CERTIFIED PUBLIC ACCOUNTANT

FOUNDATION LEVEL 2 EXAMINATIONS

F2.1: MANAGEMENT ACCOUNTING

DATE: WEDNESDAY 28, AUGUST 2024

INSTRUCTIONS:

1. **Time Allowed: 3 hours 15 minutes** (15 minutes reading and 3 hours 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 the question.
4. Show all your workings where necessary.
5. The question paper should not be taken out of the examination room.

QUESTION ONE

a) There are numerous costs within an organisation. During the planning stage, these costs should be classified.

Required:

With clear examples, **explain each of the following cost classifications**

i) Classification according to nature (2 Marks)
ii) Classification according to behaviour (2 Marks)
iii) Classification according to function (2 Marks)

b) Kigali coach limited has been in operations in Rwanda since 2018. It has specialised in the sale of transport buses and it has been performing well, although it is facing stiff competition from other companies who have joined the market because it is highly profitable. The following information has been extracted from company's books of account:

Total fixed costs	FRW 300,000 million
Variable cost	FRW 20 million per unit
Forecasted sales	20,000 units
Selling price	FRW 50 million per unit

Required:

Using the data provided, **illustrate by means of a break-even chart**

i) The break-even point in units and value (5 Marks)
ii) Profit when the company sells 20,000 units (3 Marks)
iii) Margin of safety in units and value (3 Marks)
iv) Sale level to earn a target profit of FRW 500,000 million (3 Marks)

(Total: 20 Marks)

QUESTION TWO

a) Highlight two differences between the production and service industry (4 Marks)

b) Musanze brothers limited is a company that has an effective organisational structure that ensures assignments are completed effectively as per job order. During the month of June 2024, the company was assigned job number KJ. The following details relates to this job order KJ.

Particulars	**FRW (per unit)**
Direct materials	75,000
Direct labour	60,000

Additional information:

1. Production overheads are absorbed on the basis of 60% of total labour cost.
2. Non-manufacturing costs are estimated at 30% of the total production cost.
3. The job order price is arrived at after adding a margin of 20%.
4. For successful completion of the job, 30,000 units are expected to be produced.

Required:

Compute

i) Total prime cost (2 Marks)
ii) Total production cost (2 Marks)
iii) Total non-manufacturing costs (2 Marks)
iv) Total revenue to be generated (2 Marks)

c) Ruhengeri manufactures produces its products in batches of 20,000 units. The following information was extracted from the books of Ruhengeri Limited for the year ended 31st December 2023.

Particulars	**FRW**
Direct wages cost per batch	30,000,000
Direct material cost per batch	36,000,000

Additional information:

1. The products pass through four departments; A, B, C and D.

2. Production overheads are absorbed on the basis of labour hours. The labour hours for the four departments were 2,000, 1,000, 2500 and 1,500 respectively for departments A, B, C and D respectively. The cost per labour hour is FRW 2,500, FRW 3,000, FRW 1,500, and FRW 2,000 for department A, B, C and D respectively.

3. Administration costs amount to FRW 3 million.

4. The company charges a profit of 25% on total cost.

Required:

Compute

i) Prime cost per batch (1 Mark)
ii) Production cost per batch (2 Marks)
iii) Selling price per batch (2 Marks)
iv) Profit per batch (1 Mark)
v) profit per unit (1 Mark)
vi) Selling price per unit (1 Mark)

(Total: 20 Marks)

QUESTION THREE

a) Service industries are different to manufacturing because their outputs are intangible. However, service outputs still have a direct cost and the company must be able to determine its direct costs in order to run the business efficiently.

Required:

With reference to the above statement**, explain the meaning of service costing** (2 Marks)

b) Identify a cost unit that accurately represents an appropriate measure of the following services;

i) Hospital (1 Mark)

ii) Restaurant (1 Mark)

iii) Accommodation (1 Mark)

iv) Electricity (1 Mark)

v) Explain two advantages of service costing (4 Marks)

c) Musoni owns a company that operates a hotel business. The company pays rent of FRW 1,000,000 per month. The Hotel operates three types of suites rooms for its customers to enhance their satisfaction. These suites include: single bed rooms, double bed rooms and triple bed rooms. Information regarding the three suites rooms is provided below:

Types of suite rooms	**Number**	**Occupation rate (%)**
Single bed room	100	100
Double bed rooms	50	80
Triple rooms	30	60

The rent of double bed rooms suite is to be fixed at 2.5 times of the single bed room suite and that of triple rooms suite as twice of the double bed rooms suite. The other expenses for the year 2023 are as follows:

Details	**Amount (Frw)**
Staff salaries	142,500,000
Room attendants wages	45,000,000
Lighting and heating costs	21,500,000
Repairs and maintenance	12,350,000
Laundry costs	8,050,000
Interior decoration costs	7,400,000
Sundry costs	15,300,000

