



University of Choice

**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

**UNIVERSITY MAIN EXAMINATIONS
2023/2024 ACADEMIC YEAR**

**SECOND YEAR FIRST SEMESTER EXAMINATIONS
FOR THE DEGREE
OF
MSC IN AGRICULTURAL EXTENSION AND RURAL DEVELOPMENT
SYSTEMS**

COURSE CODE: AEC 807

COURSE TITLE: FARM MANAGEMENT

DATE: 18/4/2024

TIME: 9-11 AM

INSTRUCTIONS TO CANDIDATES

Question ONE (1) is compulsory
Answer other TWO questions
Do not write anything on the question paper

MMUST observes ZERO tolerance to examination cheating

Answer Question One (Compulsory) and any other Two Questions

Managing a farm, including its workforce, is changing. On the one hand, automation of existing processes and new technologies means that some workers will need to retrain or reskill as their jobs will become obsolete. On the other hand, as a farm increases capital per worker, particularly as many of the new technologies utilize automation, it is important to assess whether its employees have the right skills to fully take advantage of new technologies. Every job in the ecosystem is being redefined, and so are the skills and capabilities that are required to succeed in these professions.

Farmers are becoming managers. Over the past 30 years, there has been a significant consolidation of farms. This means that small traditional holdings have transitioned into larger businesses in which farmers' roles changed to that of managers. Government data shows that in Kenya, large farms with over \$1 million in revenues account for 50% of Kenyan farm production, up from 30% in the 1990s.

Farmers are already spending more time in front of screens and less time in the field. The image we have of a farmer on his tractor is fast becoming a thing of the past. Autonomous tractors will pull or push machinery for ploughing, tilling, disking, harrowing or planting. The same goes for other human processes such as picking fruits, which are being roboticized. All these autonomous devices and new technologies require management, which the farmer will be responsible for. Identifying the right product fit as a buyer, knowing how to operate new devices, and understanding the return on investment (ROI) that technology brings as part of their existing infrastructure will be crucial.

Question 1

- a) Referring to the statement above that farmers are managers, discuss the role of managerial functions in farm

(10 marks)

- b) Analyze the implications of effective managerial functions on enhancing agricultural productivity and profitability.

(10 marks)

- c) Propose strategies for integrating managerial functions to overcome operational hurdles and achieve sustainable farm management.

(10 marks)

Question 2

- a. Explore the importance of budgeting techniques in farm management for financial planning and resource allocation. (10 marks).
- b. Evaluate the strategies for optimizing the organization of capital, labor, and enterprise combinations to enhance farm productivity and efficiency.

(10 marks).

Question 3

- a. Analyze the application of program planning and linear programming methods in optimizing farm activities and resources. (10 marks)
- b. Compare and contrast different types of budgets and their applications in farm management practices. (10 marks)

Question 4

- a. As a consultant to farm managers, describe the various aspects of the farm planning environment (10 marks)
- b. Using practical examples, explain the scope of farm management (10 marks)

Question 5

- a) Define farm records and the advantages that come with keeping them (10 marks)
- b) It is believed that a farm manager operates in a highly risky environment, Explain (10 marks)