

**CHUKA**



**UNIVERSITY**

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**UNIVERSITY EXAMINATIONS**

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF**

**AGEC 416: AGRICULTURAL ECONOMICS II**

**STREAMS:**

**TIME: 2 HOURS**

**DAY/DATE: WEDNESDAY 11/12/2019**

**2.30 P.M – 4.30 P.M**

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**INSTRUCTIONS**

**Answer all questions in section A and any TWO in section B**

**Do not write on the question paper**

**SECTION A : ALL QUESTIONS ARE COMPULSORY**

**QUESTION ONE**

**(a)** Discuss the following briefly;

- (i) Complementary and supplementary [2 marks]
- (ii) Capital budgeting and farm budgeting [2 marks]
- (iii) Capitalization and time value of money [2 marks]

**(b)** What are the three sources of risk and uncertainty in farming and discuss strategies available to a farmer seeking to avoid extreme losses in a risky farming situation.

[10

marks]

**(c)** Briefly explain five limitation of gross margin analysis. [5 marks]

**(d)** Explain the decision making process under factor –factor relationship. [4 marks]

**SECTION B: ANSWER ANY THREE QUESTIONS**

**QUESTION TWO**

- (a) Explain any five sources of data for a researcher carrying out research in a farm. [10 marks]
- (b) Discuss the organization of a survey with respect to farm output. [5 marks]

### QUESTION THREE

- (a) A farmer sprays cotton with pesticide but does not use a fertilizer. He discovers that fertilizer use will properly increase his yield by 400kg/ha. However, the fertilizer would cost ksh 2000/ha. To get the required response he would add soluble boron for his pesticide spray mixture at cost of ksh 300/ha. In addition the higher yield will raise the cost of harvesting by ksh 400/ha. The price for cotton is given as 20/kg, would you advice the farmer to apply fertilizer? [10 marks]
- (b) A farmer expects to receive ksh 250,000 annuities from investment for 4 years, each receipt occurring at the end of the year. What is the present value of the stream of benefits if the discount rate is 11.5%. [5 marks]

### QUESTION FOUR

- (a) Mr. Wanjohi a farmer in molo produces wheat and pyrethrum. He is contemplating changing from the two crops to maize production. The prize of maize is ksh 2,400 per bag and the variable costs amounts to ksh 29,000 per ha. He estimates his fixed cost to be approximately ksh 26,500 per ha. At what yield must be produced to begin making profit/ Explain your answer. [8 marks]
- (b) Production manager of company wants to maximize profits. He is faced with different production functions. Discuss. [5 marks]
- (c) Define net present value and internal rate of return. [2 marks]

### QUESTION FIVE

- (a) Explain four types of records kept by farmer. [8 marks]
- (b) Farm data can be categorized into different groups. Briefly discuss. [5 marks]
- (c) Differentiate between fixed expenses and variable expenses. [2 marks]

