



UNIVERSITY OF EMBU

2018/2019 ACADEMIC YEAR

SECOND SEMESTER EXAMINATIONS

FIRST YEAR EXAMINATION FOR THE MASTERS OF SCIENCE IN
AGRICULTURAL RESOURCE MANAGEMENT

ART 632: AGRICULTURAL RESOURCE ECONOMICS

DATE: APRIL 5, 2019

TIME: 2:00-5:00PM

INSTRUCTIONS:

Answer ANY Four Questions

QUESTION ONE (25 MARKS)

- a) Agricultural resources in Kenya play critical roles both at the local and national economies. These resources support household economies and sustenance across landscapes as well as contribute to different sectors at the national level. Based on this **outline** the relevance of the following concepts in agricultural resource management;
- i) Market (3 marks)
 - ii) The opportunity cost (3 marks)
 - iii) The Net Present Value (3 marks)
 - iv) The Total Economic value (3 marks)
- b) **Explain** the following terms as they apply in agricultural production systems;
- i) Resource economics (3 marks)
 - ii) Pastoral system (3 marks)
 - iii) Comparative advantage (3 marks)

- c) Based on a farming system or agricultural production system of your choice in Kenya, briefly **discuss** 2 (two) characteristics of these systems and outline the key challenges they are faced with. (4 marks)

QUESTION TWO (25 MARKS)

The design and development of any agricultural production system should ideally include tests on financial and economic viability and sustainability, as well as the demonstration of their respective values to the local and national economies. On the basis of this brief,

- a) **Describe** 3 (three) maize production characteristics that should be taken into consideration in the development of viable management interventions (7 marks)
- b) Using specific and relevant examples, **differentiate** between financial and economic analysis in any agricultural investment project in Kenya (7 marks)
- c) **Describe** the relevance of the Net Present Value (NPV) and Cost Benefit Analysis (CBA) in developing a 15-year agricultural investment project of your choice (7 marks)
- d) **Outline** 4 (four) reasons why an agricultural management manager should have a good understanding of farm records and accounting (4 marks)

QUESTION THREE (25 MARKS)

- a) Agricultural transformation across Eastern Africa is faced with a series of environmental related constraints. Using relevant examples, **illustrate** the link between agricultural production systems and the environment (10 marks)
- b) In developing an agricultural development project, one is required to develop an Environmental Impact Assessment. Based on this information, describe the relevance of this process in sustainable agricultural development (10 marks)
- c) In developing the Environmental Impact Assessment, explain with examples, 2 (two) constraints encountered in designing and conducting the assessment (5 marks)



QUESTION FOUR (25 MARKS)

Incentive measures are known to significantly influence and promote sustainable agricultural management in different countries in the World. Given the constraints faced in Kenya in promoting sustainable agricultural productivity, there may be a need to introduce and implement feasible gender responsive incentive measures. Based on this information;

- a) **Describe** 4 (four) types of incentive measures applicable to sustainable management of agricultural farming system of your choice in Kenya (8 marks)
- b) **Explain** 4 (four) characteristics of an efficient incentive measure within the context of the above identified ((a)) farming system (8 marks)
- c) As a Gender and Agricultural Development Expert, briefly justify gender considerations in promoting sustainable agricultural productivity improvement programmes under development by the Kenya Government (9 marks)

QUESTION FIVE (25 MARKS)

You have been recruited as the Lead Consultant in developing a 5-year agricultural development project in Embu County. One of your tasks is to conduct a feasibility study with a team of other experts from natural resource management, livestock production, fisheries and cooperatives among others. On the basis of this brief;

- a) **Explain** the process you will adopt to develop a sound project that will attract funding from the County Government (10 marks)
- b) **Discuss** 3 (three) economic and financial analyses procedures/tests you will subject the project to before presenting it for approval by the County (10 marks)
- c) **Describe** 2 (two) challenges you are likely to face in developing the project (5 marks)

-END-



