CERTIFIED PUBLIC ACCOUNTANT

ADVANCED LEVEL II EXAMINATION

A2.1: STRATEGY CORPORATE FINANCE

DATE: WEDNESDAY 26, FEBRUARY 2025

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. The question paper should not be taken out of the examination room.

SECTION A

QUESTION ONE

SHAMI is a Leading Rwandan manufacturer that is preparing for the upcoming fiscal year with big goals for growth and innovation. The objectives are to increase production efficiency, investigate untapped markets, and possibly expand through well-timed mergers and acquisitions. The business is also committed to incorporating cutting-edge technologies into its operations and sustainability activities.

Planning for merger/acquisition with Nova Computer Ltd and Nyungwe Forest Lodge

Shami Ltd is presently planning possible mergers and acquisitions to broaden its business and improve its position in the market. Nova Computer Ltd, a well-known tech firm with a focus on cutting-edge computer hardware and software solutions, is one of the main targets. Through this merger, Shami's production processes should benefit from technical improvements, operational efficiency will increase, and new tech industry markets will open up. Furthermore, Shami is thinking about purchasing the upscale eco-lodge Nyungwe Forest Lodge, which is well-known for its eco-friendly travel strategies. Through this acquisition, Shami hopes to expand its operations using sustainable practices, capitalize on the expanding ecotourism market, and strengthen its position in the manufacturing hospitality sector.

Shami Ltd attempted merger with Max Power Company ten years ago ultimately failed due to several factors which included but not restricted to cultural clash, misaligned strategic goals, lack of due diligence, poorly managed integration, value gap or pay too much, and opposition from shareholders of both companies. The directors are careful not to repeat the mistakes made early.

Capital constraints

Shami must carefully prioritize and allocate cash for its planned mergers and acquisitions due to capital rationing constraints of 100 million Rwandan Francs. Because of this financial constraint, the organization must make sure that the existing money is utilized wisely by carrying out careful due diligence and strategic financial planning. To increase the money that has been agreed, Shami is looking at a number of financing options, such as loans, equity financing, and strategic partnerships. Despite the financial limitations, the management is concentrated on optimizing the return on investment and attaining sustainability and long-term growth through these smart purchases.

Dividend policy

The directors of Shami Ltd had a heated debate on the dividend policies of two target companies, Nyungwe Forest Lodge and Nova Computer Ltd., during a recent board meeting. Strong proponents of using dividends as a weapon to affect market prices were the directors of Nyungwe and Nova. They emphasized that regular and appealing dividend payments might increase investor confidence and raise stock prices. Shami's board, however, was unwaveringly against this strategy, opposing that increasing long-term benefits would come from reinvesting revenues back into the company. They stressed the significance of funding innovation, growth, and operational enhancements via retained earnings, especially in light of the present capital rationing restrictions. The board felt that concentrating on internal growth and sustainability would eventually result in better financial health. Shami expects net income for the year to be FRW 60 million and capital investment of FRW 100 million.

Sandaline limited

Sandaline Limited is a subsidiary of Shami Ltd. The directors of Shami are worried that Sandaline Limited is not performing well in fact it has dropped its market share by 25% in the past year.

Below are the financial data of Sandaline Limited for the year ended 31st December 2023

Statement of financial position as at 31st December 2023

Noncurrent assets	**2023 "FRW Million"**	**2022 "FRW Million"**
Land and buildings	3,230	3,230
Machinery	570	575.5
Other non-current assets	100	150
Current assets		
Inventory	1,500	1,200
Accounts receivable	639	730
Cash	18	84
Total assets	**6,057**	**5,969.5**
Equity and liabilities		
Ordinary share capital @FRW 120	2,400	2,400
Retained earnings	2,625	2,257.5
12% bank loan	800	1,000
Current liabilities		
Accounts payable	120	300
Accruals	32	12
Bank Overdraft	80	0
Total equity and liabilities	**6,057**	**5,969.5**

Statement of profit and loss for the year ended 31st December 2023

	2023 "FRW Million"	2022 "FRW Million"
Revenue	7,000	12,000
Cost of sales	-4,900	-6,600
Gross profit	**2,100**	**5,400**
Operating cost	-1,200	-600
Finance cost	-500	-500
Earnings before tax	**400**	**4,300**
Corporate taxes	-210	-1,290
Earnings after tax	**190**	**3,010**
Dividends paid	-122.5	-752.5
Retain earnings	**67.5**	**2,257.50**

The average performance ratios for the industry in which Sandaline operates are as stated below:

Details	**Ratios**
Return before interest and tax on long-term capital employed (%)	24
Return after tax on equity (%)	16
Operating profit as a percentage of sales (%)	11
Current ratio	1.6:1
Total debt: equity (gearing) (%)	24
Dividend cover (times	4
Interest cover (times)	4.5

Other Investment of Shami

The investment analyst has been consulted on alternative investments to undertake if the merger and acquisition will not materialize. The expertise has provided the following viable project to the directors of Shami Ltd.

