



MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

SCHOOL OF AGRICULTURAL SCIENCES

DEPARTMENT OF AGRICULTURAL EDUCATION AND EXTENSION

FIRST YEAR SECOND SEMESTER EXAMINATION FOR
MASTER OF SCIENCE IN AGRIBUSINESS MANAGEMENT

AGB 807: SUSTAINABLE FOOD SYTEMS

DATE: 24/2/2021

TIME: 9.00-12.00 PM

INSTRUCTIONS:

Answer Question ONE and ANY other Two Questions

QUESTION ONE (20 MARKS)

- Explain five roles played by conservation agriculture in increasing food production globally (5 marks)
- With the current food shortage experienced especially by the urban population in slums, explain five reasons why you would encourage these population to adopt urban peri-urban farming system (5 marks)
- As a government advisor explain five considerations in ensuring safe and efficient utilization of water generated by cities and towns in agricultural farming (5 marks)
- Explain five constraints facing farmers in management of crop-livestock systems in Kenyan farming setup (5 marks)

QUESTION TWO (20 MARKS)

- Explain five challenges faced by the Kenyan government in an effort to ensure sustainable provision of safe and nutritious food for the vulnerable groups in the society (10 marks)
- As an agribusiness entrepreneur, discuss five reasons why the government should enhance utilization of renewable energy for agribusiness growth in Kenya (10 marks)

QUESTION THREE (20 MARKS)

- a) Discuss four challenges to adoption of climate smart agricultural practices in an effort to ensuring safe and sustainable food production in Kenya (8 marks)
- b) Explain six agricultural practices that farmers can adopt in management of pest and diseases in an effort to reduce food insecurity in Kenya (6 marks)
- c) Large scale farmers in Kenya are doubtful in adopting integrated soil fertility management (ISFM) unlike subsistence farmers. Explain three reasons why you would convince these farmers to adopt ISFM (6 marks)

QUESTION FOUR (20 MARKS)

- a) Post-harvest losses have been identified as one major cause of food insecurity in Kenya. Explain five reasons why there is huge crop losses despite government interventions to minimize such losses (5 marks)
- b) Discuss five roles of agroforestry towards maintaining sustainable food in Kenya from a gender perspective (5 marks)
- c) In farming as a business, farmers face several challenges. Explain five sources of risks you anticipate as agribusiness farmer (10 marks)

QUESTION FIVE (20 MARKS)

- a) Discuss the impacts of agricultural innovations in increasing food production and sustainability in Kenya (10 marks)
- b) Explain five challenges to low adoption of aquaculture in an integrated crop-livestock system by majority of farmers in areas outside the lake regions (5 marks)
- c) Climate change has been witnessed currently in many countries. Discuss five impacts of climate change in agricultural production (5 marks)