CERTIFIED PUBLIC ACCOUNTANT(CPA)

ADVANCED LEVEL 2 EXAMINATIONS

A2.1: STRATEGIC CORPORATE FINANCE

THURSDAY: 07 JUNE 2018

INSTRUCTIONS:

1. **Time Allowed: 3 hours 45 minutes** (15 minutes reading and 3 hours 30 minutes writing).
2. This examination has **two** sections**; A & B.**
3. Section **A** has **one** Compulsory Question while section B has three optional questions to choose any two
4. In summary attempt **three** questions.
5. Marks allocated to each question are shown at the end of the question.
6. Show all your workings.

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QUESTION ONE

Mparo Supplies Limited (MSL) is an importer and distributor of high quality construction materials, serving a variety of customers ranging from individuals to corporates. MSL commands over 32% market share in its sector of operation in Rwanda. MSL has been postponing the proposed initial public offer (IPO) over concerns on governance, efficiency of its operations, and lack of diversification – which has in part inhibited the desired business growth. The local press actually recently quoted some anonymous sources complaining that MSL has grown at 200 basis points below the average rate of inflation over the last 3 years, leaving the total assets at Frw 21.7 billion as at 31 May 2018. Note that 65% of these assets are financed by long and short-term liabilities.

Extracts from the company's financial statements, as at 31 May 2018 are as follows:

	Frw 'm
Sales	**55,500**
Cost of sales	(37,740)
Gross profit	17,760
Profit after tax	**1,280**
Current assets:	
Inventory	8,275
Trade receivables	9,125
	17,400
Current liabilities:	
Trade payables	3,105
Overdraft	5,320
	8,425
Net current assets	**8,975**

The company's newly appointed Chief Operations Officer (COO) has however offered hope with a variety of proposals, which he says from experience will change the fortunes MSL over the next 12 months with very minimal investments. She suggests that after implementation of the proposals, the discussions of the IPO can be reignited with more vigour and confidence. All that the COO requires is management and Board of Directors' buy-in, ownership of the new initiatives, and openness to change. Her fears on the rate of buy-in revolve around the fact that majority of shareholders of MSL are also senior employees in same company with power to veto any drastic policy proposal.

Three of the proposals being fronted by the COO are summarised below:

'Turnaround optimisation'
The COO has proposed to work with concerned departments to change the credit policy and some working capital variables by 31 May 2019 as follows:

Inventory days	60 days
Trade receivable days	75 days
Trade payables days	55 days
Current ratio	1.7: 1

As a result of the proposed 'turnaround optimisation', it is estimated that:

a. The increased customer experience will lead to an increase in sales of at least 20%;
b. In order to achieve the necessary efficiencies in inventory management, the gross profit margin will reduce by 6.25% from the current level;
c. The new credit terms will lead to increase in bad debts from 1% to 1.5% of credit sales. All sales will continue to be on credit.
d. The increased banking volumes will enable MSL access overdraft facilities at 11.5% per annum down from the current 13.75% per annum.

'Benchmarking the industry'
The COO has also implored the MSL management and Board to benchmark all the industry best practices in regard to the management of assets and liabilities. In his view, the asset turnover, the return on equity, and the gearing level appear inadequate compared to the industry averages which are 5.2, 24.2%, and 330% respectively. In her view, MSL needs to take some remedial measures in this regard – otherwise these variables could in future constrain the IPO share price and subsequent share valuation and trading. Insiders are also concerned that the company's cost of capital remains high and this may compromise its value upon listing.

'Streamlining of corporate governance practices'
At a recent senior management meeting, the COO is quoted to have said, "… MSL cannot match industry financial performance levels without matching the industry corporate governance standards and practices". She is therefore saying that there is need for MSL to further streamline corporate governance practices prior to the commencement of the listing process. However, the chairman was left wondering what corporate governance has to do with financial performance! Actually at the same meeting, the chairman is said to have retorted that, "… ladies and gentlemen, all you need to do here is to achieve the set targets in your respective areas of operation, and that is it, we shall have the necessary numbers and results".

Required
Acting as an advisor to MSL, prepare a report to the Managing Director (MD) that:

(a). Discusses the measures that MSL should take to enhance receivables management.

