
CERTIFIED PUBLIC ACCOUNTANT FOUNDATION LEVEL 2 EXAMINATIONS

F2.1: MANAGEMENT ACCOUNTING

FRIDAY: 02 DECEMBER 2016

INSTRUCTIONS:

- 1. Time Allowed: 3 hours 15 minutes** (15 minutes reading and 3 hours writing).
- This examination has **seven** questions and only **five** questions are to be attempted.
- Marks allocated to each question are shown at the end of the question.
- Show all your workings.
- All iCPAR Examination rules and regulations apply.

Attempt any five questions

QUESTION ONE

- (a) Zentico Ltd deals in the production on iron sheets and the company has provided you with the following information for the month of September, 2016:

	Frw
Total fixed cost	150,000,000
Selling price per iron sheet	20,000
Cost per iron sheet:	
Direct material cost	5,000
Direct labour cost	4,000
Other variable cost	6,000

REQUIRED:

- (i) Determine the company's break-even point/ sales in units and revenue. **(4 Marks)**
- (ii) If the variable cost per iron sheet reduces by 10%, selling price per iron sheet increases by 5% and the total fixed costs drop by 20%, determine the new break-even point of the company in units. **(2 Marks)**
- (iii) Calculate the company's margin of safety in units using the break-even units obtained above if budgeted production is 40, 000 iron sheets. **(1 Mark)**

- (b) Umubano Investments Ltd (UIL) budgets to sell 100,000 bottles of its product 'power drink'. The variable cost per unit is Frw 10,000 and the company has annual fixed cost of Frw 40 million.

REQUIRED:

- (i) Determine the price UIL should charge in order to break even. **(2 Marks)**
- (ii) Obtain the number of units to be sold in order to yield a profit after tax of Frw 20 million using the selling price in (b) (i) above. **(2 Marks)**
- (c) (i) With graphical illustrations, explain the break-even point of a firm. **(5 Marks)**
- (ii) Outline the assumptions of break-even analysis using the accountants' model. **(4 Marks)**

(Total 20 Marks)

QUESTION TWO

- (a) Kigali Investments Ltd (KIL) produces pieces that are used in the game of chess namely: Bishops, Kings and Pawns. The following information relates to the company for the year ended 30 June, 2016.

	Bishops	Kings	Pawns
	Frw '000'	Frw '000'	Frw '000'
Sales	100,700	94,600	83,400
Variable costs	<u>(80,400)</u>	<u>(76,200)</u>	<u>(67,000)</u>
Contribution	20,300	18,400	16,400
Fixed costs	<u>(11,600)</u>	<u>(21,300)</u>	<u>(14,100)</u>
Profit/loss	<u>8,700</u>	<u>(2,900)</u>	<u>2,300</u>

Management of KIL is worried about the performance of the company and is considering dropping the production of Kings. If dropped, only 60% of the fixed costs of Kings will be saved.

REQUIRED:

- (i) Using relevant computations, determine whether KIL should stop producing Kings. **(4 Marks)**
- (ii) Given that Kings and Bishops are substitutes with 70% effect on sales, determine whether the decision in a (i) above would change. **(3 Marks)**
- (b) Urubura Ltd specialises in production of ice cream which is packed in special tins and has provided you with the following data relating to the month of August, 2016.

Total output	642 tins
Budgeted time per tin	10 minutes
Actual time taken for 642 tins	90 hours
Rate per hour (wage rate)	Frw 24,000
Piece rate (wage rate per unit)	Frw 1,840

REQUIRED:

Calculate Urubura Ltd's total wage bill for August, 2016 using:

- (i) Halsey premium scheme (50% sharing). **(2 Marks)**
- (ii) Rowan scheme. **(2 Marks)**
- (iii) Straight piece rate. **(1 Mark)**
- (iv) Time rate method. **(1 Mark)**
- (c) (i) Explain any five causes of labour turnover in organisations. **(5 Marks)**
- (ii) Distinguish between job evaluation and merit rating **(2 Marks)**
- (Total 20 Marks)**

QUESTION THREE

- (a) Distinguish between absorption costing and marginal costing techniques of cost accumulation. **(4 Marks)**
- (b) Maya International Ltd (MIL) is in the process of finalising its budget for the financial year ending 31 December, 2017 and has availed the following budget information to you for guidance before final approval of the budget.

