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# CERTIFIED PUBLIC ACCOUNTANT FOUNDATION LEVEL 2 EXAMINATION

## F2.1: MANAGEMENT ACCOUNTING

**TUESDAY: 10 JUNE 2014**

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### 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) Management accounting is defined as “The application of the principles of accounting and financial management to create, protect, preserve and increase value for the stakeholders of for-profit and not-for-profit enterprises in the public and private sectors”.

The main focus of management accounting is planning, control and decision making.

### Required:

- (i) Briefly explain the stakeholders that management accounting satisfies. **(8 Marks)**
- (ii) Explain what entails planning, control and decision making in management accounting context. **(6 Marks)**
- b) Tiger Auto is a retailer of bicycles. The most popular children’s bicycle has an annual demand of 30,000 units. Demand is predictable and spread evenly throughout the year.

The bicycles are purchased by Tiger Auto for Frw 40,000 each. Ordering costs are Frw 15,000 per order and the annual cost of holding one bicycle in inventory is Frw 2,500.

### Required :

- (i) Calculate the economic order quantity (EOQ) for the children’s bicycle. **(3 Marks)**
- (ii) Calculate the total annual ordering and holding costs for the bicycle assuming the company purchases the EOQ, does not hold any buffer inventory and the lead time is zero. **(3 Marks)**

**(Total 20 Marks)**

## QUESTION TWO

- a) Differentiate between the term “Job Costing” and “Process costing”. **(4 Marks)**
- b) Abacus Rwanda pays its direct employees a basic hourly rate of Frw 1,000. Overtime hours are paid a premium of 20% of the basic hourly rate.

During the last week of May 2014 a total of 18 hours of overtime were worked by 30 employees. Eight of these overtime hours were at the request of a customer to finish an urgent job. The remainder was necessary because of a machine breakdown.

- (i) Determine the total overtime pay for the last week of May 2014 **(4 Marks)**
- (ii) Show the journal entry to record the overtime pay for the week **(4 Marks)**

c) Gross wages incurred for April 2014 for Gorgeous Company were Frw53,400,000 analyzed as follows:

	<b>Direct employees Frw 000</b>	<b>Indirect employees Frw 000</b>	<b>Total Frw “000”</b>
Payment for ordinary time	30,700	12,210	42,910
Payment for overtime:			
--basic pay	3,600	1,534	5,134
--overtime premium	1,800	767	2,567
Shift premium	1,559	1,230	2,789
Gross wages	37,659	15,741	53,400

**Required :**

- (i) Determine the amount to charge to direct labour cost and the production overhead cost for the month of April 2014 **(4 Marks)**
- (ii) Show the journal entry for the labour cost for April 2014 **(4 Marks)**

**(Total 20 Marks)**

**QUESTION THREE**

- a) Explain why a standard costing system may not be considered appropriate in a modern manufacturing environment. **(6 Marks)**
- b) Crome manufactures and sells a single product Krom. The company operates a standard absorption costing system and absorbs overheads on the basis of direct labour hours.

The standard selling price and standard costs for one unit of the product are as follows:

	<b>Frw per unit</b>
Selling price	300,000
Direct material 15 metres @ Frw 9,000 per metre	135,000
Direct labour 5 hours @ Frw12,000 per hour	60,000
Variable production overheads 5 hours @ Frw6,000 per hour	30,000
Fixed production overheads 5 hours @ Frw3,000 per hour	15,000
Gross profit	60,000

The budgeted production and sales for February 2014 were 1,000 units. The fixed overhead absorption rate has been calculated based on budgeted production for the month.

Actual results for February were as follows :

Production	1,400 units
Sales	1,200 units
Selling price	Frw 306,000 per unit
Direct materials	22,000 metres @ Frw12,000 per metre
Direct labour	6,800 hours @ Frw15,000 per hour
Variable production overheads	Frw33,000,000
Fixed production overheads	Frw18,000,000

No materials inventories are held.

**Required :**

- (i) Prepare a statement to show the actual gross profit for February 2014 **(4 Marks)**
- (ii) Prepare a statement that reconciles the budgeted gross profit with the actual gross profit for February 2014. Your statement should show the variances in as much detail as possible. **(10 Marks)**

**(Total 20 Marks)**

**QUESTION FOUR**

- a) Differentiate between absorption costing and activity based costing. **(4 Marks)**
- b) Rwamagana Metals Ltd (RML) manufactures three types of iron products for sale to retailers. RML currently operates a standard absorption costing system. Budgeted information for next year is given below :

Iron products	Pipes	Sheets	Bars	Total
	Frw 000	Frw 000	Frw 000	Frw 000
Sales	60,000	38,000	22,000	120,000
Direct material	11,800	6,200	4,000	22,000
Direct labour	3,700	2,400	1,900	8,000
Fixed production overheads				15,400
Gross profit				74,600



<b>Iron products</b>	<b>Pipes</b>	<b>Sheets</b>	<b>Bars</b>
Production and sales (units)	1,000,000	1,200,000	600,000

Fixed production overheads are absorbed using a direct material cost percentage rate.

