

**CERTIFIED PUBLIC ACCOUNTANT  
INTERMEDIATE LEVEL EXAMINATIONS**

**I1.1: MANAGERIAL FINANCE**

**WEDNESDAY: 29 NOVEMBER 2017**

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**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 (3)** Questions to attempt any **two (2)**.
4. In summary attempt five (5) 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.

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## SECTION (A)

*Attempt all questions in this section*

### QUESTION ONE

Ngondo (R) Ltd (NRL) is a construction company based in Eastern Province in Rwamagana. It recently won a tender to construct a five star hotel in the heart of Kigali city. The directors of the company are optimistic that if this contract is executed properly, the revenues of the organisation will increase tenfold although they are worried about the inflation which usually escalates during and after the general elections in the country. The execution of the contract will require a heavy duty driller because the construction site is on rocky ground. The management of NRL is divided on whether to buy or lease the machine. The finance director is of the view that the company leases out the machine since the need for it may not be continuous but the chief executive (CEO) wants the machine purchased in order for the company to enjoy the benefits of ownership.

Management decided to hire a financial expert to carry out the following evaluations to:

1. Determine whether the machine is worth acquiring.
2. Determine whether the machines should be purchased or leased.
3. Show the directors of NRL how inflation is incorporated in capital budgeting decisions.

The details about the machine are given below;

Year	0	1	2	3	4	5
	Frw '000'	Frw '000'	Frw '000'	Frw '000'	Frw '000'	Frw '000'
Cost of machine	150,000	-	-	-	-	-
Expected revenues	-	30,000	30,000	35,000	40,000	40,000
Residue value	-	-	-	-	-	10,000

#### Additional information:

1. A leasing company charges Frw 40 million per annum for the period the machine will be under the lease.
2. Such a machine attracts capital allowances of 25% on reducing balance basis.
3. The tax rate is 30% and tax is paid in the year profits are earned.
4. Inflation is expected to be at 7%.
5. The post-tax nominal/money cost of capital is 10% and it is assumed the company can access additional funds at the same cost.

#### REQUIRED:

- (a) Distinguish between operating and finance leases.

**(2 Marks)**

- (b) Explain to the board how inflation is incorporated in capital budgeting decisions. **(3 Marks)**
- (c) Determine whether the machine is worth acquiring, using net present value technique of investment appraisal. **(14 Marks)**
- (d) Advise the management of NRL whether the machine should be purchased or leased. **(6 Marks)**
- (Total 25 Marks)**

### **QUESTION TWO**

Gasana (R) Ltd (GRL) is a company seeking listing on Rwanda stock market. The company manufactures building materials for both internal and regional markets. The company has been doing very well until recently when the revenues dropped due to the global economic down turn. Due to the reduction in their revenues, the company was unable to declare and pay cash dividends. The board of GRL decided to carry out a rights issue of 1 for 2 at Frw 20,000 in order to avoid disgruntlement amongst the shareholders. The company has Frw 10 million share capital of Frw 20,000 each in issue. A share currently sells at Frw 25,000. Mr. Kayibanda who owns 50 shares in GRL is undecided whether he should participate in the rights issue or ignore it.

#### **REQUIRED:**

- (a) Basing on the scenario above:
- (i) Calculate the theoretical ex-rights price. **(5 Marks)**
- (ii) Calculate the value of a right. **(3 Marks)**
- (iii) Advise Mr.Kayibanda on the right course of action. **(8 Marks)**
- (b) (i) Distinguish between convertible bonds and warrants. **(2 Marks)**
- (ii) Explain the term preemptive rights. **(2 Marks)**
- (Total 20 Marks)**

### **QUESTION THREE**

In December, 2016 Dusabimana Enterprises Limited (DEL) was voted the third performing company in the country on the basis of embracing financial reporting standards, intolerance to fraudulent activities, concentrating more on stakeholder interests and addressing wealth maximization rather than profit maximization. However, DEL had a number of challenges with its employee in charge of customer care section, who renders help to friends before any other at the expense of the company. At the financial reporting awards ceremony organized by patal Finance Trust Ltd in Kigali recently, the Chief Executive Officer of the Institute of Certified Public Accountants of Rwanda, said, “the success of any company in finances is based upon the

four objectives of financial management and therefore companies should embrace them so much.”

**REQUIRED:**

- (a) Define the term ‘financial management’ and explain its **four** major objectives. **(6 Marks)**
- (b) Describe other unethical issues that a financial manager is likely to face as he carries out his work apart from that mentioned in the above scenario. **(5 Marks)**
- (c) Suggest possible ways on how to mitigate the unethical issues identified in (b) above. **(4 Marks)**

**(Total 15 Marks)**

**SECTION (B)**

*Attempt any two questions in this section*

**QUESTION FOUR**

Sahinguvu (R) Ltd (SRL) was incorporated in Rwanda in July 2000 and it deals in the importation of sports materials which are later distributed to the neighbouring countries including South Sudan. Currently, the company has a debt to equity ratio of 2:3 and a pretax cost of debt of 14%. SRL’s equity beta is 1.2, the market risk premium is 7% and the risk free rate is 10%. The Directors of SRL decided not to give out dividends to shareholders as they were saving funds to accomplish the listing procedures on the Rwanda stock exchange (RSE). Under its expansion strategy to other markets in Kenya and Tanzania, the treasury manager is proposing an issue of 10,000 additional shares at Frw 21,000 per share and expects to pay an initial dividend of Frw. 1000 which is expected to grow at a rate of 10%. Floatation costs are expected to be 9% and the tax rate is 30%. This will be effective if SRL is listed on the RSE.

