
**CERTIFIED PUBLIC ACCOUNTANT
FOUNDATION LEVEL 2 EXAMINATIONS
F2.1: MANAGEMENT ACCOUNTING
DATE: FRIDAY 30, APRIL 2021**

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.

QUESTION ONE

- a) Budget control is the practice of establishing budgets which identifies the areas of responsibility for individual managers and of regularly comparing actual results to expected results.

(i) Referring to the above statement, explain at least 5 purposes of budget control

(2.5Marks)

(ii) Explain the following types of budgets and give at least 2 advantages of using each one of them:

- Activity based budgeting.

(1.5 Marks)

- Zero based budgeting.

(1.5 Marks)

- b) Horizon Limited is a company incorporated in Rwanda and deals in real estate development. The below data relates to forecasted and actual sales of completed apartments for the fourth months of 2019.

Actual sales:

Months	No of apartments	Amount- Frw
January	12	135,000,000
February	12	135,000,000
March	14	150,000,000
April	14	150,000,000

Forecasted sales

Months	No of apartments	Amount- Frw
May	16	175,000,000
June	22	250,000,000
July	22	250,000,000
August	22	250,000,000

Additional information

- Accounts Receivable: 50 percent of total sales are for cash. The remaining 50% will be collected equally during the following two months- (the firm incurs a negligible bad debt loss).
- Cost of construction: 70% of sales. 90% of this cost is paid in the following month.
- Selling, general and administrative expenses: Frw 1,500,000 per month plus 10% of sales. All these expenses are paid for during the month of incurrence.
- Interest payments: an interest payment on Frw 275,000,000 of bonds outstanding (12% coupon) is paid during July. An annual Frw 95,000,000 sinking fund payment is also made at that time.
- Dividends: A Frw 15,000,000 dividend payment will be declared and made in July.
- Capital expenditures: Frw 90,000,000 will be invested in plant and equipment in June.
- Taxes: Income tax payments of Frw 1,500,000 will be made in July.
- The company wishes to maintain at all times a minimum cash balance of Frw 40,000,000.
- On 30 April 2019, the company had a balance of Frw 40,000,000 on its bank accounts.

Required:

A) Prepare a cash budget for Horizon Ltd, indicating receipts and disbursements for May, June and July. (13.5 Marks)

B) Determine whether or not borrowing will be necessary during the period, and if it is, when and how much. (1 Mark)

(Total: 20Marks)

QUESTION TWO

a) Rwanda General services Limited has three production departments and two services departments. The following relates to budgeted factory overheads for the year ended 31 December 2019:

Production departments			Services department		Total
A	B	C	1	2	
Frw	Frw	Frw	Frw	Frw	Frw
96,000	84,000	60,000	30,000	36,000	306,000

Additional information:

The service department 1 provides the services to other departments in the following percentages.

A: 40%, B: 20%, C: 30%, and 2: 10%

The service department 2 provides the services to the rest of the departments in the following percentages: A: 35%, B: 35%, C:20%, 1: 10%

Required:

a) **Reapportion the service department costs to production taking into account that the service departments serve one another.** (6 Marks)

b) Klaus Jobbing Rwanda Limited deals in bricks manufacturing. On 1 December 2019, this company had one uncompleted job in its factory. The following information relates to the job card N4500 for the uncompleted work:

Particulars	Amount "Frw"
Direct material	630,000
Direct labour (120 hours)	350,000
Factory overhead	240,000
Total	1,220,000

During the month, three new jobs were started in the factory, and the costs of production were as follows:

Direct materials issued to:	"Frw"
Job N4500	2,390,000
Job N4501	1,680,000
Job N4502	3,950,000

Job N4503	4,420,000
Damaged stock written off during the month	2,300,000
Materials transfers between jobs were as follows:	
Job N4502 to Job N4501	250,000
Job N4500 to Job N4502	620,000
Materials returned to store:	
From Job N4500	870,000
From Job N4503	170,000
Direct labor hours recorded	
Job N4500	430 hours
Job N4501	650 hours
Job N4502	280 hours
Job N4503	410 hours

The cost of labour hours during the period was Frw 3,000 per hour and production overhead is absorbed at the rate of Frw 2,000 per direct labour hour. Production overhead incurred during the period amounted to Frw 3,800,000. Completed jobs were delivered to customers and invoiced Frw 5,500,000 for N4500, Frw 8,000,000 for N4502 and Frw 7,500,000 for N4503.

