



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

ODEL PROGRAMME

CBF422: FINANCIAL FORECASTING AND MODELLING

Date: DECEMBER 2019

Duration: 2 Hours

INSTRUCTIONS: Answer Question ONE and any other TWO Questions

Q1. a) Korn Company sells two products as follows:

	Per Unit	
	Sales Price	Variable Costs
Product Y	\$120	\$ 70
Product Z	\$ 500	\$ 200

Fixed costs total \$300,000 annually. The expected sales mix in units is 60% for product Y and 40% for Product Z. How much is Korn's breakeven sales in units:

(5

marks)

b) The following information pertains to Syl. Co.:

Revenues	\$800,000
Variable Costs	\$160,000
Fixed Costs	\$ 40,000

What is Syl's breakeven point in sales revenues

(3 marks)

c) Discuss the effect of calculating the net present value of a project using the accelerated instead of the straight-line method of depreciation
(5 marks)

d) XYZ, Inc., with a 14 percent cost of capital after taxes is considering a project with an expected life of 4 years. The project requires an initial cash outlay of \$50,000. The expected cash inflows and certainty equivalent coefficients are as follows:

Year	After-Tax Cash Flow	Certainty Equivalent Adjustment Factor
1	\$10,000	0.95
2	\$ 15,000	0.80
3	\$20,000	0.70
4	\$25,000	0.60

Assuming that the risk-free rate of return is 5 percent, calculate

- i) Net Present Value **(3 marks)**
- ii) Internal Rate of Return **(4 marks)**
- e) Discuss the merits and demerits of ratio analysis **(10 marks)**
- Q2. a) Discuss the uses of financial Modelling **(8 marks)**
b) Discuss any three qualitative methods used in financial models **(6 marks)**
c) The purpose of the model is to influence strategic decisions by revealing to the decision maker the implications of alternative values of these financial variables. Discuss **(6 marks)**

Q3. a) You are provided the following projected balance sheet of UCB Ltd as at:

	2019 Sh "000"	2020 Sh "000"
Fixed Assets	6,085	6,527
Inventories	507	273
Accounts Receivable	355	365
Cash	210	215
Total Current Assets	1,072	853
Total Assets	7,157	7,380
Short term bank debt	1,715	1,427
Trade payables	207	298
Total Current liabilities	1,922	1,725
Long Term Bank debt	1,987	2,308
Share capital	1,000	1,000

Retained Earnings	2,228	2,248
Net Income for the year	20	99
Shareholders' Equity	3,248	3,347
Liabilities & shareholders' equity	7,157	7,380

Required:

- i) Explain the meaning of horizontal financial statement analysis **(2 marks)**
- ii) Calculate Net operating working capital for 2019 **(3 marks)**
- iii) Calculate the Return on Equity 2019 and 2020 **(6 marks)**
- iv) Comment on the expected profitability of UCB Ltd **(2 marks)**

- b) Assume that UCB's total assets in *b* will be sh. 9,600,000 in 2020.
Calculate the external financing required in 2020 **(4 marks)**

marks)

- c) Discuss consumer surveys as a method of forecasting **(4 marks)**

Q4. a) The Statement of financial position (Extract) of Nina Co. Ltd showed the following current assets and current liabilities for the years ended 31st December 2016, and 31st December 2017:

	2017	2016
<u>Assets</u>		
<u>Current assets:</u>		
Cash	\$ 60,000	\$ 30,000
Accounts receivable, net	113,000	79,000
Inventories	107,100	106,900
Prepaid expenses	5,700	6,100
Total currents assets	<u>\$285,800</u>	<u>\$222,000</u>
<u>Liabilities</u>		
<u>Current liabilities:</u>		
Notes payable	\$ 40,000	\$ 33,000
Accounts payable	100,600	57,500
Total current liabilities	<u>\$140,600</u>	<u>\$90,500</u>
<u>Capital</u>	<u>\$145,200</u>	<u>\$131,500</u>
<u>Total Liabilities & Capital</u>	<u>\$285,800</u>	<u>\$222,000</u>

An income statement extract was also provided;

Gross Profit	\$200,000	\$ 150,000
Total expenses	80,000	65,000
EBIT	120,000	85,000
Interest Expense	30,000	30,000
EAI	90,000	55,000

Tax	<u>27,000</u>	<u>16,500</u>
EAIT	<u>63,000</u>	<u>38,500</u>

Required;
Calculate

- i) Current Ratio **(2 marks)**
 - ii) Acid-test Ratio **(2 marks)**
 - iii) Rate of return on total assets **(2 marks)**
 - iv) Times-interest earned ratio **(2 marks)**
 - v) Debt ratio **(2 marks)**
 - vi) Return on capital employed **(2marks)**
- b) Discuss any three users of financial statements **(5 marks)**
- c) Distinguish between Internal rate of return and accounting rate of return **(3 marks)**

END