



THE CO-OPERATIVE UNIVERSITY OF KENYA

END OF SEMESTER EXAMINATION DECEMBER -2022

EXAMINATION FOR THE DEGREE OF BACHELOR OF CO-OPERATIVE AND ENVIRONMENTAL MANAGEMENT

UNIT CODE: BOCD 3120

UNIT TITLE: DEVELOPMENT OF ARID AND SEMI-ARID LANDS

DATE: FRIDAY, 16TH DECEMBER, 2022

TIME: 2:00 PM – 4:00 PM

INSTRUCTIONS:

- **Answer question ONE (compulsory) and any other TWO questions**

QUESTION ONE

- a) Explain the following concepts that help us understand the arid and semi-arid lands;
- Dryland ecosystem (2 Marks)
 - Dry Sub humid (2 Marks)
 - Rain Shadow effect (2 Marks)
 - Jessr System (2 Marks)
 - Catchment area (2 Marks)
- b) As an Agricultural Extension Officer, you have been tasked with the responsibility of assisting those practicing agricultures in arid and semi-arid lands;
- Stipulate the purpose of water conservation techniques to those practicing agriculture in arid and semi-arid regions. (5 Marks)
 - What are the water saving techniques would you encourage as a way of promoting agriculture in arid and semi-arid lands? (5 Marks)
- c) Discuss the psycho-social challenges faced by the ageing population in Kenya. (10 Marks)

QUESTION TWO

- a) Distinguish rainfed agriculture from irrigated agriculture. (10 Marks)
- b) Discuss the challenges affecting the agricultural sector in Kenya with reference to crop and livestock farming in arid regions in Kenya. (10 Marks)

QUESTION THREE

Citing relevant examples, assess the constraining factors towards livestock productivity in Asals region of Kenya. (20 Marks)

QUESTION FOUR

- a) Peasant farming remains the subject of interest of rural communities in Kenya. Discuss the factors responsible for peasant under-development in Kenya. (10 Marks)
- b) Explain the importance of land as a reason to rural communities in Kenya. (10 Marks)

QUESTION FIVE

- a) Discuss the conservation tillage practices that are common to agricultural practices in arid and semi-arid lands. (10 Marks)
- b) Factors affecting the choice of tillage practice in agricultural production in Kenya. (10 Marks)

QUESTION SIX

Deforestation is seen as a major contributor to aridity in Kenya:

- i. While making reference to the above statement elaborate the cause of deforestation in Kenya citing examples. (10 Marks)
- ii. Discuss legal and policy reforms that can promote reforestation in Kenya (10 Marks)