The company has 2 service departments and 3 production departments and information regarding their costs is given below:

	Total	Service departments		Production departments		
	Frw '000'	Frw '000'	Frw '000'	Frw '000'	Frw '000'	Frw '000'
		A	B	X	Y	Z
Indirect wages	395,300	74,000	60,000	77,000	80,000	104,300
Consumable	150,000	20,000	16,000	40,000	27,000	47,000
Power	44,000					
Rent and rates	60,000					
Machine depreciation	41,000					
Lighting	21,400					

Additional information:

	Total	A	B	X	Y	Z
Power usage (units)	346	47	24	84	76	115
Value of machinery (Frw '000')	401,000	17,000	16,700	146,000	174,600	46,700
Floor area (m ²)	50,000	10,000	12,000	16,000	4,000	8,000
Direct labour hours	30,000	-	-	11,000	12,000	7,000

The overheads of services departments are charged out as under:

Department	X	Y	Z	A	B
A	30%	30%	20%	-	20%
B	40%	30%	20%	10%	-

REQUIRED:

Carry out secondary overheads apportionment using the repeated distribution method. **(16 Marks)**

(Total 20 Marks)

QUESTION FOUR

(a) Explain the differences between management accounting and financial accounting. **(10 Marks)**

(b) Rusizi Ltd (RL) manufactures cement and has provided you with the following information about its operations in the previous financial year.

Production/ sales per week (bags)	4,000
Cost of placing an order for material (Frw)	2,400
Cost of each bag of raw material (Frw)	25,000
Cost of holding raw material was 5%	
Lead time (weeks)	6 - 8
Maximum usage (bags)	4,200
Minimum usage (bags)	140

REQUIRED:

Compute the following using the above information:

- (i) Economic order quantity. **(4 Marks)**
- (ii) Re-order level. **(2 Marks)**
- (iii) Maximum inventory level. **(2 Marks)**
- (iv) Number of orders to be made in a year. **(2 Marks)**

(Total 20 Marks)

QUESTION FIVE

Gicumbi Ltd (GL) is a manufacturing company specialising in the production of bags and prepares budgets on a quarterly basis. The following information relates to the 2nd quarter ending 30 June, 2017.

	Sales	Wages	Overheads
Months	Bags	Frw '000'	Frw '000'
January	550	7,400	4,400
February	600	7,600	3,800
March	750	7,800	4,200
April	690	8,000	4,600
May	780	8,400	4,800
June	900	9,000	5,000

Additional Information :

- 1 The company sells finished bags at a cost plus mark up of 25% upon incurring total cost of production of Frw 16,000 per bag.
- 2 Cash sales are 30% of total sales, 50% of the credit sales are collected after one month and the balance in the following month.
- 3 Material purchases are projected to be as follows at Frw 15,000 per unit.

Month	January	February	March	April	May	June
Quantity (units)	550	600	750	690	780	900

- 4 Credit purchases are 40% of the total purchases payable after one month.
- 5 Wages and overheads are paid in the month in which they are incurred.
- 6 Cash balance on 1 April, 2017 is expected to be Frw 2,000,000.
- 7 Machinery with expected useful life of 5 years will be acquired in February and paid in four equal installments of Frw 2,500,000 per month from March onwards.
- 8 Gicumbi Ltd will receive a grant totaling to Frw 21,000,000 from the Government in three consecutive equal installments from 1 April, 2017.
- 9 Dividends at 10% on preference share capital of Frw 3,000,000 will be paid on 1 May, 2017.
- 10 A long-term loan of Frw 6,000,000 is being processed and the company's account will be credited in April. The borrowing rate is 10% per annum; monthly interest expense is on quarterly basis effective June, 2017.
- 11 All prices and costs are projected to remain constant.

