MAASAI MARA UNIVERSITY

REGULAR UNIVERSITY EXAMINATIONS
2017/2018 ACADEMIC YEAR
FOURTH YEAR FIRST SEMESTER

SCHOOL OF BUSINESS AND ECONOMICS
BACHELOR OF SCIENCE- AGRICULTURAL ECONOMICS & RESOURCE MANAGEMENT

COURSE CODE: ARE 431
COURSE TITLE: AGRICULTURAL BUSINESS MANAGEMENT

DATE: 18/4/2018   TIME: 1100 – 1300HRS

INSTRUCTIONS:
   (i)   Answer question ONE and <u>Any three</u> in section **B**
   (ii)   Do not write on the question paper
   (iii) Show your working clearly

SECTION A
QUESTION ONE

A potato farmer in Njoro area is faced with state of nature; potato blight. The farmer is wondering whether:

      To grow or not grow

      To spray or not spray

The available options are:

- Grow varieties resistant to potato blight
- Timing of planting (early planting or late planting)
- Control (spray or not spray)

The outcomes are as follows:

- Yields are 30,000kg/ha
- Severe blight (early bight) causes a loss of 7000kg/ha
- Late blight has no loss
- If he chooses to spray, a loss is caused by a tractor i.e. yield is reduced by 1000kg/ha

      NOTE
- Selling price: sh. 500/90kg bag
- Production cost: sh. 200/ 90kg bag

a) Define two states of nature and two strategies. **(5 marks)**

b) Suppose there is 40% chance of late attack and 60% chance of severe attack, help the farmer make a decision **(5 marks)**

c) Suppose the probability changes to severe attack at 80% and late attack at 20%, what will be the decision? **(5 marks)**

d) What will be the conclusion if the farmer is:
    i.   Pessimist **(5 marks)**
    ii.   Optimist **(5 marks)**

SECTION B
QUESTION TWO

a) Explain the concept of a product life cycle and show how such knowledge can help a brand manager to draw a promotional program for his brand of product. **(10 marks)**

b) What factors would you consider before making a choice of appropriate distribution channel for a new brand product? **(5 marks)**

QUESTION THREE

Explain how the concepts of integration and diversification would help you formulate strategy in order to achieve the objective of risk reduction in an agribusiness firm. **(15 marks)**

QUESTION FOUR

a) Explain the following terms used in inventory
   i. Reorder point **(1 mark)**
   ii. EOQ **(1 mark)**
   iii. Lead time **(1 mark)**
   iv. Buffer stocks **(1 mark)**
b) Use a reorder point model to fill out the following table whenever number 6 falls below 120, order 100 more units. The order cycle takes 2 days i.e. if your order is placed on day t, it arrives in day t + 2

	Day	1 2 3 4 5 6 7 8
1	BI	160
	Receipts	0
	Demand	40 30 23 50 60 30 40 50
	EI	120
	Orders Outstanding	0
	Inventory position	120
	Units ordered	0

   i. Fill the blank spaces **(6 marks)**
   ii. Calculate average order point **(3 marks)**
   iii. Calculate average order interval **(2 marks)**

QUESTION FIVE

An investor is evaluating three investment proposals; A, B and C. he requires 15% rate of return. The initial cost outlay is sh. 25,000for each investment. Using NPV and pay back methods, help the investor to reach sound decision. Expected returns are as follows: **(15 marks)**

Year	1	2	3	4	5	6
Investment A	20,000	15,000	10,000	10,000	8,000	6,000
Investment B	12,000	14,000	16,000	18,000	18,000	18,000
Investment C	8,000	8,000	8,000	8,000	8,000	8,000

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