CERTIFIED PUBLIC ACCOUNTANT

FOUNDATION LEVEL 2 EXAMINATIONS

F2.1: MANAGEMENT ACCOUNTING

DATE: WEDNESDAY 28, MAY 2025

INSTRUCTIONS:

1. Time Allowed: **3 hours 15 minutes** (15 minutes reading and 3 hours 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) Management Accounting is very vast and includes various aspects of the business activities. The scope of management accounting is very wide and cuts across different industries.

Required:

Explain three scope areas of management accounting (3 Marks)

b) AKAGERA Co budgets to make 50,000 units of output in four hours each during a budget period of 200,000 hours. Actual output during the period was 54,000 units which took 240,000 hours.

Required:

Calculate the following labour measurement ratios:

i) Labour Efficiency Ratio (3 Marks)

ii) Labour Capacity Utilization Ratio (2 Marks)

iii) Labour Production Volume Ratio / Activity Ratio (2 Marks)

c)The management accountant of Huye Ltd resigned in the month of February, 2025 and you have been recruited by the human resource department to take up the position. Your first task as the management accountant was to analyse the cost of production of steel for the month of March, 2025. You have been provided with the budgeted information which the previous management accountant had shared during his handover and also the actual results of the month of March, 2025.

The standard cost card of production and sales of one unit of the product is given as follows:

Details		FRW
Direct materials	(8kgs @ FRW 1,200)	9,600
Direct labour	(10hrs @ FRW 800)	8,000
Variable overheads		4,800
Fixed overheads		2,000
Total standard cost per unit		24,400
Profit		6,100
Selling price		30,500

The budgeted production units for the month of March, 2025 were 10,000 units.

Actual results for the month of March, 2025 are as presented in the table below:

Details		FRW
Direct materials	92,500 kgs	92,500,000
Direct labour	95,000 hours	84,000,000
Variable overheads		40,000,000
Fixed overheads		22,000,000
Sales value		296,000,000

The actual production units for the month of March, 2025 were 9,250 units.
There was no opening or closing inventory for the month of March, 2025.

Required:

i) Sales Price Variance (2 Marks)

ii) Material Usage Variance (2 Marks)

iii) Labour Efficiency Variance (2 Marks)

iv) Variable Overhead Expenditure Variance (2 Marks)

v) Fixed Overhead Volume Variance (2 Marks)

(Total: 20 Marks)

QUESTION TWO

a) NYUNGWE Manufacturing Ltd is a company involved in the production and sale of water pipes. The following information relates to the budgeted and actual results for the year ended 31st December, 2024.

Details		Budgeted	Actual Results
Production / Sales Units		20,000	22,500
		FRW	FRW
Sales		32,000,000	34,800,000
Costs:			
Direct Materials Cost		8,000,000	7,200,000
Direct Labour Cost		12,000,000	12,450,000
Variable Overhead Cost		2,500,000	1,790,000
Total Variable Costs		22,500,000	21,440,000
Fixed Production Costs	(Constant)	1,650,000	1,800,000
Finance Costs	(Constant)	830,000	710,000
Marketing Costs	(40% Fixed)	1,820,000	1,900,000
Administration Costs	(25% Variable)	1,600,000	1,550,000
Total Cost		28,400,000	27,400,000
Profit		3,600,000	7,400,000

Required:

Prepare control statement applying the concept of flexible budget for the year ended 31st December 2024. Clearly show the variance and interpret whether favourable or adverse.
(7 Marks)

b) VIRUNGA Ltd is a company that operates in the manufacturing industry in Kigali region. The following information relates to the company:

	Purchases	Sales	Rent	Salaries
	FRW	FRW	FRW	FRW
November, 2024	4,200,000	5,200,000	2,000,000	2,300,000
December, 2024	4,500,000	6,000,000	2,000,000	2,300,000
January, 2025	4,560,000	6,400,000	2,000,000	2,300,000
February, 2025	4,300,000	6,200,000	2,000,000	2,300,000
March. 2025	4,600,000	6,800,000	2,000,000	2,300,000
April, 2025	4,120,000	6,500,000	2,000,000	2,300,000

Additional information:

1) One month credit period is provided to 40% of sales made and 2 months credit period to 30% of sales. The rest of the sales is made in the month that the sales is made.

2) Suppliers provide 30 days credit to 60% of the purchases made and 40% of the purchases is through immediate cash payment.

