
**CERTIFIED PUBLIC ACCOUNTANT
INTERMEDIATE LEVEL EXAMINATIONS**

I1.1: MANAGERIAL FINANCE

WEDNESDAY: 5 DECEMBER 2018

INSTRUCTIONS:

1. **Time Allowed: 3 hours 15 minutes** (15 minutes reading and 3 hours writing).
2. This examination has two sections; A & B.
3. Section **A** has **three** Compulsory Questions while **B** has **three** questions **two** to be attempted.
4. In summary attempt **five** questions.
5. Marks allocated to each question are shown at the end of the question.
6. Show all your workings

SECTION A (COMPULSORY)

QUESTION ONE

Kalega (R) Ltd (KRL) is a family owned business based in Musanze district. The company deals in the manufacture of home appliances, and has been in operation since 2000. The owners of KRL now want to know the worth of their shareholding. They have contracted you to determine the value of the company using different valuation methods. You have been provided with following information about the company.

Statement of financial position as at 31 December, 2017

Non-current assets:	RWF 'million'
Property, plant & equipment	600
Current assets:	
Inventory	200
Trade receivables	400
Cash	<u>125</u>
	<u>725</u>
Total assets	<u>1,325</u>
Equity & liabilities:	
Ordinary share capital RWF 20,000 per share	500
Reserves	102
10% preference shares RWF 10,000 per share	<u>200</u>
	<u>802</u>
Non-current liabilities:	
10% debentures	40
Current liabilities:	
Trade payables	150
Taxation	110
Bank overdraft	<u>223</u>
	<u>483</u>
Total equity & liabilities	<u>1,325</u>

Extract of profits and dividends over four years

Year	Sales revenue RWF 'million'	Profit after tax RWF 'million'	Dividends RWF 'million'
2014	250	80	20
2015	312	100	20
2016	375	100	22
2017	450	110	25

Extract of notes to the financial statements:

1. The property plant and equipment include land which was revalued from RWF 200 million to 250 million and motor vehicles revalued from RWF 150 million to 120 million.
2. 15% of the receivables are irrecoverable.
3. 10% of the inventory will be obsolete.

You have also been provided with additional information about companies similar to KRL and in the same industry which are listed on Rwanda stock exchange.

	Price-earnings (P/E) ratio	Dividend yield (%)	Beta
Gomba Ltd	10	10	1.2
Pembe Ltd	12.5	15	2
Gondwe Ltd	12	20	1.5

The risk free rate of return is 10% and the return on market portfolio is 15%.

The allowance for non-marketability of the shares of KRL because of being unquoted is 20% in dividend yield and 50% in the price-earnings (P/E) ratio.

REQUIRED:

- (a) Calculate the:
 - (i) Growth in dividends. **(3 Marks)**
 - (ii) Cost of capital of KRL (cost of equity). **(3 Marks)**
 - (b) Determine the value, per share, of KRL using the:
 - (i) Asset based method. **(8 Marks)**
 - (ii) Dividend yield. **(3 Marks)**
 - (iii) Price-earnings (P/E) E ratio. **(3 Marks)**
 - (iv) Dividend valuation model. **(3 Marks)**
 - (c) Explain limitations of dividend valuation model and price-earnings ratio. **(2 Marks)**
- (Total 25 Marks)**

QUESTION TWO

Serugongo (R) Co. Ltd (SRL) deals in the bottling of mineral water based in Muhanga district. The company has taken advantage of the change in lifestyle where a number of people in the country no longer take soda but mineral water and the company has made huge profits. The directors of the company plan to start producing an energy drink called 'Hoof-kick'. The following information has been provided to you to evaluate the viability of this project.

1. The production of Hoof-kick will be for 5 years after which a new product will be introduced.
2. To produce Hoof-kick, the company will require a machine worth RWF 500 million and it will be depreciated at 25% on reducing balance. The depreciation is allowed for tax purposes.
3. The machine will have a scrap value of RWF 10 million after its useful life of 5 years.

4. The production of hoof Hoof-kick will require working capital of RWF 100 million in year 1 increasing to RWF 150 million, in year 2 and this working capital will be recouped in year 5.
5. When Hoof-kick is produced, the company will lose revenue from mineral water worth RWF 5 million per annum in current terms.
6. The investment advisor has projected the following nominal sales and manufacturing costs and these will increase in line with the inflation rate.

Year	Sales RWF 'million'	Raw material cost RWF 'million'	Variable labour cost RWF 'million'
1	400	40	30
2	500	85	40
3	300	40	10
4	200	25	15
5	250	40	20

7. Tax rate is 30% and tax is paid in arrears.
8. The expected required rate of return by the shareholders of SRL is 12% before taking into consideration inflation.
9. The investment advisor projected that inflation will be 10% and therefore management should not ignore it.
10. He also suggested that risk should also be incorporated in capital investment decision making by applying certainty equivalent factors method.

Estimates of the certainty equivalent factors (CEF).

