CERTIFIED PUBLIC ACCOUNTANT

INTERMEDIATE LEVEL EXAMINATIONS

I1.1: MANAGERIAL FINANCE

MONDAY 2 DECEMBER 2013

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 Section 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

Attempt all questions in this section

QUESTION ONE

Mayonza Investments Ltd. wishes to raise funds amounting to Frw. 100 million to finance a project in the following manner:

Frw. 60 million from debt; and

Frw .40 million from floating new ordinary shares.

The present capital structure of the company is made up as follows:

- 600,000 fully paid ordinary shares of Frw.100 each
- Retained earnings of Frw.40 million
- 200,000, 10% preference shares of Frw.200 each.
- 40,000 6% long term debentures of Frw. 1,500 each.

The current market value of the company's ordinary shares is Frw 600 per share. The expected ordinary share dividends in a year's time are Frw. 24 per share. The average growth rate in both dividends and earnings has been 10% over the past ten years and this growth rate is expected to be maintained in the foreseeable future.

The company's long term debentures currently change hands for Frw 1,000 each. The debentures will mature in 100 years. The preference shares were issued four years ago and still change trade at face value.

Required:

i) Compute the component cost of:

a) Ordinary share capital; **(6 Marks)**

Debt capital **(6 Marks)**

Preference share capital. **(3 Marks)**

(ii) Compute the company's current weighted average cost of capital. **(5 Marks)**

Compute the company's marginal cost of capital if it raised the additional Frw.10 million as envisaged. (Assume a tax rate of 30%). **(5 Marks)**

(Total 25 Marks)

QUESTION TWO

Alimono Ltd a manufacturer of edible oil is contemplating the purchase of a new oil processing machine to replace the existing one. The Old machine was acquired two years ago at a cost of Frw 400,000. The useful life of this old machine was originally expected to be 5 years with no salvage value, but after a critical analysis, the financial analyst has now estimated that the machine will have an economic life of 10 years with salvage value of Frw 50,000.

The **new machine** is estimated to cost Frw 800,000 and Frw 40,000 would be incurred in installing the machine. The new machine is estimated to have a useful 10 years. An expert in asset valuation estimates that the existing machine can be sold at Frw 250,000 now in the open market.

The new machine is expected to lead to increased sales. To support the increased sales additional working capital amounting Frw 16,000 is required. The company cost of capital is 10%.The estimated cash flow the next 10 years for the two machines is given below:

Year	New machine	Old machine	Year	Discount at 10%
1	350,000	280,000	1	0.909
2	400,000	300,000	2	0.826
3	420,000	320,000	3	0.751
4	410,000	340,000	4	0.683
5	410,000	340,000	5	0.621
6	380,000	320,000	6	0.564
7	380,000	310,000	7	0.513
8	350,000	280,000	8	0.467
9	300,000	260,000	9	0.424
10	280,000	240,000	10	0.386

Required:

a) Initial investment cost required for replacement of the old machine. **(4-Marks)**

b) An evaluation of whether it is worthwhile to undertake replacement of the machine. **(16-Marks)**

(Total 20 Marks)

QUESTION THREE

SUL Ltd is expected to purchase new equipment. The equipment is expected to cost Frw 550,000 and will involve installation cost of Frw 50,000; working capital of Frw 80,000 will also be required. The expected life of the equipment is 5 years after which the equipment is expected to be sold for Frw 100,000 SUL Ltd is allowed to charge depreciation on straight-line basis for tax purposes and the tax rate is 40%. The estimated before tax cash flows are as follows:

Year	1	2	3	4	5
Cashflow	210,000	180,000	160,000	150,000	120,000

SUL Ltd cost of capital is 15%

SUL Ltd has approached you as a financial consultant in Rwanda for an advise on the viability of this equipment.

Required:

Using the N.P.V method evaluate the viability of this machine.

