CHUKA   **UNIVERSITY**

UNIVERSITY EXAMINATIONS

THIRD YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN AGRICULTURAL ECONOMICS

AGEC 343: FARM MANAGEMENT PRINCIPLES

STREAMS: AGEC,AGBM   **TIME: 2 HOURS**

DAY/DATE: WEDNESDAY 4/12/2019   **11.30 A.M – 1.30 P.M**

INSTRUCTIONS
Answer question one and any other THREE questions
Do not write on the question paper
Show your working clearly

SECTION ONE (25 MARKS)
QUESTION ONE

(i)   With a well labelled diagram, explain the following from an agricultural point of view;

(a) The types of marginal rate of substitution   [4 marks]

(b) The three stages of production   [6 marks]

(ii)   Explain the meaning of the following terms;   [6 marks]

    (a) Product rate transformation

    (b) Opportunity cost

    (c) The law of diminishing returns

    (d) Farm management

    (e) Farm layout procedure

(iii)   Explain the assumptions that underlie linear programming.   [4 marks]

(iv)   With illustrations, clearly differentiate between the following basic economic concepts,

    (a) Comparative advantage and opportunity cost

(b) Rational and irrational stages of production.   [5 marks]

SECTION B (Answer any three questions)

QUESTION TWO (15 MARKS)

(i)   Explain the factors the farm manager must consider when planning the farm activities.   [6 marks]

(ii)   A farmer who produces mutton and wool is contemplating to change to wheat production. The average cost of wheat production is ksh 32,800 per ha. The price of wheat is ksh 2200 per 90 kg bag. At what yield will the farmer begin making a profit?   [9 marks]

QUESTION THREE (15 MARKS)

(i)   Explain the factors that are considered when planning a farm layout.   [5 marks]

(ii)   A farmer has 10 acres of land on which he grows 2 acres of maize and beans(maize in 1st rains and beans in the 2nd rains), 2 acres of potatoes and keeps 2 cows for milking. 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 rate of ksh 25 per MD. In addition 2 bags of fertilizer per acre at the cost of ksh 1850 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 at ksh 200 per bag.

Double cropping is the normal practice for potatoes in this area.

Required :

Prepare a partial budget and advise the farmer on proposed change.   [10 marks]

QUESTION FOUR (15 MARKS)

The process of making a decision can be formalized into a logical orderly series of steps, clearly explain these steps.   [15 marks]

QUESTION FIVE

(i)   Explain how farm management can be both a decision making activity and a problem solving activity.   [7marks]

(ii)   Explain four functions of management.   [8 marks]