(6 Marks)

(b). Evaluates the impact of 'turnaround overhaul' on working capital requirements and the profitability of MSL.

(16 Marks)

(c). Discusses the issues to watch out for and how to mitigation their impact during the implementation of 'turnaround optimisation'.

(6 Marks)

(d). Assesses the performance of MSL against industry averages highlighted, and how further improved its performance in those variables; and their influence on future share valuation and trading.

(10 Marks)

(e). Advises MSL on impact of cost of capital on company valuation and practical steps to reduce their overall cost of capital.

(6 Marks)

(f). Discusses the link between corporate governance and financial performance in MSL.

(6 Marks)

Total: 50 Marks.

SECTION B: Select any two questions from this section

QUESTION TWO

Gahigi (R) Limited (GRL) is a company which imports Parmagian Swiss Watches. The company was contracted to purchase 60,000 units of watches at a unit price of Swiss Francs (CHF) 36. Three months credit is allowed before payment is due. GRL currently has no surplus cash but can borrow short-term at 2% above the bank prime rate or invest short-term at 2% below the bank prime rate in either Rwanda or Switzerland.

Exchange rates CHF/ Frw:

Spot	897.15 - 903.70
1 month forward	2.5 - 1.5 premium
3 months forward	4.5 - 3.5 premium

Current bank prime rates:

Switzerland	4.0 %
Rwanda	8.0 %

Additional information:

GRL has exported tea worth CHF 2 million to a company based in Switzerland and expects the receipts in three months' time.

REQUIRED:

(a) Evaluate five polices that GRL may adopt to mitigate against the risk of exposure with respect this transaction.

(21 Marks)

(b) Recommend the appropriate policy the company should adopt. **(4 Marks)**

(Total 25 Marks)

QUESTION THREE

Nyanza Garments Limited (NGL) is a Rwandan fast growing clothing company. NGL has enjoyed significant growth in recent years using an internal growth strategy. Many changes have, however, been encountered in the garment industry that have required higher agility or more responsiveness. The garment industry has seen a major transition that has forced the manufacturers to be cost competitive and flexible, and to offer more variety than before. NGL is now seeking to acquire other companies to speed up its growth and competiveness. It has identified Gakenke Garments Limited (GGL) as a suitable candidate for takeover. GGL produces handmade stylish affordable clothing which has been a hit with shoppers, earning several awards. The company has recorded considerable profits in the past, but its output has dwindled over the past two years due to increasing labour costs, low capital investment, stiff competition especially from used clothes and pressure from trade unions who have pressured policy makers into amending labour regulations, particularly those relating to pension and minimum wage, to provide more benefits and protection for workers. Directors of NGL believe that production and profitability of GGL will be enhanced if its production process is automated.

Below are summarised financial statements extracts for the two companies immediately before acquisition:

	NGL Frw 'million'	GGL Frw 'million'
Sales revenue	572.0	253.0
Net operating income	172.0	101.0
Finance charges	28.0	15.0
Profit before tax	143.0	86.0
Income tax	32.0	19.0
Profit after tax	112.0	67.0
Dividends	45.0	14.0
Retained earnings.	67.0	54.0

Additional Information

1. NGL has 80 million shares and a P/E ratio of 9 while GGL has 50 million shares and P/E ratio of 6.
2. Directors of NGL have decided that NGL takes up all the equity shares in GGL by offering to its shareholders one new share for every one share they hold. They have also decided that NGL automates GGL's production process immediately at the cost of Frw36 million, and thus replace work currently done by hand. It is estimated that operational efficiency that would arise from the acquisition and integration of the two companies would rake in after-tax benefits of Frw 50 million every year to perpetuity.
3. The cost of capital of NGL is 20%.

Required:

Assuming you are the Finance Director of NGL, prepare a report to the board:

(a) evaluating the acquisition proposal, and recommend whether the acquisition should go ahead.

(9 Marks)

(b) analyzing the effect of the acquisition on the earnings per share of NGL.

(4 Marks)

(c) assessing the effect of the acquisition on the wealth of the shareholders of each company.

(4 Marks)

(d) advising the directors of NGL on four likely sources of conflict in relation to the acquisition of GGL and automation of its production process, and suggest ways of dealing with the conflict.

