. (3 marks)
