

# **CERTIFIED PUBLIC ACCOUNTANT ADVANCED LEVEL 2 EXAMINATIONS A2.2: STRATEGIC PERFORMANCE MANAGEMENT DATE: THURSDAY 24 AUCUST 2023**

# DATE: THURSDAY 24, AUGUST 2023

# **INSTRUCTIONS:**

1. Time Allowed: 3hours 45minutes (15minutes 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

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## SECTION A

### **QUESTION ONE**

Karekezi Holdings Ltd (KHL) is a company that was established in 2020 in the city of Kigali, dealing in super market business and the manufacturing of wheel barrows to which it sells to its southern province customers. The wheelbarrow's life expectancy is about five years and the Management Accountant, Deo Musoni is of the view that the company should use life cycle costing to determine its selling price which is estimated at FRW 600 per unit; nonetheless, the Chief Finance Officer (CFO) argues that this price may not cover all the costs throughout the wheelbarrow's lifecycle instead they would rather use Activity Based Costing (ABC) as it provides a better basis for cost apportionment. Besides ABC, will help KHL to trace its overhead incurred on each wheel barrow by identifying each cost driver thereby providing a more accurate pricing decision.

To further support the Management Accountant's suggestion of Lifecyle costing, he reiterated on the bottlenecks with the usage of ABC by expounding on the difficulties which KHL may encounter upon implementation of ABC to include complexity and costly, technology required, time and KHL size to mention but a few. Deo also shared some data that had been collected in a recent survey regarding the wheelbarrows business. The report indicated that in the first year of the product launch, KHL will be incurring losses, and only profits shall start to emerge in the subsequent year, though KHL will need to do a lot of marketing as more players will have entered into the market towards the third year requiring the company to devise strategies mitigating the impact of declining sales in the fourth year. If nothing is done, then the product will require withdrawal from the market.

When the Chief Executive Officer heard this, he became so much concerned as he expected that, at last the issues that they were encountering are finally getting to an end, as he was the only one running all KHL operations, yet the company has an operations Manager. The CFO explained that the issues confronting them have nothing to do with the costing method being used. He gave an example that the two ISIMBI supermarkets owned by KHL where one is located in Nyamirambo and another in Remera; are just characterised by poor customer service and several clients have already expressed their dissatisfaction. Recent internal research indicated poor quality products especially groceries and vegetables, most inventories never get recorded and some get missing, both supermarkets are opened late as a result of prolonged cleaning hours, long queues at the counters, among many other challenges. 'I think KHL should consider reengineering its business processes along with implementation of ABC.' the CFO emphasised.

In the next board meeting, some of the issues were discussed and the CEO vowed to get everything in order including some rumours of an ethical behaviour in KHL. The board chair was so much concerned with the level of integrity and ethical behaviour within KHL and he requested the CEO to explain to the board the circumstances around such an allegation. He explained that recently, the Director of Marketing, James Habineza was given three million Rwandan francs (FRW 3 million) by one of the company's main customers to thank him for the support he rendered to them while purchasing the 300 wheelbarrows; to which he gladly accepted. Upon receipt of the news, the CEO called him in his office and accused him of accepting to take a bribe. 'At your level, you should not be receiving money or any other benefit from the people you are meant to serve owing it to a thank you gesture; if we do not have strong

2 Araugust2023 icparaugust2023 icparaugust2023 icparaugust2023 icparaugust2023 ici**Page 2:0f 11** 2 paraugust2023 icparaugust2023 icparaugust2023 icparaugust2023 icparaugust2023 icparaugust2023 2 paraugust2023 icparaugust2023 icparaugust2023 icparaugust2023 icparaugust2023 icparaugust2023 icparaugust2023 ethics how can people trust us, he stressed. James still insisted that he believes this does not tantamount to a conflict of interest as he did not request for this money. 'It was offered to me at will' he emphasised. Trying to check what KHL talks about conflict of interest and corruption, there was nothing as KHL does not own any code of conduct which would serve as a basis to punish James.