(8 Marks)

(Total 25 Marks)

QUESTION FOUR

On 25th April 2013, Rwanda completed the issuance of a 10-year $400m on Irish Stock exchange market the first of its kind in East Africa. The bond was highly over-subscribed and priced to perfection. The bond which carries a coupon (price) of 6.625%, recorded large order book with a total subscription of $3.5 billion, more than 8.5 times over and above the intended amount of $400 million with over 250 investors across the globe participating. This underscores Rwanda's economic maturity and its huge attractiveness to investors on the international bond market.

In the face of the declining funds in official development assistance and with bank lending almost at a standstill, a number of nations and companies have turned to the debt capital markets alternative methods of raising finance and, in particular, to Eurobonds as a more stable investment vehicle.

Ghana was the first sub-Saharan African country other than South Africa to issue an international bond. Since then, it has been joined by Gabon, Senegal, Ivory Coast, Congo Republic, Nigeria, Namibia, Zambia and now Rwanda. The issuance of the bond reflects the country's push towards reducing dependency on international aid, and loans from multilateral agencies to realize her long term dreams of becoming a middle income and self-reliance nation.

REQUIRED:

As a finance analyst, evaluate the financial implications of Rwanda's adoption of the Eurobond as an alternative source of finance for its economic growth and development.

(Total 25 Marks)

FINANCIAL FORMULAE

The capital asset pricing model $Er_i = Rf + \beta i (Rr_m - Rf)$

The asset beta formula $\beta_a = \left(\dfrac{Ve}{Ve + Vd(1-T)} \cdot \beta_e \right) + \left(\dfrac{Vd(1-T)}{Ve + Vd(1-T)} \cdot \beta_d \right)$

Correlation coefficient $\rho_{(x,y)} = \dfrac{Cov_{(x,y)}}{\sigma_x \sigma_y}$

Covariance $Cov_{(x,y)} = \sum \rho (x - \bar{x})(y - \bar{y})$

Beta of a security $\beta_A = \dfrac{CovR_A, R_{M)}}{\sigma^2(R_M)} = (r_{jm}\sigma_j)/\sigma_m$

The Gordon model $P_0 = \dfrac{D_0(1+g)}{[r_g - g]}$

Gordon's growth approximation $g = br_e$

Terminal value $TV = FCF_t \dfrac{(1+g)}{(k-g)}$

Purchasing power parity and interest rate parity $S_1 = S_o \left(\dfrac{1+i_c}{1+i_b} \right)$ $S_1 = S_o \left(\dfrac{1+r_c}{1+r_b} \right)$

The Fisher formula $(1 + m) = (1 + r)(1 + i)$

Economic order quantity (EOQ) $= \sqrt{\dfrac{2C_0 D}{C_H}}$

Weighted Average Cost of Capital (WACC) $= \left[\dfrac{V_e}{V_e + V_d} \right] k_e + \left[\dfrac{V_d}{V_e + V_d} \right] k_d (1-T)$

Modigliani and Miller Proposition 2 (with tax) $k_e = k_e^i + (1-T)(k_e^i - k_d)\dfrac{V_d}{V_e}$

Two-asset portfolio $S_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2 w_a w_b r_{ab} s_a s_b}$