**REQUIRED**

- (a) Calculate the weighted average cost of capital (WACC) for SRL **(12 Marks)**
- (b) Suppose the proposal of the treasury manager is considered, calculate the marginal cost of capital for SRL. **(4 Marks)**
- (c) Distinguish between the constant payout ratio and stable dividend policy **(4 Marks)**

**(Total 20 Marks)**

**QUESTION FIVE**

Bugesera Furniture Limited (BFL) is located in Kigali city and is currently following the centralized collection system and uses cheques as its major mode of payment. Most of its customers are located in the major towns of the eastern province of Rwanda and their remittances are mailed to the central location within four days. Before depositing the remittances in the bank, BFL loses two days in processing them. The daily average collection of the company is Frw 2 million. BFL is planning to establish a lock-box system and it is expected that such a system will reduce mailing time by one day and processing time by one day. The available bank balance of BFL as at 30 June, 2017 was Frw 10million. BFL received cheques from other customers in vicinity of the company worth Frw 5 million and were posted in the company ledgers and later deposited in the bank after 2 days.

**REQUIRED:**

- (a) Determine the:
- (i) Reduction in cash balances expected to result from the adoption of the lock-box system. **(4 Marks)**
  - (ii) Opportunity cost of the present centralized collection system if the interest rate is assumed to be 20%, and then advise management of BFL on whether the company should employ the lock – box system if its annual cost is Frw 700,000. **(5 Marks)**
  - (iii) the deposit (collection) float as at 2 July, 2017 if the cheques from other customers within the vicinity of the company mature within 3 days and assuming that no other deposits were made on the company’s bank account since 30 June 2017. **(3 Marks)**
- (b) Distinguish between a decentralised and the lock-box cash collection systems giving two advantages of each. **(8 Marks)**
- (Total 20 Marks)**

**QUESTION SIX**

The Chief Executive Officer (CEO) of Keza Enterprises Ltd (KEL), while attending a seminar on developing capital markets in Rwanda, was impressed by one of the presentations about the benefits of companies going public. The presenter enumerated the benefits of going public and the requirements companies must satisfy to qualify for listing on stock markets where one was to have a wide range of shareholders. When the CEO returned from the seminar, he tasked the Chief Finance Officer (CFO) to determine the value of the company’s shares in preparation for

the initial public offering (IPO). The company needs to increase the number of shareholders in order to qualify for listing. The financial details of KEL are as shown below;

Extract of the statement of financial position as at 30 June

	2014	2015	2016	2017
	Frw	Frw	Frw	Frw
Ordinary share capital Frw 10,000 per share	200,000	200,000	200,000	200,000
Reserves	<u>40,000</u>	<u>55,000</u>	<u>80,000</u>	<u>130,000</u>
	<u>240,000</u>	<u>255,000</u>	<u>280,000</u>	<u>330,000</u>

Extract of the statement of comprehensive income as at 30 June

	2014	2015	2016	2017
	Frw	Frw	Frw	Frw
Profit after tax	30,000	40,000	55,000	80,000
Dividends	<u>20,000</u>	<u>25,000</u>	<u>30,000</u>	<u>30,000</u>
Retained earnings	<u>10,000</u>	<u>15,000</u>	<u>25,000</u>	<u>50,000</u>

The company has an asset beta of 0.8, the expected return from the market is 18% and the risk free rate of return is 10%.

**REQUIRED:**

- (a) Determine the value per share of KEL using the dividend growth model. **(10 Marks)**
- (b) Explain the limitations of the dividend growth model. **(6 Marks)**
- (c) Explain the reasons why companies value their shares. **(4 Marks)**

**(Total 20 Marks)**

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**End of question paper**

**Financial tables**

Present value interest factor of Frw 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 Frw 1 per period at r% for n periods  $\left(\frac{1 - (1 + r)^{-n}}{r}\right)$**

<b>Period</b>	<b>1%</b>	<b>2%</b>	<b>3%</b>	<b>4%</b>	<b>5%</b>	<b>6%</b>	<b>7%</b>	<b>8%</b>	<b>9%</b>	<b>10%</b>	<b>11%</b>	<b>12%</b>
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
<b>Period</b>	<b>13%</b>	<b>14%</b>	<b>15%</b>	<b>16%</b>	<b>17%</b>	<b>18%</b>	<b>19%</b>	<b>20%</b>	<b>21%</b>	<b>22%</b>	<b>23%</b>	<b>24%</b>
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