CERTIFIED PUBLIC ACCOUNTANT

ADVANCED LEVEL 2 EXAMINATIONS

A2.2: STRATEGIC PERFORMANCE MANAGEMENT

DATE: THURSDAY 28, MAY 2026

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

Mugisha Sugar Production (MSP) Ltd is a company incorporated in Rwanda that specializes in the production and distribution of refined sugar and related by-products. The company operates through six different divisions. Its well-known products include white sugar and brown sugar, although it also produces several other related products. The company was founded 15 years ago by Mr. Emmanuel Mugisha, who is the CEO and currently serves as the chairman of the board of directors.

The board of directors consists of eight members, including Mr. Mugisha. The vice chair is the father-in-law of Mr. Mugisha, and two are long-standing personal friends, as they helped Mugisha establish the company and assisted him in registering it, since some of them had family members who belong to the Office of the Registrar General and facilitated them in the business registration process. The other four directors are cousins of Mugisha's wife; some of them live in Canada and others are entrepreneurs operating here in Rwanda in the prime economic zone.

Two of the cousins who are directors hold senior management positions within the company. The board composition has remained virtually unchanged since the company was founded. There are no formal board sub-committees, and due to the busy season, board meetings are held irregularly and are often attended only when convenient. The internal audit department has not been formally established, and the external auditors are appointed directly by Mr. Mugisha because they are from a qualified firm whose members studied together with Mugisha at university.

The company has been experiencing a decline in profitability since the financial year 2023 and shareholder's value has been spoiled. The finance director, who was recently recruited, has raised concerns to the board of directors about weak internal controls, partiality in executive remuneration, and inadequate risk management systems. However, his concerns have largely been dismissed by the majority of board members. There are also reports that some related-party transactions between the company and businesses owned by family board members have not been properly disclosed in the financial statements.

A recent regulatory review by the Rwanda Development Board (RDB) flagged MSP Ltd for non-compliance with corporate governance guidelines applicable to companies of its size and industry. The review noted that the current governance structure creates a concentration of power in the hands of one individual, limiting the board's ability to provide effective oversight and protect the interests of minority shareholders and other stakeholders.

MSP Ltd is now under pressure from institutional investors and lenders who have indicated that continued financing will be conditional upon significant improvement in the company's governance framework as company's economic value is not seen. The CEO has engaged you as a management consultant to advise the board on these issues and help prepare for the re-engineering of the company's governance framework.

MSP Ltd operates two main divisions on core business mandate named Division S (Sugar Refining Division) and Division P (Packaging Division). Division S produces refined sugar (Product S) sold at FRW 3,600 per kg which it supplies both to division P internally and to the external market. Division P uses one kilogram of product S plus additional packaging materials and labor to produce a finished consumer pack (Product P) which is then sold to retailers at FRW 8,400 per Pack.

The following revenues and costs data is available per unit:

Details	Product S (000)	Product P (000)
Annual production capacity (kgs/packs)	280 kgs	110 Packs
Annual fixed costs-FRW	48,000	18,000
Annual external demand (kgs/packs)	140 kgs	100 Packs

Division S charges division P the same market price per kilogram of product S as it charges external market customers. However, division S does not incur selling and distribution costs on internal transfers to division P. Division P has recently been approached by an alternative external supplier offering product S at FRW 3,300 per kg. Prior to this offer, the cheapest external price available to division P was FRW 3,900 per kg. The total labor hours available to both divisions combined are estimated at 320,000 hours for the coming year. Both divisions draw from the same labor pool.

Per unit cost data

	Product S	Product P
Direct Materials		
Product S (Transferred In)-FRW		3,600
Other Materials-FRW	1,500	1,440
Direct Labor (FRW 480/hr)	480	720
Variable overhead-FRW	240	360
Selling & distribution costs-FRW	360	180

MSP Ltd has been using Return on Capital Employed (ROCE) as its primary performance metric. One of the non-executive directors has suggested that the company should adopt Economic Value Added (EVA) as a more shareholder-focused performance measure, arguing that ROCE does not capture the true cost of capital and may encourage short-term decision making.