FINANCIAL FORMULAE

Present value interest factor of Shs 1 per period at r% for n periods $(1+r)^{-n}$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	0.901	0.893
2	0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.857	0.842	0.826	0.812	0.797
3	0.971	0.942	0.915	0.889	0.864	0.840	0.816	0.794	0.772	0.751	0.731	0.712
4	0.961	0.924	0.888	0.855	0.823	0.792	0.763	0.735	0.708	0.683	0.659	0.636
5	0.951	0.906	0.863	0.822	0.784	0.747	0.713	0.681	0.650	0.621	0.593	0.567
6	0.942	0.888	0.837	0.790	0.746	0.705	0.666	0.630	0.596	0.564	0.535	0.507
7	0.933	0.871	0.813	0.760	0.711	0.665	0.623	0.583	0.547	0.513	0.482	0.452
8	0.923	0.853	0.789	0.731	0.677	0.627	0.582	0.540	0.502	0.467	0.434	0.404
9	0.914	0.837	0.766	0.703	0.645	0.592	0.544	0.500	0.460	0.424	0.391	0.361
10	0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386	0.352	0.322
11	0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.350	0.317	0.287
12	0.887	0.788	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319	0.286	0.257
13	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290	0.258	0.229
14	0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263	0.232	0.205
15	0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239	0.209	0.183
16	0.853	0.728	0.623	0.534	0.458	0.394	0.339	0.292	0.252	0.218	0.188	0.163
17	0.844	0.714	0.605	0.513	0.436	0.371	0.317	0.270	0.231	0.198	0.170	0.146
18	0.836	0.700	0.587	0.494	0.416	0.350	0.296	0.250	0.212	0.180	0.153	0.130
19	0.828	0.686	0.570	0.475	0.396	0.331	0.277	0.232	0.194	0.164	0.138	0.116
20	0.820	0.673	0.554	0.456	0.377	0.312	0.258	0.215	0.178	0.149	0.124	0.104

Period	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%
1	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833	0.826	0.820	0.813	0.806
2	0.783	0.769	0.756	0.743	0.731	0.718	0.706	0.694	0.683	0.672	0.661	0.650
3	0.693	0.675	0.658	0.641	0.624	0.609	0.593	0.579	0.564	0.551	0.537	0.524
4	0.613	0.592	0.572	0.552	0.534	0.516	0.499	0.482	0.467	0.451	0.437	0.423
5	0.543	0.519	0.497	0.476	0.456	0.437	0.419	0.402	0.386	0.370	0.355	0.341
6	0.480	0.456	0.432	0.410	0.390	0.370	0.352	0.335	0.319	0.303	0.289	0.275
7	0.425	0.400	0.376	0.354	0.333	0.314	0.296	0.279	0.263	0.249	0.235	0.222
8	0.376	0.351	0.327	0.305	0.285	0.266	0.249	0.233	0.218	0.204	0.191	0.179
9	0.333	0.308	0.284	0.263	0.243	0.225	0.209	0.194	0.180	0.167	0.155	0.144
10	0.295	0.270	0.247	0.227	0.208	0.191	0.176	0.162	0.149	0.137	0.126	0.116
11	0.261	0.237	0.215	0.195	0.178	0.162	0.148	0.135	0.123	0.112	0.103	0.094
12	0.231	0.208	0.187	0.168	0.152	0.137	0.124	0.112	0.102	0.092	0.083	0.076
13	0.204	0.182	0.163	0.145	0.130	0.116	0.104	0.093	0.084	0.075	0.068	0.061
14	0.181	0.160	0.141	0.125	0.111	0.099	0.088	0.078	0.069	0.062	0.055	0.049
15	0.160	0.140	0.123	0.108	0.095	0.084	0.074	0.065	0.057	0.051	0.045	0.040
16	0.141	0.123	0.107	0.093	0.081	0.071	0.062	0.054	0.047	0.042	0.036	0.032
17	0.125	0.108	0.093	0.080	0.069	0.060	0.052	0.045	0.039	0.034	0.030	0.026
18	0.111	0.095	0.081	0.069	0.059	0.051	0.044	0.038	0.032	0.028	0.024	0.021
19	0.098	0.083	0.070	0.060	0.051	0.043	0.037	0.031	0.027	0.023	0.020	0.017
20	0.087	0.073	0.061	0.051	0.043	0.037	0.031	0.026	0.022	0.019	0.016	0.014