NB use this present value interest factors at 15% discount rate.					
Year	Year 1	Year 2	Year 3	Year 4	Year 5
Discount rate 15%	**0.870**	**0.756**	**0.658**	**0.572**	**0.497**

(Total 15 Marks)

SECTION B

Attempt two questions from this section

QUESTION FOUR

a) Highlight five rationales for the use of the price to book value (P/B) as a valuation tool. **(5 Marks)**

b) ABC Ltd share is selling for Frw.38.00 with an earnings per share (EPS) and dividends per share of Frw.1.36 and 0.91 respectively. The company's price to earnings (P/E) is 28.3, price to book value (P/B) and price to sales (P/S) are both 2.9. The return on equity is 27.0% and the profit margin on sales is 10.9%. The Treasury bond rate is 4.9%, the equity risk premium is 5.5% and ABC Sales Ltd beta is 1.2. The dividend and earnings growth rates are 9%.

Required:

Determine whether ABC Sales Ltd is properly valued using justified P/E, P/B and P/S. **(10 Marks)**

c) Summarise instances when the following valuation methods are appropriate for valuation of a company stock.

(i)Dividend discount model (DDM). **(3 Marks)**

(ii)Residual income model. **(2 Marks)**

(Total: 20 Marks)

QUESTION FIVE

Alpha Company Ltd has annual credit sales of Frw 4.2 millions and cost of sales of Frw 1.89 millions. Current assets consist of inventory and account receivable. Current liabilities consist of accounts payable and an overdraft with an average interest rate of 7% per annum. The company gives two months credit to its customers and is allowed, on average, one month credit by trade suppliers. It has an operating cycle of three months. The following information is also relevant:

Current ratio: 1.4

Cost of long-term finance: 11%

Required:

a) Discuss the key factors which determine the level of investment in current assets. **(4Marks)**
Discuss the ways in which factoring and invoice discounting can assist in the management of accounts receivable. **(4 Marks)**

b) Calculate the size of the overdraft of Alpha Company Ltd, the net working capital of the company and the total cost of financing its current assets. **(4 Marks)**

c) Alpha company ltd deals in retail sales and wishes to minimize its inventory costs. Annual demand for a raw material costing Frw 12 per unit is 60,000 units per year. Inventory management costs for this raw material are as follows:

Ordering costs: Frw 6 per order.

Holding costs: Frw 0.5 per unit per year

The supplier of this raw material has offered a bulk purchase discount of 1% for orders of 10,000 units or more. If bulk purchases are made regularly, it is expected that annual holding costs for this raw material will increase to Frw 2 per unit per year.

Required:

1) Calculate the total cost of inventory for the raw material when using the economic order quantity (EOQ). NB: EOQ Formula: $\sqrt{\frac{2Dco}{Hc}}$ **(4 Marks)**

2) Determine whether accepting the discount offered by the supplier will minimize the total cost of inventory for the raw materials. **(4 Marks)**

(Total: 20 Marks)

QUESTION SIX

Food Retailers: Ordinary Shares, Key Stock Market Statistics,

Company	Share price			Dividend Yield (%)	P/E Ratio
	Current	**52 week highest**	**52 week lowest**		
Malaba SS	6,300	11,200	5,400	1·8	14·2
Tariti	29,100	31,700	18,700	2·1	13·0
Spinita KK	18,700	20,100	15,100	2·3	21·1

Required:

(a) Illustrating your answer by use of data in the table above, define and explain the term P/E ratio, and comment on the way it may be used by an investor to appraise a possible share purchase. **(6 Marks)**

(b) Using data in the above table, calculate the dividend cover for Spinita and Tariti, and explain the meaning and significance of the measure from the point of view of equity investors. **(8 Marks)**

(c) Under what circumstances might a company be tempted to pay dividends which are in excess of earnings, and what are the dangers associated with such an approach? **(6 Marks)**

You should ignore tax in answering this question. **(Total 20 Marks)**

End of question paper

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