

**CERTIFIED ACCOUNTING TECHNICIAN
LEVEL 2 EXAMINATION**

L2.3: MANAGEMENT ACCOUNTING

TUESDAY: 28 NOVEMBER 2017

INSTRUCTIONS:

1. **Time Allowed: 3 hours 15 minutes** (15 minutes reading and 3 hours writing).
2. This examination has **seven (7)** questions and only **five (5)** questions are to be attempted.
3. Marks allocated to each question are shown at the end of the question.
4. Show all your workings.
5. All iCPAR Examination rules and regulations apply.

Attempt any five questions

QUESTION ONE

- (a) Explain any **two** limitations of CVP analysis. **(4 Marks)**
- (b) Bagaza Enterprises Ltd (BEL) deals in the manufacture and supply of counter books that are mainly used by students in Rusizi district with a few supplies made to offices. During the planning process for the month of December, 2017 the cost accountant disclosed that fixed costs and unit variable costs during the period are estimated to be Frw 2,000,000 and Frw 2,000 respectively. The books are to be sold at a competitive unit price of Frw 2,500 and estimated sales during the period are 6,000 books.

REQUIRED:

Determine:

- (i) The number of counter books to be sold in order to breakeven. **(4 Marks)**
- (ii) BEL's margin of safety. **(3 Marks)**
- (iii) The number of books that should be sold in order to achieve a target profit of Frw 1,000,000. **(3 Marks)**
- (c) Bagaza Files and Folders (BFFL), a subsidiary of BEL produces box files and file folders and has been in operation for 5 months since June, 2017. Its performance report regarding the production of box files has been provided as shown below:

Month	Total cost (Frw '000')	Units
June	2,500	500
July	2,900	700
August	2,300	400
September	3,000	750
October	3,300	900

Management plans to produce 1,200 files during the month of November, 2017.

REQUIRED:

Determine the total cost to be incurred by BFFL during the month of November, 2017 using the high-low method. **(6 Marks)**

(Total 20 Marks)

QUESTION TWO

Jean de Dieu Construction Limited (JDCL) won a tender to construct an administration and a classroom block for one of the schools in Muhanga district. The company expects to complete the project within a period of 8 months and the estimated overhead costs are Frw 193,847,500. The company's cost accountant has provided the following overhead cost breakdown regarding the project:

	Frw
Material procurement	76,845,500
Setting up machines	14,190,000
Machine maintenance	30,638,000
Product assembly	47,058,500
Quality control	25,115,500

The following information regarding the cost driver rates has also been provided:

Cost driver	Administration block	Classroom block
Number of orders	80	40
Machine setups	16	10
Machine maintenance hours	6	3
Direct labour hours	16,000	12,000
Inspection hours	550	300

REQUIRED:

(a) Calculate, using activity-based costing (ABC), the total overhead cost per building. **(12 Marks)**

(b) Explain the merits and demerits of ABC.

(8 Marks)

(Total 20 Marks)

QUESTION THREE

(a) Explain any **three** merits and demerits of budgeting in organizations. **(6 Marks)**

(b) Wawa Clays Limited (WCL) located in Gitarama district deals in the production and sale of different clay products. The management accountant has provided the following information regarding the WCL's costs for the previous three months.

Month	September		October		November	
Capacity	45%		55%		60%	
	Units	Total cost	Units	Total cost	Units	Total cost
Particulars		Frw '000'		Frw '000'		Frw '000'
Flower vessels	22,500	11,250	27,500	13,750	30,000	15,000
Charcoal stoves	33,750	6,750	41,250	8,250	45,000	9,000

Bricks	135,000	6,750	165,000	8,250	180,000	9,000
Roofing tiles	112,500	50,625	137,500	61,875	150,000	67,500
Max pans	144,000	46,080	176,000	56,320	192,000	61,440
Bowels	67,500	10,125	82,500	12,375	90,000	13,500
Pots	38,250	13,387.50	46,750	16,362.50	51,000	17,850

For the month of December, the marketing manager has predicted an increase in demand for all products and subsequently requested for an increase in production to 75% capacity. All costs are expected to remain constant during the month.

REQUIRED:

Prepare a budget for the month of December based on 75% capacity level.

(14 Marks)

(Total 20 Marks)

QUESTION FOUR

(a) Giving an example in each case, define the following as used in process costing:

- (i) Joint products. **(2 Marks)**
- (ii) By-products. **(2 Marks)**
- (iii) Normal losses. **(2 Marks)**

(b) Sparkles is a washing detergent made by mixing different chemicals and preservatives through two different processes. The output of process 1 is the input for process 2 where it is mixed with other chemicals and preservatives to come up with the final product. The process costs for the month of October, 2017 were as follows:

	Process 1	Process 2
Material	6,000 litres at Frw 500 per litre.	4,000 litres at Frw 700 per litre
Labour	Frw 2,400,000.	Frw 1,600,000.
Processing time;	120 hours at Frw 2,000 per hour	180 hours at Frw 3,500 per hour.
Normal output	90% of inputs	95% of inputs
Sale of scrap	Frw 300 per litre	Frw 400 per litre
Actual output	4,000 litres	6,500 litres

General overheads were Frw 3,000,000 and are absorbed into the processes on the basis of processing time. There was no opening or closing stock during the period and all scrap was sold.

