CERTIFIED PUBLIC ACCOUNTANT

ADVANCED LEVEL 2 EXAMINATIONS

A2.2: STRATEGIC PERFORMANCE MANAGEMENT

DATE: THURSDAY 29, FEBRUARY 2024

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

SECTION A

QUESTION ONE

Gishugi Ltd is a chemical production company located at the Rwanda Special Economic Zone and cross listed in London, Nairobi and New York stock exchanges. Its founder and chairperson is Mr. Charles Muhire, a Harvard university trained chemical engineering enthusiast hoping to gain some market share in the chemical industry in both Rwanda and neighboring nations. The board members are elected on a three-year renewable term. Miss Jamila Keza is currently the secretary to the board. A casual vacancy due to unforeseen circumstances in the board membership is filled by the nomination committee until the next board election, this is one of the four committees in Gishugi Ltd. Last year one of the board members was declared bankrupt and his position was filled by Mrs. Arline Mujawayezu.

Currently Gishugi Ltd produces soap-solid, powder and liquid, paints, perfumes and surgical spirits. All home use products are produced in division A while all industrial use products are produced in division B. Of interest is Mexh, a product produced in division A but also can be transferred to division B as input of manufacture of Nexh, a grease remover used to clean industrial machines. Division A transferred 1,000 units of Mexh to division B with total variable cost of FRW 2,000,000. This will be used to make Nexh at a rate of two units of Mexh to one unit of Nexh. Externally a unit of Mexh and Nexh are sold at FRW 2,800 and FRW 6,500 respectively. Division B will incur additional variable cost of FRW 1,500 in manufacturing a unit of Nexh. The company`s overall target return on investment and residual income is 18% and 20% respectively for each division. Gishugi Ltd`s overall cost of capital as per the contracted actuarial scientist is 15%. During 2022 financial year, the revenue from Division A and B were FRW 600 and FRW 850 million respectively. The uncontrollable costs were 75% of the industrial average cost. The aggressive competitor to Gishugi Ltd is Gishushu Ltd that has a similar organization structure as Gishugi Ltd and whose average industrial production cost is FRW 250 million for its domestic division and FRW450 million for its industrial division. The management accountant for Gishugi Ltd usually restates this figure less 10%. This is a company policy that the board of directors of Gishugi Ltd had sanctioned few years ago. There is contestation that this percentage should be reviewed to reflect the current economic environment.

This year, Gishugi Ltd won a contract to supply liquid industrial soap in all state departments. The board of directors elected by shareholders came together and approved the acquisition of a FRW 480 million Industrial processing machine for division B from Germany that will boost productivity in order to meet the increasing demand for the industrial soap. This machine will produce 2,000,000 units at a variable cost of FRW 1,500 per unit and be decommissioned within the next 10 years with no salvage value. The rate of production is equally distributed over this machine`s useful life. The net assets for division A and B are FRW 1,270 and FRW 1,850 million respectively. The new investment leads into increased sales at a rate of 12.5% per year.

The standard ingredients of one kilogram of Nexh are:
0.60 Kg of F @ FRW 4,000 per kg
0.35 Kg of D @ FRW 6,000 per kg
0.15 Kg of N @FRW 2,000 per kg

The following information is also provided from the costing department:
1. Production of 40,000 Kg of Nexh was budgeted for November 2022. Production is entirely automated and production costs only comprises of direct materials and overhead.
2. Gishugi Ltd operates in a Just in time inventory system and it does not hold any ingredient or finished goods inventories in relation to Nexh.

Budgeted overheads for the month of November 2022 were as follows:

Activity	**Total amount in FRW**
Dispatch of goods to customers (standard dispatch quantity is 100 Kg)	80,000,000
Receipt of deliveries from suppliers (Standard delivery quantity is 440 Kg)	120,000,000

In November 2022, 42,000 Kg of Nexh were produced and the cost details were as follows:

Material used
8,600 Kg of N, 12,100 Kg of D and 28,400 Kg of F valued at FRW 203,800,000

Actual overhead cost for November 2022	**FRW**
450 customer dispatches costing	78,000,000
102 supply deliveries costing	48,000,000

The financial statements presented to the board for approval for the last five years and other related matters are as presented below.