REQUIRED:

- (a) Prepare a cash budget for GL for the 2nd quarter ending on 30 June, 2017. **(16 Marks)**
- (b) Distinguish between the following concepts as used in budgeting:
 - (i) Activity- based budgeting and rolling budgeting **(2 Marks)**
 - (ii) Functional budgets and master budgets **(2 Marks)**

(Total 20 Marks)

QUESTION SIX

Uwimana is sole proprietor dealing in the manufacture of Ted bears. The following data relates to the production and sales of her Ted bears.

	Unit cost (Frw)
Direct material 2 meters of wool at Frw 625 per meter.	1,250
Direct labour 4 hours at Frw 820 per hour	3,280
Cost per unit	<u>4,530</u>

The budgeted selling price of each Ted bear is Frw 6,250.

200 Ted bears are expected to be produced and sold every month at Frw 6,550 per Ted bear. Actual results for the month of April, 2016 were as follows:

Ted bears produced and sold (units)	180
Material purchases (meters)	400
Total cost of purchases (Frw)	280,000
Direct labour (Frw)	540,000
Fixed costs (Frw)	320,000

REQUIRED:

- (a) Determine the actual profit for the month of April, 2016. **(6 Marks)**
- (b) Calculate the following variances:
- (i) Material price. **(2 Marks)**
 - (ii) Material usage. **(2 Marks)**
 - (iii) Sales price. **(2 Marks)**
 - (iv) Sales volume. **(2 Marks)**
 - (v) Labour rate. **(2 Marks)**
- (c) Explain the possible causes of material variances. **(4 Marks)**

(Total 20 Marks)

QUESTION SEVEN

Rusaro Ltd specialises in the tailoring of dresses for ladies which they sell on retail basis. The following information is provided from their books of account for the month of August, 2016.

	Frw '000'
Sales (1200 dresses)	24,000
Direct materials 1.5 meters at Frw 6000 per metre	10,800
Direct labour 2hrs at Frw 2,000 per hour	4,800
Variable overheads at Frw 2,000 per dress	<u>2,400</u>
Contribution	6,000
Fixed cost	<u>(2,700)</u>
Profit	<u>3,300</u>

During the month of August, the tailoring industry is usually in a recession and customers tend to reduce. Kwizera Secondary School has offered to buy 1,500 dresses for their students at Frw 18,000 per dress while Mazima Secondary School has offered to buy 1,000 dresses at Frw 17,400 per dress. With the available unutilized capacity, Rusaro Ltd can only take up one of the two offers but not both.

REQUIRED:

- (a) With relevant calculations, advise Rusaro Ltd on which offer to accept. **(9 Marks)**
- (b) Gatare Ltd received an order from Rubaya Primary School for 10,000 benches of a standard size. The following costs would be incurred to produce the benches.

Direct materials	50,000 pieces of timber at Frw 10,000 per piece
Nails	10,000 kg at Frw 2,000 per Kg
Vanish	2,000 litres at Frw 7,000 per litre

Benches go through two departments and each department costs labour as follows:

Department A:	1,000 hours at Frw 10,000 per hour.
Department B:	10 men working for 30 days at Frw 25,000 per worker per day.

All variable overheads are absorbed at 10% of the prime cost and the company incurs a fixed production cost per bench equivalent to Frw 5,000.

REQUIRED:

- (i) Determine the total cost of production. **(5 Marks)**
- (ii) Determine the unit selling price that should be charged if Gatare Ltd targets a profit of 20% on cost. **(2 Marks)**
- (c) Define the following terms as used in cost classification:
- (i) Opportunity costs. **(1 Mark)**
 - (ii) Sunk costs. **(1 Mark)**
 - (iii) Committed costs. **(1 Mark)**
 - (iv) Cost object. **(1 Mark)**
- (Total 20 Marks)**

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