

KENYA CERTIFICATE OF BASIC EDUCATION

SENIOR SCHOOL ASSESSMENT

AUGUST HOLIDAY ACTIVITIES 2026

GRADE 10 – APPLIED AGRICULTURE

Time: 2 Hours



LEARNER'S DETAILS

Name: _____ School: _____

Assessment Number: _____ Date: _____

School Code: _____ Signature: _____

INSTRUCTIONS TO CANDIDATES

1. Write your name in the spaces provided above.
2. Write the name of your school and your stream in the spaces provided.
3. Write your admission number and the date of the assessment in the spaces provided.
4. This paper consists of two sections: A and B.
5. Answer all questions in section A and section B.
6. Answer the questions in English.
7. All answers **MUST** be written in the spaces provided in the paper.
8. Do **NOT** remove any page from this question paper.

FOR OFFICIAL USE ONLY

SECTION	SECTION A	SECTION B	% SCORE	EE1	EE2	ME1	ME2	AE1	AE2	BE1	BE2
SCORE RANGE	30 MARKS	50 MARKS		90-100	75-89	58-74	41-57	31-40	21-30	11-20	1-10
POINTS				8 POINTS	7 POINTS	6 POINTS	5 POINTS	4 POINTS	3 POINTS	2 POINTS	1 POINT
LEARNER'S TOTAL SCORE											

SECTION A (30 MARKS)

Answer **ALL** questions in this section.

1. A learner from **Eldoret** is planning to start maize farming but does not own land.

a) Define the term **agricultural land**. (1 mark)

b) State **two ways** the learner can access land. (2 marks)

- i. _____
- ii. _____

c) Outline **two natural factors** affecting land productivity. (2 marks)

i. _____

ii. _____

2. During a practical lesson, learners tested soil and observed poor drainage and low fertility.

a) Identify the **soil property** being tested. (1 mark)

b) State **two methods** of improving this soil condition. (2 marks)

i. _____

ii. _____

c) Explain why soil properties are important in crop production. (2 marks)

i. _____

ii. _____

3. Match the tools in Column A with their uses in Column B: (3 marks)

Column A

(i) Secateurs

(ii) Jembe

(iii) Panga

Column B

(a) Digging holes

(b) Pruning

(c) Cutting bushes

4. [DIAGRAM: A watering can, wheelbarrow, and rake]



a) Identify **any two tools** shown. (2 marks)

- i. _____
- ii. _____

b) State **one maintenance practice** for each identified tool. (2 marks)

- i. _____
- ii. _____

5. A farmer prepares land through ploughing, harrowing, and leveling.

a) Name the **stage of land preparation** described. (1 mark)

b) Arrange the operations in the correct order. (2 marks)

c) State one importance of proper land preparation. (1 mark)

6. State whether the statements are TRUE or FALSE. If false, correct them.

a) Weeds are always harmful to farmers. _____ (1 mark)

b) Zero tillage reduces soil erosion. _____ (1 mark)

c) Branding is not part of marketing agricultural produce. _____ (1 mark)

7. Four learners from **Nairobi School** made the following statements:

Amina: "Sorting improves quality."

Brian: "Packaging protects produce."

Carol: "Branding helps identification."

David: "Weighing determines price."

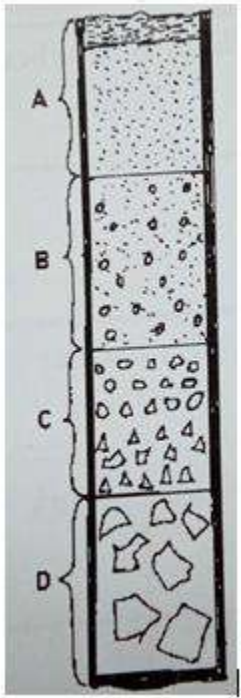
a) Identify the agricultural activity they are describing. (1 mark)

b) List **two benefits** of this activity. (2 marks)

i. _____

ii. _____

8. Study the diagram below and use it to answer the questions that follow



a) Identify the diagram (1 mark)

b) Name the parts A, B, C and D in the diagram. (2 marks)

i. _____

ii. _____

c) State the usual colour of each of the parts labelled A and B

A: _____.