The following information is operating profit from MSP Ltd's management accounts for the financial year just ended 2025:

Item	Amount (FRW Million)
Gross Profit	7,489
Less: Other expenses	(1,680)
Finance cost for the year (at 12% on variable rate loan)	(1,920)
Profit before tax	**3,889**
Tax 28%	1,089
Profit after tax	**2,800**

Additional information:

1) MSP Ltd is financed 55% and 45% by debt and equity respectively.
2) Accounting depreciation (which was included in other expenses) and economic depreciation on non-current assets were FRW 880 million and FRW 1,540 million, respectively.
3) The accumulated excess of economic over accounting depreciation (b/f) was FRW 2,160 million
4) The cost of equity is accurately estimated at 14%.
5) MSP Ltd pays corporation tax at a rate of 28%.

6) The provision for doubtful debts was FRW 480 million at the start of the year, and subsequently, the customer paid the balance in full.
7) In the other expenses there was marketing expenditure from long-term brand building benefit amounting to FRW 120 million
8) ROCE for the current year is 12.3% and the industry average ROCE is 11.8%.

Required:

a) **Evaluate the profitability of each division and the MSP Ltd as a whole (group) under the current transfer pricing arrangement, and in light of the external supplier's offer to division P discuss the implications for both Divisions if the transfer price remains at the current market price.** (11 Marks)
b) **Advise on the optimal production mix for division S between external sales of product S and internal transfers to division P given constraint of 320,000 labor hours available and transfer price.** (10 Marks)
c) **Assess the economic value added (EVA) of MSP Ltd.** (15 Marks)
d) **Discuss the FIVE corporate governance problems faced by MSP Ltd, and recommend TWO specific governance reforms that MSP Ltd should implement immediately to address the concern raised by regulatory review.** (14 Marks)

(Total: 50 Marks)

SECTION B

QUESTION TWO

a) Kigali Energy Resources (KER) Ltd is a petroleum exploration company listed on the Rwanda Stock Exchange. The company has acquired exclusive exploration rights over a licensed block in the Lake Albert Basin and must decide whether to drill a test well at the site. Based on the company's geological surveys, the Chief Geologist estimates that there is a 20% probability that the site contains commercially viable oil reserves and an 80% probability that it does not, a test well if drilled will cost FRW 14million. If oil is found the net cash inflow to the company from developing the field is estimated at FRW 60million (net of all costs excluding survey cost). If no oil is found the FRW12.3million drilling cost is a sunk loss with no salvage value.

KER Ltd's Board of Directors is considering three strategic options:
1. Do not commission a seismic survey and drill the well immediately,
2. Commission a seismic survey at a cost of FRW 3 million review the results, and then decide whether to drill or not.
3. Do not commission a seismic survey and do not drill the well.

The seismic survey will produce one of two results: it will either indicate that oil is present (a positive result), or indicate that oil is not present (a negative result).

i) Based on historical accuracy data for surveys of this type in similar geological formations, the probability that the survey gives a positive result is 0.3
ii) If the survey returns a positive result, the revised (posterior) probability that oil is actually present at the site is 0.7
iii) If the survey returns a negative result, the revised (posterior) probability that oil is actually present at the site is 0.014
iv) If seismic survey is chosen, KER Ltd will drill only if the expected value of drilling (given the survey result) exceeds the expected value of not drilling i.e. KER Ltd is not forced to drill after a negative result.
v) The FRW 3 million survey cost is payable regardless of whether the company subsequently decides to drill or not.

