



Strathmore
UNIVERSITY

STRATHMORE BUSINESS SCHOOL

MASTER OF MANAGEMENT IN AGRIBUSINESS

END OF SEMESTER EXAMINATION

MMA 8201: DECISION ANALYSIS & RISK MANAGEMENT IN AGRIBUSINESS

Date: Friday 3rd June 2022

Time: 3 Hours

Instructions

1. This paper has **FOUR** questions
2. Attempt **QUESTION ONE** and any **other TWO (2) QUESTIONS**.

Question 1 (50 Marks) (Compulsory)

- i. What is the role of decision analysis in your role as a manager of an agribusiness? Give a concrete example to illustrate your answer. **(10 marks)**
- ii. **Problem Solving on Uncertainty** **(20 marks)**
 - a) Peter is a food seller. He buys a product for Ksh 2,000 per case. He can sell this product for Ksh 4,000 per case on his stall. (Kindly Note that the decision was made before the outcome.) The product is perishable, and it is not possible to store any food. Instead, any cases unsold at the end of the day can be sold off as scrap for Ksh200 per case.
 - b) Purchase orders must be made before the number of sales is known. He has kept records of demand over the last 150 days.

c) **Demand (cases)/day** **Number of days**

10	45
20	75
30	30

- d) Required:
- A. Prepare a summary of possible net daily margins using a payoff table. **(8 marks)**
 - B. Advise him:
 - i. How many cases to purchase if he uses expected values? **(3 marks)**

- ii. How many cases to purchase if he uses maximin/maximax? **(6 marks)**
- iii. How many cases to purchase if he uses minimax regret? **(3 marks)**

Question 2 (20 Marks)

One of the major risks in Agribusiness is Production Risk.

- i. Show your complete understanding about this risk. For example, give some its sources. **(10 marks)**
- ii. Formulate appropriate mechanisms or strategies to mitigate or avoid this risk especially in agricultural crops. **(10 marks)**

Question 3 (20 Marks)

- i. Discuss the loss aversion bias and identify situations in our financial and marketing management decisions. **(10 marks)**
- ii. Another major risk in Agribusiness is Marketing Risk. Show your complete understanding of this risk. For example, give some of its sources and causes. **(10 marks)**

Question 4 (20 Marks)

- i. The rational decision-maker will identify all relevant criteria in the decision-making process. **(10 marks)**
- ii. Another major risk in Agribusiness is Legal Risk. Show your complete understanding of this risk. For example, give some of its sources and causes. **(10 marks)**