



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

A. M. E. C. E. A

P.O. Box 62157
00200 Nairobi - KENYA
Telephone: 891601-6
Fax: 254-20-891084
E-mail: academics@cuea.edu

MAIN EXAMINATION

SEPTEMBER – DECEMBER 2019 TRIMESTER

SCHOOL OF BUSINESS

DEPARTMENT OF ACCOUNTING AND FINANCE

REGULAR PROGRAMME

CFI 221: BUSINESS FINANCE

Date: DECEMBER 2019

Duration: 2 Hours

INSTRUCTIONS: Answer Question ONE and any other TWO Questions

- Q1. a) Wealth maximization is superior to profit maximization. Discuss briefly.

(6 marks)

- b) Briefly describe the primary functions of four major types of financial institutions and give a real-world example in each case.

(8 marks)

- c) Discuss the three types of efficient Market Hypothesis **(4 marks)**

- d) Shah Co. wishes to calculate its weighted average cost of capital. The following financial information relating to the company was extracted from its financial statements for the year ended 31st December 2018.

	Ksh000
Ordinary shares (nominal value 50 cents)	4,000
4% Preference shares (nominal value Ksh1)	3,000
7% Bonds redeemable after six years	3,000

Long-term bank loan 1,000

The ordinary shares of Shah Co have a market value of Ksh4.70 per share and an ordinary dividend of 36.3 cents per share has just been paid. Historic dividend payments have been as follows:

Year	2014	2015	2016	2017
Dividends per share (cents)	30.9	32.2	33.6	35.0

The preference shares of Shah Co are not redeemable and have a market value of 40 cents per share. The 7% bonds are redeemable at a 5% premium to their nominal value of Ksh50,000 per bond and have a market value of Ksh49,500 per bond. The bank loan has a variable interest rate that has averaged 4% per year in recent years. SHAH Co pays tax at an annual rate of 30% per year.

Required:

- a) Calculate the market value weighted average cost of capital of sHAH Co. (12 marks)

Q2. a) You are given the following estimates for Stock's A and B.

State of Economy	Probability	A	B
Poor	0.25	-5%	-8%
Normal	0.5	8%	10%
Good	0.25	12%	22%

- i. Calculate the expected returns for stock's A and B respectively. (2 marks)
- ii. Compute the standard deviations for stock's A and B respectively and identify which of the two stocks is riskier. (4 marks)

- b) You have decided to invest 40% of your wealth in McDonalds, which has an expected return of 15% and a standard deviation of 15%, and 60% of your wealth in GE, which has an expected return of 9% and a standard deviation of 14%.

i. Calculate the expected return of your portfolio.

(1 mark)

ii. If the correlation between McDonalds and GM is 0.5, compute the standard deviation of your portfolio.

(3 marks)

iii. If you wanted an expected return of 13%, determine what percentage you should invest in McDonalds.

(2 marks)

iv. Based on your percentages in part iii above, determine the standard deviation of this portfolio.

(3marks)

- c) Define agency costs, and explain why firms incur them.

(5 marks)

- Q3. (a) With appropriate illustration discuss the following terms

(i) Ordinary Annuity

(2 marks)

(ii) Annuity Due

(2 marks)

- (b) Assume that you have Ksh150,000 in a bank account that pays 5 percent annual interest. You plan to go back to school for an MSc degree 5 years from today. The fees required will be Ksh2.5M as at the end of year 5. Considering the money held in the bank account, how much must you save during each of the next 5 years in order to achieve your goal

(5 marks)

- (c) In January 2016 Kamau made a decision to invest for his dream in Tatu City which he expects to occupy by the end 2025 when the houses will be ready. To achieve this goal, Kamau decided to start depositing money into an account that pays 15% p.a. in order to buy a house. He decided on making Ksh100,000 contributions into the account every year until he buys the house. If Kamau doesn't begin making deposits into the account until the year 2019, what is the present value of the annuity?

(5 marks)

- Q4. (a) Discuss importance of Ratio analysis **(5 marks)**
 (b) Discuss application of working capital management in CUEA **(5 marks)**
 (c) A firm whose cost of capital 15% is considering two mutually exclusive projects 1 and 2. If the initial investment is Kshs. 20 million each with the cash-flows provided below what would be your advice to the firm after evaluations

Year	1	2	3	4	4
Project 1	4m	3m	4m	5m	5m
Project 2	5m	4m	2m	6m	5m

You are required to calculate:

- i) The Discounted payback of each project **(2 marks)**
 ii) The average rate of return for each project **(2 marks)**
 iii) The net present value **(2 marks)**
 iv) The Internal rate of returns for each project **(4 Marks)**

Formulers

$$\text{Value} = \text{Annuity} \times \frac{(1+r)^n - 1}{r} (1+r) \qquad \text{Value} = \text{Annuity} \times \frac{1 - (1+r)^{-n}}{r} (1+r)$$

$$\text{Value} = \text{Annuity} \times \frac{(1+r)^n - 1}{r} \qquad \text{Value} = \text{Annuity} \times \frac{1 - (1+r)^{-n}}{r} (1+r)^{-d}$$

$$\text{Value} = \text{Annuity} \times \frac{1 - (1+r)^{-n}}{n} \qquad \text{Value} = \text{Annuity} \times \frac{1 - (1+r)^{-d}}{(1+r)^n}$$

END