Investment project	**Initial Capital Expenditure required FRW million**	**Annual Revenue FRW million**	**Annual Fixed operating cost FRW million**	**Projects life Years**
Alpha	60	50	10	5
Beta	80	74	18	6
Gamma	45	30	4	10
Lambda	25	20	8	4
Vega	50	46	11	8

Additional information

1. The operating variable cost is 40% of the revenue
2. Project Lambda and Vega are mutually exclusive
3. Each project can only be undertaken once and is divisible
4. The investors required rate of return is 12%
5. The corporate tax rate is 30% and no inflation.
6. All the projects and the company have the same risk factor

Required

a) Using the above case study of Shami Ltd, **discuss three reasons why mergers and acquisitions fail.** (6 Marks)

b) In relation to the given case study, **discuss three ethical issues that Shami should consider as they are planning for mergers and acquisitions.** (6 Marks)

c) Based on the above information, **examine the financial health of Sandaline Ltd, correlate it with the industrial performance, and give the cause of each change in its performance.** (15 Marks)

d) Act as CFO of the Shami Ltd and prepare a board paper:

i) Explaining the meaning of capital rationing and guiding the board members of Shami on how to handle it. (5 Marks)

ii) Advising Shami Ltd on the project to undertake apart from mergers and acquisition (10 Marks)

e)

i) Explain what a dividend irrelevant theory is as argued by directors of Shami (2 Marks)

ii) Using Modigliani and Miller model, **explain how the payment of dividends does not affect the value of the firm.** (6 Marks)

(Total: 50 Marks)

SECTION B

QUESTION TWO

Capital market

Mugisha Ltd is an agricultural firm that is expanding quickly and is preparing to be listed on Rwanda Stock Exchange (RSE) in order to gain access to larger capital markets and support its growth objectives. The company, which is renowned for its radical agricultural methods and dedication to sustainability, views this as a calculated effort to raise its profile and gain the trust of potential investors.

Mugisha Ltd wants to collect money by going public in order to improve its production capacity, invest in radical agricultural technology, and broaden its market reach both domestically and abroad. In addition to giving current shareholders liquidity, the listing will give prospective investors a chance to get involved in the company's growth trajectory.

Corporate governance

Mugisha Ltd is facing serious corporate governance issues that could jeopardize its long-term survival and operational stability. A number of problems have affected the corporation, such as inadequate board supervision, a lack of transparency, and conflicts of interest among senior personnel. Inconsistencies in financial reporting were found in recent audits, indicating possible financial mismanagement and underhanded transactions.

Equity finance

The company is in need of FRW 80 million to boost its operation. The Financial Controller of the company has identified many options to raise finances but he fears that debt financiers may not accept to lend more due to the company's corporate governance issues. During a recent extraordinary meeting, the directors opted to raise finance through the right issue.

The Finance Manager added that the company currently has in issue 1 million ordinary shares which are trading at FRW 500 per share. The company's most recent dividend paid was FRW 45 per share and is expected to grow at the rate of 5% annually. If the right issue will be successful, potential shareholders will subscribe to new shares at the rate of 1 new share for every 5 held at a subscription price of FRW 400 per share this will enable the company to generate annual income of FRW 9.45 million in perpetuity.

The company has existing 10% debentures of FRW 80 million at nominal value and pays taxes at the rate of 30% on its income.

Required:

a) Based on the Mugisha Ltd plans:

i) Explaining two requirements that the company must meet before being listed at Rwanda Stock Exchange. (2 Marks)

ii) Itemizing with explanation the two benefits and three demerits to Mugisha Ltd when they go on public. (5 Marks)

b) Discussing three advantages that Mugisha Ltd would enjoy if they practice good corporate governance. (6 Marks)

c) Calculate the theoretical ex-price of the shares. (2 Marks)

d) Calculate the theoretical value of the right when the shares are sold. (2 Marks)

e) Compute Net present Value of additional benefit in Mugisha Ltd financial performance after the right issue. (3 Marks)

f) What would be the cum-right price per share if the new fund is used to redeem the 10% FRW 80 million debentures? (5 Marks)

(Total: 25 Marks)

QUESTION THREE

You are considering investing in two securities: A and B and have the following information:

Security	Security Possible return (%)	Probability
A	30%	0.3
	25%	0.4
	20%	0.3
B	50%	0.2
	30%	0.6
	10%	0.2

