



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

A. M. E. C. E. A

P.O. Box 62157

00200 Nairobi - KENYA

Telephone: 891601-6

MAIN EXAMINATION

JANUARY – APRIL 2019 TRIMESTER

FACULTY OF COMMERCE

MBA PROGRAMME

WRITTEN COMPREHENSIVE EXAMINATION: FINANCE OPTION

Date: FEBRUARY 2019

Duration: 3 Hours

INSTRUCTIONS: Answer ALL Questions

- i) Clearly show all your working
- ii) Financial tables may be used

Question One

- a) i) Discuss the various portfolio performance measures **[6marks]**
- ii) Compare active and passive portfolio management **[4marks]**

- b) i) State the Black-Scholes formula for the price of a European call option **[4marks]**
- ii) Suppose an investor owns a European call option on a stock for which the

Following applies:

- Underlying stock's price = Sh60
- Exercise price on the option = Sh 58
- Annual risk-free rate = 5 percent
- Time to expiration on the option = 3 months
- Standard deviation of the underlying stock's return = 0.12

Required:

Calculate the current price of the call option **[6marks]**

Question Two

- a) Briefly explain the issues that need to be addressed when dealing with incremental rather than total cash flows in international capital budgeting

[5marks]

- b) A USA multinational is considering a European opportunity. The multinational is considering an initial investment of €12,000. The size and timing of the before interest and taxes cash flows is as follows;

Year	1	2	3	4	5
EBIT (€)	800	600	700	1000	650

The following information is provided;

Inflation in US, $\Pi_{\$} = 4.2\%$

Inflation in the Eurozone, $\Pi_{\text{€}} = 7.2\%$

Corporate tax rate in Eurozone, $T = 40\%$

Cost of Equity to an unlevered USA firm, $K_{ud} = i_{\$} = 15.2\%$

Current spot exchange between the US dollar and the Euro is $S_0(\$ / \text{€}) = \$1.31/\text{€}$

Required;

Using NPV method, appraise this project from the USA shareholders perspective and advise them accordingly. **[15marks]**

Question Three

- a) Discuss the major features of common stock **[4marks]**

- b) Briefly discuss any three dividend theories **[6marks]**

- c) A company negotiates a Sh 25 million loan for eight years from a financial institution. The interest rate is 12% per annum on the outstanding balance of the loan. The principal and interest will be repaid in eight equal year-end instalments.

Required

Prepare a loan repayment schedule **[10marks]**

Question Four

Umma Ltd and Lemma Ltd are identical in every respect except that Umma is unlevered while Lemma has Sh 10 million of 5% loan stock outstanding. You are also informed that:

- All of MM assumptions are satisfied
- There are no corporate or personal taxes
- Earnings before interest and taxes (EBIT) is Sh 2 million
- The cost of equity to Umma is 10% p.a.

Required:

- a) What market value would MM estimate for each firm? **[4marks]**
- b) What is the cost of equity for Lemma? **[3marks]**
- c) What is the market value of Lemma's equity? **[3marks]**
- d) What is the weighted average cost of capital for each firm? **[3marks]**
- e) Suppose the market value of the assets of Umma is Sh 20 million and the market value for those of Lemma is Sh 22 million.
Are these equilibrium valuations? Use these figures to explain how equilibrium is established. **[7marks]**

Question Five

- a) Distinguish between horizontal and vertical financial statement analysis

[2marks]

- b) Consider the CS Company Limited, which reports the following financial information:

Year	2012	2013	2014	2015	2016	2018
Cash	\$400.00	\$404.00	\$408.04	\$412.12	\$416.24	\$420.40
Inventory	1,580.00	1,627.40	1,676.22	1,726.51	1,778.30	1,831.65
Accounts receivable	1,120.00	1,142.40	1,165.25	1,188.55	1,212.32	1,236.57
Net plant and equipment	3,500.00	3,640.00	3,785.60	3,937.02	4,094.50	4,258.29
Intangibles	<u>400.00</u>	<u>402.00</u>	<u>404.01</u>	<u>406.03</u>	<u>408.06</u>	<u>410.10</u>
					\$7,399.4	
Total assets	\$6,500.00	\$6,713.30	\$6,934.12	\$7,162.74	5	\$7,644.54

Required

- i) Create the vertical common-size analysis for the CS Company's assets. Comment briefly on the results **[7marks]**
- ii) Create the horizontal common-size analysis for CS Company's assets, using 2012 as the base year. Comment briefly on the results **[7marks]**
- c) Discuss the limitations of Financial Statement analysis **[4marks]**

END