 Serial No……………….

Institute of Certified Management Accountants of Sri Lanka
Strategic Level
November 2012 Examination

Examination Date :	10th November 2012	**Number of Pages :**	06
Examination Time:	9.30 a:m. – 12.30 p:m.	**Number of Questions:**	05

Instructions to Candidates

1. Time allowed is **three (3) hours.**
2. Total: **100** Marks**.**
3. Answer **all** questions in Part I and **three (3)** questions from Part II.
4. The answers should be in **English Language.**

Subject	**Subject Code**
Financial Strategy and Policy	**(FSP / SL 3 - 403)**

PART I

Answer **all** questions

Question No. 01 (40 Marks)

Rasel Company is reviewing the performance of its investment and financing activities, while considering expanding its existing manufacturing technology with the use of special equipment for manufacturing process. The proposed project is currently regarded as complementary to its existing lines of production technology. Management is concerned that Rasel can improve the quality of the product and, hence, earns a higher return.

The following are some of the information extracted from the annual reports published by the Company as at 31/03/2012.

Rasel Company
Balance Sheet as at 31/03/2012
(Rs. in millions)

Assets	**Rs. million**	**Rs. million**
Cash		5
Receivable		25
Long-term assets		100
Total assets		130
Liabilities and Equity		
Current Liabilities		20
Long-term debt	36	
Common stock (Rs.100/- each)	50	
Retained earnings	24	
Total debt and equity		110
Total Liabilities and equity		130

The management expects that Rs. 15 million additional capital through long-term debt at the rate of 12% and Rs 100 common stock at current market price for the new expansion that would increase sales by Rs.24 million, in the next year. Incremental cost of new expansion is expected to be Rs.2 million. Taxes would be 35% as previous year. Rasel currently has Rs.36 million 8% coupon bonds that will mature to its Rs. 1000 par value in 12 years. Yield to maturity of this bond is 15%. Company's sales contribution is 40%. Over the last five years, the average beta for the company and its return on investment has been 1.20 and 18% respectively. The average risk-free rate of return is 9%. In financing decisions, Rasel uses 40% debt and 60% equity. The company just paid Rs.20 per share as dividend for the last year.

After implementing new expansion, it is expected to yield an incremental return. And, hence the Company is considering a payment of dividend with 3% increment continuously. Currently the Company shares are traded at Rs. 125 per share. However, the company's equipments are depreciated on straight line basis at the rate of 20% per year and it is consistent with the statutory corporate capital allowances.

You are required to:

(a) Estimate the value of 8% coupon bond. **(05 Marks)**

(b) Determine the cost of capital of the company after implementing new expansion. **(16 Marks)**

(c) Calculate theoretical price of equity and comment on that. **(02 Marks)**

(d) Ascertain the net profit that would be generated through new expansion. **(05 Marks)**

(e) Estimate at least two ratios of each of profitability, and liquidity positions of the company and comment. **(08 Marks)**

(f) Comment on the cost of capital and the profitability of the new investment of the company. **(04 Marks)**

State any assumptions that you made.

(Total 40 Marks)

End of Part I

Part II

Answer any **<u>three (3)</u>** questions

<u>Question No. 02 (20 Marks)</u>

(a) Current one year spot rate and expected one year T-bond rates over the following three years (i.e., 2,3,4, respectively) are as follows:

Current One-year bond rate, R=1.94%

E (r2) =3%, E (r3) =3.74%, E (r4) =4.10%

Using the unbiased expectation theory, estimate current rates for one-,two-three-,and four-year maturity Treasury securities. **(04 Marks)**

(b) A 2-year, Rs.1,000/- bond with a 6% coupon, paid semi-annually, given a current market price of Rs.1,030/-. What is the YTM of this bond? **(04 Marks)**

(c) If the real rate is 3% and the nominal rate is 5.5%, what is the approximate expected future inflation rate? **(04 Marks)**

(d) What is the price of a Rs.1,000,000/- T-bill with 80 days to maturity and a BEY of 4.5%? **(04 Marks)**

(e) What is the yield on a Rs.100,000/- T-bill with 180 days to maturity and a market price of Rs.98,200/-? **(04 Marks)**

(Total 20 Marks)

<u>Question No. 03 (20 Marks)</u>

(a) Falcon, a family-controlled company, is considering raising additional funds to modernize its factory. The Scheme is expected to cost Rs. 2.34 million and will increase annual profits before interest and tax from 1st January 2013 by Rs. 0.6 million. A summarized balance sheet and profit and loss account are shown below. Currently the share price is Rs. 2.00/-.