Required:

a) Calculate the expected return for each security separately and for a portfolio of 40% A and 60% B. (Please round off to two decimals). (2 Marks)

b) Calculate the expected risk of each security separately and of the portfolio as defined above if the correlation coefficient of the two returns is +0.95. (8 Marks)

c) Explain three reasons why risk continues to exist even in a well-diversified portfolio. (3 Marks)

d) The Finance Director of RUGAMBA Limited is concerned about the management of the company's trade receivables. RUGAMBA Limited trade terms require settlement within 30 days, but its customers take an average of 60 days to pay their bills. In addition, out of total credit sales of FRW 20,000,000,000 per year, the company suffers bad debts of FRW

200,000,000 per year. RUGAMBA Limited finances working capital needs with an overdraft at a rate of 8 percent per year. The finance director is reviewing two options:

Option 1: Offering a discount of 1 percent for payment within 30 days. It is expected that 35 percent of customers will take the discount, while the average time taken to pay by the remaining customers will remain unchanged. As a result of the policy change, bad debts would fall by FRW 60,000,000 per year and administration costs would fall by FRW 20,000,000 per year.

Option 2: RUGAMBA Limited debt administration and credit control could be taken over by a factoring company. The annual fee charged by the factor would be 1.75 percent of sales. RUGAMBA Limited would gain administration cost savings of FRW 160,000,000 per year and an 80 percent reduction in bad debts. The factor would reduce RUGAMBA Limited's average trade receivables days to 30 days and would advance 80 percent of invoices at an interest rate of 12 percent.

Required:

Assess showing all calculations and the benefit if any to RUGAMBA Limited of the two suggested options in light of your findings and recommend an appropriate course of action to the finance director. (12 Marks)

(Total: 25 Marks)

QUESTION FOUR

NYANZA Plc is a company located in NYANZA District specialized in Production of dry ready to eat human food. The company's leading brand "AGATOGO" is exported to several countries and also supplied to the home market. One of NYANZA Plc's export destinations is KENYA, a neighboring country. KENYA is unstable politically and is characterized by heavy borrowing in US dollars.

KENYAN government has recently introduced a 60% tariff on AGATOGO imports to shield its fledgling food industry. This tariff has rendered NYANZA's products uncompetitive in the KENYA market. Nevertheless, the KENYAN government is open to supporting companies interested in making direct investments in their country and has offered

1. A 25% grant towards the purchase of plant and equipment and
2. A three-year tax holiday on earnings.

Despite the aforementioned 'goodies' provided by the KENYAN government; the Senior Management of NYANZA Plc is concerned about the risks associated with making a direct investment in KENYA. These Concerns primarily revolve around potential actions by the KENYAN government, such as the imposition of exchange controls that could restrict the transfer of dividends from local companies to foreign owners or even nationalization of privately owned enterprises.

The above risks are categorized as high and probable. The management is therefore contemplating an alternative strategy, which is to sell a license to a local company to manufacture AGATOGO within KENYA.

However, if the foreign investment passes the "yes" stage, it would be financed by issuing a Eurodollar loan in the international market.

Home Expansion

NYANZA will be issuing a 10-year bond worth FRW 1,000 million for planned internal expansion. The Chief Finance Officer has advised that the company should use a cocktail bond and has provided the following data on the possible interest rates if a cocktail bond is issued, this kind of bond is risk-free.

Year	Interest rates
1 to 5	18.00%
Year 6	16.30%
Year 7	14.50%
Year 8	12.20%
Year 9	10.50%
Year10	10.00%

Required:

a) **Explain briefly what is meant by the term 'cocktail bond' and discuss three benefits to NYANZA Plc.** (5 Marks)

b) **Calculate the present value of total interest payments to be made by NYANZA** Assume that interest payments are made annually in arrears. Ignore taxation. (4 Marks)

c) **Provide a briefing memo for the company discussing FOUR advantages of the Euromarkets, and three potential problems for NYANZA Plc in using them.** (7 Marks)

d) **Discuss FIVE positive implications and FOUR negative implications that NYANZA Plc would face if it chooses a licensing arrangement for the manufacture of its "AGATOGO brand" by a company in KENYA.** (9 Marks)

(Total: 25 Marks)

End of Question Paper

Present value interest factor of Frw1 per period at i% for n periods, PVIF(i,n).