Gishugi Ltd
Statement of Profit or Loss for the year ended 31st December

	2019	**2020**	**2021**	**2022**	**2023**
	FRW Millions	**FRW Millions**	**FRW Millions**	**FRW Millions**	**FRW Millions**
Revenue	700	780	890	1,002	750
Less: Cost of Sales	(390)	(490)	(540)	(520)	(340)
Gross profit	**310**	**290**	**350**	**482**	**410**
Less: **Operating costs**					
Distribution costs	80	70	90	150	85
Administration costs	90	75	102	125	100
Other operating costs	25	24	36	42	50
Finance costs	7	7	7	7	7
Total costs	**(202)**	**(176)**	**(235)**	**(342)**	**(242)**
Profit before tax	108	114	115	158	168
Tax @ 30%	(32.4)	34.2	34.5	47.4	50.4
Profit after tax	**75.6**	**79.8**	**80.5**	**110.6**	**117.6**

Gishugi Ltd

Statement of Financial Position as at 31st December

	2019	2020	2021	2022	2023
Non-Current Assets	**FRW Millions**	**FRW Millions**	**FRW Millions**	**FRW Millions**	**FRW Millions**
Property plant and equipment	3,000	3,000	3,000	3,000	3,000
Less accumulated depreciation	(100)	(150)	(200)	(250)	(300)
Goodwill	5	15	30	35	40
Investment in A-Limited	50	50	50	50	50
Total Non-Current Assets	**2,955**	**2,915**	**2,880**	**2,835**	**2,790**
Current Assets					
Inventory	350	400	280	340	150
Trade receivables	150	400	360	120	250
Bank	45	25	15	70	24
Total current assets	**545**	**825**	**655**	**530**	**424**
Total assets	**3,500**	**3,740**	**3,535**	**3,365**	**3,214**
Equity and Liabilities					
Equity					
Ordinary share capital of FRW 100 each	2,000	2,000	2,000	2,000	2,000
Non-Current Liabilities					
Bank loan	500	500	500	500	500
Differed tax	655	1,000	795	700	489
10 years redeemable 12% loan note	50	50	50	50	50
Total noncurrent liabilities	**1,205**	**1,550**	**1,345**	**1,250**	**1,039**
Current Liabilities					
Accounts payable	200	100	140	80	90
Proposed dividends	80	70	30	20	60
Bank overdrafts	15	20	20	15	25
Total current liabilities	**295**	**190**	**190**	**115**	**175**
Total liabilities	**1,500**	**1,740**	**1,535**	**1,365**	**1,214**
Total Equity and Liabilities	**3,500**	**3,740**	**3,535**	**3,365**	**3,214**

Other data to be taken into consideration

	2019	2020	2021	2022	2023
Number of warranties claimed	200	150	100	50	20
Number of complains reported per year	20	15	50	100	150
Number of new products developed	4	7	3	2	8
Penalties paid to Rwanda Environment Management Authority	60,000	70,000	0	0	10,000
Number of customers in millions	7	6.5	6	8	4

Gishugi Ltd operates a monthly standard costing system, its chief management accountant conducts variance analysis which must be submitted to the board of directors. Recently the management accountant was quoted saying that total quality management and variance analysis can never coexist. She is also of the opinion that residual income is a better measure of returns as compared to return on investment. Recently she attended a capacity building training at Gisenyi Sheraton hotel organized by ICPAR. One of the facilitators outlined passionately on the need to shift from traditional financial measures of performance to the modern ones like Fitzgerald and Moons building block model and performance prism. He said that they have a touch on all stakeholders.

Required:

(a) The month of November 2022 is coming to an end in the next two days. **The finance director has just summoned you to the office and tasked you to prepare a variance investigation report that will be presented to the board in the first week of December 2022, advice. Hint-Use the details of material D as a basis of absorbing overheads.** (16 Marks)

(b) Using well illustrated analysis**, argue the case against or in support of the management accountant`s opinion. Briefly discuss the suitability of the two measures you have utilized to arrive at your conclusion whether or not to acquire the new machinery from Germany.** (12 Marks)

(c) **Examine whether it was prudent to transfer Mexh to Division B. Analyze any two available pricing approaches that the divisional managers can utilize that will promote goal congruence.** (7 Marks)

(d) During the end year party at a Musanze hotel, Arline Mujawayezu has just approached you at the sidelines of the party to help her understand her role in the board and the principles she should uphold**. Write a letter to her elaborating her quest.** (5 Marks)