B: _____.

d) A soil sample weighs 25 g before being oven dried. The soil weighs 15 after being oven dried at 105⁰c. Calculate the

i. Moisture content of the soil

ii. Percentage moisture content

e) Mention four ways of conserving soil water

i. _____

ii. _____

iii. _____

iv. _____

9. A farmer keeps animals for milk and meat production.

a) Distinguish between **dairy and beef breeds**. (2 marks)

Dairy breed	Beef breed

b) Give one example of each. (2 marks)

Dairy breed	Beef breed

10. A trader transporting tomatoes from **Makueni to Nairobi** incurred several costs.

a) Define **marketing expenses**. (1 mark)

b) Mention **three examples** of such expenses. (3 marks)

- i. _____
- ii. _____
- iii. _____

SECTION B (50 MARKS)

(Answer ALL questions)

11. A Grade 10 learner plans to start a poultry farming enterprise.

a) Define **factors of production**. (2 marks)

b) Explain the role of the following:

i) Land (2 marks)

ii) Labour (2 marks)

c) Describe **three ways** the learner can acquire capital. (6 marks)

- i. _____
- ii. _____
- iii. _____

d) Explain **three factors** to consider when selecting this enterprise. (6 marks)

- i. _____
- ii. _____
- iii. _____

12. A group of learners processed mangoes into juice for sale.

a) Define **value addition**. (2 marks)

b) Describe the **process of making mango juice**. (6 marks)

- i.

- ii.

- iii.

c) Explain **three benefits** of value addition. (6 marks)

- i.

- ii.

- iii.

d) Identify **two ethical issues** in food processing. (2 marks)

- i.

- ii.

13. Learners at **Mang'u High School** observed their goats showing signs of illness.

a) List **four signs** of ill health in livestock. (4 marks)

- i.

- ii.

- iii.

- iv.

b) Explain **four control measures** of livestock diseases. (8 marks)

- i.

- ii.

- iii.

- iv.

c) State **two benefits** of keeping animals healthy. (2 marks)

- i. _____
- ii. _____

14. (Illustration-Based Question - Apiary Management)

[DIAGRAM: Beehive, smoker, protective clothing]



X



Y



Z

a) Identify **two items** in the diagram. (2 marks)

X: _____

Y: _____

Z: _____

b) Explain **three factors** to consider when siting an apiary. (6 marks)

- i. _____
- ii. _____
- iii. _____

c) Describe the **process of harvesting honey**. (6 marks)

- i. _____
- ii. _____
- iii. _____
- iv. _____
- v. _____
- vi. _____

15. Learners visited a market and observed produce being graded, packaged, and labeled.

a) Describe **four ways** of preparing produce for marketing. (8 marks)

- i. _____
- ii. _____
- iii. _____
- iv. _____

b) Explain **four market outlets** for agricultural produce. (8 marks)

- i. _____
- ii. _____
- iii. _____
- iv. _____

c) Evaluate **four expenses** incurred in marketing agricultural produce. (8 marks)

- i. _____
- ii. _____
- iii. _____
- iv. _____

MARKING SCHEME - GRADE 10 AGRICULTURE

SECTION A (30 MARKS)

1. Land Access (5 marks)

a) Agricultural land:

- Land used for farming activities such as crop and livestock production. (1 mark)

b) Ways of accessing land: (Any 2 ×1)

- Leasing
- Buying
- Inheriting
- Donation

c) Natural factors: (Any 2 ×1)

- Climate
- Soil fertility
- Topography
- Altitude

2. Soil Testing (5 marks)

a) Soil property:

- Physical property (drainage/texture) (1 mark)

b) Improvement methods: (Any 2 ×1)

- Adding organic matter
- Drainage improvement
- Proper tillage
- Liming

c) Importance: (Any 2 points well explained = 2 marks)

- Determines crop suitability
- Affects water retention
- Influences nutrient availability

3. Matching (3 marks)

- i - b
- ii - a
- iii - c

(1 mark each correct)

4. Tools Identification (4 marks)

a) Any two tools: (2 marks)

- Watering can
- Wheelbarrow
- Rake

b) Maintenance practices: (Any 2 ×1)

