

**KENYA CERTIFICATE OF SECONDARY EDUCATION**  
**AGRICULTURE FORM ONE**  
**OPENER ASSESSMENTS TERM 2 2023**  
**MARKING SCHEME**



1. What is Agriculture? (1 mark)

*Agriculture is defined as the art and science of crop and livestock production.*

2. What entails agriculture as an art? (4 marks)

- I. Tilling of land.*
- II. Construction of farm structures.*
- III. Measuring distances.*
- IV. Machine operations.*
- V. Harvesting of crops.*
- VI. Feeding and handling animals.*
- VII. Marketing of Agricultural produce*

3. What entails agriculture as a science? (4 marks)

- I. Soil science (pedology) —study of soil.*
- II. Crop pathology—Study of crop diseases.*
- III. Entomology— Study of insects and their control.*
- IV. Agricultural Engineering— soil and water conservation and farm power.*
- V. Genetics—Plant and animal breeding*

4. State **three** forms of practicing horticulture in Kenya. (3 marks)

- I. Floriculture: Growing of flowers e.g. tuber rose, roses, and carnations.*
- II. Olericulture: Growing of vegetables e.g. French beans, cabbages, tomatoes.etc..*
- III. Pomology: Growing of fruits e.g. avocado, mangoes and citrus.*

5. State **four** livestock farming in Kenya. (4 marks)

- I. *Pastoralism (mammalian livestock farming). Is the rearing of farm animals on pastures. E.g. cattle, goats, pigs, sheep, camels and rabbits.*
- II. *Fish farming (Aquaculture); Is the rearing of fish in fish ponds. Fish is a cheap source of proteins.*
- III. *Bee keeping: ( Apiculture); Is the rearing of bees in bee hives. Bees provide ; Honey and Wax, income, Medicine, pollination of flowers.etc.*
- IV. *Poultry keeping; Is the rearing of birds for meat and eggs, manure, income. Etc. Include classes of birds such as chicken ( most common), Ducks, geese, Ostrich, pigeon and Turkeys etc*

6. Distinguish Agricultural Economics and Agricultural Engineering. (2 marks)

*Agricultural Economics: Deals with utilization of scarce resources i.e. of land, labour, capital and management. It aims at maximizing output while minimizing costs. Agricultural Engineering; Deals with use and maintenance of farm tools and equipment, farm machinery and farm structures.*

7. State **three** features of intensive farming system. (3 marks)

- I. *Small tracts of land.*
- II. *High capital per unit area.*
- III. *High labour investment per unit area.*
- IV. *High yields per unit area.*

8. State **three** advantages of ranching in marginal range areas. (3 marks)

- I. *Diseases are controlled.*
- II. *Pastures are improved.*
- III. *Supplementary feeds and water are provided.*
- IV. *Pests and parasites are controlled.*
- V. *There is provision of extension staff.*

9. (a) State condition under which shifting cultivation is practicable. (4 marks)

- I. *Land is abundant*
- II. *Population is sparse*
- III. *Number of livestock per unit area is low.*
- IV. *Land is communally owned.*

(b) State **four** disadvantages of shifting cultivation. (4 marks)

- I. *Total yields per unit are is low*
- II. *Farmers have no incentive to develop land and conserve water and soil*
- III. *A lot of time is wasted when the farmer is shifting and building structures.*
- IV. *Not applicable in areas of high population density or where there is high population increase.*

10. State **four** importance of organic farming. (4 marks)

- I. *Its environment friendly*
- II. *Its cheap*
- III. *Does not require special skills*
- IV. *Crop rotation, to control diseases*

11. State **two** advantages of mixed farming. (2 marks)

*It is a method of diversification whereby should one enterprise fail, the farmer can benefit from the other.*

*There is mutual benefit between the crops and livestock where crops provide feed for livestock and animals provide them with farm yard manure.*

*There is maximum utilization of resource*

12. State **three** differences between small-scale farming and large scale farming. (6 marks)

<b>Small scale farming</b>	<b>Large scale farming</b>
<ul style="list-style-type: none"> <li>• <b>Small piece of land.</b></li> <li>• <b>Use of improved technology.</b></li> <li>• <b>Production of crops and</b></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Large tracts of land.</i></li> <li>• <i>Heavy capital investment.</i></li> <li>• <i>Skilled labour and qualified man</i></li> </ul>

<p>livestock is spread throughout the year.</p> <ul style="list-style-type: none"> <li>• Goods are produced for subsistence or commercial purpose .</li> <li>• Does not require heavy capital investment.</li> </ul>	<p><i>power.</i></p> <ul style="list-style-type: none"> <li>• <i>High level of management.</i></li> <li>• <i>It's for commercial purpose.</i></li> <li>• <i>Low operation costs per unit of production since it makes use of economies of scale.</i></li> <li>• <i>Depends on efficient transport.</i></li> <li>• <i>Requires good market system.</i></li> <li>• <i>Most of the work is mechanized.</i></li> <li>• <i>Provides more employment.</i></li> </ul>
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13. State how the level of Education and Technology affect agriculture. (4 marks)

**High level of education leads to:**

- I. *Accuracy in applying inputs and assessing results*
- II. *Helps in proper decision making and organization*
- III. *Better problem solution*
- IV. *Better utilization of livestock feeds and fertilizers*
- V. *Understanding of technical language used in agriculture*
- VI. *Development of skills for operating machines and their maintenance*
- VII. *Increase in efficiency and minimizes costs*

14. State the effect of HIV/AIDs and ill health on agriculture. (4 marks)

- I. *Shortage of farm labour*
- II. *Increase the cost of living through treatment, thereby lowering their purchasing power thus low demand for agricultural products*
- III. *Low standards of living leads to lack of motivation to invest in agriculture, thus increasing poverty*
- IV. *Low food supply*
- V. *A lot of funds used to control it, instead of being used to develop agriculture*

15. State **four** ways in which government policy influence agriculture. (4 marks)

- *Heavy taxation of imports to prevent dumping of cheap goods into the local market*
- *Subsidizing the growing of local crops thus making them affordable to farmers*
- *Enact policies to enforce the production of high quality products*
- *Put in place, policies aimed at conservation of natural resources in order to sustain agriculture*
- *Stepping up disease and pest control eg through quarantine, vaccination*

16. State **five** Biotic factors that affect agriculture. (5 marks)

- I. *Pests*
- II. *Parasites*
- III. *Predators*
- IV. *Decomposers*
- V. *Pathogens*
- VI. *Pollinators*
- VII. *Nitrogen fixing bacteria*

17. State **three** aspects of rainfall that influence agriculture. (3 marks)

- i. *Rainfall reliability*
- ii. *Rainfall amount*
- iii. *Rainfall distribution*
- iv. *Rainfall intensity*
- v. *Form of rainfall*

18. State **three** aspects of light that affect agriculture. (3 marks)

- i. *Light intensity*
- ii. *Light duration*
- iii. *Light wavelength*

19. State the role of agriculture in the economy. (4 marks)

- i. *Provision of food*

- ii. *Source of employment*
- iii. *Provision of foreign exchange*
- iv. *Source of raw materials to the industries*
- v. *Provision of market for industrial goods*
- vi. *Source of money or capital*

