CERTIFIED PUBLIC ACCOUNTANT

FOUNDATION LEVEL 2 EXAMINATIONS

F2.1: MANAGEMENT ACCOUNTING

DATE: WEDNESDAY 29, NOVEMBER 2023

INSTRUCTIONS:

1. **Time Allowed**: **3 hours 15 minutes** (15 minutes reading and 3hours for writing).
2. This examination has **seven questions** and only **five questions should be** attempted.
3. Marks allocated to each question are shown at the end of each question.
4. Show all your workings where applicable.
5. The question paper should not be taken out of the examination room.

QUESTION ONE

(a) A budget is a quantitative plan of action which is normally prepared in advance of the period to which it relates. The success of the budget implementation depends on the process that has been followed in the entire budget making process.

Required:

Outline the eight steps that should be followed during the budget preparation process

(8 Marks)

(b) Butare Ltd has presented the budgeted performance in comparison with the actual performance operating statement for the year ended 31st December 2022.

Particulars	**Budgeted Performance**	**Actual Performance**	**Variance**
Production Units	1,820,000	2,150,000	
	FRW	FRW	FRW
Sales	8,120,000	8,568,000	448,000
Cost of Sales:			
Materials	1,320,000	1,152,000	168,000
Labour	1,920,000	2,304,000	384,000
Variable Overheads	256,000	288,000	32,000
	3,496,000	**3,744,000**	**248,000**
Administration Costs:			
Fixed	1,408,000	1,472,000	64,000
Variable	432,000	392,000	40,000
Distribution Costs:			
Fixed	1,200,000	1,150,000	50,000
Variable	520,000	584,000	64,000
	3,560,000	**3,598,000**	**38,000**
Net Profit	**1,064,000**	**1,226,000**	**162,000**

Required:

(i) Using a flexible budgeting approach, **prepare a revised operating statement so as to provide a more meaningful interpretation of the variances** (State in the revised statement whether the variances are Favourable or Adverse) (10 Marks)

(ii) Explain the main reason why a flexed budget is normally preferred to a fixed budget in comparison of actual performance of an organization to budgeted performance

(2 Marks)

(Total: 20 Marks)

QUESTION TWO

(a) Peace Hotel is a company that has had a tremendous growth and expansion over the last five years. As a result of the rapid expansion, the company has appointed you as its Management Accountant.

Required:

The Managing Director of the company has met you for the first time and asked you in your first assignment to explain the role of the Management Accountant in a modern business environment. (8 Marks)

(b) Muvumba PLC has the following data in respect to production of its steel products for the first quarter of 2023.

Budgeted Output	5000	Units
Standard Hours to Produce one unit	2	Hours
Budgeted Fixed Production Overheads	2,500,000	FRW
Actual Fixed Production Overhead	2,584,000	FRW
Actual Hours Worked	10500	Hours
Actual Units Produced	4,980	Units

Required:

Calculate the following variances,

(i) Fixed Overhead Expenditure Variance, (3 Marks)

(ii) Fixed Overhead Volume Variance, (3 Marks)

(iii) Fixed Overhead Volume Capacity Variance, (3 Marks)

(iv) Fixed Overhead Volume Efficiency Variance. (3 Marks)

(Total: 20 Marks)

QUESTION THREE

Pure Distillers Ltd (PDL) is a company that is based in Kayonza in the Eastern Province of Rwanda. PDL processes, packages and sells mineral water in 500 ml bottles. The following transactions took place in the month of February, 2023:

On the 1st February, opening inventory was 1,300 bottles which costed FRW 400 per bottle.
On the 6th of February, PDL produced 1,700 bottles at a cost of FRW 410 per bottle.
On the 11th of February, PDL produced 2,500 bottles at a cost of FRW 420 per bottle.
On the 16th of February, PDL sold 4,500 bottles at a cost of FRW 500 per bottle.
On the 21st of February, the production machine of PDL broke down and the company purchased 3,600 bottles from an external supplier at a price of FRW 430 per bottle.
On the 26th of February the company once more purchased another 3,100 bottles in order to meet the demand for the mineral water at FRW 450 per bottle.
Finally on the 28th of February, PDL sold 7,200 bottles of water to Bank of Charity at FRW 600 per bottle which had a three-day retreat for their staff in a hotel located in Kayonza.

Required:

(a) Using Last In, First Out (LIFO) method of stock valuation, prepare a stock ledger card and determine the value of closing stock on the 28th of February 2023. (10 Marks)

(b) Calculate the value of cost of sales of PDL using the value of closing stock as calculated in part (a) of the question. (6 Marks)

(c) Calculate the gross profit of PDL at the end of February 2023. (2 Marks)

(d) Explain any two advantages of a Just in Time (JIT) stock management system that could have been adopted by PDL. (2 Marks)

(Total: 20 Marks)

QUESTION FOUR

Kabuga Ltd produces a petroleum jelly product Methos, which is manufactured in three consecutive processes. Information relating to process two is as follows:

At the beginning of the month of March 2023, Kabuga Ltd had opening work in progress of 2,400 units completed as follows:

Materials	100%	FRW 141,000,000
Added Materials	40%	FRW 18,000,000
Conversion Costs	30%	FRW 30,000,000

During the month, a total of 9,000 units were transferred from process one costing FRW 543,000,000. Kabuga also incurred the following costs with respect to added materials and conversion:

Added Materials	FRW 288,000,000
Conversion Costs	FRW 354,000,000

A total of 8200 units is to be transferred to process three. Expected loss was 10% and the scrap price was FRW 15,000 At the end of process two, Kabuga had closing work in progress of 2,000 units completed as follows:

Materials	100%
Added Materials	60%
Conversion Costs	40%

At the end of the month, you have been tasked as the Management Accountant of Kabuga Ltd to determine the entire cost incurred in process 2 factoring in all the input and output cost.

