



(Knowledge for Development)

KIBABII UNIVERSITY
UNIVERSITY EXAMINATIONS
2020/2021 ACADEMIC YEAR

FOURTH YEAR 2ND SEMESTER
SPECIAL/SUPPLEMENTARY EXAMINATIONS

**FOR THE DEGREE OF BACHELOR OF SCIENCE AGRICULTURE AND
BIOTECHNOLOGY, BACHELOR OF SCIENCE AGRICULTURE
EDUCATION AND EXTENSION & BACHELOR OF EDUCATION
SCIENCE.**

COURSE CODE: SAB 481
COURSE TITLE: FARM MANAGEMENT AND ACCOUNTS

DATE: 14TH JANUARY 2022 **TIME:** 2 – 4 PM

INSTRUCTIONS TO CANDIDATES

Answer Question ONE and any other TWO Questions.

TIME: 2 Hours

This paper consists of 4 printed pages. Please Turn Over 
KIBU observes ZERO tolerance to examination cheating

Question One

- a) Discuss the uses of farm data in farm management practices (3 Marks)
- b) Explain your understanding of the following terms as used in farm management
- i. Farm layout (3 Marks)
 - ii. Partial Budgets (3 Marks)
 - iii. Linear Programming (3 Marks)
- c) A farmer who produces beef and eggs is thinking to change his enterprises to maize production. The average cost of maize production amounts to Ksh 20,000 per acre and the price of maize is Ksh 2,000 per bag. At what yield will the farm begin to make profit if the farmer change to the new enterprise. Advise the farmer on the conditions which he will use to decide whether to change to the new enterprise or not (6 Marks)
- d) Discuss the factors to consider when planning a farm business (5 Marks)
- e) Describe the application of the law of diminishing marginal returns in farm business management. (7 Marks)

Question Two

- a) A farmer has 10 acres of land on which he grows 2 acres of maize and beans (maize in first rains and beans in the 2nd rains), 2 areas of potatoes and keeps 2 milking cows. He has now established that 4 acres are adequate for his two cows and he wishes to use the 2 acres remaining for growing potatoes. Potatoes will require 70 man-days of labour per acre which is available on casual bases at a wage rate of Shs. 25 per MD. In addition 2 bags of fertilizer per acre at the cost of 850 per bag will be necessary. Seed costs for potatoes will be 600 per acre. No change in fixed costs is expected. Potatoes are expected to yield 60 bags per acre selling at Shs. 200 per bag. Double cropping is the normal practice for potatoes in this area.

Prepare a partial budget and advise the farmer on proposed change. (15 Marks)

- b) Discuss the major weaknesses of farm management surveys. (5 Marks)

Question Three

A farmer in Bungoma County is capable of producing maize (X1) and Beans (X2) in his 5 Ha parcel of land. The gross margins for maize and beans are Kshs. 800 and Kshs. 500 per Ha respectively. Labour in the farm is most limiting in June and we have only 32 Man days available.

During this month, the maize enterprise requires 8 man days per Ha while beans requires 4 man days per Ha. Each Ha of maize requires Kshs. 120 for all purchased inputs while beans require Kshs. 40 for the same. The farmer has Kshs. 480 available and he cannot raise any more.

- i. Set up a linear programming problem for the farmer. (10 Marks)
- ii. Use the algebraic method to find the optimal solutions and the maximum revenue for the farmer. (5 Marks)
- iii. Graphically show the feasible region and identify the feasible solutions (5 Marks)

Question Four

A farmer has 50 acres of land on which 15 acres is under maize, 30 acres under wheat and 5 acres under potatoes. He wants to work out the net farm income.

- a) Describe how he would go about the exercise (12 Marks)
- b) A farmer suspects that this is not the best/optimal plan. He intends to identify the best plan through budgeting technique. Do you agree with his choice of technique? Justify. (8 Marks)

Question Five

- a) Discuss the objectives of farm accounts. (8 Marks)
- b) You are provided with the following Income statement and Statement of financial position for Kazi Nzuri Poultry Farm

Kazi Nzuri Poultry Farm

Income Statement Account for the year ended 31.12.2016

	<u>Sh</u>	<u>Sh</u>
Sales		850,000
Less: Cost of Sales		
Opening stock	99,500	
Purchases	<u>559,500</u>	
	659,000	
Less: Closing stocks	<u>(149,000)</u>	<u>(510,000)</u>
Gross profit		340,000
Less expenses		
Selling and distribution	30,000	
Depreciation	10,000	
Administration expenses	<u>135,000</u>	<u>(175,000)</u>

Earnings before interest & taxes	165,000
Interest	<u>(15,000)</u>
Earnings before tax	150,000
Tax @ 50%	<u>75,000</u>
Less ordinary dividend (0.75 per share)	<u>75,000</u>
	<u>(15,000)</u>
Retained profit for the year	<u>60,000</u>

Kazi Nzuri Poultry Farm
Statement of Financial Position as at 31 December 2016

		<u>Sh.</u>	<u>Sh.</u>
Non Current Assets			
Land and Buildings		250,000	Issued share capital
Plant & Machinery		<u>80,000</u>	(20000 share of Sh,
		330,000	10)
Current Assets			Reserve
Inventory		149,000	100000
Debtors	75,000		Retained profit
Less provision	<u>(4,000)</u>	71,000	130000
Cash		<u>30,000</u>	Long term
		<u>580,000</u>	Current liabilities.
			<u>580,000</u>

Additional Note

Cash purchases amount to 14,250.

Compute and interpret the following ratios;

- a) Profitability ratios
- b) Liquidity ratios

(6 Marks)

(6 Marks)