Year	CEF (%)
1	80
2	70
3	60
4	50
5	40
6	30

REQUIRED:

- (a) Using the information above, determine the viability of the Hoof-kick energy drink project using the net present value method. **(15 Marks)**
 - (b) Describe the strategies of managing risks at SRL. **(5 Marks)**
- (Total 20 Marks)**

QUESTION THREE

During the recent state of the nation address, the President of Republic of Rwanda appreciated some of the best performing companies towards boosting the country's economy. Among these companies that were recognised is Iradukunda Enterprises Limited (IEL). When contacted, Mr. Ngeze John, the Chairman, Board of Directors of IEL attributed their good performance to the Board's ability to address corporate governance issues and stakeholders' interests.

REQUIRED:

Discuss the:

- (a) Fundamental principles and benefits of corporate governance in an organisation like IEL. **(9 Marks)**
- (b) Key stakeholder interests in an organisation like IEL. **(6 Marks)**

(Total 15 Marks)

SECTION B (CHOOSE ANY TWO QUESTIONS)

QUESTION FOUR

Musole Enterprises Ltd (MEL) supplies stationery to public universities in Rwanda as its major customers. Their capital structure as at 31 December, 2017 was as follows:

	RWF '000'
Share capital 4,000 shares RWF 30,000 per share	120,000
Share premium	90,000
Reserves	<u>100,000</u>
Total capitalization	<u>310,000</u>

A share currently sells at RWF 40,000.

The company has been engaged in expansion programs and all profits that are generated are reinvested in new projects without considering payment of dividends. In the last annual general meeting, the shareholders expressed bitterness about the directors' decision of not minding about the owners of the business. The directors got concerned about the expression from the shareholders and consulted their investment advisor about how they can satisfy the interests of the shareholders without affecting their expansion plans. He advised them that they can declare non-cash dividends like stock splits and stock dividends. The directors are still worried about the effect of such dividends on the capital structure. They have approached you for advice on the effect of both stock splits and stock dividends on the capital structure of the company, because they are proposing to declare a stock split of 3:1 or 10% stock dividend. A workshop has been organised and you have been invited to lead the discussions.

REQUIRED:

Prepare notes to share with members at the workshop and include the:

- (a) Effect of a stock split and stock dividends on MEL's capital structure (12 Marks)
- (b) Factors that MEL should consider before declaring and paying dividends. (8 Marks)

(Total 20 Marks)

QUESTION FIVE

Butare Enterprises Ltd (BEL) had the following extract of their statement of financial position as at 31 December, 2017.

Assets:	RWF '000'
Various assets	<u>290,000</u>
Equity & liabilities:	
Ordinary share capital RWF 4,000 per share	40,000
11% preference shares RWF 5,000 per share	50,000
Share premium	40,000
Retained earnings	90,000
8% debentures	70,000
Total equity & liabilities	290,000

Additional information:

Issue expenses for preference shares were 15%.

The market price of BEL shares was RWF 4,100 and a dividend of RWF 200 per share is expected by the shareholders of BEL. Dividends are expected to grow by 7%.

The corporation tax rate is 30%.

REQUIRED:

- (a) Calculate the cost of each source of funds. **(9 Marks)**
- (b) (i) Establish the cost of equity given that the floatation costs for ordinary shares were 15%. **(3 Marks)**
(ii) Compare your result in (b)(i) with the one calculated in (a) above. **(2 Marks)**
- (c) Compute BEL's weighted average cost of capital. **(6 Marks)**

(Total 20 Marks)

QUESTION SIX

Mwiiza Bread Ltd (MBL) deals in the production of bread in Nyamagabe district. The annual demand for bread is 10,000 tones. The cost of placing an order for raw materials for one tone is equivalent to RWF 12,000. The cost of holding one tone is RWF 5,000. The normal delay between placing an order and receiving the raw materials is estimated at one month.

MBL has been facing cash problems due to poor cash planning. In order to overcome such problems, management decided that cash budgets should be prepared every six months. You have been provided with the following information relating to the company's projection for six months of January to June, 2019. Figures are in RWF '000'.

Particulars	2018		2019					
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.
Sales	6,000	5,000	7,000	2,000	1,000	9,000	9,200	4,000
Purchases/ materials	500	200	300	400	500	600	700	500
Wages	90	100	120	130	100	90	80	100
Rent	400	400	400	400	400	400	400	400
Sale of assets				3,000		4,000		
Other expenses	90	200	300	150	200	150	200	150

Additional information:

1. MBL expects to have an overdraft of RWF 9,000,000 on 1 January, 2019.
2. Wages and rent expenses are paid immediately; other expenses paid two months after they are incurred.
3. Proceeds from sale of assets are received one month after sale.
4. 40% of sales are always cash and 60% credit sales.

5. 70% of credit sales are received in the month following sale and 30% two months after sale.

REQUIRED:

- (a) Determine the:
 - (i) Economic order quantity and frequency at which orders should be placed. **(5 Marks)**
 - (ii) Total inventory costs. **(6 Marks)**
 - (b) Prepare a cash budget for MBL and advise management on the excess balances or deficit. **(9 Marks)**
- (Total 20 Marks)**