INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS OF RWANDA
Driving Sustainable Performance

CERTIFIED PUBLIC ACCOUNTANT

ADVANCED LEVEL 2 EXAMINATIONS

A2.1: STRATEGIC CORPORATE FINANCE

THURSDAY: 08 JUNE 2017

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 (3) Questions to choose any two(2).
4. In summary attempt three(3) questions.
5. Marks allocated to each question are shown at the end of the question.
6. Show all your workings.
7. All iCPAR Examination rules and regulations apply.

SECTION (A)

This is a compulsory question

QUESTION ONE

Murangwa Wares Limited (MWL), a listed company, is involved in the construction and maintenance of residential and commercial properties for the general public. The company also operates five wholesale hardware shops spread across the country. To support these businesses, MWL also runs a logistics business unit that coordinates and delivers all the inbound and outbound goods, wares and equipment. Over time, MWL has accumulated a large number of corporate and individual clients, mainly as a result of cross-referrals from satisfied clients.

MWL has hired a new risk manager, who is planning to make significant impact on the value of the company in his first 100 days, having been inspired by the writings of Niamh Keeffe. He is currently understudying the retiring risk manager, before assuming office in the next few days at the commencement of the next financial year. The incoming risk manager has studied the financial projections of the company, some extracts of which are reflected below.

Extracts from MWL's forecast statement of financial position for the next financial year

Assets:	**Frw "million"**
Non-current assets	34,500
Current assets	7,300
Total assets	**41,800**
Equity and liabilities:	
Paid up share capital, each Frw 5,000	6,000
Retained earnings	16,600
Total equity	**22,600**
17% redeemable bonds	15,000
Current liabilities	4,200
Total liabilities	**19,200**
Total equity and liabilities	**41,800**

Operation Diversify (Op-Div)

The incoming Risk Manager, having formed an opinion on the risk profile and direction of the business, has decided that his 100-day impact is going to be in the area of further diversification of business risk as a one of the ways of managing the cost of capital. He has subsequently conscripted 'Operation Diversify'(Op-Div) a strategy described below.

The Op-Div proposal suggests that MWL should diversify into the food processing business targeting the export market. It is estimated that Frw 8.5 billion will be required for investment in non-current assets of this business unit. Furthermore, it is suggested that this project should be financed by a 4-year redeemable bond at an annual coupon of 17%. It is projected that the consequence of this additional debt will be the risk-downgrading of MWL from 'fair' to 'marginal' risk-rating.

Regarding the risk downgrading, he argues that the burden of any additional cost will be mitigated by the higher wide-ranging benefits of Op-Div strategy. He further argues that '… whereas there is no perfect correlation in practice, a diversified business – just like a diversified portfolio, will always have less risk. This is particularly true in our case, given that the correlation between the returns of selected business and the current MWL is less than 1; besides, the standard deviation of the returns of the business units is not the same'. Note that this proposal also raises the company's current liabilities to Frw 5.8 billion.

Operation Reduce Cost of Capital (Op-CoC)

On the other hand, the Finance Manager on her part has designed a proposal that she has dubbed 'Operation Reduce Cost of Capital', in short Op-CoC. The gist of Op-CoC strategy is that MWL should pay off 75% of its long-term debt so as to reduce the cost of capital. In order to partially finance this debt redemption, she is proposing that the company should sell off the business logistic unit and outsource these services. It has been estimated that the sale will reduce the book value of MWL's non-current assets by 25% (in proportion to its size in the business) and current liabilities by 15%. The sale of the non-current assets will generate an after-tax profit of 10% of the sold assets. The debt redemption is projected to improve MWL's credit rating to 'satisfactory'.

Additional information:

(i) According to the financial forecasts, MWL estimates Frw 3.6 billion in after-tax profits for the coming financial year. The company makes an after-tax return or loss of 14% on any non-current assets additions or reductions.

(ii) Because of the level of capital market efficiency in Rwanda and the rest of East Africa, it is estimated that neither Op-Div nor Op-CoC would affect the share price of MWL. The company's shares are currently trading at Frw 34,000 per share.

(iii) MWL has an estimated equity beta of 1.2; without the logistics business unit, the equity beta changes to 1.1; in case the company chooses Op-Div, equity beta will increase to 1.25.

(iv) The bonds are redeemable in 4 years' time at face value; and for the purpose of this analysis, they can be assumed to have a theoretical debt beta of zero. The market price of this bond will be based on the risk-grading of the issuer; the applicable rate is a spread above the risk-free rate, based on the following risk-grading and pricing matrix by issuers of debt:

Risk ranking:	Unsatisfactory	Marginal	Fair	Satisfactory	Good
Risk premium (%):	5.5	4.5	3.5	2.5	1.5

The corporate income tax rate applicable to MWL is 25%. The risk-free rate is currently at 12.5% while the market return is 19.5%.