Required:

Construct and evaluate a decision tree for KER Ltd's exploration decision. Clearly show all decision nodes, chance nodes, probabilities, expected values and the recommended course of action. (10 Mark)

b) Inzozi Beverages (IBL) Ltd is a Rwandan company that manufactures and distributes a range of packaged fruit juices. IBL sells its products in cases of 12 bottles. The company's Sales Director, Ms. Claudine Uwera, has recently raised concern that some of IBL Ltd's customers may be generating far less value than their sales volumes suggest. She has been told that the company's current reporting system measures performance at the gross contribution level only and that all selling and distribution overheads are pooled and reported as a single company-wide figure. She believes this approach masks the true profitability of individual customers. IBL Ltd serves three main customers in addition to a group of smaller accounts. The three main customers for the year ended 31 December 2025 were:

Customer	Business Type	Cases Sold
Kigali Supermart	Large urban supermarket chain	4,500
Nyamirambo Traders	Small independent retailer	1,500
Remera Wholesale Hub	Regional wholesale distributor	3,000

Product pricing and cost data:

Item	FRW per case
Selling price	9,000
Variable production cost	(5,200)
Gross contribution	**3,800**

The company's management accountant has identified four overhead cost pools associated with customer-related activities. These costs are not currently allocated to individual customers. The total cost of each pool for the year and the cost driver used to assign costs to customers are as follows:

Overhead Cost Pool	Total Cost FRW '000	Cost Driver
Order processing	15,000	Number of orders placed
Delivery	20,000	Number of deliveries made
Sales visits	8,000	Number of sales visits
Invoice and credit administration	11,200	Number of invoices raised
Total customer-related overheads	**54,200**	

The following cost driver data has been extracted from IBL's records for the year:

Cost Driver	Kigali Supermart	Nyamirambo Traders	Remera Wholesale Hub	Other Customers
Orders placed	12%	32%	20%	36%
case delivery rate	0.80%	6.40%	2.00%	2.16%
Sales visits	12%	32%	20%	36%

A total of 250 orders were placed by customers, and 300 deliveries were made. The sales team conducted 50 visits, and the accountant issued 250 invoices to customers, which were in the same proportion as the sales visits.

Required:

i) **Advise on the most profitable customer to IBL Ltd.** (10 Marks)

ii) **Identify the key observations revealed during analysis that would not have been visible under the company's current reporting system, and recommend two specific actions IBL Ltd's management should consider in response to your findings.** (5 Marks)

(Total: 25 Marks)

QUESTION THREE

Nyamirambo Paints Ltd (NPL) manufactures a single standardized paint product sold across Rwanda. At the beginning of 2025, NPL's budget was prepared based on management's best estimate of total market conditions. The company uses standard marginal costing and a detailed variance reporting system.
The standards cost of the raw materials used in the production of each 50 buckets are as follows:

Raw Material	Quantity	Standard price per Quantity
Titanium Dioxide	10 kg	12,000
Acrylic Resin	15 kg	6,000
Solvent / Water	20 ltr	2,000
Additives	5 kg	14,000

The following budgeted and actual data relates to NPL for the year ended 31 December 2024:

Details	Budget	Actual
Total market size (litres)	2,000,000	1,750,000
NPL sales volume (litres)	500,000	490,000
Selling price per litre (FRW)	7,800	7,000

In the mid-term evaluation of the budget, there was a meeting to discuss the progress of budget implementation. The division manager in paint production stated that during 2025, both Nyamirambo Paints Ltd and its competitors were adversely affected by declining business demand. This was a result of border closures with neighboring countries and some construction projects did not take place due to a lack of raw materials to complete buildings for about two months.
NPL's management mentioned that they tried to compensate by reducing the selling price to FRW 7,000, but management questioned why the variable cost per litre had increased to FRW 6,850. The production manager responded that the increase was due to an unexpected rise in raw material prices in the market. There was no opening or closing inventory. Fixed costs were budgeted not to exceed FRW 240 million, but FRW 255 million was spent during operations, note that one bucket contains one litre.