Present value interest factor of an (ordinary) annuity of Shs 1 per period at r% for n periods $\left(\dfrac{1-(1+r)^{-n}}{r} \right)$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	0.901	0.893
2	1.970	1.942	1.913	1.886	1.859	1.833	1.808	1.783	1.759	1.736	1.713	1.690
3	2.941	2.884	2.829	2.775	2.723	2.673	2.624	2.577	2.531	2.487	2.444	2.402
4	3.902	3.808	3.717	3.630	3.546	3.465	3.387	3.312	3.240	3.170	3.102	3.037
5	4.853	4.713	4.580	4.452	4.329	4.212	4.100	3.993	3.890	3.791	3.696	3.605
6	5.795	5.601	5.417	5.242	5.076	4.917	4.767	4.623	4.486	4.355	4.231	4.111
7	6.728	6.472	6.230	6.002	5.786	5.582	5.389	5.206	5.033	4.868	4.712	4.564
8	7.652	7.325	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335	5.146	4.968
9	8.566	8.162	7.786	7.435	7.108	6.802	6.515	6.247	5.995	5.759	5.537	5.328
10	9.471	8.983	8.530	8.111	7.722	7.360	7.024	6.710	6.418	6.145	5.889	5.650
11	10.368	9.787	9.253	8.760	8.306	7.887	7.499	7.139	6.805	6.495	6.207	5.938
12	11.255	10.575	9.954	9.385	8.863	8.384	7.943	7.536	7.161	6.814	6.492	6.194
13	12.134	11.348	10.635	9.986	9.394	8.853	8.358	7.904	7.487	7.103	6.750	6.424
14	13.004	12.106	11.296	10.563	9.899	9.295	8.745	8.244	7.786	7.367	6.982	6.628
15	13.865	12.849	11.938	11.118	10.380	9.712	9.108	8.559	8.061	7.606	7.191	6.811
16	14.718	13.578	12.561	11.652	10.838	10.106	9.447	8.851	8.313	7.824	7.379	6.974
17	15.562	14.292	13.166	12.166	11.274	10.477	9.763	9.122	8.544	8.022	7.549	7.120
18	16.398	14.992	13.754	12.659	11.690	10.828	10.059	9.372	8.756	8.201	7.702	7.250
19	17.226	15.678	14.324	13.134	12.085	11.158	10.336	9.604	8.950	8.365	7.839	7.366
20	18.046	16.351	14.877	13.590	12.462	11.470	10.594	9.818	9.129	8.514	7.963	7.469

Period	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%
1	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833	0.826	0.820	0.813	0.806
2	1.668	1.647	1.626	1.605	1.585	1.566	1.547	1.528	1.509	1.492	1.474	1.457
3	2.361	2.322	2.283	2.246	2.210	2.174	2.140	2.106	2.074	2.042	2.011	1.981
4	2.974	2.914	2.855	2.798	2.743	2.690	2.639	2.589	2.540	2.494	2.448	2.404
5	3.517	3.433	3.352	3.274	3.199	3.127	3.058	2.991	2.926	2.864	2.803	2.745
6	3.998	3.889	3.784	3.685	3.589	3.498	3.410	3.326	3.245	3.167	3.092	3.020
7	4.423	4.288	4.160	4.039	3.922	3.812	3.706	3.605	3.508	3.416	3.327	3.242
8	4.799	4.639	4.487	4.344	4.207	4.078	3.954	3.837	3.726	3.619	3.518	3.421
9	5.132	4.946	4.772	4.607	4.451	4.303	4.163	4.031	3.905	3.786	3.673	3.566
10	5.426	5.216	5.019	4.833	4.659	4.494	4.339	4.192	4.054	3.923	3.799	3.682
11	5.687	5.453	5.234	5.029	4.836	4.656	4.486	4.327	4.177	4.035	3.902	3.776
12	5.918	5.660	5.421	5.197	4.988	4.793	4.611	4.439	4.278	4.127	3.985	3.851
13	6.122	5.842	5.583	5.342	5.118	4.910	4.715	4.533	4.362	4.203	4.053	3.912
14	6.302	6.002	5.724	5.468	5.229	5.008	4.802	4.611	4.432	4.265	4.108	3.962
15	6.462	6.142	5.847	5.575	5.324	5.092	4.876	4.675	4.489	4.315	4.153	4.001
16	6.604	6.265	5.954	5.668	5.405	5.162	4.938	4.730	4.536	4.357	4.189	4.033
17	6.729	6.373	6.047	5.749	5.475	5.222	4.990	4.775	4.576	4.391	4.219	4.059
18	6.840	6.467	6.128	5.818	5.534	5.273	5.033	4.812	4.608	4.419	4.243	4.080
19	6.938	6.550	6.198	5.877	5.584	5.316	5.070	4.843	4.635	4.442	4.263	4.097
20	7.025	6.623	6.259	5.929	5.628	5.353	5.101	4.870	4.657	4.460	4.279	4.110

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