(*Knowledge for Development*)

KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS

2017/2018 ACADEMIC YEAR

SECOND YEAR SECOND SEMESTER
MAIN EXAMINATION
FOR THE DEGREE OF B.Sc. IN AGRICULTURAL ECONOMICS AND RESOURCES MANAGEMENT

COURSE CODE: IAE 289

COURSE TITLE: FARM BUSINESS MANAGEMENT I (PRINCIPLES)
DATE: 6TH AUGUST 2018 **TIME:** 9 AM – 11 AM

INSTRUCTIONS TO CANDIDATES
Answer BOTH questions in section A and any TWO in section B.

TIME: 2 Hours

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

35

SECTION A (30 MARKS)

AnswerALL questions from this section.

1. (a) List any **EIGHT** objectives that farmers pursue. (4 marks)

   (b) Distinguish between the following terminologies used in Farm Management:

   (i) "**Fixed Costs**" and "**Semi-Variable Costs**" (2 marks)
   (ii) **"FarmBudget**" and **"Optimal Farm Plan"** (2 marks)

   (c) Suppose Ms. Waithera has hired you to start a mixed farm. Outline to her the steps youwill go through to arrive at Complete Budget for the farm. (4 marks)

   (d) Muthiani has been a Management Trainee with Hustler's Farm Ltd. for the last twelve months. Suppose Kipkorir is a member of a panel to confirm Muthiani's appointment to the post of Farm Manager. List any **SIX personal** characteristics of the candidate that Kipkorir should consider when making the decision. (3 marks)

2. (a) Explain any **FOUR** limitations of Farm Budgeting. (4 marks)

   (b) List any **FOURDESIRABLE** qualities of farm plans. (2 marks)

   (c) Describe how a Manager can ensure the implementation of a Farm Plan. (4 marks)

   (d) Outline the linear decision-making model. (3 marks)

   (e) Define the terminology "**MARGIN OF SAFETY**" as used in Break-Even Budgeting. (2 marks)

SECTION B (40 MARKS)

Answer **ANY TWO**questions from this section.

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

   (b) Mr. Mapesa has a two and half hectare farm in 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 (Kshs. Per unit)	Total Variable Costs (Kshs. per ha or L.U)
Maize	30 bags/ha	2,700	24,960
Tomatoes	650 crates / ha	850	64,100
Beans	10 bags/ha	5, 200	19,310

Enterprise	Gross Output	Price (Kshs. Per unit)	Total Variable Costs (Kshs. per ha or L.U)
Dairy	3,050 litres per 305 day lactation per cow	45	100,000
	Total		**208,370**

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)

4. Mr. SamuelOkero worksasan accountant andhiswife,Grace,teachesin a nearby highschool.About five yearsago,theybuilta30'×120'greenhouse (christened True Red Greenhouse) togrowtomatoestosellatKakamegamarket and to local grocery stores. The project started as a hobby, but business has grown and now SamuelandGrace wanttoevaluateseveralchangesinthebusinesstoimprovetheirreturns,becauseSamuelisconsideringretiringandworkingfull-timeinthegreenhouse.They have decided to use volume–cost analysis to evaluate the changes.

Samuel,withthehelpofhisaccountant,hasdeterminedthatTrueRed'sfixedcostsor overheadforthecomingyearwillbeKes 513,264.Theyproduce17,600kgof tomatoesperyearandtheiraveragesellingpriceisKes 153/kg.Theircostofgoods soldequalsaboutKes 74.5/kgandtheiradditionalcoststhatseemtovarywithsalesamount 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). Samuelexpectstoeliminatehispart-timelabour,becausehewillworkinthegreenhousefull time,whichamountstoareductioninvariablecostsofKes 17.35/kg.Withnootherchanges tothebasesituation,estimate theimpactthiswould haveonthebusiness in Kes and in kg. (4 marks)

(c). SamuelandGraceareconsideringupgradingsomeoftheirwateringequipmentandthey expectthecapitalinvestmenttocostaboutKes 102,000,includinginstallation.Theyassume thisnewequipmentcanbedepreciatedoverafive-yearperiod.

Assumingnootherchangeswillbe made to the base situation andthedepreciationfor theequipmentisequaleachyearandthereisnosalvagevalue,determine theadditionalsalesTrueRedwill needforthistobeaprofitabledecision in both kg and in Kes. (4 marks)

(d). SamuelandGraceareinterestedinwaysforTrueRedtoincreasesales.Onechangetheyare consideringistoreducethesellingpricefortheirtomatoes.Theyhopethischangewill increasesalesintheneartermandhelpthemmaintainsaleslaterifacompetitorshould enterthemarket.

Assumingnootherchangesaremadetothebasesituationinquestion4 (a) above, determine the impactofa10percentpricereductionhaveonthe business in Kes and kg. (8 marks)

5. (a) Explain the standard assumptions of Linear Programming models. (5 marks)

(b) Discuss the factors that affect farmers' managerial abilities. (15 marks)