
CERTIFIED PUBLIC ACCOUNTANT
LEVEL 2 EXAMINATIONS
F2.1: MANAGEMENT ACCOUNTING
MONDAY: 8 JUNE 2015

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 are to be attempted.
3. Marks allocated to each question are shown at the end of the question.
4. Show all your workings

QUESTION ONE

- (a) Explain the importance of management accounting in decision making process. **(2 Marks)**
- (b) Bugarama Metals Ltd manufactures school desks using four different raw materials. Currently, they have a huge order from government to supply a number of desks in Southern Province.

When manufacturing the desks, it is Bugarama Metals' policy to hold inventory of finished goods at the end of each month equal to 20% of the following month's sales demand and it is expected that the inventory at the start of the budget period will meet this policy.

Material :	W	1.5 Kg	@ Frw1.75/Kg
	X	1 Kg	@ Frw2.50/Kg
	Y	2 Kg	@ Frw3.25/Kg
	Z	0.1 Kg	@ Frw2.00/Kg
Labour		4 hours	@ Frw4.00/hour

The inflation is expected to be 5% per month effective from February.

Budgeted selling price for each desk is Frw 125

Bugarama Metals Ltd is considering its budget for the year 2014 and has made the following estimates of sales demand for the desks during the first 4 months of 2014

January	February	March	April
200 Desks	150 Desks	300 Desks	225 Desks

At the end of the production process, the desks are tested and usually 5% of those tested are faulty and are not replaced.

The raw material inventories are expected to be as follows on 1 January, 2014:

Material:	W	500 Kgs
	X	200 Kgs
	Y	300 Kgs
	Z	100 Kgs

The Management Accountant has stated that inventories are to be increased by 10% in January, and then remain at their new level for the remainder of the year.

Labour is paid on an hourly rate based on attendance. However 20% of attendance time is considered to be idle time and has not been included in the unit direct labour time shown above.

REQUIRED:

Prepare the following budget for the quarter from January 2014 to March 2014.

- (i) Sales budget in quantity and value; **(2 Marks)**
- (ii) Production budget in units; **(4 Marks)**
- (iii) Raw materials usage budget in Kgs; **(4 Marks)**

(iv) Raw materials purchases in Kgs and value **(4 Marks)**

(v) Labour requirements budget in hours and value **(4 Marks)**

(Total 20 Marks)

QUESTION TWO

The following data has been provided by a catering company that prepares banquets and parties for both individuals and business functions throughout the year. The data indicates that overhead expenses vary with the direct labour hours used.

Month	Labour hours (X)	Overhead costs (Frw.)(Y)
June	250	55,000
July	270	59,000
August	300	60,000
September	420	64,000
October	450	67,000
November	550	71,000
December	650	74,000
January	750	77,000
February	700	75,000
March	450	68,000
April	310	62,000
May	650	73,000
Total	<u>5,750</u>	<u>805,000</u>

a) Estimate the cost function using the high low method and linear regression **(15 Marks)**

b) Explain the differences in the answers you derived by the two approaches **(5 Marks)**

(Total 20 Marks)

QUESTION THREE

(a) Most organizations plan for materials to maximize profitability and to minimize material misappropriations. In an attempt to control materials most organizations will maintain stores ledger cards but when they are compared with the actual physical stock checks difference often arise.

REQUIRED:

Explain four possible reasons for the differences between stores ledger card and physical stock checks. **(4 Marks)**

(b) Using a well labelled diagram explain the rationale underlying the economic order quantity. **(4 Marks)**

(c) Explain the advantages of centralized system of maintaining stores. **(4 Marks)**

(d) Kabuga Limited produces a product "RWAS" which is used in manufacture of wide range of industrial products. The main raw material used in the manufacture of the product is raw material K.

