CERTIFIED PUBLIC ACCOUNTANT

ADVANCED LEVEL 2 EXAMINATIONS

A2.2: STRATEGIC PERFORMANCE MANAGEMENT

DATE: THURSDAY 28, AUGUST 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. Show all your workings where necessary.
7. The question paper should not be taken out of the examination room.

SECTION A

QUESTION ONE

Bufundu Investment Group is a conglomerate that has been operating in Rwanda for over two decades. It is governed by an active board of directors and aims to establish and manage companies across various sectors, including tech manufacturing, health agriculture and mining. Currently, the group owns two companies. At group level, there some employees in different functions who are responsible for the effective management of group's companies. Currently Bufundu Investment Group only runs Buganza Tech Ltd**,** which specializes in technology-related manufacturing and One Stop Care Wellness Co (OSCW Co) which offers health related services. Expansion into the other sectors is planned for the near future.

Buganza Tech Ltd

Buganza Tech Ltd is a fast-growing Rwandan technology manufacturing company specializing in the production of smart devices, including smartphones, smart home gadgets and IoT solutions for agriculture. Established in 2005, the company has rapidly expanded its operations across East Africa, competing with both local and international firms. Over the past decade, Buganza Tech Ltd. has developed and marketed three main types of IoT equipment, capturing the hearts of consumers and securing over 42% of the market share in Rwanda, the region and beyond. However, the recent entry of numerous tech companies into the market has led to a significant decline in the company's market share.

Cost and overheads allocation system

In response to these competitive pressures, the company's management has made substantial investments in advanced manufacturing technologies. As a result, Buganza Tech Ltd. has shifted from labour-intensive to capital-intensive production methods, leading to a considerable reduction in its workforce. To remain competitive and responsive to the evolving tastes and preferences of customers, the company has also strengthened its Research and Development department, positioning itself for innovation and long-term sustainability.

Historically, the company has allocated all production overhead costs using total machine hours basis. It is now three months since the company hired the new Senior Management Accountant who advocated the change from the traditional method of allocating overheads and start to adopt the Activity Based costing (ABC). The senior accountant has produced the following cost and production analysis.

Details/Product	**AX412**	**BY132**	**CZ987**
Labour Hours per unit	1	3	2
Machine hours per unit	3	2	6
Material cost per unit-FRW	800	480	1,000
Production-units	30,000	50,000	280,000
Direct labor cost per hour-FRW	250	250	250

In preparation for changing to the Activity Based Costing system, by the help of a newly hired Senior Management Accountant, the company has recorded the following cost drivers for the three products over the month's production.

Activities (Cost Pool)	Cost Drivers	Products		
		AX412	BY132	CZ987
Materials handling costs	Number of requisitions	600	900	3,980
Machine set-up costs	Number of set-ups	100	170	700
Inspection costs	Number of inspections	1,200	1,500	5,360

The company's productions overheads are normally absorbed on a machine hour basis. The rate of absorption for the month of March 2025 was accurately calculated as FRW 500 per machine hour. Further analysis shows that the total production overheads can be divided in the following categories:

Fixed Costs details	Percentage (%)
Costs relating to set-ups	20
Costs relating to machinery	40
Costs relating to materials handling	15
Costs relating to inspection	25
Total production overheads	100

Benchmarking exercise

In response to the increasing competitive pressures facing the company, a joint meeting of the Group and Company boards was convened last week. One of the key agenda items was to discuss strategic measures to ensure the company maintains its market leadership despite the growing and intense competition. Currently, the company lacks a clear understanding of its standing at the national, regional, and international levels, making it difficult to conduct meaningful comparisons and internal evaluations. Furthermore, the company has struggled to implement certain changes that could have enhanced its efficiency and effectiveness.

Recently, the CEO attended a leadership seminar held in Musanze, where several topics particularly benchmarking were explored in depth. Following the seminar, she also visited an exhibition where she observed that some of the company's operations are carried out at relatively higher costs compared to competitors. This inefficiency was largely attributed to the lack of cross-functional learning and teamwork. Motivated by the insights gained, the CEO is now committed to adopting and applying the lessons learned from the seminar to drive positive change across the organization.

Budget and budgetary control in smartphones

Buganza Tech Ltd also makes environmentally friendly smartphones through smartphones production unit using four basic ingredients namely material 1, material 2, material 3 and material 4. The standard cost card for one smartphone for the month of March as extracted from the company's management accounts was as follows:

Material	Kilograms of materials	Price per kilogram-FRW
Material 1	0.25	2,500
Material 2	0.6	1,200
Material 3	0.5	6,150
Material 4	0.15	2,200

The budget for production and sales in the month of March was 120,000 smartphones, while the actual production and sales were 136,000 smartphones. The actual ingredients used for material 1, material 2, material 3 and material 4 were Kg 34,080, Kg 83,232, Kg 72,000 and Kg 20,000 respectively.