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
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	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833
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	0.783	0.769	0.756	0.743	0.731	0.718	0.706	0.694
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	0.693	0.675	0.658	0.641	0.624	0.609	0.593	0.579
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	0.613	0.592	0.572	0.552	0.534	0.516	0.499	0.482
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	0.543	0.519	0.497	0.476	0.456	0.437	0.419	0.402
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	0.480	0.456	0.432	0.410	0.390	0.370	0.352	0.335
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	0.425	0.400	0.376	0.354	0.333	0.314	0.296	0.279
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	0.376	0.351	0.327	0.305	0.285	0.266	0.249	0.233
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	0.333	0.308	0.284	0.263	0.243	0.225	0.209	0.194
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	0.295	0.270	0.247	0.227	0.208	0.191	0.176	0.162
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	0.261	0.237	0.215	0.195	0.178	0.162	0.148	0.135
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	0.231	0.208	0.187	0.168	0.152	0.137	0.124	0.112
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	0.204	0.182	0.163	0.145	0.130	0.116	0.104	0.093
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	0.181	0.160	0.141	0.125	0.111	0.099	0.088	0.078
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	0.160	0.140	0.123	0.108	0.095	0.084	0.074	0.065
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	0.141	0.123	0.107	0.093	0.081	0.071	0.062	0.054
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	0.125	0.108	0.093	0.080	0.069	0.060	0.052	0.045
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	0.111	0.095	0.081	0.069	0.059	0.051	0.044	0.038
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	0.098	0.083	0.070	0.060	0.051	0.043	0.037	0.031
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	0.087	0.073	0.061	0.051	0.043	0.037	0.031	0.026
25	0.780	0.610	0.478	0.375	0.295	0.233	0.184	0.146	0.116	0.092	0.074	0.059	0.047	0.038	0.030	0.024	0.020	0.016	0.013	0.010
30	0.742	0.552	0.412	0.308	0.231	0.174	0.131	0.099	0.075	0.057	0.044	0.033	0.026	0.020	0.015	0.012	0.009	0.007	0.005	0.004
35	0.706	0.500	0.355	0.253	0.181	0.130	0.094	0.068	0.049	0.036	0.026	0.019	0.014	0.010	0.008	0.006	0.004	0.003	0.002	0.002
40	0.672	0.453	0.307	0.208	0.142	0.097	0.067	0.046	0.032	0.022	0.015	0.011	0.008	0.005	0.004	0.003	0.002	0.001	0.001	0.001
50	0.608	0.372	0.228	0.141	0.087	0.054	0.034	0.021	0.013	0.009	0.005	0.003	0.002	0.001	0.001	0.001	0.000	0.000	0.000	0.000

Present value interest factor of an (ordinary) annuity of Frw1 per period at i% for n periods, PVIFA(i,n).

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
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	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833
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	1.668	1.647	1.626	1.605	1.585	1.566	1.547	1.528
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	2.361	2.322	2.283	2.246	2.210	2.174	2.140	2.106
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	2.974	2.914	2.855	2.798	2.743	2.690	2.639	2.589
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	3.517	3.433	3.352	3.274	3.199	3.127	3.058	2.991
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	3.998	3.889	3.784	3.685	3.589	3.498	3.410	3.326
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	4.423	4.288	4.160	4.039	3.922	3.812	3.706	3.605
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	4.799	4.639	4.487	4.344	4.207	4.078	3.954	3.837
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	5.132	4.946	4.772	4.607	4.451	4.303	4.163	4.031
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	5.426	5.216	5.019	4.833	4.659	4.494	4.339	4.192
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	5.687	5.453	5.234	5.029	4.836	4.656	4.486	4.327
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	5.918	5.660	5.421	5.197	4.988	4.793	4.611	4.439
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	6.122	5.842	5.583	5.342	5.118	4.910	4.715	4.533
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	6.302	6.002	5.724	5.468	5.229	5.008	4.802	4.611
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	6.462	6.142	5.847	5.575	5.324	5.092	4.876	4.675
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	6.604	6.265	5.954	5.668	5.405	5.162	4.938	4.730
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	6.729	6.373	6.047	5.749	5.475	5.222	4.990	4.775
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	6.840	6.467	6.128	5.818	5.534	5.273	5.033	4.812
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	6.938	6.550	6.198	5.877	5.584	5.316	5.070	4.843
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	7.025	6.623	6.259	5.929	5.628	5.353	5.101	4.870
25	22.023	19.523	17.413	15.622	14.094	12.783	11.654	10.675	9.823	9.077	8.422	7.843	7.330	6.873	6.464	6.097	5.766	5.467	5.195	4.948
30	25.808	22.396	19.600	17.292	15.372	13.765	12.409	11.258	10.274	9.427	8.694	8.055	7.496	7.003	6.566	6.177	5.829	5.517	5.235	4.979
35	29.409	24.999	21.487	18.665	16.374	14.498	12.948	11.655	10.567	9.644	8.855	8.176	7.586	7.070	6.617	6.215	5.858	5.539	5.251	4.992
40	32.835	27.355	23.115	19.793	17.159	15.046	13.332	11.925	10.757	9.779	8.951	8.244	7.634	7.105	6.642	6.233	5.871	5.548	5.258	4.997
50	39.196	31.424	25.730	21.482	18.256	15.762	13.801	12.233	10.962	9.915	9.042	8.304	7.675	7.133	6.661	6.246	5.880	5.554	5.262	4.999