(e) **Analyze and advice the board of directors of Gishugi Ltd on its performance and justify the need to shift to the contemporary measures of performance according to the facilitator view at Gisenyi Sheraton hotel.** (10 Marks)

(Total: 50 Marks)

SECTION B

QUESTION TWO

Pride in Technology Limited (PT Ltd) is a company located at Masoro special economic zone. This company assembles and refurbishes top tier low priced electric vehicles for export market. The company is structured in a manner that it has two departments; Department 1 and Department 2. Each department assembles its own model of vehicle. Department 1 assembles HPX-EV brand while Department 2 assembles HPY-EV model. HPX-EV is exported to Luxembourg at a price of FRW 30,000,000 while HPY-EV is exported to Belgium at a price of FRW 32,000,000. A discount of 8% and 12.5% is allowed on HPX-EV and HPY-EV respectively if a customer orders at least 400 units of either model. A customer is expected to at least order 100 units of either model.

In line with its expansion move, PT Ltd can elect to build a small, medium or large plant for either of its two departments. The demand is quite uncertain, through market research the management accounting department of PT Ltd was able to identify three possible outcomes strong, moderate and weak with 0.20,0.35 and 0.45 respectively and their payoffs in million FRW as shown below.

	States of nature		
	Strong	**Moderate**	**Weak**
	0.20	0.35	0.45
Decision alternatives			
Large plant	500	450	250
Medium plant	300	(400)	150
Small plant	200	300	100

Ordering cost per order is FRW 50,000 while distribution and marketing costs per order are FRW 500,000 irrespective of the quantities ordered. In January 2024, 500 units of HPX-EV and 800 units of HPY-EV was placed. Direct material cost of FRW15,000,000 and FRW 16,000,000 is utilized for assembling HPX-EV and HPY-EV respectively. Additionally, FRW 22,000,000 is spent by PT Ltd comprising FRW 2,000,000, FRW 8,000,000 and FRW 12,000,000 for rental costs of factory premises at Masoro, machine set up costs and production material handling costs respectively. The direct labor rate per hour is FRW 2,500. This is a uniform rate for the whole company.

Further analysis resulted to determination of the following information in respect to department 1 and department 2.

	Department 1	Department 2
Direct labor hours	200,000	600,000
Number of set ups	15	25
Quantity of orders –materials	20	30
Quantity of units produced	1,000	2,000
Factory space (Squared meters)	100	400

Required:

(a) Analyze the market that brings more value to PT Ltd and determine the value of perfect information using decision Laplace rule. Did PT Ltd get value for its quote? (5 Marks)

(b) Analyze the profitability of each model using the most appropriate method. (15 Marks)

(c) Advice which plant to build using Maximax and Maximin rule. (5 Marks)

(Total: 25 Marks)

QUESTION THREE

Lunga Business Ltd is a group company registered at the stock exchange. The members of Lunga Business Ltd are Uwimana Ltd, Mparaga Ltd and Murindi Ltd. Mparaga Ltd is a manufacturing firm.

Uwimana Ltd is operating a chain of depots in Rwanda, supplying and fitting tyres and other vehicle parts to lorries, vans, cars, buses and tractors for the last 50 years. Its main competitor is Zahara Limited. Uwimana Ltd key objective is to maximize shareholders' wealth. Of late this firms' performance has been in a downward trajectory.

Uwimana Ltd is managed through a board of which board members are elected by the shareholders. This board is further made up of four Committees-Risk, audit, nomination and remuneration. Kajuga Emmanuel is board chair while Miss Uwera Rose is the CEO. Their term will be lapsing in the next two years.

The board of directors which is composed of eleven members have commissioned a benchmarking exercise to help improve Uwimana Ltd's performance. This exercise will involve comparison of a range of financial and other operating performance indicators against Urukundo Ltd, a similar business in Zambia. Urukundo Ltd has agreed to share some recently available financial data with Uwimana Ltd as they operate in different countries. The reason why the board elected to benchmark with Urukundo Ltd is that as well as supplying and fitting tyres and parts to heavy vehicles, a large part of its business involves supplying electricity to charging points to rechargeable electric cars. Zambia economy is growing at a fast rate and the uptake of electric cars is growing tremendously.