The Board of NPL observed that although several Strategic Business Units (SBUs) operate in different markets across the country, some divisions have been prioritizing their own short-term profits at the expense of overall corporate quality standards and customer satisfaction, raising concerns that unit-level objectives may conflict with the broader corporate objectives. In response to this misalignment, the Board of Directors reviewed the company's corporate objectives and approved a new strategic plan aimed at ensuring that SBU performance supports overall organizational goals. The plan focuses on value-based pricing, operational efficiency, and rigorous performance management to strengthen coordination and accountability across all business units.
As part of this initiative, management has commissioned a detailed analysis of pricing decisions, production optimization, and variance reporting for the year ending 31 December 2024, with the aim of improving decision-making, aligning divisional performance with corporate strategy, and ensuring sustainable profitability while maintaining quality and customer satisfaction.

The Blends Division mixes different paints in accordance with customer orders. They produce the famous complex neutrals colors mixed with multiple pigments so they change slightly depending on the light. Their primary product is Greige Blends, sold in one-liter buckets.

The marketing department has conducted an extensive market demand study and established the following demand function for Greige Blends:
$P = 2,400 - 3Q$, where P is the selling price in FRW and Q is the quantity demanded in thousands of buckets per month.

The Finance Manager has provided the following cost information for the blend division:

Items	Details
Raw materials (Acrylic, Vinyl-Acrylic Resins (Binders) and Water	FRW320 per bucket (variable)
Packaging materials	FRW 80 per bucket (variable)
Direct labor	FRW 150 per bucket (variable)
Variable factory overhead	FRW 50 per bucket (variable)
Fixed production overhead	FRW 18 million per month
Fixed selling & admin overhead	FRW 6.5 million per month

The company currently applies a pricing policy based on a 35% mark-up on total variable cost. However, concerns have been raised that this cost-plus approach may not maximize profits. The Production Manager has therefore proposed adopting a marginal cost pricing approach, and the Board believes that profit would be maximized when marginal revenue (MR) equals marginal cost (MC), providing a more appropriate basis for pricing and output decisions.

Required:

a) **Calculate the following variances for NPL for the year ended 2025, showing clearly all workings:**
i) Sales price variance (2 Marks)
ii) Sales volume contribution variance (2 Marks)
iii) Market size variance (2 Marks)
iv) **Market share variance** (2 Marks)

b)
i) Advise the NPL Blend Division on the optimal output level and selling price for Greige that maximize profit, and quantify the corresponding maximum monthly profit. (7 Marks)
ii) Calculate the selling price and monthly profit under the current mark-up pricing policy (35% on total variable cost) and compare with (i) assuming the division produces at the same quantity as in (b)(i). (6 Marks)
c) Explain the difference between corporate objectives and unit objectives, and discuss TWO reasons why unit objectives may conflict with the corporate objectives of NPL. (4 Marks)
(Total: 25 Marks)

QUESTION FOUR

Network Partners Consulting (NPC) is a management advisory firm specializing in performance management services across Rwanda and the East African region. NPC has been engaged jointly by two business associates Mr. Pacifique Ndayisaba and Mr. Emmanuel Habimana, who each own and manage a separate organization facing distinct but interconnected performance management challenges. Both clients have agreed to engage NPC jointly to share the cost of a comprehensive review. NPC's senior partner has assigned you as lead consultant and has asked you to prepare a single integrated report covering the specific issues raised by each client together with a cross-cutting advisory memo on the impact of information technology on performance management systems a matter relevant to both organizations.

CLIENT 1: Ruhande Telecom Infrastructure Ltd

Ruhande Telecom Infrastructure Ltd owns and operates diesel-powered backup generators installed at mobile network tower sites across Rwanda the cost of capital stands at 15% p.a. Each generator is leased to a major telecommunications operator under a long-term fixed site agreement and the annual site rental income is the company's primary revenue stream.
Mr. Pacifique Ndayisaba, founder and Chief Executive Officer plans to retire in exactly five years and is only concerned with managing the company's assets for that remaining period. He has been deliberating over whether it is more cost-effective to replace each generator every year or to hold and operate each generator for the full five years before replacing it. He has not been able to arrive at a decision and has formally requested NPC's financial analysis.
The following data has been estimated for a single generator unit (all values at today's price levels):
Annual income and operating costs per generator
Annual site rental income from the telecom operator FRW 24 million
Annual fuel, lubricants, monitoring costs FRW 9 million