During the period, administration and marketing are added to the cost of sales at the rate of 20% of factory cost.

Required:

- i) **Prepare the job accounts for each job during the month ended 31 December 2019.** (10 Marks)
 - ii) **Prepare the profit/ loss statement on each completed job.** (3Marks)
 - iii) **Determine the factory cost for the uncompleted job.** (1Mark)
- (Total: 20Marks)**

QUESTION THREE

- a) Safintra Rwanda Limited is a manufacturing company dealing in production of roofing iron sheets and other roofing materials. The production of iron sheets passes through 3 distinct processes to get to the final stage. The data below relates to the process 2 during quarter 2 of the year ended 31 December 2019. In the month of March 2019, process 1 closed with some work in progress of 200 units valued at Frw 1,500,000 with completion stages being 20% for materials, 40% for labour and 50% for overhead

During quarter two, 1,250 units were received valued at FRW 5,000 per unit. The following costs were incurred as well:

Particulars	Amount “Frw”
Materials added	5,000,000
Labour	5,450,000
Overhead	3,000,000

At the end of quarter two, 80 % of units received were processed and finished. The rest were still in process and completed at 90% for materials, 75% for labour and 80% for overheads

Required:

Assuming the company uses FIFO in process accounting, you are required to show:

- i) **Statement of equivalent production units.** (5 Marks)
- ii) **Statement of valuation.** (5 Marks)
- iii) **Cost to be transferred to Process 3.** (1Mark)

- b) The management of ABC Limited uses the clocking in and out system to record for labour hours that are used to record payroll and account for employees' wages. They have approached you to help them prepare the payroll for the month of December 2020. The following information has been provided to you:

Employee Number	Employee names	Number of hours worked	Rate of pay per hour (Frw)	Salary advances paid
5011	Ganza	180	8,000	500,000
5012	Rurangwa	160	7,000	470,400
5013	Rugamba	200	7,500	530,500
5014	Muhoza	190	8,000	490,700
5015	Mugwaneza	210	9,500	1,008,900
5016	Shema	180	7,000	679,900
5017	Ishimwe	170	6,000	400,700
5018	Rwibutso	190	7,500	745,000

Additional information

- 1) Normal working hours are 180 per month. Overtime payable for extra hours is calculated at the rate of 30% above the normal pay rate
- 2) PAYE to be deducted is 25% applicable to any excess of Frw 30,000 for the total monthly employee's wage
- 3) RSSB to be deducted at the rate of 15% for each employee
- 4) Welfare fund contribution is Frw 40,000 for each employee

Required:

In a tabular format, determine each company's employee net pay for the month of December 2020.

(9 Marks)

(Total:20Marks)

QUESTION FOUR

- a) Over the years, regression analysis has stood out as one of the powerful statistical tools used in sensitivity analysis, business management decisions and research.
- (i) **As a CPA candidate, explain what is regression analysis in the context of management accounting.** (1 Mark)
- (ii) **Explain at least 4 assumptions of regression analysis.** (4 Marks)
- b) The following data relates to the Maraba Company Limited (MCL) for the month of June 2020:

Dates	Output (units)	Total cost (Frw)
5 June 2020	60	5,100
10 June 2020	45	5,450
15 June 2020	50	6,050
20 June 2020	40	5,400
25 June 2020	60	6,850
30 June 2020	35	6,200

Required:

- (i) **Determine fixed costs and variable cost.** (7 Marks)
- (ii) **Write down the cost equation in the form of $Y = a + bx$.** (1 Mark)
- c)(i) **Explain the term break even chart and at least 3 limitation of using it in decision making.** (2 Marks)
- (ii) East African Promoters (EAP) is organizing a VIP concert at Kigali Arena in 2022 where everyone who will attend the concert will be served with dinner. EAP agreed with Radisson Blue to deliver meals at a cost of Frw 23,000 per spectator. EAP will pay the following costs as well prior to the beginning of the concert:
- To Kigali Arena: Frw 4,567,300
 - To Nyundo live music Band of 25 singers: Frw 700,400 per each singer
- The entrance fee will be 25% markup on the cost of the meal