The Board Chair strictly requested management to develop and share a code of conduct for all the company staff since it offers several benefits. He reiterated that imposing of social and ethical responsibilities on management should come from within the organisation itself and thus requested that an integrity-based approach is adopted. The expected cost of the wheelbarrow is as follows:

2 Particulus 2023 ICPARAUGUST2023 ICPARA 29 ICPARAUGUST2023 ICPARAUGUST2023 ICPARA	Year 1 <sup>23 ICP</sup>	Year 2	Year 3	Year 4	Year 5
23 ICPARAUGUST2023 ICPARAUGUST2023 ICPARA 23 ICPARAUGUST2023 ICPARAUGUST2023 ICPARA	$\mathbf{FRW}_{023\mathrm{ICP}}^{023\mathrm{ICP}}$	FRW <sub>ST20</sub>	FRW	FRW ICPA	$\mathbf{F}_{\mathbf{R}}^{\mathbf{R}}$
23. CPARALGUST2023 ICPARAUGUST2023 ICPARA 2. <b>Marketing:costs</b> icparaugust2023 icpara	85,000	40,000	120,000	130,000	150,000
Research and Development Costs	2,500,000	300,000	240,000	200,000	RAUGUST2023 IC RAUGUST2023 IC
Production cost per unit UST2023 ICPARA	UGUST20 <b>300</b> P	RAUGI <b>520</b> 0	23 ICPA 380	UST202 <b>410</b> A	RAUGUST2450
Customer service costs per unit	UGUST2023 <b>30</b> P UGUST2023 <b>30</b> P	ARAUGUS <b>15</b> 0 ARAUGUS120	23 ICPAR 40 23 ICPAR 40G	UST2023 <b>45</b> A UST2023 16PA	RAUGUST20 <b>50</b> 10 RAUGUST202310
Disposal of the equipment cost	UGUST2023 ICP. UGUST2023 ICP.	ARAUGUST20 ARAUGUST20	23 ICPARAUG 23 ICPARAUG	JST2023 ICPA JST2023 ICPA	1,000,000
Units manufactured and sold 23 ICPARA	35,000	20,000	18,000	15,000	RAUGUS <b>9,000</b>

#### **Required:**

a) i) Under Life cycle costing, calculate the cost attributable to each wheelbarrow (3 Marks) ii) How much profit will Karekezi Holdings Ltd earn per wheelbarrow (1 Mark) iii) Advise the Chief Finance Officer the best course of action for Karekezi Holding Ltd in regard to the management accountant's view (1 Mark) b) Describe two approaches to the management of ethics within KHL as suggested by board chair (4 Marks) c) KHL is considering re-engineering its processes; examine the features that would indicate a re-engineered process in reference to ISIMBI Supermarkets (6 Marks) d) Merely developing a code is never considered sufficient: demonstrate the impact of developing and implementing a code of conduct at Karekezi Holdings Ltd. (10 Marks) e) The management accountant of KHL opined on the need to deploy life cycle costing in determining the selling price of the wheelbarrows: with vivid examples on each stage, explain to him the five stages of a product life cycle. (10 Marks) f) What are some of the implications of life cycle costing on pricing, performance managemnet and decision making. (4 Marks) g) The Chief Finance Officer insists that KHL should implement Activity Based Costing (ABC) methodology as it is perceived to be superior to other traditional costing methods: discuss five advantages and five disadvantges of diploying an ABC methodology at KHL. (10 Marks) (Total: 50 Marks) Page 3 of 11

# SECTION B

## **QUESTION TWO**

Pablo & Sons Co Ltd is a management consulting company legally registered and operating in Rwanda. Its services include, corporate governance advisory, financial management, business management, human resources management and IT consulting. It is equipped with state of art tools and techniques along with dedicated professionals to evaluate potential opportunities and risks delivering effective business consulting services to its different clients across the country.

Recently, Pablo & Sons Co Ltd has been competitively awarded two contracts, the first one is from **High-Definition Technology company (HDT Co) Ltd** a company known in the region for manufacturing best quality telephones and Computers. Currently the company operates in the city of Kigali and it is considering to open up another branch in Musanze district which is in Northern part of the country.

Many businesses in Musanze have been closed due to economic slowdown to the extent many have closed their doors, buildings in Musanze have empty stores which are relatively cheap to rent. Furthermore, landlords who once required high rents and long leases are increasingly willing to offer these stores a relatively short fixed term lease. This sector in Musanze advertises extensively using different means including social media, newspapers, radio and televisions and continually stress their future expansion plans.

By entering to Musanze market, HDT Co Ltd will be specializing in receiving customers' order online and deliver the orders through their homes and offices. HDT Co Ltd will be renting the shops along the high street nearby the chain of different businesses where customers will easily access its products. HDT Co Ltd will be offering its customers after sales services including free delivery, one year warranty, etc...

There are many conventional chains of telephone and computer retailers operating in Musanze, recently they also have adopted the same business model of delivering goods to customers' premises. In general, the large chains retailers largely compete with each other.

Many retailers also have internet-based home ordering systems, offering deliveries to their customers who are unable or unwilling to visit the shops. Revenues and costs in Musanze branch are expected to be identical to that of Kigali branch including an additional cost of FRW100 million to acquire equipment which is expected to last a one year with zero residual value. Opening the new division will have no effect on corporate office costs.