The following costs data were also extracted from Buganza Tech Ltd unit which produces single model smart home gadgets in its one overseas factory branch. For control purposes, a standard costing system was recently introduced. The standards set and the actual results for the month of May as extracted from the most recent management accounts were as follows:

Standards set for the month of May were as follow:	
Production	17,200 units
Budgeted Sales	17,200 units
Selling Price per Unit	FRW 1,400
Material:	
Material 001	6 Kilograms per unit at FRW 122.5 per Kilogram
Material 002	3 Kilograms per unit at FRW 32 per Kilogram
Labour	4.5 hours per unit at FRW 84 per hour
Monthly Fixed Overhead	FRW 7,612,800
The actual data for the month of May is as follows:	
Production	16,400 units
Sales	16,400 units
Selling price per unit	FRW 1382.5
Material used:	
Material 001	98,560 Kilograms costing FRW 12,566,400
Material 002	42,350 Kilograms costing FRW 1,329,790
Labour	Paid an actual rate of FWR 86.5 per hour to the labour force. The total amount paid out, amounted to FRW 6,127,650.
Fixed Overhead	FRW 8,266,400

Note that Buganza Tech Ltd uses marginal costing system.

The One Stop Care Wellness Co (OSCW Co)

OSCW Co offers a range of services for health-conscious individuals at its 55 wellness centres across the country. The health and wellness industry are highly competitive in all regions, with many centres vying for client loyalty. Each wellness centre operates autonomously, allowing managers to design and package the services they offer based on local preferences and trends. OSCW Co's mission is to 'make taking care of your health a joy, not a burden.'

Its website promotes a variety of wellness packages, including express health checks and full relaxation therapy, a rejuvenate while you wait' experience, with average sessions lasting only two hours, watch our friendly, certified wellness professionals delivering high-quality treatments, freshly brewed herbal teas, organic snacks, and free Wi-Fi in peaceful, spa-like lounges, entry into a monthly wellness gift draw for clients who complete an online feedback form. Clients initially visit the national OSCW Co'website, but are automatically redirected to the site of their nearest wellness centre based on location, where they can view centre-specific offers and packages. All appointments are booked through the OSCW Co online platform.

The following information are to be considered along with those provided in the appendix 1:

1. Wellness professionals are classified as senior therapists if they have been certified and practicing for more than five years.
2. Junior therapists include both trainee wellness staff who are not yet certified and those who have been qualified for less than five years.
3. The Beyond Services Centre (BSC) introduced three new wellness packages during the year: Free aromatherapy add-ons for sessions booked over FRW 100. A comprehensive wellness check at only FRW 20 (usually FRW 40) for all clients booking a full-body massage. A FRW 10 detox consultation, normally priced at FRW 20, for all clients booking a nutritional session. These three new wellness packages generated revenues of FRW 66,000, FRW 58,000, and FRW 54,000 respectively. Two similar new packages introduced by other wellness centres generated FRW 44,000 and FRW 42,000 in revenue.

4. The online feedback form invites clients to rate their experience on a scale of 1 to 10, with 10 indicating the highest level of satisfaction**.**

Appendix 1: OSCW's Financial Performance in relation to other service centre

Description	**Notes**	**BSC**	**OSCW Average**
Sales-FRW		760,500	890,365
Cost of Sales-FRW		456,300	562,219
Gross Profit-FRW		304,200	328,146

Appendix 2: Other OSCW's Performance metrics in relation to other service centre

Description	**Notes**	**BSC**	**OSCW Average**
Sales-FRW		760,500	890,365
Cost of Sales-FRW		456,300	562,219
Gross Profit-FRW		304,200	328,146
Number of senior therapists	1	7	8
Number of junior therapists	2	5	6
Number of new services developed	3	3	2
Number of website visit		14,000	18,260
Total number of jobs booked and completed		9,506	11,870
Number of jobs from repeat customer only		1,500	1,660
Time spent completing jobs (hours)		23,100	24,800
Percentage of customer feedback forms showing score 9 or 10	4	80%	70%

