



(Knowledge for Development)

KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS

2017/2018 ACADEMIC YEAR

THIRD AND SECOND YEAR FIRST SEMESTER

MAIN EXAMINATION

FOR THE DEGREES OF

BACHELOR OF SCIENCE IN AGRICULTURAL ECONOMICS

AND

BACHELOR OF SCIENCE IN AGRICULTURE AND BIOTECHNOLOGY

COURSE CODE: IAE 283 / 381

**COURSE TITLE: FINANCIAL MANAGEMENT AND ACCOUNTING IN
AGRICULTURE**

DATE: 4TH OCTOBER 2018

TIME: 11:30 – 1:30 PM

INSTRUCTIONS TO CANDIDATES

Answer Question ONE and any TWO Questions.

TIME: 2 Hours

This paper consists of 4 printed pages. Please turn over. ►

SECTION A (30 MARKS)

Answer **BOTH** questions from this section.

1. (a) Explain the roles of a Financial Manager. (4 marks)
 - (b) Bwana Mkulima intends to start a mixed farm. Outline the steps he needs to go through to arrive at a Complete Budget for the farm. (4 marks)
 - (c) Identify any **EIGHT** sources of Finance available for Kenya's agripreneurs. (2 marks)
 - (d) Distinguish between the following terminologies used in Financial Management:
 - (i) "**Farm Budget**" and "**Farm Plan**" (2 marks)
 - (ii) "**Fixed Costs**" and "**Semi-Variable Costs**" (2 marks)
 - (e) Briefly describe the importance of the following ratios to farmers:
 - (i) Liquidity Ratio (2 marks)
 - (ii) Working Capital (2 marks)
 - f) Distinguish between the following terminologies used in Financial Management:
 - (i) "**Income Statement**" and "**Balance Sheet**" (4 marks)
 - (ii) "**Farm Records**" and "**Financial Statements**" (2 marks)
 - g) Briefly explain the reasons for farmers preparing **Budgets**. (4 marks)
2. Mr. Waloba works as an accountant and his wife, Grace, teaches in a nearby high school. About five years ago, they built a 30' × 120' greenhouse (christened True Red Greenhouse) to grow tomatoes to sell at Bungoma market and to local grocery stores. The project started as a hobby, but business has grown and now Waloba and Grace want to evaluate several changes in the business to improve their returns, because Waloba is considering retiring and working full-time in the greenhouse. They have decided to use volume-cost analysis to evaluate the changes.

Waloba, with the help of his accountant, has determined that True Red's fixed costs or overhead for the coming year will be Kes 513,264. They produce about 17,600 kg of tomatoes per year and their average selling price is about Kes 153/kg. Their cost of goods sold equals about Kes 74.5/kg and their additional costs that seem to vary with sales amount to about Kes 23.5/kg.

- (a). From the above data, determine the breakeven point for True Red Greenhouse in Kes and in kg. (4 marks)
- (b). Samuel expects to eliminate his part-time labour, because he will work in the greenhouse full time, which amounts to a reduction in variable costs of Kes 17.35/kg. With no other

changes to the base situation, estimate the impact this would have on the business in Kes and in kg. (4 marks)

- (c). Waloba and Grace are considering upgrading some of their watering equipment and they expect the capital investment to cost about Kes 120,000, including installation. They assume this new equipment can be depreciated over a five-year period.

Assuming no other changes will be made to the base situation and the depreciation for the equipment is equal each year and there is no salvage value, determine the additional sales True Red will need for this to be a profitable decision in both kg and in Kes. (4 marks)

- (d). Waloba and Grace are interested in ways for True Red to increase sales. One change they are considering is to reduce the selling price for their tomatoes. They hope this change will increase sales in the near term and help them maintain sales later if a competitor should enter the market.

Assuming no other changes are made to the base situation in question 4 (a) above, determine the impact of a 15 percent price reduction have on the business in Kes and kg. (8 marks)

3. Sharon purchased a tractor on 4th June 2014 for Kes. 9,600,000. She expects the tractor to last for ten years and have a salvage value of Kes 1,200,000.

(a) Using the reducing balance method, estimate the tractor's total depreciation for its first **SIX** years of useful life. (6 marks)

(b) On one diagram, show how the tractor's estimated value varies along its useful life when one uses the reducing balance and the straight line methods of estimating depreciation. (14 marks)

4. (a) Explain how farmers can use Gross Margins as a criterion in decision-making. (6 marks)

(b) Mr. Wabwile has a two and half hectare farm in Kanduyi, Bungoma County. He has 1 ha under Maize, 0.4 ha under Tomatoes, 0.5 ha under beans and 0.6 ha under Dairy enterprises. The dairy enterprise consists of 10 lactating cows, 3 dry cows and 5 heifers.

He has provided you with the following information:

Enterprise	Gross Output	Price (Kes. Per unit)	Total Variable Costs (Kshs. per ha or L.U)
Maize	30 bags/ha	3,200	28,960
Tomatoes	650 crates / ha	1,550	66,100

Enterprise	Gross Output	Price (Kes. Per unit)	Total Variable Costs (Kshs. per ha or L.U)
Beans	10 bags/ha	5,200	24,310
Dairy	3,050 litres per 305 day lactation per cow	29.8	105,000
Total			213,370

From the above information:

- (i) Calculate the Gross margin of each of his enterprises. (12 marks)
- (ii) Compute his farm's total Gross Margin. (2 marks)