The management accountant of RML is proposing changing to an activity based costing system.

The main activities and their associated cost drivers and overhead cost have been identified as follows:

<b>Activity</b>	<b>Cost Driver</b>	<b>Production overhead cost</b>
		Frw 000
Machine set up	Number of set ups	3,600
Quality inspection	Number of quality inspections	1,200
Processing	Processing time	6,500
Purchasing	Number of purchase orders	1,800
Packaging	Number of units of product	2,300
		15,400

Further details have been ascertained as follows :

	<b>Pipes</b>	<b>Sheets</b>	<b>Bars</b>
Batch size (units)	1,000	2,000	1,500
Machine set-ups per batch	3	3	4
Purchase orders per batch	2	2	1
Processing time per unit (minutes)	2	3	4
Quality inspections per batch	1	1	1

Calculate for each product:

- The total fixed production overhead costs using the current absorption costing system; **(3 Marks)**
- The total gross profit using the proposed activity based costing system. **(13 Marks)**

**(Total 20 Marks)**

## QUESTION FIVE

- a) A company uses a top-down approach to budgeting. Budgets are imposed by senior management and budget holders are not given the opportunity to participate in the budget setting process.

### Required :

Explain ONE advantage and THREE disadvantages to the company of using this top-down budgeting approach. **(4 Marks)**

- b) Explain why it is important for a business to prepare a cash budget. **(2 Marks)**

- c) State THREE ways, other than borrowing, of improving the cash flow position of a business. **(3 Marks)**

- d) Kigali Designers has decided to purchase t-shirts and print them with a logo to commemorate the world cup soccer 2014 event.

### Sales

The commemorative t-shirts will be sold for Frw 10,000 each and predicted sales are as follows:

June	29,000 t-shirts
July	18,000 t-shirts
August	12,500 t-shirts

One third of sales will be for cash. The remainder will be on credit with the customer paying the month after sale.

### Purchases

The t-shirts will cost Frw 6,000 each and will be purchased in the month prior to sale. It is expected that 10% of the t-shirts purchased will be damaged during the printing process and will not be suitable for sale. The supplier has offered two months credit.

### Capital investment

To print the t-shirts with the logo of the sporting event will require the purchase of a machine costing Frw 30,000,000. The machine will be bought at the start of the project and paid for in July. The machine will have a five-year useful life but no expected residual value. The machine will be used elsewhere in the business at the end of this project.

### Expenses

Expenses, excluding advertising, of Frw 20,000,000 per month will be incurred each month and paid in

the month incurred. Advertising costs of Frw 5,000,000 per month will be incurred in each of the months June, July, and August and will be paid one month in arrears.

**Required:**

Produce a cash budget for the project for each of the three months June, July and August. **(11 Marks)**

**(Total: 20 Marks)**

**QUESTION SIX**

- a) Briefly outline FIVE limitations of Cost-Volume-Profit (CVP) Analysis. **(5 Marks)**
- b) Tremendous Company provided the following information regarding the company's operations for year ended 30/09/2013.

	2012	2013
Sales Frw	25,000,000	20,000,000
Profit as percentage of sales	10%	8%

**Required:**

- (i) Fixed costs **(3 Marks)**
- (ii) Break-even point **(3 Marks)**
- (iii) Margin of safety at a profit of Frw 270,000 **(3 Marks)**
- (iv) The sales value at which profit of Frw 475,000 will be achieved **(3 Marks)**
- (v) Amount of profit if sales is Frw 30,000,000 **(3 Marks)**

**(Total 20 Marks)**

**QUESTION SEVEN**

- a) "Public sector organizations are responsible for taxpayers' money therefore they should no longer be allowed to use incremental budgeting but should instead use a zero based budgeting (ZBB) system".

**Required:**

- (i) Explain the concept of ZBB compared to other budgeting systems **(2 Marks)**
- (ii) Explain TWO advantages and ONE disadvantage of public sector organizations using zero based budgeting (ZBB). **(3 Marks)**
- (iii) Explain the role of committed, engineered and discretionary costs in the operation of zero based budgeting (ZBB). **(6 Marks)**

b) A management accountant of a company has provided detailed information regarding the labour mix for the manufacturing business of the company.

The labour cost shown in the standard cost was made up as follows :

Skilled labour	1.8 hours @ Frw 300 per hour	Frw 540
Semi-skilled labour	1.2 hours @ Frw 150 per hour	Frw 180
	3.0 hours	Frw 720

The actual mix of labour used in October 2013 was as follows :

Skilled labour	64,000 hours costing Frw 17,500,000
Semi-skilled labour	50,000 hours costing Frw 9,060,000

Production and sales for the month of October 2013 was 36,000 units. The management accountant has decided to undertake variance analysis using the detailed information.

**Required :**

Calculate the following variances for October 2013, taking account of the more detailed information regarding the labour mix:

(i) The total labour efficiency variance **(3 Marks)**

(ii) The total labour mix variance **(3 Marks)**

(iii) The total labour yield variance **(3 Marks)**

**(Total: 20 Marks)**

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**End of question paper**