The management of OSCW currently focuses heavily on meeting annual budgets and controlling costs, but there is little integration of long-term value drivers into daily operations. Decision making remains highly centralized and performance is measured based on accounting profits rather than economic value added (EVA) or return based metrics. To reposition itself as a performance-driven company and enhance shareholder value, the CEO is considering the adoption of Value Based Management (VBM) after hearing this in a CEO forum convened in Rubavu district in last two weeks**,** the panellist emphasized that: the Value Based Management shifts performance measurement from being accounting driven to being management driven. But the key challenge is how to translate this strategic concept into practical tools, culture change, and performance systems that will work across OSW's departments

Required:

a) For each product of Buganza Tech Ltd, **compute the cost per unit using conventional product costing and activity-based costing (ABC) system** (14 Marks)

b) **Advise how the adoption of benchmarking will be of the benefits to Buganza Tech Ltd** (5 Marks)

c) For the smartphones production unit of Buganza Tech Ltd, **calculate the total material mix and the total material yield variances for the month of March.** (6 Marks)

d) For the smart home gadgets unit of Buganza Tech Ltd**, calculate on all relevant variances** (8 Marks)

e) For each of the dimensions of the building block model**, calculate one performance indicator for BSC and one for the OSCW average using the data available. Briefly discuss BSC's performance relative to the other OSCW service centres.** (13 Marks)

f) **Support the statement made by the panellist emphasizing on key principles of VBM in performance management and measurement perspectives.** (4 Marks)

(Total: 50 Marks)

SECTION B

QUESTION TWO

Murasanyi Manufacturing Co (MMC) is a manufacturing company operating in Kigali Special Economic Zone (KSEZ) for 10 years specializing in high quality wooden furniture for domestic and export markets including beds, chairs and tables. MMC had been experiencing the issues of handling risks and uncertainties while forecasting and in budgetary control where due to dramatic changes in the economic condition which are seen to be very hard to predict. MMC also faced the issue of optimizing, efficiently and profitably allocating the available and scarce resources and the issue in setting prices of its products. The CEO highlighted that she failed to believe that the current products prices are accurately determined. Recently it was decided to hire a Management Consultant to help MMC to solve three key and long-outstanding performance management issues which have been there for so long. These have been highlighted in below described exhibits.

Resources scarcity and the optimum production plan

In this financial year, MMC won different tenders which were mainly to supply tables, beds and chair to different public and private nursery, primary, secondary schools and universities in Kigali and in different districts. In coming month of September, MMC expects a very high demand from public and private nursery, primary, secondary schools and universities as it will be the schools 'opening of the new academic year of 2025-2026.

In the coming month of September, MMC expects the following orders to make tables, beds and chairs.

School Name	Table	Bed	Chair
Abeza & Sons Nursery and Primary school-Units	400	320	240
Gasabo Secondary School-Units	180	220	-
Nyarugenge Institute of Political Science-Units	500	120	75

Except, Abeza & Sons Nursery and Primary school related order which cannot be avoided or cancelled due to penalty clause in the signed contract and the potential future market expected from the same school, other tenders can be reduced or avoided if need be.

From the MMC's standard cost card, the following are the unit cost structure along with the total resources available for materials and total labour hours used in production process:

Description	Table	Bed	Chair	Total available resources
Material				
Woods-meters	1.5	2	1	4,000
Metallic bars-cubic meters	2	3	1.5	5,000
Labour				
Skilled-hours	3	5	4	6,000
Unskilled-hours	6	9	7	26,000

The following are cost and selling price related data to be considered during production

Description	Table	Bed	Chair	Total
	FRW	FRW	FRW	FRW
Unit Selling Price	70,000	140,000	28,000	
Cost related data				
Material cost				
Woods- per meter	17,500	16,000	9,600	
Metallic bars- per cubic meter	11,000	14,500	5,800	
Labour cost per hour				
Skilled	1,200	2,500	550	
Unskilled	350	1,000	250	
Other variable costs per unit	600	1,450	675	
Other information				
Total period fixed costs-FRW				2,580,000

Pricing related decisions

Over the past year, MMC has encountered heightened competition from low-cost regional and international manufacturers, as well as mass-produced modular furniture brands offering lower prices and faster delivery. Attracted by the strong profit potential in this sector, numerous new entrants have adopted aggressive price penetration strategies to capture greater market share. This trend poses a significant threat to MMC's profitability in the coming years.

MMC's reliance on traditional craftsmanship and high-grade teakwood contributes to its premium pricing. However, without a strategic response, the company anticipates a 15% decline in sales over the next two quarters, as more consumers are likely to shift toward more affordable alternatives. In light of this, management is now evaluating adjustments to its pricing strategy and exploring ways to remain competitive without diluting the brand's value proposition.