Uwimana Ltd is a coveted employer due to its focus of remunerating the workers well. Recently they received a coveted award of the best runners up category of the best employers of the year. Uwimana Ltd has a workforce of 2,000 employees paid on a differential piece rate system with a guaranteed minimum salary of FRW 60,000 per month. Whenever the human resource manager puts an advert, she receives thousands of responses thus attracting high grade workers contrary to the situation in Zahara Ltd which has an 80% labor turnover.

Mparaga Ltd produces Xeroh and Yetts brands of export quality tablets. These two products are sold at a unit price of FRW 180,000 and FRW 200,000 respectively. Labor hours at Mparaga Ltd are capped at 16,000 hours and material use is capped 15,000 kilograms. To make a unit of Xeroh, the firm uses three kilograms of material and four labor hours. A unit of Yetts requires four kilograms of materials and five labor hours. The variable costs utilized to make each product is FRW 150,000 for Xeroh and FRW 160,000 for Yetts. Xeroh and Yetts occupies three and four meters cubic in the store. There is 6000 meter cubic of space available at any given time. while the cost of material is normally FRW 8,000 per kilogram and the labor rate is FRW 10,000 per hour.

The board has approached you to advise it on two issues

(i) Benchmarking
(ii) Corporate governance

Required:

(a) **Discuss the problems of using benchmarking exercise** basing your answer on the case. (7 Marks)

(b) **Advice the management of Zahara Ltd on the available incentive schemes they can implement in order to reduce labor turnover to nil.** (5 Marks)

(c) Using linear programming model**, determine the units of Xeroh and Yetts to be produced to maximize returns for Mpalaga Ltd.** (13 Marks)

(Total: 25 Marks)

QUESTION FOUR

Remera Limited was established twenty years ago by Remera brothers, although the company went public 10 years ago, 55% of issued share capital is still in the hands of the original founding family members, and in fact, the current Chief Executive Officer (CEO) and Executive chairman is the grandson of the founding family.

At a recent Annual general meeting, it was discovered that the CEO overrides all management and that most of the directors were either his relatives or friends and only until recently were two Non-Executive Directors (NEDs) appointed.

'We are there to see and node in agreement to whatever the chairperson says', commented one of the NED after the meetings.

The company is involved in manufacture and distribution of both hard and soft drinks. It has been trading in a stable industry for a while but is now experiencing stiff competition from no frill companies and has seen its profits plunge after cheap and better-quality product from these companies have flooded the markets. Shares prices are below the book value.

The company therefore needs to find for alternatives ways to counter this threat in order to survive and improving profitability.

You are part of the think tank tasked with coming up with alternatives areas of improvement. As the management accountant, you think that the immediate task should be a change in the budgetary model and make improvement in internal controls of the company. This will help in identifying wasteful areas.

You have made a proposal that since sales are reducing at an alarming rate, a rolling budget should be prepared every quarter in order to have to more realistic view of the company's' operations and also of the opinion that moving forward Zero-Based Budgeting should be implemented.

Below is the current incremental budget being implemented

	Q1	**Q2**	**Q3**	**Q4**
	FRW'Million	**FRW'Million**	**FRW'Million**	**FRW'Million**
Revenue	31,200	34,050	35,100	35,900
Cost of sales	17,160	18,728	19,305	19,745
Gross profit	14,040	15,323	15,795	16,155
Distribution cost	5,200	5,900	6,100	6,200
Administration cost	4,800	4,800	4,800	4,800
Operating profit	4,040	4,623	4,895	5,155

Actual Quarter 1 results	FRW'million
Revenue	32,100
Cost of sales	17,655
Gross profit	14,445
Distribution cost	5,100
Administration cost	4,800
Operating profit	4,545

Required:

(a) **In the current world where nothing is permanent and constant change is the order of operations, are budgets still relevant? Discuss.** (8 Marks)

(b) **Prepare A rolling budget based on the above data on the basis actual results of quarter 1 results, it is expected that sales will reduce by 5%. You can assume that cost of sales and distribution cost are variable and administration cost is fixed).** (5 Marks)

(c) You believe that Zero Based Budgeting (ZBB) would be the most appropriate way for Remera limited to go by, **discuss the principles of ZBB and illustrate how ZBB would be beneficial to the current situation of Remera limited if implemented.** (4 Marks)

(d) **Explain how good best practice in corporate governance would have prevented the situation at Remera limited** (8 Marks)

(Total: 25 Marks)

End of Question Paper