		Rs. Million	Rs. Million
Fixes assets (net)			1.4
Current Assets			
Stock	2.4		
Debtors	2.2	4.6	
Creditors: Amounts due within one year			
Creditors	2.7		
Corporate Tax	0.6		
Proposed final dividends	0.2	(3.5)	1.1
			2.5
Capital and Reserve			
Called up share capital, 25 cents per ordinary share			1.0
Profit and Loss account			1.5
			2.5

Profit and Loss accounts for the year ended 31st July 2012

	Rs. Million
Sales	11.2
Profit on ordinary activities before tax	1.2
Taxation	(0.6)
Profit on ordinary activities after tax	0.6
Dividends (net)	(0.3)
Retained profit for the financial year	0.3

Two schemes have been suggested. First, 1.3 million shares could be issued at Rs. 1.80/- (net of issue costs). Second, six city institutions have offered to buy debentures from the company totaling Rs. 2.34 million. Interest would be at the rate of 13% per annum and capital repayments of equal annual installments of Rs. 234,000 starting on 1 August 2015 would be required.

Assume corporate tax rate is 50%.

You are required to:

(i) Compute the earnings per share for the proposed year under the debt and the equity alternatives. **(04 Marks)**

(ii) Compute the level of profits before debenture interest and tax at which the earnings per share will be equal under the two schemes. **(04 Marks)**

(iii) Discuss the considerations the directors should take into account before deciding upon debt or equity finance. **(04 Marks)**

(b) You have invested half of your money in a media company, MC, and the other half invested in a consumer product company, CPC. The expected returns and standard deviations on the two investments are summarized below:

	MC	CPC
Expected Return	14%	18%
Standard Deviation	25%	40%

Estimate the variance of the portfolio as a function of the correlation coefficient (Start with –1 and increase the correlation to +1 in 0.2 increments). **(08 Marks)**

(Total 20 Marks)

Question No. 04 (20 Marks)

(a) You are required to verify that a valuation done on an established company by a well-known analyst has estimated a value of Rs. 75 million, based upon the expected free cash flow next year, of Rs. 3 million, and with an expected growth rate of 5%. You found that, he has made the mistake of using the book values of debt and equity in his calculation. While you do not know the book value weights he used, you have been provided following information:

(i) Company has a cost of equity of 12%.

(ii) After-tax cost of debt of 6%.

(iii) The market value of equity is three times the book value of equity, while the market value of debt is equal to the book value of debt. **(10 Marks)**

(b) You are required to estimate the correct value of company. RTS Company has a capital of Rs.1,000,000/- in equity shares of Rs.100/- each. The shares are currently quoted at par. The company proposes to declare a dividend of Rs.10/- per share at the end of the current financial year. The capitalization rate for the risk class of which the company belongs is 12%.

(i) What will be the market price of the share at the end of the year, if a dividend is not declared? **(03 Marks)**

(ii) What will be the market price of the share at the end of the year, if a dividend is declared? **(03 Marks)**

(iii) Assuming that the company pays the dividend and has net profits of Rs.500,000/- and makes new investments of Rs.1,000,000/- during the period, how many new shares must be issued? Use the MM model. **(04 Marks)**

(Total 20 Marks)

Question No. 05 (20 Marks)

(a) (i) The rate of inflation in USA is likely to be 3% per annum and in Sri Lanka it is likely to be 6.5%. The current spot rate of US $ in Sri Lanka is Rs.120/-. Find the expected rate of US $ in Sri Lanka after one year and 3 years from now using purchasing power parity theory. **(04 Marks)**

(ii) On April 1st, 3 months interest rate in the UK £ and US $ are 7.5% and 3.5% per annum respectively. The UK £/US $ spot rate is 0.7570. What would be the forward rate for US $ for delivery on 30th June. **(04 Marks)**

(b) Creation Ltd. is considering acquiring Nawya. Ltd., the following information is available:

Company	Profit after tax (Rs.)	Number of Equity shares	Market value per share (Rs.)
Creation Ltd.	5,000,000	1,000,000	200
Nawya Ltd.	1,500,000	250,000	160

Exchange of equity shares for acquisition is based on current market value as above. There is no synergy advantage available:

Find the earning per share for company Creation Ltd. after merger.

