CERTIFIED PUBLIC ACCOUNTANT

FOUNDATION LEVEL 2 EXAMINATIONS

F2.1: MANAGEMENT ACCOUNTING

DATE: WEDNESDAY 26, FEBRUARY 2025

INSTRUCTIONS:

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

QUESTION ONE

a) Organizational efficiency in the utilization of scarce resources depends on prior planning since failure and inefficiency are sometimes attributed to lack of or inadequate planning. One of the tools used by organizations for financial planning is a budget. There has been an argument by some managers that budgeting has a great impact on resource utilization while others hold a contrary view based on their understanding of the whole process of budgeting and its usefulness in resource allocation and utilization.

Required:

In your opinion, **state 5 reasons reaffirming that a budget has a great impact on resource allocation and proper utilization.** (5 Marks)

b) KL Ltd is a manufacturing company that manufactures the products Kiln and Lima jointly. In the process of manufacturing the two joint products a by-product called Lin emerge. During the accounting period ended 30th June 2024, the following costs were availed by the management accountant of KL Ltd for analysis.

Cost of raw materials FRW 600 million

Raw materials conversion cost FRW 650 million

The other details were as follows

Details	**Joint product Kiln**	**Joint product Lima**	**By-product Lin**
Output at split-off point	40% of input	30% of input	20% input
Unit selling price at split of point (FRW)	31,250	25,000	20,000
Unit further processing cost	25,000	18,000	-
Unit selling price after further processing	45,000	35,000	

1. The material input was 100,000 Kilograms.
2. The normal loss units are scrapped at FRW 5,000.
3. Joint costs are apportioned to joint products including the by-product on the basis of sales value at the split-off point.

Required:

i) **Compute the joint costs to be allocated to joint products Kiln, Lima & Lin and the resulting net profit.** (6 Marks)

ii) Using suitable computations, **advise whether or not products Kiln and Lima should be subjected to further processing after split off.** (5 Marks)

iii) Using suitable examples, **differentiate between a joint product and a by-product.** (4 Marks)

(Total: 20 Marks)

QUESTION TWO

a) KN Ltd manufactures and distributes products to a number of clients across the republic of Rwanda standard selling prices derived as follows;

Details	**FRW**
Direct material cost per unit	1,500
Direct labour cost per unit	1,800
Variable overhead cost per unit	700
Fixed overhead cost per unit	1,000
Total cost per unit	5,000
Profit mark-up chargeable (20%)	1,000
Standard selling price per unit	6,000

Additional information

1. The fixed cost per unit was computed based on the budgeted output of 24,000 units.
2. The company is currently operating at 80% of the plant capacity.
3. The company received a special order from JN Ltd a new client company that is in need of supply of 5,000 units at a price of FRW 5,500. The managing director of KN Ltd is on one hand saying that the company has never sold 5,000 units once and on the other hand, he is of the view that the company will make losses since the special price is less by FRW 500.
4. This special order will not dilute the market.

Required:

i) **Advice the management of KN Ltd on whether they should accept/reject the special order** (4 Marks)

ii) **Identify three factors you considered in (i) arriving at your decision of either accepting/rejecting the special order** (3 Marks)

b) For quite some time there has been a debate around absorption of costs to units of output. Some have been expressing their sentiments that absorption costing is the ideal way of absorbing costs and it is even recognized by international reporting standards. On the other hand, others argue that this is an old way of absorbing costs which has been overtaken by time and that Activity Based Costing (ABC) is the modern method of absorbing costs and that it takes into account the activities that trigger a certain cost to be incurred. However, not very many businesses that have embraced activity-based costing are either not conversant with it, they don't know how it works or they are too much into the absorption costing approach. You have been approached as a management accounting student for professional advice regarding the two methods of absorbing costs.

Required:

Based on your management accounting knowledge, **Provide professional advice on the following:**

i) The difference between activity-based costing and absorption costing (4 Marks)
ii) Justify why ABC is preferred over Absorption costing (2 Marks)

c) The following cost data was obtained from the management accounts of ABC Ltd for the period ended 31st December 2023. The company is currently operating at 80% activity level and is producing 800,000 units.