- Cleaning
- Oiling/lubrication
- Proper storage
- Repairing

5. Land Preparation (4 marks)

a) Stage:

- Secondary/Final seedbed preparation (1 mark)

b) Correct order:

- Ploughing → Harrowing → Leveling (2 marks)

c) Importance: (1 mark)

- Ensures good seed germination / improves soil structure

6. True/False (3 marks)

a) False - Weeds can also be beneficial (e.g., prevent erosion) (1 mark)

b) True (1 mark)

c) False - Branding is part of marketing (1 mark)

7. Learners' Observations (3 marks)

a) Activity:

- Preparation of produce for marketing (1 mark)

b) Benefits: (Any 2 ×1)

- Improves quality
- Increases market value
- Enhances attractiveness
- Reduces losses

8. Soil Profile (3 marks)

a. soil profile

b. parts

A-top soil

B subsoil

C-Parent material

D-bedrock

c.A-dark/black B-reddish brown,brown,orange

d. i. 10g ii. 49%

d.

- mulching
- covercropping
- organic manure
- fallowing
- strip cropping
- terracing
- contour farming
- afforestation
- avoidance of overgrazing

a) Top layer:

- O horizon / Organic layer (1 mark)

b) Importance: (Any 2 ×1)

- Helps determine soil fertility
- Guides crop selection
- Aids in soil management

9. Livestock Breeds (4 marks)

a) Distinction: (2 marks)

- Dairy breeds: kept for milk production
- Beef breeds: kept for meat production

b) Examples: (Any 1 each ×2)

- Dairy: Friesian, Ayrshire
- Beef: Boran, Hereford

10. Marketing Costs (4 marks)

a) Marketing expenses:

- Costs incurred in selling agricultural produce (1 mark)

b) Examples: (Any 3 ×1)

- Transport costs
- Advertisement
- Taxes
- Packaging costs
- Market fees

SECTION B (50 MARKS)

11. Agricultural Enterprise (18 marks)

a) Factors of production:

- Resources used to produce goods/services (2 marks)

b) Roles:

i) Land: (2 marks)

- Provides space for production
- Determines type of enterprise

ii) Labour: (2 marks)

- Provides manpower
- Ensures operations are carried out

c) Ways of acquiring capital: (Any 3 ×2)

- Savings
- Loans
- Grants/donations
- Selling assets

d) Factors to consider: (Any 3 ×2)

- Market availability
- Climate suitability
- Capital availability
- Skills and knowledge

12. Value Addition (16 marks)

a) Value addition:

- Process of increasing value of a product (2 marks)

b) Mango juice process: (6 marks)

- Selection of ripe fruits
- Washing
- Peeling
- Extraction of juice
- Heating/pasteurization
- Packaging

c) Benefits: (Any 3 ×2)

- Increases income
- Reduces losses
- Improves shelf life
- Creates employment

d) Ethical issues: (Any 2 ×1)

- Hygiene

- Proper labeling
- Quality control

13. Animal Health (14 marks)

a) Signs: (Any 4 ×1)

- Loss of appetite
- Dullness
- Weight loss
- Diarrhea
- Abnormal behavior

b) Control measures: (Any 4 ×2)

- Vaccination
- Proper feeding
- Clean housing
- Regular check-ups

c) Benefits: (Any 2 ×1)

- Increased productivity
- Reduced losses

14. Apiary Management (14 marks)

a) Items: (Any 2 ×1)

- Beehive
- Smoker
- Protective clothing

b) Factors: (Any 3 ×2)

- Availability of water
- Security
- Distance from people
- Presence of flowers

c) Harvesting process: (6 marks)

- Wear protective gear
- Use smoker
- Remove combs
- Extract honey
- Filter and store

15. Marketing Agricultural Produce (20 marks)

a) Preparation methods: (Any 4 ×2)

- Sorting
- Grading
- Packaging
- Branding
- Labeling

b) Market outlets: (Any 4 ×2)

- Local markets
- Supermarkets
- Export markets
- Online platforms

c) Marketing expenses: (Any 4 ×2)

- Transport
- Storage
- Taxes
- Advertisement