The following information is available in relation to material K:

Annual requirement	144,000 units
Ordering costs	Frw 12,500 per order
Annual holding cost per unit	20% of the purchase price
Purchase price per unit	Frw. 500
Safety stock requirements	None

REQUIRED:

- (i) The economic order quantity **(2 Marks)**
- (ii) The number of orders needed per annum **(2 Marks)**
- (iii) Total cost of ordering and holding of material K per year **(4 Marks)**

(Total 20 Marks)

QUESTION FOUR

a) Distinguish between the following cost accounting terminologies:

- i) By-Products and Joint products **(2 Marks)**
- ii) Cost Unit and Cost Center **(2 Marks)**
- iii) Products and Period Costs **(2 Marks)**
- iv) Indirect and Direct costs **(2 Marks)**

b) Discuss FOUR limitations of Cost- Volume – Profit Analysis **(4 Marks)**

d) Consider the information provided below:

Raw materials	200 units each Frw. 800	160,000
Direct labor	500 units each Frw. 200	100,000
Direct expenses	50% of prime cost	
Sales per unit		500,000
Fixed cost		3,585,000

REQUIRED:

- i) Determine the break-even point in terms of units. **(5 Marks)**
- ii) Determine the number of units to be sold to make a target profit of Frw. 10,000 **(3 Marks)**

(Total 20 Marks)

QUESTION FIVE

KUBAHO Ltd manufactures various types of garden hose and operates a method of remuneration based on differential piecework. The output for each employee is expressed in standard units using the following conversion factors:

Type of hose	Rubber	Nylon	Plastic
Metres per standard unit	100	70	130

The differential piecework rates are as follows:

Weekly output per employee (Standard units)	Time allowed (Minutes per standard unit)
First 180 units	10
181- 300 units	13
All units over 300 units	16

In addition an overtime premium is paid based on “time and one half” with a basic week of 36 hours.

The total minutes earned from the differential scheme are paid for at Frw 250 per hour. If piecework earnings are less than hours worked at the time rate then time earnings are paid.

The following data relates to week 10:

Employee	Clock Hours	Output achieved (metres)		
		Rubber	Nylon	Plastic
MUSONI	36	2,000	3,500	10,920
GASANA	40	4,300	7,280	20,800

REQUIRED:

- (i) Calculate the gross earnings for week 10 for each employee. **(14 Marks)**
- (ii) Suggest why (i) management and (ii) workers might find such a remuneration method acceptable. **(6 Marks)**

(Total 20 Marks)

QUESTION SIX

Mbare Company Limited specializes in the manufacture of industrial adhesives. The adhesive is made from a solution of chemical powder X and liquid chemical Y. After manufacturing the adhesive, the company packs it into plastic tubes before distributing it to the customers.

The standard prime cost of a tube of the adhesive is as follows:

Industrial adhesive	
Materials:	Frw. per tube
Powder X	150
Liquid chemical Y	60
Plastic tube	30
Direct labour: Mixing and pouring	180
Total standard prime cost	<u>420</u>

The standard material allowance for each tube of the adhesive is 20 Kg of chemical powder X, ¼ litre of liquid chemical Y and one piece of plastic tube. The standard wage rate of mixing and pouring the chemicals is Frw. 450 per hour.

450,000 tubes of the adhesive were made during the month ended 30 April 2015. There was no work in progress at the beginning or end of the month and the receipts and issues of materials during the month were as shown below:

	Powder Chemical X	Liquid Chemical Y	Plastic tube
Opening stock	150,000 Kg	20,000 litres	10,000 tubes
Purchases	1,000,000 Kg	60,000 litres	20,000 tubes
	@Frw 70 per Kg	@Frw 230 per litre	@ Frw 40 each
		60,000 litres	50,000 tubes
		@Frw 250 per litre	@ Frw 30 each
Issues	980,000Kg	105,000 litres	452,000 tubes

Employees working on the mixing and pouring of the chemicals worked a total of 20,500 hours during the month ended 30 April 2015. They were paid gross wages amounting to Frw. 89,100,000.

It is the policy of the company to analyze variances from the standard prime costs.

REQUIRED:

- (a) Materials price variance **(6 Marks)**
 - (b) Materials usage variance **(6 Marks)**
 - (c) Direct labour efficiency variance **(2 Marks)**
 - (d) Direct wages rate variance **(2 Marks)**
 - (e) (i) Two possible causes of direct labour efficiency variance **(2 Marks)**
 - (ii) Two possible causes of direct material usage variance **(2 Marks)**
- (Total 20 Marks)**

QUESTION SEVEN

Discuss the distinction between volume based overheads absorption method and activity based method of allocating overheads. **(Total 20 Marks)**

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