



# MACHAKOS UNIVERSITY

University Examinations for 2018/2019 Academic Year

SCHOOL OF AGRICULTURAL SCIENCES

DEPARTMENT OF AGRIBUSINESS MANAGEMENT

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

AGB 807: SUSTAINABLE FOOD SYTEMS

DATE: 26/6/2019

TIME:10:00 – 1:00 PM

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## INSTRUCTION TO CANDIDATES:

*Answer Question One and Any Other Two Questions*

### QUESTION ONE (COMPULSORY) (20 MARKS)

- Explain five roles played by urban and peri urban farming towards agricultural sustainability in Kenya. (5 marks)
- Explain five roles played by Agroforestry farming systems. (5 marks)
- Climate change has been witnessed currently in many countries. Discuss five impacts of climate change in agricultural production. (5 marks)
- Post-harvest losses have been identified as one major cause of food insecurity in Kenya. Explain five measures the government has taken to ensure minimal food losses are incurred. (5 marks)

### QUESTION TWO (20MARKS)

- With specific examples discuss the role of agricultural innovations in Kenya. (10 marks)
- Explain five opportunities to farmers that can lead to increased adoption of aquaculture in an integrated crop-livestock system. (5 marks)
- Due to climate change effects currently experience in Kenya, farmers have opted to utilization of non-conventional water. Explain five challenges farmers face in utilization of such water. (5 marks)

**QUESTION THREE (20 MARKS)**

- a) Women, children and elderly are highly vulnerable to food insecurity. Explain strategies the government employ to ensure sustainable food security to its women, children and the elderly. (10 marks)
- b) Discuss the role of climate smart agricultural in Kenya. (10 marks)

**QUESTION FOUR (20 MARKS)**

- a) Water is a scarce resource. Explain four measures farmers can adopt to improve water use efficiency under irrigation management (8 marks)
- b) With specific examples, explain six practices farmers can adopt in management of pest and diseases in an effort to ensure food security in Kenya. (12 marks)

**QUESTION FIVE (20 MARKS)**

- a) Critically discuss conservation agriculture in Kenya (10 marks)
- b) Large scale farmers in Kenya are sceptical about adopting integrated soil fertility management (ISFM) unlike subsistence farmers. Explain five reasons why this is the case (5 marks)
- c) Explain how crop-livestock system can be successfully managed in Kenya. (5 marks)