Particulars	**At 80%**	**At 100%**
Direct material cost (FRW '000')	640,000	800,000
Direct labour cost (FRW '000')	560,000	700,000
Electricity and water (FRW '000')	450,000	550,000
Salaries and wages (FRW '000')	350,000	400,000

Required:

Using the high-low method, **determine the cost functions in the form of Y=a+bx for the following costs**

i) Electricity and water (2 Marks)
ii) Salaries and wages (2 Marks)
iii) Direct labor cost (1 Mark)
iv) Justify why the low method is not a suitable method of cost estimation (2 Marks)

(Total: 20 Marks)

QUESTION THREE

a) As a management accountant you have an obligation to the organization you serve, your profession, and the public. This requires you to maintain the highest standards of ethics.

Required:

In reference to the statement above, **explain five ways on how you will uphold the fundamental principle of integrity while discharging your duties as an accountant.**

(5 Marks)

b) The following data was extracted from the cost records of Weber Ltd for the financial period ended 31st December 2023 related to the stock item called WEB. The balance as at 30th November 2023 was 750 units of FRW 100 each.

DATES	RECEIPT/PURCHASE	SALE/ISSUE
December 1	2,000 units @ FRW120	2,500 units @ FRW150
December 8	2,000 units @ FRW 125	2,000 units @ FRW 140
December 15	2,200 units @ FRW 135	
December 20		2,000 units @ FRW 145
December 31	1,500 units @ FRW 140	1,350 units @ FRW 150

Required:

i) Prepare the store ledger card using the FIFO method. (12 Marks)
ii) Justify why FIFO method is preferred over LIFO method of stock valuation.
(3 Marks)
(Total: 20 Marks)

QUESTION FOUR

a) The management accountant of Munyaro Ltd is in the process of determining the overhead absorption rates to be used in absorbing overheads into production. The following cost data for the year ended 31st December 2023 relates to Munyaro Ltd. The company has two production departments namely; Assembly and Machining and two service departments namely; Stores and Maintenance.

Particulars	Production departments		Service departments	
Departments	**Assembly**	**Machining**	**Stores**	**Maintenance**
Allocated overheads FRW '000'	2,500,000	1,500,000	1,000,000	2,000,000
Reapportionment of stores	40%	40%	-	20%
Reapportionment of maintenance	50%	40%	10%	-
Labour hours	5,000,000	2,000,000	-	-
Machine hours	1,000,000	4,000,000	-	-

Additional information

1. Assembly department is labour intensive while machining department is mechanized.
2. Overheads are absorbed on the basis of labour hours in the labour intensive department while in the mechanized department they are absorbed on a machine hour basis
3. The service department overhead is reapportioned to production department using either direct method and stepwise method.

Required:

i) **Reapportion the service department overheads to the production department using direct and stepwise/closed methods.** (8 Marks)

ii) **Determine the overhead absorption rate for each production department using the results in (i) above.** (4 Marks)

b) Gasabo Ltd is in the process of reviewing the staff incentive scheme. Currently, the company is using an individual bonus incentive scheme which has been criticized far and wide by a section of staff who are dissatisfied with the current incentive scheme. The managing director of Gasabo Ltd has deliberately engaged all the staff members to get their input on the appropriate incentive that can take care of the majority of the staff members if not all.

Required:

In light of the above scenario;

i) **Explain two ways on how the group incentive scheme will cure the problem of the individual incentive scheme that the company is currently using.** (4 Marks)

ii) **Enumerate four shortcomings of adopting group incentive scheme** (4 Marks)

(Total: 20 Marks)

QUESTION FIVE

a) The management accountant of KIT Ltd prepared and presented the following cost data for the financial year ended 31st December 2023.

Cost variances

Material cost variances

Material price variance FRW 3,000,000A

Material usage variance FRW 3,900,000F

Labour cost variances

Labour efficiency variance FRW 3,465,000F

Labour rate variance FRW 1,350,000A

Overhead variances

Variable overhead expenditure FRW 2,250,000F

Variable overhead efficiency variance FRW 3,375,000F

Fixed overhead expenditure variance FRW 3,000,000F

Actual cost data

Production units 22,000

Direct material (60,000 kgs) FRW 42,0000,000

Direct labour (45,000 hrs) FRW 36,000,000

Variable overhead expenditure FRW 31,500,000
Fixed overhead expenditure FRW 27,000,000

Additional information;
The budgeted output was 30,000 units
Variable overhead cost per unit is based on hours per unit.