Required:

Using the Average Cost Method (AVCO) of accounting for process accounts with opening and closing work in progress:

(a) Prepare the total equivalent units statement (6 Marks)

(b) Prepare a cost per unit statement (4 Marks)

(c) Calculate the value of output (2 Marks)

(d) Calculate the value of closing work in progress (2 Marks)

(e) Calculate the value of abnormal loss or gain (2 Marks)

(f) Prepare the process two account (4 Marks)

(Total: 20 Marks)

QUESTION FIVE

(a) Kigali Enterprises Ltd (KEL) has recently introduced a new set of fashionable clothing line. The clothing line is highly popular with the young people who normally do their shopping depending on the latest trends in the market.

KEL has received some sales orders of 4,500 shirts from a Non-Governmental Organization (NGO) which promotes youth activities in Kigali. The sales order of 4,500 accounts for 75% of the operating capacity of KEL, and production of the shirts will start in the forthcoming month. The following projection which is based on the operating capacity of 75% has been prepared for the year:

Particulars	FRW	FRW
Sales		24,750,000
Direct Materials	4,800,000	
Direct Labour	7,200,000	
Production Overheads (Note 1)	6,000,000	18,000,000
Gross Profit		6,750,000
Administration, selling and distribution costs (Note 2)		5,600,000
Net Profit		**1,150,000**

Notes:

1) Production overhead is made up of fixed and variable costs in the proportion of 6:4 respectively.
2) Of the total administrative, selling and distribution costs of FRW 2,800,000 represents fixed costs and the balance varies with sales volume.

Required:

(i) Calculate the Break-Even Point (BEP) in units and value. (6 Marks)

(ii) Calculate the profit that could be expected if the company operated at full capacity (4 Marks)

(b) In order to enhance profitability, KEL has proposed the following options:

Option One

If the selling price per unit were reduced by 5%, the increase in demand would utilize 90% of the company's capacity without any additional advertising expenditure.

Option Two

To attract sufficient demand to utilize full capacity would require a 15% reduction in the current selling price. In addition, KEL would have to spend FRW 500,000 on special advertising campaign

Option Three

To attract sufficient demand to utilize full operating capacity without changing the selling price per unit, KEL has to spend FRW 2,200,000 on a special advertising campaign.

Required:

Analyze the profitability of each of the three possible options and advise management as to which of the four possible plans (original budget plan or any of the three options) is worth adopting. (10 Marks)

(Total: 20 Marks)

QUESTION SIX

Virunga Ltd is a furniture making company located in Musanze district in the Northern Province. The company makes three types of products – Tables, Chairs and Shelves. The company has provided you as the management accountant trainee, with the following budgeted information:

	Tables	Chairs	Shelves
	FRW	FRW	FRW
Direct Labour Cost	12,000	10,800	20,400
Direct Material Cost	18,000	15,600	18,000
Variable Overhead Cost	6,200	6,800	9,800
Fixed Overhead cost	15,400	11,600	7,600
Total Cost per Unit	51,600	44,800	55,800
Budgeted Production Units	4,500	3,800	2,700
Selling Price per Unit	65,000	55,000	72,000

Budgeted production units are estimated to be equal to the budgeted sales units and therefore there is no closing stock anticipated. The cost of direct materials is FRW 2,000 per square metre.

All the furniture is made from specialized materials (timber) and as a result the materials supply is limited to 80,000 square metres per annum.

Required:

(a) Explain the steps the management accountant trainee should follow in finding the optimal production Plan. (6 Marks)

(b) Determine the optimal production plan, total contribution and profit that Virunga Ltd will yield. (14 Marks)

(Total: 20 Marks)

QUESTION SEVEN

(a) Relevant costs are normally costs that are considered when making a decision while non relevant costs are not considered when making a decision. Relevant and non-relevant costs have unique characteristics that help to distinguish them.

Required:

Explain the following characteristics clearly stating whether they relate to relevant or non-relevant costs

(i) Opportunity Cost (2 Marks)
(ii) Committed Cost (2 Marks)
(iii) Common Cost (2 Marks)
(iv) Sunk Cost (2 Marks)

(b) REG Ltd deals with the construction of houses in Kigali. It has had a good performance from September 2022. REG Ltd is currently reviewing its performance so as to ascertain its costs for May 2023 for planning purposes. Total costs and output for the last seven months are presented in the table below:

Particulars	Number of Houses Constructed	Total Costs
	(Units)	FRW
September, 2022	8,500	4,475,000
October, 2022	5,000	3,150,000
November, 2022	6,500	3,850,000
December, 2022	7,500	3,750,000
January, 2023	9,500	4,825,000
February, 2023	5,500	3,260,000
March, 2023	6,000	3,540,000

Required:

Using regression analysis method of cost estimation, calculate the following:

(i) Variable cost per unit. (5 Marks)
(ii) Fixed Cost of constructing the houses. (3 Marks)
(iii) Formulate the total cost equation. (2 Marks)
(iv) Estimate the total cost of constructing 9,000 houses in May 2023. (2 Marks)

(Total 20 Marks)

End of question paper

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