REQUIRED:

Having been hired as a Technical Advisor to the Managing Director, prepare a report to the Managing Director of MWL and include the:

(a) Estimation of MWL's weighted average cost of capital based on market value of equity and debt before and after implementing proposals Op-DIV and Op-CoC. **(20 Marks)**

(b) Estimation of the impact of Op-DIV and Op-CoC on the forecast after-tax earnings and financial position of MWL. **(10 Marks)**

(c) Analysis of the acceptability of proposal Op-DIV and Op-CoC and make a recommendation. **(5 Marks)**

(d) Discussion of additional information that should be sought and evaluated before either Op-DIV or Op-CoC is to be implemented. **(5 Marks)**

(e) Analysis of the statement that 'there is no perfect correlation in practice', and the relevance of correlation of returns in risk management. **(5 Marks)**

(f) Explanation of the logic behind the trend of the estimated equity betas as a result of the different strategic options being suggested. **(5 Marks)**

(Total 50 Marks)

SECTION (B)

Attempt any two questions from this section

QUESTION TWO

Gatanazi Platinum Limited (GPL) is a successful family-run business, all equity financed, which deals in accessories for digital cameras. The board of directors is led by the founder of the company, Gatsinzi, who is both chairman and chief executive officer (CEO). The other board members, a finance director and two non-executive directors, are also Gatsinzi's brother and daughter. The members of the GPL family own all the share capital of the company. The company does not have a company secretary, and its auditors are a local firm of accountants who are not members of the Institute of Certified Public Accountants of Rwanda (iCPAR).

Gatsinzi is proud of his entrepreneurial success. He has been prepared to take big risks with the company's strategy in order to grow the business and, when necessary, he has been willing to cancel the annual dividend to shareholders to spend money on investment or to accept temporary decline in profits for the sake of longer-term success. He is aware that the company does not have a good reputation as an employer, but he believes that the company exists for the benefit of the GPL family and that employees should be grateful to have their jobs. Gatsinzi wants to retire in a few years' time. He would like his daughter to take over the running of the company, but he would also like to take the company public and get it accepted on to Stock market in Rwanda. He is aware that the governance of the company will have to undergo substantial changes for this to happen, but he does not want to retire until all the changes have been made and the company's shares are being traded on Rwanda Stock Exchange (RSE). He also knows that listed companies are required to comply with the Corporate Governance Code.

The Marketing Director of GPL is proposing a new investment in plant and equipment for maintenance and repair of equipment for digital televisions. This would require an initial outlay of Frw 50 million on 30 September, 2017. If this investment were financed by a 1 for 3 rights issue, it would enable the annual dividend per share to be increased to Frw 21 on 30 September, 2018 and all further dividends would be increased by 4% per annum. The new investment is however, more risky than the average of existing investments, as a result of which the company's overall equity would increase to 16% per annum if the company were to remain all equity financed.

The Finance Director argues, however, to the contrary. "It is nonsense to continue to be all equity financed. I believe that we can finance the new investment by an issue on 30 September, 2017 of 8% irredeemable debentures. Debt would be by far cheaper than equity and the interest is available for tax relief".

The Company's Chief Accountant has reservations. "New debt finance would add financial risk on top of the existing high operating risk, which is a particular concern due to the uncertainty of future sales. I believe that we continue to use equity finance, particularly with the additional risk of this investment; a rights issue is the best way of doing this".

The Chief Executive (CEO) is not sure of what to do and has approached you for advice on the best way forward.

REQUIRED:

(a) Explain how the board's attitude to its shareholders and other stakeholders will need to change if GPL goes public. **(12 Marks)**

(b) Advise the company on the implications of the new investment and the most appropriate method of financing. Your advice should address the concerns expressed by the Directors and the Company's Chief Accountant. **(13 Marks)**

(Total 25 Marks)

QUESTION THREE

(a) The Production division of Nyamwiiza Pharmaceuticals Limited (NPL) has a capital budget for financial year 2017/2018 of Frw 1 billion. The following capital investment proposals have submitted to the capital budgeting committee:

Project	Profitability Index	Initial outlay(Frw "million")
1	1.20	200
2	1.18	200
3	1.17	100
4	1.10	300
5	1.15	200
6	1.13	200
7	1.19	400
8	1.21	100
9	1.22	100
10	1.16	100

The company's cost of capital is 15% per annum. Project 2 and 8 are mutually exclusive; project 1 and 5 are mutually dependent.

REQUIRED:

Advise NPL which projects the capital budgeting committee should choose. **(17 Marks)**

(b) The International Monetary Fund (IMF) and the World Bank are institutions in the United Nations System of governance. They are twin intergovernmental pillars supporting the structure of the economic and financial order.

REQUIRED:

(i) Compare and contrast the functions of the IMF and the World Bank. **(4 Marks)**

(ii) Discuss the challenges being faced by the IMF in attaining its objectives in East African countries. **(4 Marks)**

(Total 25 Marks)

QUESTION FOUR

(a) Ganza (R) Ltd (GRL) is considering a bid for the acquisition of Kamanzi (R) Ltd (KRL). Both companies are listed on the stock market and are in the same industry. KRL is soon paying dividends and the financial data is as below:

	Frw
Market price per share	420
Earnings per share	50
Dividend per share 1 year ago	25
Dividend per share 2 years ago	20

Additional Information:

Number of ordinary shares	10 Million
Proposed payout ratio	45%
Average price earnings ratio	12
Equity beta	1.5
Risk free rate of return	5%
Return on the market	11%

REQUIRED:

Advise GRL on the value to be placed on the shares of KRL prior to takeover using the following methods:

(i) Dividend valuation model. **(7 Marks)**

(ii) Price Earnings ratio method. **(4 Marks)**

(b) Discuss the ways in which international capital investment decisions can be distinguished from domestic capital investment decisions. **(10 Marks)**

(c) Discuss the basic ways of evaluating overseas investment. **(4 Marks)**

(Total 25 Marks)

End of question paper

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 $\left(\frac{1-(1+r)^{-n}}{r}\right)$

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