Required:

i) Compute budgeted material quantity per unit (2 Marks)
ii) Determine the budgeted labour hours per unit (2 Marks)
iii) Calculated the budgeted variable overhead absorption rate (1 Mark)
iv) Determine the budgeted fixed overhead cost (1 Mark)
v) Compute the standard cost per Unit (2 Marks)

b) Budget preparation is one of the most important processes in the management of organizational resources.

Required:

i) Distinguish between surplus budget and deficit budget (2 Marks)
ii) Justify the significance of coordination between production department and sales department when making production and sales budgets (2 Marks)

c) Sometimes the nature of products or services to be accounted for dictate the costing approach to be used.

Required:

i) Differentiate between job and batch costing clearly indicating the circumstance under which each method is applicable in cost accounting. (4 Marks)

ii) The following data relates to the production of 100,000 units for the year ended 31st December 2023.

Direct material cost per batch FRW 25 million.
Direct labour cost per batch FRW 20 million.
Production overheads per batch account for 60% of the material cost.
Non-manufacturing overheads per batch account for 25% of the total production.
A profit margin of 25% is loaded to determine the selling price.

Required:

Compute the selling price per batch and per unit of output. (4 Marks)
(Total: 20 Marks)

QUESTION SIX

a) The following data was extracted from the cost accounting data of ZG Ltd for the year ended 31st December 2023.

Products	WW	XX	YY	ZZ
Demand	10,000	12,000	9,000	8,000
Selling price per unit (FRW)	2,200	2,400	2,000	1,800
Direct material cost per unit	800	960	720	640
Direct labour cost per unit	500	600	450	400
Variable overhead cost per unit	200	240	180	160
Total variable costs	**1,500**	**1,800**	**1,350**	**1,200**
Contribution per unit	700	600	650	600
Fixed costs per unit	150	150	150	150
Net profit	**350**	**450**	**300**	**250**

Additional information

1. Labour rate per hour is FRW 50 while material cost per kilogram is FRW 100.
2. Available resources during the year were as;

Materials 300,000kgs

Labour 400,000hours

Required:

i) Using suitable computation, **identify the limiting factor** (2 Marks)

ii) Determine the optimal production for ZG Ltd for the year ended 31st December 2023 (6 Marks)

b) The company performance especially in terms of profitability shows whether the company is able to achieve its profit and wealth maximization goals. During the year ended 31st December 2023, XYZ Ltd had the following cost data for analysis.

Units produced and sold during the year	6,000 units
Direct material cost	FRW 2,000 per unit
Direct labour cost	FRW 1,500 per unit
Variable overhead cost	FRW 500 per unit
Sales revenue	FRW 30,000,000
Total fixed cost	FRW 5,000,000

Required:

Prepare the break-even chart for XYZ Ltd for the year ended 31st December 2023, clearly showing revenue, total costs, fixed cost, break-even point and margin of safety. (12 Marks)

(Total: 20 Marks)

QUESTION SEVEN

a) The following is the marginal costing for Bina Ltd that was prepared for the year ended 31^{st} December 2023.

Details		FRW '000'	FRW '000'
Units produced and sold	200,000		
Sales revenue			1,600,000
Marginal cost of production			
Direct material cost		800,000	
Direct labour cost		400,000	
Variable production overheads		200,000	
Total marginal cost of production			(1,400,000)
Gross contribution			200,000
Variable selling			(20,000)
Net contribution			**180,000**
Fixed costs:			
Fixed production		100,000	
Fixed administration		30,000	
Total fixed cost			(130,000)
Net profit			**50,000**

Additional information:

1. The company is currently operating at 80% of the plant capacity.
2. Variable selling shown in the income statement are based on the units produced and sold during the period.
3. The fixed production costs are based on the activity level.
4. The company is projecting to operate 90% of plant capacity.

Required:

Prepare the absorption costing income statement for Ltd Bina for the year ended 31^{st} December 2023 when the company is operating at 90% of plant capacity. (10 Marks)

b) Costs can be classified according to the function or the purpose for they are incurred in an organization. This classification helps to identify cost centres for accumulation of costs.

Required:

In reference to the cost classification according to function, **describe four categories of costs classification.** (4 Marks)

c) **Differentiate between the following documents used in procurement**

i) Purchase requisition and purchase order (2 Marks)

ii) Quotation and invoice (2 Marks)

iii)Request for quotation (RFQ) and Goods Acknowledgement Receipt (2 Marks)

(Total: 20 Marks)

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