



# MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

SCHOOL OF AGRICULTURAL SCIENCES

DEPARTMENT OF AGRIBUSINESS MANAGEMENT AND TRADE

THIRD YEAR SPECIAL/ SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF SCIENCE IN AGRIBUSINESS MANAGEMENT

AGB 310: FARM BUSINESS MANAGEMENT

DATE: 22/01/2021

TIME: 8.30-10.30 AM

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## INSTRUCTIONS:

Answer question one and ANY TWO questions

### QUESTION ONE (20 MARKS)

- a) Define the following terms
  - i. Risk (2 marks)
  - ii. Farm data (2 marks)
  - iii. Opportunity cost (2 marks)
- b) Describe two limitations of partial budgeting (4 marks)
- c) Explain three advantages of using ICT in farm management (6 marks)
- d) Explain three techniques used in a typical farm management (6 marks)
- e) Explain four uses of farm records in a farm (8 marks)

### QUESTION TWO (20 MARKS)

- a) Explain two economic principles taken into consideration in farm management (5 marks)
- b) Explain five advantages of division of labour in farm operations (5 marks)
- c) Describe five steps followed in collection of data in the farm (10 marks)

**QUESTION THREE (20 MARKS)**

- a) Explain two disadvantages of land fragmentation (4 marks)
- b) With examples, explain three types of farm records (6 marks)
- c) The following information relates to Kwetu farm for the year ended December 2019.

Item	Value (Kshs)
Barley sales	100,000
Hay sales	90,000
Cassava sales	45,000
Fertilizer costs	35,000
Seed costs	15,000
Machine hire	20,000
Machinery depreciation	4,060
Labour costs	16,000
Livestock feed cost	26,000
Interest on debt	3,000
Insurance	2,700

You are required too

- (i) Compute the gross margin for Itibo farm for the year 2020 (5 marks)
- (ii) Compute the Net farm income for Itibo farm for the year 2020 (5 marks)

**QUESTION FOUR (20 MARKS)**

- a) Explain four importance of cash flow statement (4 marks)
- b) Explain four risk facing farm business and corresponding approaches of dealing risk (8 marks)
- c) Suppose an agricultural entrepreneur seek your advice on two viable enterprises in a farm. Enterprise A & B with the following cash flows:

Year (t)	Expected net cash flows (CF <sub>t</sub> )	
	Enterprise A	Enterprise B
0 (Investment)	(\$10,000)	(\$10,000)
1	5000	1000
2	4000	3000
3	3000	4000
4	1000	6000

Use the Net Present Value and assume 10% as a cost of capital, advise the entrepreneur on which enterprise to undertake and why. Show all calculations and interpretations (8 Marks).

**QUESTION FIVE (20 MARKS)**

- a) Explain four pre-requisites while preparing a farm budget (4 marks)
- b) A dairy farmer is faced with two alternative enterprise decisions, to switch from raising replacement heifers to purchasing heifers. The heifer calves will be sold at KES 40,000 per heifer that will provide income to the farm. The cost of production of producing heifers include: pasture maintenance at KES 10,000, veterinary and health cost at KES 12,000, hay feed at KES 8,500 and supplementary materials at KES 6,500. The dairy farmer has 4 calves to raise or replace with purchased calves. The cost of buying one heifer is KES 50,000. There will be no reduced income for purchasing a heifer. Using partial budgeting technique, advice the farmer on the best investment decision. Clearly show your analysis and interpret (6 marks)
- c) Using appropriate examples, describe six steps involved in problem solving process (10 marks)