Handling risk and uncertainties

Murasanyi Manufacturing Co is considering launching a new product (the production of hotel VIP sofas). The research and development team has made an extensive and comprehensive market research to assess its feasibility and the expected perception in the marketplace. As a result, three possible demand scenarios with equal probabilities of occurrence for the first year were elaborated, each with an associated probability and projected financial data.

1. Expected sales quantity for high, medium and low demand scenario are 5,000 units, 3,500 units and 2,000 units respectively.
2. MCC sets the unit price at FRW 200,000. It is expected to remain unchanged irrespective of differing demand scenario
3. Contribution to sales ratio is constant at 20% and it is assumed to be constant,
4. The incremental fixed costs in respect of this production are expected to be FRW 98 million which will also not be depending on demand conditions and scenarios. To pursue this project, the company must invest FRW 150 million upfront, which is non-recoverable, and is not included in the costs and profit figures presented above.

Required:

a) **Compute the optimum production level of bed, chairs and tables** (13 Mark)
b) If a competitor reduces its prices in expectation to gain market share**, discuss FOUR strategic options available to MMC in response** (4 Marks)
c) **Advise if MCC should undertake the new project based on expected value analysis?** (8 Marks)

(Total: 25 Marks)

QUESTION THREE

a) Rukumberi Airways was once Rwanda's premier full-service airline, commanding over 60% of the domestic market share. Known for quality service and extensive international routes, the airline was a leader in the Rwandan aviation sector during the early 2000s. In April 2019, Rukumberi Airways ceased operations due to insolvency. It failed to pay its creditors, employees, and leasing companies, marking one of the largest failures in Rwanda and region's aviation history. A revival bid is ongoing, but the brand's credibility remains deeply damaged. The failure was mainly caused by the failure to ensure organizational objectives whereby Rukumberi Airways lacked a cohesive long-term vision. Aggressive international expansion and price wars with low-cost carriers like RwaGo diluted its premium brand. Its objective of sustaining profitability was never clearly translated into operational strategy.

In addition, Rukumberi Airways experienced a lack of compelled planning. This was because company's leadership failed to anticipate rising fuel costs and increasing debt burdens. No contingency planning was in place, and the acquisition of Air Rugobagoba in 2007 proved to be a strategic blunder without clear integration planning. Failure to effectively communicate ideas and plans prompted Rukumberi Airlines to suffer from poor internal communication between departments. Employees were often unaware of management's changing priorities. Critical information around cost-cutting and restructuring never reached operational teams effectively. Multiple business units operated in silos, and there was minimal coordination between flight operations, customer service, and finance. This led to scheduling conflicts, under-utilization of fleet, and chaotic service delivery. All these issues were attributed to the poor coordination of activities.

Absence of responsibility accounting mainly due to there was no structured performance evaluation tied to responsibility centers. Department heads weren't held accountable for financial targets or service KPIs, leading to unchecked spending and underperformance. Internal control systems of Rukumberi Airways were weak, particularly in financial reporting and procurement. Auditors highlighted irregularities, and the company lacked a real-time dashboard to monitor performance indicators. Over the years, the company failed to motivate employees with salary delays, poor communication, and mass layoffs, employee morale plummeted. The company's workforce became disengaged, resulting in declining service quality and frequent strikes.

Required:

Briefly discuss FIVE ways in which the use of budget and budgetary controls should have saved Rukumberi Airlines from insolvency. (5 Marks)

b) The managing partner of Biryogo Music Box Fabricators has become aware of the disadvantages of fixed budgets. She asks you to prepare a flexible budget for the month of October 2025 for the

main style of music box. The following partial data are available for the actual operations in August 2025 which is a recent typical month:

Boxes produced and sold	4,500
Direct material costs-FRW	900,000
Direct manufacturing labour costs-FRW	675,000
Depreciation and other fixed manufacturing costs-FRW	507,000
Average selling price per box-FRW	700
Fixed marketing costs-FRW	81,350

The following additional information should be considered:

1. The company has no opening or closing inventory of music boxes,
2. A 10% increase in selling price is expected in October 2025,
3. The only variable marketing cost is a commission of FRW 55 per unit paid to the manufacturer's representatives, who bear all their own costs of travelling, entertaining customer, etc…
4. A patent royalty of FRW 20 per box manufactured is paid to an independent design firm.
5. Salary increases that will become effective in October 2025 are FRW 120,000 per year for the production supervisor and FRW 150,000 per year for the sales manager.
6. A 10% increase in direct materials prices is expected to become effective in October 2025.
7. No changes are expected in direct manufacturing labour personnel.
8. The company uses a normal costing system and does not have standard costs for any of its inputs.