As a financial management consultant at Pablo & Sons Co Ltd, you have been provided with the following forecasted financial information from company's activity-based costing system regarding the year of 2021 of existing Kigali branch.

23 IDetails UST 2023 ICPARAUGUST 2023 ICPARAUGUST 202	23 ICPARAUGUST 2023 ICPARAUGUST 203 ICPARAUG	UST2023 ICPARCOMPUTERIC
Unit Selling Price FRW US12023 (CPARAUGUS120)	23 ICPARAUGUST2023 <b>125,000</b> 23 ICPARAUGUST2023 <b>125,000</b>	15T2023 ICPARAU 200,000
Expected quantity to be sold	$23 \text{ ICPARAUGUST} 2023 \text{ ICPARAUUGUST} 2023 \text{ ICPARAUUGUST} 2023 \text{ ICPARAUUGUST} 2023 \text$	UST2023 ICPARAUGU 5,000
Unit Variable cost FRWUST2023 ICPARAUGUST202	23 ICPARAUGUST2023 1 <b>75,000</b> G	JST2023 ICPARAU( <b>105,000</b> )
A ICPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUST20	23 ICPARAUGUS I ZUZ3 ICPARAUG	UST 2023 ICPARALITUST 2023 IC

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The following are the other costs to be considered:

23 TOPARAUGUS 12023 TOPARAUGUS 12023 TOPARAUGUS 12023 23 <b>Details</b> GUST2023 ICPARAUGUST2023 ICPARAUGUST2023	ICPARAUGUST 2023 ICPARAUG	UST2023 ICPARAOGOS 12023 IC UST2023 ICPAR Computer IC
23 ICPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUST2023 23 ICPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUST2023	icparaugus <b>FRW (000)</b> g	UST2023 ICPARALCUS UST2023 ICPA <b>FRW (000)</b> (
2. CPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUST2023 2. Deprectation 023 ICPARAUGUST2023 ICPARAUGUST2023	ICPARAUGUST2023 42,000G	UST2023 ICPARAUGU58,000 UST2023 ICPARAUGU58,000
Marketing and distribution costs	ICPARAUGUST2023 70,000	UST2023 ICPARAU 135,000
Fixed general administrative cost	ICPARAUGUST202110,000G	UST2023 ICPARAU 220,000
Corporate office costs IGUST2023 ICPARAUGUST2023	ICPARAUGUST2023 <b>50,000</b> G	UST2023 ICPARAU (100,000)
23 TOPARAUGUS 12023 TOPARAUGUS 12023 TOPARAUGUS 12023 23 <b>Tota</b> August 2023 ICPARAUGUS 12023 ICPARAUGUS 12023	ICPARAUGUST20231CPARAUG	UST2023 ICPARAUGUST2023 IC UST2023 ICPARAU (513,000)
	CDAPA CENTINIZ CHAPALC	STATISTIC BABA ICI STATISTI

#### Additional Information:

- 1. The book value of the equipment on 01 January 2021 was FRW100,000,000 a one-year useful life, and zero disposal value. Any equipment not used will remain idle.
- 2. Marketing and distribution costs are semi variable costs consisting a fixed cost component of FRW 40 million and 60 million for telephone and computer respectively. Variable cost component consists of FRW 750,000 for each telephone and computers shipment. The company made 40 and 100 shipments in the year 2021 for telephone and computers respectively.
- 3. Fixed marketing and distribution costs of any product line can be avoided if the line is discontinued.
- 4. Fixed general administration costs of the division and corporate-office costs will not change if sales of individual product lines are increased or decreased or if product lines are added or dropped.
- 5. Fixed general administration and corporate office costs of the division are allocated to product lines on the basis of revenue

Recently, **Mr Karibwami** the production manager at HDT Co Ltd attended the seminar where different performance measurement topics were discussed, among other balanced score card and scenario planning concepts were deeply presented and discussed. The production manager is keen to adopt and implement the balanced scorecard as a performance measure in HDT Co Ltd staring from next year of 2022.