Capital costs	FRW (Million)
Cost of a new generator unit	30
Residual (disposal) value after one year of use	20
Residual (disposal) value after five years of use	4

Maintenance and repair costs depend on the age of the generator. Year 1 is the first full year after the generator is commissioned:

Period	Maintenance and repair cost
Year 1	600,000
Year 2	2,400,000
Year 3	5,500,000
Year 4	9,000,000
Year 5	14,000,000

- Generator purchase costs and residual values are expected to increase by 8% per year.
- Annual site rental income and annual operating costs are both expected to increase by 6% per year.
- Maintenance and repair costs are expected to increase by 13% per year.

CLIENT 2: Kanombe Healthcare Trust (KHT)

Kanombe Healthcare Trust (KHT) is a not-for-profit organisation providing community health services across three districts of Rwanda. It is funded primarily through government grants and donor contributions. The Finance Manager, Mr. Emmanuel Habimana, has historically prepared the annual expenditure budget by taking the prior year's actual figures and adjusting each line for an estimated inflation rate. The board of trustees has never formally questioned this approach.
The following extract is taken from the budget prepared by Mr. Habimana for the year ending 30 June 2026:

Expenditure Budget Line	Actual Y/E June 2025 FRW	Inflation Rate	Budget Y/E June 2026
Staff salaries	186,000,000	3%	191,580,000
Medical supplies	64,000,000	5%	67,200,000
Facility maintenance	38,000,000	4%	39,520,000
Training & development	12,000,000	3%	12,360,000
Administration & IT	22,000,000	3%	22,660,000
Community outreach	9,000,000	3%	9,270,000
TOTAL	**331,000,000**		**342,590,000**

Notes to the Budget:

1) Staff Salaries: including in staff salaries FRW 18 million related to a salary supplement paid to three specialists engaged on a one-off government research contract that ended in March 2025. These specialists will not be replaced but 3% cost of living increase will be awarded to all permanent staff effective from 1st October 2025.
2) Medical Supplies: FRW 9 million of the FRW 64 million related to emergency procurement of PPE during a disease outbreak in 2025. No such outbreak is anticipated in 2026. Core recurring medical supplies are expected to increase by 5% in line with pharmaceutical price increase.
3) Facility Maintenance: FRW 11 million of the facility maintenance was a non-recurring cost for emergency roof repairs at the Kanombe main clinic following storm damage. These will not recur. Routine maintenance is expected to increase by 4%.
4) Training & Development: a new mandatory clinical competency certification programme is being introduced by the Rwanda Ministry of Health from January 2026 at an estimated additional cost of FRW 4,200,000 over and above the inflation-adjusted base.

Cross cutting issue

During NPC's initial meetings with both clients, a common theme emerged: the transformative role of information technology in management accounting and performance measurement. Mr. Ndayisaba mentioned that Ruhande is evaluating investment in an automated real-time asset monitoring platform that would collect operational data from all generator sites nationwide. Mr. Habimana acknowledged that KHT's budgeting and reporting processes remain entirely manual, with monthly reports produced up to two weeks after each period-end.
NPC's senior partner has observed that developments in IT including cloud computing, big data analytics, the Internet of Things (IoT), robotic process automation (RPA), and artificial intelligence have fundamentally changed what is possible in management accounting and performance measurement. She has asked you to advise both clients on this matter as part of your report.

Required:

a) **Advise Mr. Pacifique Ndayisaba on the most economically optimal time to undertake the replacement and determine the Net Present Value of the opportunity cost arising from wrong decision.** (12 Marks)

b) **Evaluate the expenditure budget for Kanombe healthcare trust for the year ending 30th June 2026.** (9 Marks)

c) **Discuss the impact of automation to the client and how it may affect their performance management.** (4 Marks)

(Total: 25 Marks)

End of Question Paper.

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