Required:

The EAP manager has approached you to help him determine the following:

1. **Breakeven tickets and sales value.** (4 Marks)
2. **How many tickets will EAP sell to realize a profit of 3,750,000?** (1 Marks)

(Total: 20Marks)

QUESTION FIVE

- a) Marginal costing and Absorption costing are two main costing techniques that are used in the business environment
- i. Explain the 3 arguments against the use for each costing technique. (3Marks)**
- ii. With aid of examples, explain at least 4 assumptions of marginal costing. (4Marks)**
- b) Terimbere Limited is a company incorporated in Rwanda and produces a single product namely “Ubuntu orange”. Its Cost Manager has prepared the following cost structure based on the normal level of output of 60,000 units:

Particulars	Cost per unit (Frw)
Material cost	8,000
Direct labour	6,000
Variable overheads	10,000
Selling & distribution cost	4,000
Fixed manufacturing overheads	8,000
Total	36,000

At the beginning of the year 2017, the company had opening stock amounting to 20,000 units whose value is based on the above cost structure. The budgeted selling and administration overheads amount to Frw 200 million per year. The company sells the products at Frw 50,000 per unit. The table below presents data related to production and sales for each year:

	2017	2018	2019	Total
Production (units)	45,000	60,000	40,000	145,000
Sales (units)	50,000	55,000	60,000	165,000

Required:

- i) **Prepare the statement of profit or loss for Terimbere Limited based on Absorption and Marginal costing techniques principles for the three years 2017 to 2019. (10 Marks)**
- ii) **With reference to the work done above, explain reasons as to why profits under these two techniques always differ (3 Marks)**
- (Total: 20Marks)**

QUESTION SIX

- a) A company produces two products A and B in a joint process at a joint cost of Frw 900,000. At split off point 1000 units of A and 500 units of B are produced and sales value are Frw 550,000 for A and Frw 450,000 for B. The two products can be further processed at a cost of Frw 300,000 for A and Frw 200,000 for B. The selling price per unit in this case is Frw 1,800 for A and Frw 1,400 for B

Required:

- i) Using physical quantity method, determine the total cost for the product A and B. (7 Marks)
 - ii) Using sales value method, determine the total cost for the product A and B. (5Marks)
 - iii) Using Net realizable value method, determine the total cost for the product A and B (5Marks)
- b) In exercising their duties, Management Accountants have an obligation to maintain the highest standards of ethical responsibility and professionalism. This is not only required by the profession, but also by most organizations to preserve their reputation and public image.

Required:

As a future Management Accountant, explain the standards guiding ethical conduct of Management Accountants as per the Institute of Management Accountants. (3 Marks)
(Total: 20Marks)

QUESTION SEVEN

- a) Explain the following terms as used in standard costing:
- i) Basic standards. (1 Mark)
 - ii) Ideal standards. (1 Mark)
 - iii) Expected standards. (1 Mark)
 - iv) Current standards. (1 Mark)
- b) Define the term variance analysis and explain at least 4 causes of variances. (4 Marks)
- c) CIMERWA Limited was planning to produce a brand-new cement namely- CIMER24 in September 2020. The Management of the company expected that one unit of the new brand cement would take 4 hours in production process and the expected fixed overhead amounts to be Frw 20 million. The standard fixed overhead cost will be Frw 20,000 per 4 hours. This unit will cost Frw 30,000 of direct labour during the 4 hours in production and requires 20 kilograms of gypsum at Frw 2,700 per kilo. At the end of the month, actual overhead expenditure was Frw 20.45 million and the company produced 910 units in 4,500 hours at a total labor cost of Frw 36 million. These units consumed 17,900 kilograms of gypsum at a cost of Frw 45 million.

Required:

Determine

- (i) Fixed overhead variance. (2 Marks)
 - (ii) Overhead expenditure variance. (2 Marks)
 - (iii) Direct labour rate variance. (2 Marks)
 - (iv) Direct labour efficiency variance. (2 Marks)
 - (v) Direct material price variance. (2 Marks)
 - (vi) Direct material usage variance. (2 Marks)
- (Total:20Marks)**