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(Knowledge for Development)

KIBABII UNIVERSITY
UNIVERSITY EXAMINATIONS
2020/2021 ACADEMIC YEAR

FOURTH YEAR 2ND SEMESTER
MAIN EXAMINATION

**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 OCTOBER 2021 **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 
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QUESTION ONE

- a) Distinguish among the following types of budgets:
- i. Complete budget. (2 Marks)
 - ii. Partial budget. (2 Marks)
 - iii. Break even budgeting. (2 Marks)
- b) Farm management can be described as a problem-solving activity and as a decision-making activity. Discuss (5 Marks)
- c) A dairy farmer is contemplating whether to engage in veal production (fattening his bull calves) and sell at Kshs 33,280(160Kg live weight@ Kshs 208) or sell the new born calve at Kshs 1600 and milk for Kshs 16/Kg. To attain the required weight, the calve will have consumed 1800Kg of milk. Other costs include labour and housing costs which are estimated at Kshs 3,200. Use this information to advise the farmer on the merits or demerits of veal production. (5 Marks)
- d) Planning is an important aspect of farm business explain the characteristics of a good farm plan. (5 Marks)
- e) Discuss the following concepts as used in farm management:
- i. The principle of product substitution (2 Marks)
 - ii. The law of equi-marginal returns (2 Marks)
 - iii. The law of diminishing marginal returns (2 Marks)
 - iv. Risks and Uncertainty (3 Marks)

QUESTION TWO

- a) Highlight the assumptions of linear programming (5 Marks)
- b) Swazuri Dairy Company manufactures two brands of Milk, Fresh Milk and Yoghurt. Fresh Milk has a contribution of Sh.4 per unit and Yoghurt has a contribution of Sh.3 per unit. Fresh Milk requires 30 machine minutes and 30 labor minutes to manufacture a unit. Yoghurt requires 20 machines minutes and 30 labour units to manufacture a unit. Total available machine hours per day are 12hrs whereas total available labour hours per day are 14hrs.

- i. Formulate linear programming model. (7 Marks)
- ii. How much of each brand should Swazuri Dairy Company produce if it wishes to maximize its daily contribution assuming that all the brands produced is sold. (8 Marks)

QUESTION THREE

- a) A farmer has 30 acres of arable land, 20 acres of which is under maize and 10 acres under grass ley. He wishes to know whether replacing 10 acres of maize with Irish potatoes would be worthwhile. The fertilizer rate would have to be increased from one bag to per acre for maize to 2 bags per acre for potatoes and an extra 20-man days of casual labor at the rate of Shs. 40/ MD will be necessary as a result of the change. Average yields of maize and potatoes are 15 and 50 bags per acre respectively. The output prices are Shs. 220 per bag of maize and Sh. 180 per bag of per bag of potatoes. Seeds cost 120 per acre for maize 320 per acre for potatoes. Fertilizers cost 850 per bag. Draw up a partial budget and indicate the effects of the change and advise the farmer. (15 Marks)
- b) Discuss the factors to consider in planning a farm layout (5 Marks)

QUESTION FOUR

On a medium size farm in a high potential area of Bungoma County, the relevant activities and constraints are found to be as in the table below. Develop a program plan for the farm, giving the feasible enterprise combination that maximizes farm profits (20 Marks)

		Coffee	Poultry	Cassava	Beans	Wool
	GM per acre	1100	770	740	480	360
		<i>Resource Coefficients</i>				
Constraint	Resources					
1 st Rain Land	320	2	2	2	0	2
2 nd Rain Land	320	2	2	0	2	2
Coffee quota	80	-	-	-	-	-
March Labour	4800 MDs	0	60	40	0	40
April Labour	4800 MDs	60	40	20	0	30
Aug Labour	4800 MDs	40	40	20	20	20
Nov Labour	4800 MDs	0	60	0	10	20
Dec Labour	4800 MDS	75	20	0	10	20

QUESTION FIVE

- a) Discuss the management factors to be considered when analysing the performance of a farm business. (10 Marks)
- b) Discuss the objectives of farm business accounts (5 Marks)
- c) Elaborate the information needed for program planning in farm business management (5 Marks)