

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**SECOND YEAR EXAMINATION FOR THE AWARD OF DEGREE OF
BACHELOR OF SCIENCE (AGRICULTURAL ECONOMICS)**

AGEC 242: AGRICULTURAL FINANCE

STREAMS: B.SC (AGEC) Y2S2

TIME: 2 HOURS

DAY/DATE: TUESDAY 13/8/2013

11.30 A.M. – 1.30 P.M.

INSTRUCTIONS:

**Answer question One and any other two.
Do not write on the question paper.**

Question One:

- (i) The nature of agricultural organizations require that finance managers make various decisions in their farm business. Discuss the decisions that they make from time to time which make the shareholders better off by increasing the value of their shares. [6 marks]
- (ii) Explain how you would mitigate the agency problem. [3 marks]
- (iii) Suppose you deposit 10,000 Ksh in a bank today and you wish to purchase farm equipment 5 years from today. How much will you receive from the bank if the rate of interest is 15 per cent at the end of the 5 years? [4 marks]
- (iv) Assume that you are the finance manager of Kilimo Farm enterprises and that you want to invest shareholders money in two types of stock A and B. Stock A and B have the following historical returns.

Year	Stock A's returns (Ra)	Stock B's returns (Rb)
2000	-18%	-24%
2001	44%	24%
2002	-22%	-4%
2003	22%	8%
2004	34%	56%

- (i) Calculate the average rate of return for each of the stock during the 5 year period. Assume that the firm held a portfolio consisting of 50 percent stock A

and 50 percent of stock B. What would have been realized rate of return on the portfolio in each year and so the average returns on portfolio during this period?

- (ii) Calculate the standard deviation of returns for each stock and for the portfolio. [17 marks]

Question Two:

- (i) Distinguish among the following types of investments:
- (a) Mutually exclusive investments [2 marks]
 - (b) Independent investments [2 marks]
 - (c) Contingent investment [2 marks]
- (ii) A company is considering the following investment projects:

Project	Project C ₀	C ₁	C ₃	C ₄
A	-10,000			
B	-10,000	7500	7500	
C	-10,000	4000	6000	12000
D	-10,000	10,000	4000	4000

- (a) Rank the project according to each of the following methods, IRR and NPV, assuming a discount rate of 10 and 20 percent. [10 marks]
- (b) Assuming the projects are independent, which one should be accepted? If the projects are mutually exclusive, which project is best? [5 marks]

Question Three:

- (i) Explain the factors that you would consider in sourcing funds for an agricultural bases enterprise. [10 marks]
- (ii) The following is an extract of the balance sheet of Kakuzi Ltd an agro processing industry as at 31 December 2006.

	Sh “000”
Capital & Liabilities	
Ordinary share capital:	
1 million ordinary share @ 10/=	10,000
Capital reserves	20,000
Revenue reserves	90,000
10% debentures	<u>30,000</u>
	<u>150,000</u>
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Additional information:

- (1) The profit before interest and tax for the year ended 31 December 2005 was Sh.9,000,000.

- (2) The dividend payout ratio for the year 2005 was 40%.
- (3) The market price per share as at 31 December 2005 was Sh,.36
- (4) The corporate tax rate is 30%

Required: Calculate:

- (i) Dividend yield ratio [2 marks]
- (ii) Interest cover ratio [2 marks]
- (iii) Return on capital employed [2 marks]
- (iv) Price earning ratio [2 marks]
- (v) Gearing ratio [2 marks]

Question Four:

- (i) The following table gives dividend and share price data for Chuka Farmers Company.

<u>Year</u>	<u>Dividend/Share</u>	<u>Closing Share Price</u>
1994	2.5	12.25
1995	2.5	14.2
1996	2.5	17.5
1997	3.0	16.75
1998	3.0	18.45
1999	3.25	22.25
2000	3.5	23.5
2001	3.5	27.75
2002	3.5	25.5
2003	3.75	27.95
2004	3.75	31.3

Required:

- Calculate:
- (i) Annual rates of return
 - (ii) The expected (average) rate of return
 - (iii) The variance and
 - (iv) The standard deviation [10 marks]

- (ii) Despite its weaknesses, the payback method is popular in practice. What are the reasons for its popularity? [5 marks]
- (iii) Differentiate between discounting and compounding. [2 marks]
- (iv) Suppose a person receives 10,000 annually for 4 years at the end of every year.

The interest is 10% per annum. Calculate the present value annuity. [3 marks]