3) Rent and salaries are paid in the month that they are incurred.

4) At 1st January, 2025, the cash at bank was FRW 3,000,000.

5) The company has received a loan of FRW 8,000,000 to be disbursed in equal instalment in January and February, 2025.

Required:

Prepare Virunga Ltd Cash budget for the three months ended 31st March, 2025. (5 Marks)

c) Explain the difference between avoidable and unavoidable costs with examples in each case. (4 Marks)

d) You have been provided with the following information relating to VENTURES Ltd, a company that produces pencils that are used by pupils in primary schools in Eastern Province of Rwanda.

Pencils	Total Cost
Units	FRW
440	1,700
360	1,460
480	1,800
320	1,400
400	1,640

Required:

Using Regression analysis method of cost estimation,

i) Find the variable cost per unit. (2 Marks)

ii) Calculate the Fixed cost. (1 Mark)

iii) Formulate the total cost equation. (1 Mark)

(Total: 20 Marks)

QUESTION THREE

a) SMART Enterprises is a producer of customized office furniture. Customers are to order and give specifications before the company starts making the furniture depending on the taste and preferences of their clients. Below are the specifications of Job number 005 (J005) which was ordered by a client in the month of February 2025.

The job was to use timber and metal as the raw materials. Timber consumed was 13 kgs and the total metal used was 18 kgs for the job. The cost per kg of timber was FRW 900 per kg while the metal cost was FRW 1,200 per kg.

To complete the job, it was to take 20 hours and the labour cost per hour was FRW 1,500. Variable overheads accounted for 60% of the total labour cost. The fixed production costs per annum was FRW FRW 795,000. Fixed selling and administration costs accounted for 30% of production costs. It is the practice of Smart to charge a profit margin of 25% per job. A customer has offered to buy the customized office furniture at FRW 160,000. In a year a total of 30 jobs are to be completed.

Required:

i) Prepare a job cost card for job J005 clearly showing the following; prime cost, marginal cost, absorption cost, job cost and job price. (10 Marks)

ii) A customer has offered to buy the office furniture at FRW 160,000, should SMART Ltd accept to do the job without a compromise on the pricing model of the company. (3 Marks)

iii) Explain the difference between job costing and batch costing. (2 Marks)

b) Ikiraro Ltd Management Accountant has informed you as the recently recruited Accountant of the decision of the company to change from traditional costing technique to activity-based costing. The Management accountant has provided you with the following information to enable you to find the cost per unit of the two products A and B.

Details	A	B
Direct materials kgs per unit	5kgs	4kgs
Direct labour hours per unit	3hrs	7hrs
Material cost per kg	FRW 800	FRW 600
Labour cost per hour	FRW 500	FRW 400

The total overhead cost incurred during the year was FRW 80,000,000. The overheads have been apportioned to activities as follows:

Details	**Apportionment**	**Overhead**
Machine set up cost	20%	16,000,000
Procurement cost	45%	36,000,000
Electricity	35%	28,000,000
Total Overhead Cost	100%	80,000,000

Additional information:

Details	**A**	**B**	**Total**
Purchase orders per annum	28	36	64
Kilowatts per annum	600	650	1,250
Set ups per annum	420	380	800
Production units	20,000	30,000	50,000

Note: All calculations are to be rounded to the nearest whole number.

Required:

Calculate the cost per unit of each product A and B using Activity Based Costing method.
(5 Marks)
(Total: 20 Marks)

QUESTION FOUR

a) A business makes three products, Alpha, Beta and Gamma. The costs and selling prices of the three products are as follows:

	Alpha	**Beta**	**Gamma**
	FRW	**FRW**	**FRW**
Direct materials (FRW 4,000 per kg)	20,000	16,000	24,000
Direct labour (FRW 7,000 per hour)	7,000	14,000	21,000
Variable overheads	18,000	6,000	12,000
Selling price per unit	60,000	44,000	78,000

Sales demand for the coming period is expected to be 7,000 units of Alpha, 3,000 units of Beta and 5,000 units of Gamma.
The supply of materials is limited to 50,000 kgs and labour hours available are 28,000.

Required:

i) Identification of limiting factors. (2 Marks)
ii) Finding Optimal Production Plan and total Contribution. (8 Marks)

b) In decision making, outsourcing is defined as the giving of work to an outside party to do it on your behave. Normally it is recommended that businesses should outsource non-core operations or activities.

