



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND
TECHNOLOGY**

SCHOOL OF AGRICULTURAL AND FOOD SCIENCES

**SECOND YEAR SECOND SEMESTER EXAMINATION FOR THE
DEGREE OF
BACHELOR OF SCIENCE IN HORTICULTURE
2018/2019 ACADEMIC YEAR**

REGULAR

COURSE CODE: AAE 3427

COURSE TITLE: FARM MANAGEMENT

EXAM VENUE: HORT., SOIL SC., FOOD SECURITY **STREAM: BSC. Agric. Bus. Mgt, AGED,**

DATE:

EXAM SESSION:

TIME: 2 HOURS

Instructions:

- 1. Answer ALL questions in section A and ANY other 2 Questions in section B**
- 2. Candidates are advised not to write on question paper.**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room.**

SECTION A**[30 MARKS]****Answer ALL questions in this section**

Q1. The JOOUST University Farm has the potential to undertake various enterprises as listed in the table below. Using your knowledge on decision rules or strategy models, which enterprise will you recommend considering the risk and uncertainties in relation to the following models*? Potential to undertake various enterprises as listed in table 1 below.

- i) La Place game theory (with equal probability of 0.35) **(6 Marks).**
- ii) Minimum variance **(6 Marks).**
- iii) The expected value theory (with probability for the 3 states of nature are 0.25; 0.5; and 0.25 respectively) **(6 Marks).**
- iv) Pessimism – Optimism Index (with probability of 0.3 and 0.7 in that order) **(6 Marks).**
- v) Maximax strategy (with the states of nature not known so well). **(6 Marks).**

*Show all your work in each case

Enterprises	State of Nature		
	1	2	3
Layer	10	20	35
Beef cattle	50	20	30
Piggery	20	40	40
Turkey	5	30	60

SECTION B**[40 MARKS]****Answer ANY TWO (2) questions in this section**

Q2. A Fresh produce Agribusiness Firm had the following information recorded for the Year ending December, 2014:

S/No.	Item	Amount (KES)
	Net worth	60,560.00
	Total Liabilities	138980.00
1.	Principal payment on loan	35,000.00
2.	Interest on loan	6,000.00
3.	Gross receipts	90,000.00
4.	Capital investment at the beginning of the year	172,000.00
5.	Capital investment at the end of the year	188,540.00
6.	Gross Income for the year	92,000.00
7.	Profit for the year	50,500.00

- a) Compute the following measures of financial position for the Fresh Produce Agribusiness firm:
 - i) Debt to Net Worth Ratio **(5 Marks)**

- ii) Profit to Total Asset Ratio, **(5 Marks)**
- iii) The Capital Turnover Ratio, **(5 Marks)**
- iv) Debt Servicing to Gross Receipts Ratio **(5 Marks)**

Q3. The JOOUST Matunda Farm had the following information for the Accounting period ending 31st December, 2015:

S/No.	Item	Value (KES)
1.	Net Farm income	125,000.00
2.	Interest paid	5,750.00
3.	Opportunity cost of labour	13,850.00
4.	Opportunity cost of management	20,000.00
5.	Opportunity cost of capital	9.5%
6.	Total value of farm assets	950,000.00
7.	Farm business Networkth	5675,000.00

Use the information above to:

- a) Rate of returns to capital **(5 Marks).**
- b) Returns to Labour **(5 Marks).**
- c) Returns to Management **(5 Marks).**
- d) Rate of returns to equity **(5 Marks).**

Q4. Production economics provides a framework for decision making at the level of a firm for increasing efficiency and profits.

- a) Briefly explain any six (6) reasons why we need to study the production process
(6 Marks)
- b) State and explain four (4) goals of production economics **(4 Marks)**
- c) Distinguish between organizational and strategic management as typical farm management decisions **(10 Marks)**