

Uganda Martyrs University

Faculty of Agriculture

Final Examination 2021-2022

Bachelors of Science in Agriculture Year One

Bachelors of Science in Ecological Organic Agriculture Year One

Module: BSAG 1102: Sustainable Agricultural Development

BSEOA 1102: Agroecological Innovations Development

Time: 09:30 am – 12:30 pm Date: Wednesday 03rd August 2022

Instructions:

- **Answer any four questions.**
 - **Questions carry equal marks**
 - *Read and understand each question before you attempt it.*
 - *Do not write anything on the question paper*
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Question 1

Farmers are considering many ways to improve the sustainability of a given farming system, and these vary from region to region. However, there are some common sets of practices among farmers trying to take a more sustainable approach, in part, through greater use of on-farm or local resources each contributing in some way to long-term profitability, environmental stewardship and rural quality of life. With examples from your local area, explain these sets of practices **(25 marks)**

Question 2

- a) Discuss the negative effects of agricultural activities on the ecosystem **(15marks)**
- b) Explain the influence of land ownership on sustainable agriculture activities **(10marks)**

Question 3

- a) Explain how you understand the concept of agriculture and its significance to the national economy **(10 marks)**
- b) Discuss the challenges faced by the Agriculture sector in Developing Countries with special reference to your country **(10 marks)**
- c) What measures can be put in place to address the challenges in b above? **(5 marks)**

Question 4

- a) It is often said that science and technology have contributed significantly to the development of agriculture. Explain why this is so **(10marks)**
- b) Account for the current food crisis in African countries and suggest possible sustainable solutions **(15 marks)**.

Question 5

Preservation and sustainable management of biodiversity is crucial for supporting all life forms, including national food security and development of new crop varieties, plants of medicinal value and preservation of cultural integrity of the people for future generations. Explain different policy strategies for the development of this initiative **(25 Marks)**

Question 6

- a) Explain challenges women face in accessing resources and opportunities for participation in agriculture development **(15 marks)**
- b) Suggest solution to the challenges discussed in **a)** above **(10 marks)**

Question 7

- a) Explain five (5) ways how ecosystem processes can be used to manage lands for more sustainable and efficient agricultural production systems **(15 marks)**.
- b) Discuss five (5) approaches to sustainable restoration of degraded agricultural lands **(10marks)**.

Question 8

Views of local knowledge are generally negative in our society, which prefers to promote the most modern advances. The design of successful sustainable agriculture systems, however, call on us to recognise and value indigenous knowledge. As an agriculture extension officer, what strategies would you employ in selling such an idea? **(25 marks)**