Additional information:

1. Profit is to be provided at the rate of 20%
2. It is assumed that the business operates 360 days in a year.

Required:

For each type of the suite room, calculate the amount of rent to be charged (10 Marks)

(Total: 20 Marks)

QUESTION FOUR

a) Kibeho Tea Ltd (KTL) is a company specialised in the manufacture of three products. These products are product A, product B and product C respectively. Virunga has placed an order of these products to be delivered in two weeks' time. The invoice totals of the three products are FRW 860,000, FRW 506,000, and FRW 384,000 for products A, B and C respectively. The weights of these products are 6,530 kg, 4,340 kg, and 3,130 kg for products A, B and C respectively. The total transport costs for the three products are FRW 2,800,000.

Required:

i) Allocate transport costs to product based on cost. (2 Marks)

ii) Allocate transport costs to products based on weight (2 Marks)

b) Stevens Inc. has an annual usage of 100,000 units of Item M, having a purchase price of FRW 5,500 per unit. The following data is applicable to Item M:

Ordering Cost	5,500 per order
Holding cost	12.5% of purchase price

Required:

Compute the economic order quantity (2 Marks)

c) Materials are essential basic inputs, components or ingredients that are used by an organisation to produce finished products. It is therefore important for every organisation to have an effective control system for its materials from the time an order is placed up to the time they are converted into finished goods and transferred to the customers. Proper documentation facilitates the material security hence enhancing control.

Required:

With reference to the above statement, discuss four documents that are used during the purchasing process. (4 Marks)

d) Gisenyi Ltd. Manufactures a single product branded "RARE" and it is sold in the entire east African region. The management accountant of the institution prepared the following production, sales and cost data relating to the product:

Actual Production and sales information:

Month	**Production units**	**Sales units**
June	32,000	26,500
July	30,000	32,600

Cost information:

Variable cost per unit	Amount FRW
Direct material	7,000
Direct labour	11,000
Production overhead	4,000
Selling and distribution overhead costs	3,000
Fixed overheads	
Production overhead	240,000,000
Selling and distribution overhead costs	180,000,000

Additional information:

1. The budgeted monthly production of the company is 32,000 units.
2. The normal selling price of the product is FRW 50,000 per unit.
3. As at the beginning of the month of June, there was no opening inventory or work-in-progress.

Required:

i) Standard cost card for production (2 Marks)
ii) Profit or loss statements for the month of July based on Absorption costing technique (3 Marks)
iii) Profit or loss statements based on Marginal costing technique. (3 Marks)
iv) Reconciliation statement (2 Marks)

(Total: 20 Marks)

QUESTION FIVE

a) The cost volume profit (CVP) analysis has been a traditionally accepted tool by both the economists and accountants in understanding the relationship that exists between the costs, volume of production and profits. Although the economists and accountants have different approach to the CVP, it provides essential information for decision making.

Required:

i) Discuss five limitations of the cost-volume-analysis (CVP) (5 Marks)
ii) Using a table, highlight the differences between the accountants and economists view on CVP (5 Marks)

b) Cyangwa limited is a company located in Huye. The company has been producing a range of products. The policy of the company is to absorb the production overheads at the rate of 200% of the direct wages.

The budgeted figures for the period were as follows:

Direct labour cost	FRW 16,000
Variable production cost	FRW 12,800
Fixed production cost	FRW 19,200

The company's top management has been faced with two issues that they have to make a decision on.

Issue 1:

One of the products that the company sells is product ZEDO. The normal selling price of the product is FRW 440,000. The costs of producing the product are; direct material FRW 160,000 direct labour 80,000 and production overheads 160,000. The company has a received a special order for 400 units of this product at a discount price of FRW320,000. There is adequate production capacity and therefore the normal sales will not be affected.

Issue 2:

Another popular product of the company is called ZIDO and the cost of making this product is given below.

Direct labour	FRW80,000
Direct material	FRW 120,000
Production overhead	FRW 100,000

The company can as well buy this product from an outside supplier for FRW 280,000.

Required:

i) Advice the company on whether to accept the special order under issue 1 **(**4 Marks**)**

ii) Advice the company on the best option under issue 2 and name two other important factors that should be considered before making the decision. (6 Marks)

(Total: 20 Marks)

QUESTION SIX

a) A budget is a financial plan prepared and approved prior to a defined period of time, usually showing expected income to be generated and/or expenditure to be incurred during that period and the capital to be employed to attain a given objective.

Required:

Explain the importance of budgeting in an organisation (6 Marks)

b) Mugwaneza Ltd. is a company operating in the northern province of Rwanda. The company has been performing poorly over the past three years. In a bid to forecast the cash flows to ensure smooth operations, the management accountant has availed the following data that is useful in the preparation of a cash budget for the last quarter of the year 2024.