Find the exchange ratio so that shareholders of Nawya. Ltd. would not be at a loss. **(12 Marks)**

(Total 20 Marks)

End of Part II

Present value table

Present value of 1.00 unit of currency, that is $(1 + r)^{-n}$ where r = interest rate; n = number of periods until payment or receipt.

Periods (n)	Interest rates (r)									
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909
2	0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.857	0.842	0.826
3	0.971	0.942	0.915	0.889	0.864	0.840	0.816	0.794	0.772	0.751
4	0.961	0.924	0.888	0.855	0.823	0.792	0.763	0.735	0.708	0.683
5	0.951	0.906	0.863	0.822	0.784	0.747	0.713	0.681	0.650	0.621
6	0.942	0.888	0.837	0.790	0.746	0705	0.666	0.630	0.596	0.564
7	0.933	0.871	0.813	0.760	0.711	0.665	0.623	0.583	0.547	0.513
8	0.923	0.853	0.789	0.731	0.677	0.627	0.582	0.540	0.502	0.467
9	0.914	0.837	0.766	0.703	0.645	0.592	0.544	0.500	0.460	0.424
10	0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386
11	0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.350
12	0.887	0.788	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319
13	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290
14	0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263
15	0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239
16	0.853	0.728	0.623	0.534	0.458	0.394	0.339	0.292	0.252	0.218
17	0.844	0.714	0.605	0.513	0.436	0.371	0.317	0.270	0.231	0.198
18	0.836	0.700	0.587	0.494	0.416	0.350	0.296	0.250	0.212	0.180
19	0.828	0.686	0.570	0.475	0.396	0.331	0.277	0.232	0.194	0.164
20	0.820	0.673	0.554	0.456	0.377	0.312	0.258	0.215	0.178	0.149

Periods (n)	Interest rates (r)									
	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833
2	0.812	0.797	0.783	0.769	0.756	0.743	0.731	0.718	0.706	0.694
3	0.731	0.712	0.693	0.675	0.658	0.641	0.624	0.609	0.593	0.579
4	0.659	0.636	0.613	0.592	0.572	0.552	0.534	0.516	0.499	0.482
5	0.593	0.567	0.543	0.519	0.497	0.476	0.456	0.437	0.419	0.402
6	0.535	0.507	0.480	0.456	0.432	0.410	0.390	0.370	0.352	0.335
7	0.482	0.452	0.425	0.400	0.376	0.354	0.333	0.314	0.296	0.279
8	0.434	0.404	0.376	0.351	0.327	0.305	0.285	0.266	0.249	0.233
9	0.391	0.361	0.333	0.308	0.284	0.263	0.243	0.225	0.209	0.194
10	0.352	0.322	0.295	0.270	0.247	0.227	0.208	0.191	0.176	0.162
11	0.317	0.287	0.261	0.237	0.215	0.195	0.178	0.162	0.148	0.135
12	0.286	0.257	0.231	0.208	0.187	0.168	0.152	0.137	0.124	0.112
13	0.258	0.229	0.204	0.182	0.163	0.145	0.130	0.116	0.104	0.093
14	0.232	0.205	0.181	0.160	0.141	0.125	0.111	0.099	0.088	0.078
15	0.209	0.183	0.160	0.140	0.123	0.108	0.095	0.084	0.079	0.065
16	0.188	0.163	0.141	0.123	0.107	0.093	0.081	0.071	0.062	0.054
17	0.170	0.146	0.125	0.108	0.093	0.080	0.069	0.060	0.052	0.045
18	0.153	0.130	0.111	0.095	0.081	0.069	0.059	0.051	0.044	0.038
19	0.138	0.116	0.098	0.083	0.070	0.060	0.051	0.043	0.037	0.031
20	0.124	0.104	0.087	0.073	0.061	0.051	0.043	0.037	0.031	0.026

End of Question Paper