Required:

Prepare a flexible budget for October 2025, showing budgeted amount at each of the two output levels of music boxes: 4,000 and 6,000 units. (9 Marks)

c) Burera Best Juice Ltd is a company operating in Burera district which produces high quality juices. The company produces two types of juices which are very known in the northern part of Rwanda plastic cups and plates using same raw materials, quality of labour and machines types. From the standard cost card, to produce one unit of cup, two kilograms of raw materials, 2 direct labour hours and 3 machine hours are used while to produce one unit of plate, 3 kilograms of raw materials, 4 direct labour hours and 5 machine hours are used. It was determined that each week, Burera Best Juice Ltd has access to 6,000 kilograms, 3,500 direct labour hours and 4,200 machines hours which are available to be used in production of cups and plates. The company's management accountant has accurately established that the company generates a per unit contribution of FRW 2,000 and FRW 1,600 for cup and plate respectively.

Required:

Using the simplex method of linear programming**, Formulate the objective function, establish related constraint and draw up the initial simplex tableau for Burera Best Juice Ltd**

(11 Marks)

(Total: 25 Marks)

QUESTION FOUR

A new battery will be manufactured on a machine currently owned by Kayonza Manufacturing Company, which was previously used for a product which has now been discontinued. Maximum demand for this new battery would be 262,500 units. The management accountant estimates that every 1,000 units will take 14 machine hours to produce. The annual machine hours and maintenance costs for the machine for the last four years have been as follows:

Years	Machine time(hours)	Maintenance costs in FRW
Year 1	5,000	850,000
Year 2	4,400	735,000
Year 3	4,850	815,000
Year 4	1,800	450,000

Note that maintenance costs have both fixed and variable costs components.

Kayonza Manufacturing Company (KMC), a mid-sized Rwandan firm specializing in the production of batteries and mechanical components. Kayonza Manufacturing Company needs to calculate a new standard cost for one of its products. When the product was introduced, the standard direct material is 20 kilograms per unit of FRW 3,000 each kilogram. The new product also requires 24 hours of direct labour which is normally paid at a rate of FRW 2,800 per direct labour hour and it requires 15 hours of variable overheads per unit which is paid at a rate of FRW 2,500 per hour. During the following year a 80% learning curve was observed. The cumulative production at the end of the third quarter was 50 units and the budgeted production for the fourth quarter is 20 units.

In a bid to improve strategic alignment, transparency, and performance monitoring, KMC introduced the Balanced Scorecard (BSC) across its departments in early 2025. While the leadership embraced the BSC framework as a strategic tool, the implementation process revealed a range of practical challenges. Different departments proposed KPIs that conflicted with one another. For example, the production unit prioritized output quantity (efficiency), while the quality control team emphasized defect reduction (effectiveness), creating tension and misaligned targets. There was no integrated system to collect real-time data on non-financial indicators such as employee learning or customer satisfaction. Manual tracking was time-consuming and prone to errors. Some employees perceived the BSC as a performance surveillance tool, rather than a strategic enabler. This led to passive resistance, particularly among long-tenured staff who were used to informal reporting.

Many staff members lacked basic knowledge of KPIs and strategic measurement tools. Departments required tailored training to understand the BSC's purpose and how to use it effectively in daily operations. KMC's legacy ERP system was not designed to track non-financial metrics. Integrating BSC dashboards required additional investment in software upgrades and consulting support. Identifying the right performance indicators for some areas like innovation or employee morale was difficult. Many KPIs initially selected were vague, subjective, or not directly linked to strategic goals. KMC did not initially have internal BSC experts. External consultants were hired to guide the process, but dependency on them slowed internal ownership and learning. Even after data was collected, managers found it hard to interpret some results. For instance, a drop in employee turnover was viewed positively by human resources, but raised concerns about stagnation and lack of innovation from the R&D team.

KMC’s experience with the Balanced Scorecard revealed that successful implementation requires more than just selecting KPIs. It demands cultural change, staff training, system integration, and ongoing

leadership support. Despite early setbacks, the company is now investing in internal balanced scorecard champions and refining its performance framework for better alignment and results.

Required:

a) **Calculate the estimated maintenance costs for production of the battery at 80% maximum demand.** (7 Marks)
b) **Calculate the standard cost per unit for the fourth quarter assuming 80% learning curve** (4 Marks)
c) **What is the standard cost per unit for the fourth quarter assuming the learning curve had reached a steady state i.e. peak efficiency was reached after the 50th unit was produced?** (5 Marks)
d) As a performance management consultant**, assess the challenges faced by KMC in implementing the Balanced Scorecard as a performance management tool** (9 Marks)

(Total: 25 Marks)

End of Question Paper