#### **Required:**

- a) Briefly discuss stages through which HDT Co Ltd would go through while performing the scenario planning. (2.5 Marks)
- b) By basing on financial considerations, should the HDT Co discontinue the telephone product line for the year, assuming the released facilities remain idle? (8 Marks)
- c) What would be the effect on the Kigali branch operating income if it were to sell 4,000 more telephones? Assuming that the branch would have to acquire additional equipment costing FRW 42 million with a one year useful life and zero residual value. (8 Marks)
- d) Advise whether or not the HDT Co Ltd should open up Musanze branch. (6.5 Marks)

(Total :25 Marks)

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### **QUESTION THREE**

Royal Mountain Bags (RMB) Ltd is a company legally registered and operates in Rwanda for over fifteen years. It is highly specialized in making a well-designed good quality bag. RMB Ltd has estimated annual sales budget of 800,000 bags for the year of 2023. This budget has been estimated based on the research and market survey conducted ten years ago which showed that RMB Ltd only possess 25% of the total market. On each unit sold, it is expected that RMB Ltd will make a profit of FRW 6,000. Actual sales for the year were 900,000 bags, however, recent manufacturing industry reports showed that the total market volume had been 3.5 million.

In the month of January 2023, RMB Ltd has been awarded a contract to supply 1,200 students' bags to the local not for profit organization (UMWANA NKUNDI). In this particular contract, UMWANA NKUNDI requested RMB Ltd to specialized materials while producing these bags, this means that this particular order bags should be slightly different from other bags that RMB Ltd is used to produce.

The following items should be put into consideration while producing these 1,200 bags. Specialized material to be used to this order has been chosen by UMWANA NKUNDI and it is clearly stipulated in the contract. The following are some elements of standard costs card of the normal bag as produced by RMB ltd and the revised standard costs of the new bag as requested by UMWANA NKUNDI contract.

23 ICPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUST2023 ICPARAUGU 23 <b>Details</b> just2023 ICPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUS	ST2023 ICPARAUGUST2023 I ST2023 ICPARA <b>New (bag</b> 1	Normal bag
Standard price per meter st2023 [CPARAUGUST2023 [CPARAUGUST203 [CPARAUGUST2023 [CPARAUGUST2023 [CPARAUGUST2023 [CPARAUGUST2023	5T2023 ICPARAUGUST203 I 5T2023 ICPARAUGU <b>3,150</b> I	CPARAUGU <b>3,281</b>
standard quantity per bag (meters)	ST2023 ICPARAUGUST2023 I ST2023 ICPARAUGUST2023 I	CPARAUGUST2023
Labor hours per bag-Minutes <sup>23 ICPARAUGUST2023 ICPARAUGUS</sup>	ST2023 ICPARAUGUST2 <b>93</b> I	CPARAUGUST2010

- 1. As the design of these particular bags is a bit complicated and special, the complicated new sewing techniques will be needed, as a result all sewing technicians should be trained before starting to work on this order.
- 2. RMB Ltd currently has 48 staff, being paid an hourly wage rate of FRW 12,000 and each of whom works 8 hours a day. All staff works five days a week. Assume a month has 4 weeks.
- 3. All staff worked all of their contracted hours in January on production of UMWANA NKUNDI bags and there was no idle time. No labor rate variance arose in January.
- 4. Activity levels for January were as follows:

23 ICPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUST2023 ICPARA 23 ICPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUST2023 ICPARA	Activity level (Units)
Budgeted production and sales	UGUST2023 ICPARAUGI <b>60,000</b>
Actual production and sales 2023 ICPARAUGUST 2023 ICPARAUGUST 2023 ICPARA	JGUST2023 ICPARAUGI <b>48,000</b> C

5. For the month of January, actual material used and purchased is 109,120 meters. The production manager at RMB Ltd is the one who is responsible for all purchasing and production issues which occur. RMB Ltd uses standard costing and whenever there is a change in design of bags, the standard cost card is changed accordingly to address any change made. However, for this month January this was not the case as the production manager has forgotten to update the standard cost card.

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023 ICPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUST2023 J	ICPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUST2023 ICP
023 ICPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUST2023 J	ICPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUST2023 ICP
0 Required: JST2023 ICPARAUGUST2023 ICPARAUGUST2023 J	ICPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUST2023 ICP
023 ICPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUST2023 I	ICPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUST2023 ICP
i. Calculate for the RMB Ltd the market size	and market share variances of the year 2023
and Comment on your results.	iCPARAUGUST2023 ICPARAUGUST2023 ICPARAU (5 Marks) P ICPARAUGUST2023 ICPARAUGUST2023 ICPARAU (5 Marks) P
ii. Calculate material planning and operation	al variances 23 ICPARAUGUST 2023 ICPARAU (7 Marks)
iii. Calculate labor efficiency planning and ope	erational variances August 2023 ICPARAL (7 Marks) P
023 ICPARAUGUST2023 IGPARAUGUST2022 ICPARAUGUST2023 I	Devel Manufactor David (DMD) Ted ST2023 ICP

iv. Extract from the article of time.com regarding Royal Mountain Bags (RMB) Ltd.