Actual sales:

Month	**Frw'Million**
June	140
July	220

Budgeted sales

Month	**Frw'Million**
August	188
September	156
October	205
November	208
December	20

Purchases:

Actual	
Month	**Frw'Million**
June	52
July	66
Budgeted	
August	55
September	60.62
October	58
November	76
December	78.05

Additional information:

1. Cash sales are 60% of the total sales. The remaining sales are collected equally during the following two months.
2. The company has applied for a loan and it is expected that the loan will be approved and be received in the month of November. the loan amount is 55 million.
3. The purchases are payable one month following the month of purchase.
4. Monthly production overheads for the period are FRW 12 Million, FRW 12.6 Million, FRW 13.3 Million, FRW 16.2 Million, FRW 17.3 Million, FRW 17.9 Million, FRW 18.6 Million respectively for the months of June, July, august, September, October, November and December respectively. The amount includes a depreciation of FRW 5 Million per month. The overheads are payable in the month in which they are incurred.
5. Selling overheads are paid one month after the month in which the overhead is occurred. The selling overheads are expected to be 10 percent of the budgeted sales per month.
6. Machines worth FRW 200 Million will be purchased in September.
7. Salaries and wages are paid monthly at the end of the month. There are 18 workers in the organisation. 5 workers are in the executive team and are paid a gross salary of 4 Million each while the rest are paid a gross salary of 2.5 Million each.
8. Income tax arrears of FRW 20 million will be payable in December 2024.
9. The cash balance as at 1st October 2024 is estimated at FRW 14.5 Million.

Required:

Prepare a cash budget for the Last quarter of the year commencing 1st October 2024 to 31st December 2024 (10 Marks)

c) Zero based budgeting is a method of budgeting whereby all activities are re-evaluated each time a budget is formulated. ZBB is an attempt to eliminate unnecessary expenditure being retained in budgets. It rejects the common approach of setting budgets by taking last year's expenditure as the starting point for this year's budget, and instead requires that the budget be built up from scratch.

Required:

Based on the above information, discuss the steps followed in the preparation of a zero-based budget. (4 Marks)

(Total: 20 Marks)

QUESTION SEVEN

a) The standards should be compared with the actual performance to determine variances. Once a variance has been identified, investigations should be carried out to determine the major cause of the variances.

Required:

Explain two major causes of material price variance (2 Marks)

b) Habimana limited has been operating in Kigali as a successful manufacturing company specialising in the manufacture of iron sheets. The company operates a standard marginal costing system. The following data has been extracted from its books relating to the month of July 2024 relating to one of the major products galvanised iron sheets branded Farasi.

Actual costs incurred:

Direct labour (576,000 hours)	FRW 4,176,000
Direct material (118,800 kg)	FRW 1,128,600
Variable production overheads	FRW 1,209,600
Fixed production overheads	FRW 4,860,000

Additional information:

1. The following variances have also been extracted from the books of Habimana limited.

Material price variance	59,400	Favourable
Material usage variance	108,000	Adverse
Labour rate variance	144,000	Adverse
Labour efficiency variance	252,000	Adverse
Variable overhead expenditure variance	57,600	Adverse
Variable overhead efficiency variance	72,000	Adverse
Fixed overhead expenditure variance	90,000	Favourable
Fixed overhead volume variance	396,000	Favourable

2. The actual units that were produced during the month of July was 108,000
3. Fixed overheads per unit were budgeted at FRW 49.5.
4. The variable overheads are absorbed based on actual labour hours.

Required:

Prepare a standard cost card of product Farasi for the month of July 2024 (8 Marks)

c) The following information relates to the budgeted and actual results of Hirwa enterprises for the month of May 2024.

Budgeted information:

	FRW	**FRW**
Sales (2,000 units)		5,200,000
Less variable costs		
Direct materials (4,000 kg @ RWF300)	1,200,000	
Direct wages (4,000 hours @ RWF400)	1,600,000	
Variable overheads (4,000 hours @ RWF100	400,000	(3,200,000)
Contribution		2,000,000
Less		
Fixed overheads		(200,000)
Net profit		1,800,000

Actual information:

	FRW	FRW
Sales (1,900 units)		4,700,000
Less variable costs		
Direct materials (3,900 kg)	1,150,000	
Direct wages (3,700 hours)	1,550,000	
Variable overheads	390,000	(3,090,000)
Contribution		1,610,000
Fixed overheads		(210,000)
Net profit		1,400,000

The company uses variable costing method

Required:

Using the information provided, prepare an operating statement that reconciles the budgeted profit and actual profit (10 Marks)

(Total: 20 Marks)

End of the question paper

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