CHUKA UNIVERSITY

UNIVERSITY EXAMINATIONS

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

AGEC 242: AGRICULTURAL FINANCE

STREAMS: BSC (AGEC) Y2S2 **TIME: 2 HOURS**

DAY/DATE: MONDAY 06/04/2020 **8.30 A.M. – 10.30 A.M.**

INSTRUCTIONS: Answer question ONE and any other THREE questions

QUESTION ONE (25 MARKS)

(i) Agricultural finance managers have critical decisions to make from time to time in the course of business operations. Giving examples explain the four main areas of finance in which they make decision. [10 marks]

(ii) Explain five factors that determine the requirement of fixed capital [7 marks]

(iii) Suppose you deposited 20,000 kshs in a bank 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 20 percent at the end of the 5 years. [4 marks]

(iv) Explain the agency problem and how to mitigate the problem. [4 marks]

QUESTION TWO (15 MARKS)

(i) Explain eight sources of finance available to finance managers clearly distinguishing between debt and equity financing. [8 marks]

(ii) A company is considering the following investment projects:

Project	C0	C1	C2	C3
A	-10,000			
B	-10,000	7500	7500	
C	-10,000	4000	6000	12000
D	-10,000	10000	4000	4000

Required:

(a) Rank the projects according to each of the following, NPV, IRR assuming a discount rate of 10 and 20 percent. [6 marks]

(b) If the projects are mutually exclusive which project is best? [1 mark]

QUESTION THREE (15 MARKS)

(i) Explain five features of a bond or debenture [4 marks]

(ii) Differentiate between discounting and compounding [2 marks]

(iii) Suppose you want to purchase a 5 year bond kshs 1000 par value bearing a nominal rate of interest 7 percent per annum. The investor required rate of return is 10 per cent. What should he be willing to pay now to purchase the bond it if matures at par? [4 marks]

(iv) Despite its weaknesses, the payback period is popular in practice, what are the reasons for its popularity? [5 marks]

QUESTION FOUR (15 MARKS)

(i) "Financial ratios is a full method of assessing the financial performance of a firm" critically discuss this statement [5 marks]

(ii) Assume that you are a financial manager in you agro-based company and that our company had made plans for next year. It is estimated that the company will employ total assets of $800,000; 50 percent of the assets being financed by borrowed capital at an interest cost of 8 pr cent per year. The direct costs for the year are estimated at $ 480,000 and all other operating expenses are estimated at $ 80,000. The goods will be sold to customers at 150 percent of direct costs. Tax is assumed to be 50 percent.

You are required to calculate

(i) Net profit margin [4 marks]

(ii) Return on assets [2 marks]

(iii) Asset turnover [2 marks]

(iv) Return on owners' equity [2 marks]

QUESTION FIVE (15 MARKS]

(i) Assume that you are given the following information

Economic condition	Rate of return	Probability
Growth	18.5	0.25
Expansion	10.5	0.25
Stagnation	1.0	0.25
Decline	-6.0	0.25

Required: calculate

(a) The expected rate of return [2 marks]

(b) The variance and standard deviation [3 marks]

(c) Explain what is the implication of expected rate of return and standard deviation [2 marks]

(ii) Exactly ten years from now, assume that George will start receiving a pension of kshs 3,000 a year. The payment will continue for sixteen years. How much is the pension worth now, if George's interest rate is 10 percent? [5 marks]

(iii) Your father has promised to give you ksh 100,000 in cash on your 25^{th} birthday. Today is your 16^{th} birthday. He wants to know two things:

(a) If he decides to make annual payments into a fund after one year, how much will each have to be if the funds pays 8 per cent? [1 mark]

(b) If he decides to invest a lump sum in the account after one year and let it compound annually, how much will the lump sum be? [1 mark]

(c) If in (a) the payments are made in the beginning of the year how much will be the value of annuity? [1 mark]