RMB Ltd is a famous manufacturing company specializing in production of bags. It has been in manufacturing of bags for over fifteen years ago. Its production process has no fixed standard product design and specifications as it produces bags depending on the customer need and specifications which therefore leads to the price difference across different customers depending on the cost of customers' specifications. As RMB Ltd operates in a highly technological environment, all its production processes are automated from production stage one to the last and it has a technology and innovation department which ensure daily adoption of new technology and creates new production designs and innovations of the company, this implies that any technology or innovation which is in place and on top today may be outdated tomorrow as a result of an emerged new technologies and innovations, therefore standard costs it may set is always subject to changes as the production technology changes.

In addition, RMB Ltd applies the Just in Time approach of inventory and production management since 2015, this approach has been facilitated by the easy access to suppliers' raw materials when orders arrive, it also reduces continuous losses that previously led by the obsolescence of stocks. RMB Ltd also adopted improved management approach whereby the following aspects have been emphasized across the organization: customer focus and priority, total employee commitment, process and integrated approaches of production and fact-based decision making among others.

Its employees are very supportive and adaptive, duties and responsibilities are clearly stated to all employees hence the promotion of accountability in the organization. Carrot and stick approach have been adopted in RMB Ltd, even if it is very hard for the management to allocate the adverse variance to any employee. The performance measurement in RMB ltd has been standard costing and variance analysis since its establishment. These performance measurements are being very hard to be accommodated in the new computerized and highly changing environment of RMB Ltd and in the manufacturing sector in general.

#### **Required.**

Considering the production environment of RMB Ltd, write a memo to the CEO, critically assessing the use of standard costing and variance analysis in RMB Ltd. (6 Marks)

(Total: 25 Marks)

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# **QUESTION FOUR**

SIMEX Ltd is a company located in Kigali with a subsidiary in the southern province, SIMAKO Ltd. SIMAKO uses some of the raw materials from SIMEX. SIMEX produces three products Uni, Una, and Uno and all of them have an external market. The CEO was concerned that the company should not be selling externally when its subsidiary which uses its products as raw materials has not been considered. The CFO explained that to sell to a subsidiary company an ideal transfer price must be established which enables the transferring division to earn a return for its efforts, and the receiving division to incur a cost for benefits received, at a fair commercial price. Most importantly, the organization's aim as a whole is mainly about maximizing company profits and has to always be maintained and where need be, divisional managers may have to negotiate and agree on the amount of goods and services to be transferred.

23 ICPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUST2023 ICPAF	RAUGUST2023 ICPARAU	GUST2023 ICPARA	AUGUST2023 IC
2 Particulars <sup>2</sup> 2023 ICPARAUGUST2023 ICPARAUGUST2023 ICPAR 2 Particulars <sup>2</sup> 2023 ICPARAUGUST2023 ICPARAUGUST2023 ICPAR	AUGUST2023 ICPARAU AFRW2023 ICPARAU	G <b>FRW</b> 3ICPAR	<b>FRW</b> 02310
23 ICPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUST2023 ICPAR 23 ICPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUST2023 ICPAR	AUGUST2023 ICPARAU	G <b>Una</b> 023 ICPAR/	Uno <sup>12023</sup> 10
External market price, per unit ICPARAUGUST2023 ICPAR	A35,000023 ICPARAU	32,000 CPAR	30,000
Variable cost of production in SIMEX	A10157023 ICPARAU A <b>22,000</b> 023 ICPARAU	14,000 CPAR	16,000
Labour hours required per unit in SIMEX	AUGUST2023 ICPARAU A <b>4</b> GUST2023 ICPARAU	GUST2023 ICPAR/ G $5$ ST2023 ICPAR/	10GUST2023 IC 10GUST2023 IC
Maximum external sales in units paraugust2023 [CPAR	AUGUST2023 ICPARAU A <b>800</b> ST2023 ICPARAU	G 500:023 ICPAR	1 <b>300</b> T2023 IC

Other additional information about the three products is as follows: RA

SIMAKO requires SIMEX to transfer 400 units of Una. Besides, SIMEX could buy similar units of Una from an external market at FRW 31,000.

#### **Required:**

a) Determine what should be the transfer price for each product unit if the total labour hours are limited to 6,000 hours at SIMEX. (10 Marks) b) Assuming SIMEX Ltd had two subsidiaries, and considering CFO's explanation regarding goal congruence through negotiations; examine the ideal approach that would be able to provide goal congruence opportunities to all the profit centers. (12 Marks) c) Value Based Management is considered to be a philosophy about corporate value interpret the difference between value-based management and value mindset. (3 Marks) (Total: 25 Marks) (Total: 25 Marks) End of question Paper

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