Required:

Explain any four factors to be considered before outsourcing of services. (4 Marks)

c)VICTORIA furniture is a company that buys and sells tables. The annual demand for tables is 16,000 in a year. The cost of delivery of each table is FRW 2,500 and the purchase price for each table is 36,000. The holding cost per unit per annum is 15%.

Required:

i) Calculate the economic order quantity (Round to nearest whole number). (2 Marks)

ii) Calculate the total ordering cost. (2 Marks)

iii) Calculate the total holding cost. (2 Marks)

(Total: 20 Marks)

QUESTION FIVE

a) Explain the difference between normal loss and abnormal loss as used in process costing. (2Marks)

b) RUBIS Ventures is a company that processes crude oil in petrol. The production petrol undergoes two processes. Information relating to the two processes is presented in the table below:

Details	Process 1	Process 2
Direct materials	8,000 litres @ FRW 5,000 per litre	
Direct labour	2,000 hours @ FRW 4,000 per hour	2,200 hours @ FRW 3,600 per hour
Variable overheads	60% of labour cost	40% of labour cost
Expected loss	10%	5%
Scrap price	FRW 800 per litre	FRW 600 per litre
Actual output	7,000 Litres	6,800 litres

Required:

i) Prepare process 1 account. (7 Marks)
ii) Prepare process 2 account. (6 Marks)

c)In decision making, managers are obligated to only choose on relevant costs when choosing the best alternative. The relevant costs normally have got attributes that distinguish them from non-relevant costs.

Required:

Explain five characteristics of relevant costs considered in decision making. (5 Marks)

(Total: 20 Marks)

QUESTION SIX

a) NILE Ltd is a manufacturer of soft drinks with the factory of the company located in Kigali Industrial Park. The company has tasked you as the management accountant to analyse the profitability of the company for the two months of January and February, 2025.

The following information relates to the cost of producing one unit of the soft drink:

Details	**FRW**
Direct material cost per unit	8,000
Direct labour cost per unit	5,400
Variable overhead cost per unit	4,600

The table below shows the actual production and sales units for the month of January and February 2025.

Details	**January**	**February**
Production Units	6,000	4,800
Sales Units	4,000	6,200

Additional Information:

1) The budgeted fixed production overheads were FRW 12,500,000 based on expected production level of 5,000 units.
2) There was no opening inventory in month of January, 2025.
3) The fixed selling costs were FRW 2,200,000 per month.
4) The fixed administration costs were FRW 1,800,000 per month.
5) Variable selling costs were 2.5% of Sales for each month.
6) The selling price per unit is FRW 25,000.

Required:

i) **Explain two major differences between marginal costing and absorption costing.** (4 Marks)

ii) **Prepare marginal costing profit statement for the two periods January and February, 2025.** (6 Marks)

iii) **Prepare absorption costing profit statement for the two periods January and February, 2025.** (6 Marks)

iv) **Reconcile the marginal and absorption costing profits for January and February, 2025** (2 Marks)

b) Management accounting is defined as the accounts that are prepared to assist management in decision making. For the management to make sound decisions they will therefore rely on reliable information provided from the accountant.

Required:

Apart from decision making, explain two other purposes of preparation of management accounts (2 Marks)

(Total: 20 Marks)

QUESTION SEVEN

a) Giving examples, **explain the difference between general overheads and specific overheads** (4 Marks)

b) SALLY Enterprises is a company with two production departments (A and B) and two service departments (Stores and Maintenance). The company incurred total overhead cost of FRW 13,650,000 for the month of March, 2025. The overhead costs were analysed as presented in the table below:

Overhead	**Amount**
	FRW
Rent	2,500,000
Depreciation of Equipment	6,800,000
Canteen Costs	800,000
Electricity Costs	1,750,000
Water Costs	600,000
Office Stationery Costs	1,200,000
Total Overhead Cost	13,650,000

Additional Information:

	Dept A	**Dept B**	**Stores**	**Maintenance**
Plant Book Value	2,000,000	3,500,000	4,500,000	2,500,000
Kilowatts	5,000	8,000	2,400	2,600
Cubic Capacity	360	420	180	240
Number of Employees	25	40	35	20
Area	3,200	2,600	4,500	3,700

Required:

i) Identify the most appropriate basis of apportionment for each of the six overhead costs. (3 Marks)

ii) Allocate and apportion the overhead costs using the basis of apportionment identified in b) i. above. (13 Marks)

(Total: 20 Marks)

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