REQUIRED:

- (i) Process 1 account. **(7 Marks)**
- (ii) Process 2 account. **(7 Marks)**

(Total 20 Marks)

QUESTION FIVE

(a) Briefly explain the following terms as used in inventory management.

- (i) Bin card. **(2 Marks)**
- (ii) Stores ledger. **(2 Marks)**
- (iii) Re-order level. **(2 Marks)**
- (iv) Lead time. **(2 Marks)**

(b) Nzigira Enterprises Ltd (NEL) is one of the largest wholesale businesses in Rubavu district. In order to achieve a competitive advantage, management has decided to offer quantity discounts to three major products i.e. sugar, soap and cooking oil to retailers as below:

Sugar (kg)		Soap (boxes)		Cooking oil (10 litre jerry cans)	
Quantity	Discount (%)	Quantity	Discount (%)	Quantity	Discount (%)
>500	15	>80	15	>50	15
400-500	10	60-80	10	30-50	10
250-300	5	40-60	5	20-30	5

Information regarding the unit selling prices of the three products has also been provided as follows:

Product	Frw
Sugar	1,250
Soap	9,000
Cooking oil	15,000

During the month of October, 2017 Mr. Buyoya, one of the key customers, made the following purchases.

Product	Quantity
Sugar	525 kg
Soap	41 boxes
Cooling oil	37 jerry cans

REQUIRED:

Determine the total revenue received from Mr. Buyoya during the month of October, 2017. **(6 Marks)**

(c) The management of NEL are planning to manage their inventory costs more especially for sugar which is the fastest moving product. Sugar is purchased from the factory at Frw 1,100 per kg; average annual demand is 100,000 kg, ordering cost is Frw 1,000 while the holding cost per kg is Frw 150.

REQUIRED:

Determine the following for NEL:

- (i) Economic order quantity. **(2 Marks)**
- (ii) Total holding costs. **(2 Marks)**
- (iii) Total ordering costs. **(2 Marks)**

(Total 20 Marks)

QUESTION SIX

Nzabamwita Ltd deals in the printing and publication of magazines. The company has received a contract from Nkunzi Bridals Ltd to supply 5,000 bridal magazines each at Frw 3,000 on a monthly basis for five years. During a management meeting, the general manager of Nzabamwita Ltd revealed that the company would be over strained and therefore should sub-contract the services to KK Publications Ltd for a net return of Frw 350 per magazine. The production manager has revealed that there would be enough capacity to execute the contract and that production requirements per magazine would be as follows:

Particulars	Frw
Direct materials	700
Direct labour	500
Variable overheads	300
Binding	550

The design of the magazine is to be changed on a monthly basis and the estimated design costs will be Frw 2, 000,000 while monthly transport costs of Frw 750, 000 will have to be incurred by Nzabamwita Ltd. KK Publications Ltd is ready to receive the deal with open hands.

REQUIRED:

- (a) Advise the management of Nzabamwita Ltd on whether to sub-contract KK Publications Ltd or carry out production internally. **(14 Marks)**
- (b) Explain any **three** factors that should be considered before management makes a make or buy decision. **(6 Marks)**

(Total 20 Marks)

QUESTION SEVEN

- (a) Explain any **three** merits and **three** demerits of the just-in-time inventory management system. **(6 Marks)**
- (b) Chantal Ltd whose financial year ends 31 October deals in the manufacture of soft drinks that are mainly consumed by the working class population in the capital of Kigali. Their

budgeted and actual information for the month of November, 2017 is provided as follows:

Budget:

Unit sales 2,000,000

	Frw "000"	Frw "000"
Sales revenue		3,000,000
Less variable costs:		
Direct materials (Frw 300 per kg)	600,000	
Direct labour (Frw 500 per hour)	1,000,000	
Variable overheads	<u>200,000</u>	<u>(1,800,000)</u>
Contribution		1,200,000
Fixed over heads		<u>(300,000)</u>
Profit		<u>900,000</u>

Actual:

Unit sales 1,950,000

	Frw "000"	Frw "000"
Sales revenue		3,022,500
Less variable costs:		
Direct materials (Frw 350 per kg)	682,500	
Direct labour (Frw 600 per hour)	1,170,000	
Variable overheads	<u>234,000</u>	<u>(2,086,500)</u>
Contribution		936,000
Fixed over heads		<u>300,000</u>
Profit		<u>636,000</u>

REQUIRED:

Determine the following:

- (i) Material price variance. (4 Marks)
 - (ii) Sales price Variance. (4 Marks)
 - (iii) Labour rate Variance. (4 Marks)
- (c) Distinguish between a favourable total cost variance and an adverse total cost variance. (2 Marks)
- (Total 20 Marks)**

End of question paper

