

CERTIFIED PUBLIC ACCOUNTANT FOUNDATION LEVEL 2 EXAMINATIONS F2.1: MANAGEMENT ACCOUNTING

DATE: WEDNESDAY 29, MAY 2024

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.
- 5. The question paper should not be taken out of the examination room.

F2.1 PARMAY 2024ICPARMAY 2024IC

QUESTION ONE

(a) Information is a critical component in an organization. There are many sources of data an organization can use to obtain such important information. Management accounts is one of the very many sources of such information that management requires for use in both short term and long term.

Required:

Explain 4 usefulness of information obtained from management accounting in an organization (8 Marks)

(b) Management accounting differ in a number of areas with financial accounting in terms, scope, application among others.

Required:

Explain six differences between management accounting and financial accounting in the following areas (12 Marks)

(Total: 20 Marks)

QUESTION TWO

(a) One of the fundamental roles of a management accountant is decision making. Decision making is normally defined as a choice of action between alternatives. Only relevant costs should always be factored in the process of making a choice.

Required:

Explain four characteristics of relevant costs which are normally considered when making a decision. (4 Marks)

(b) ZURI Ltd prepared the following budget for the first five months of the year 2023.

Month PARMAY 2024ICPARMAY 2024I	41CPAR 1AY 20241CPARMAY 20241 Sales Budget RMAY 20241CPARMAY 20241CPAR
January CPARNIA JOSAH CHARMA JOSAH CHARMA	22,500 CPARMAY 2024 CPARMAY 202
February PARMAY 2024ICPARMAY 2024ICPARMA	2024ICH RMAY 2024IC PARMAY 2024IC 24,200 ICPARMAY 2024ICPARM
March 0241CPARMAY 20241CPARMAY 20241CPARMA	V2024IC RMAY2024ICPARMAY2024I 22,600 4ICPARMAY2024ICPARMAYA
April V2024CPARMAY2024	NY 2024IC ARMAY 2024ICPARMAY 2024IC 20800 D24ICPARMAY 2024ICPARMAY 202
May 2024ICPARMAYAY2024ICPARMAYAY2024ICPARMAYAY2024ICPARMAYAY2024ICPARMAYAY2024ICPARMAYAY2024ICPARMAYAY2024ICPARMAYAY2024ICPARMAYAY2024ICPARMAYAYAYAYAYAYAYAYAYAYAYAYAYAYAYAYAYAYA	AY20241 PARMAY 2024 CPARMAY 2024 18,200 DESIGNARY 2024 CPARMAY 2024 CP

Additional information

- 1. Inventory of finished goods at the end of every month is to be equal to 25% of sales estimate for the next month
- 2. On 1st January, 2023, there were 5,200 units of the product on hand
- 3. There is no work in progress at the end of the month

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- 4. The selling price per unit was estimated to be FRW 3,500 per unit
- 5. Each unit of the product requires two types of materials in the following quantities:

Material A: 8 kgs Material B: 6 kgs

Required:

For the months of February, March and April, 2023 prepare:

PLRA	Sales Budget HCPARMAY2024ICPAR	(3 Marks)
Aii.	Production Budget AY2024ICPARMAY202AICPARMAY202AICPARMAY202AICPARM	(3 Marks)
iii.	. Materials Usage Budget ALCPARMAY 2024ICPARMAY 2024ICPAR	(3 Marks)

(c) The Chief Executive Officer of Mediplan Hospital would like to establish a cost formula linking the administrative costs involved in admitting patients to the number of patients admitted during the month. The admissions departments costs and the number of patients during the last seven months for the year 2022 are given below:

Month 2024 ICPARMAY 2024 ICPAR	Number of Patients Admitted	Admission Departments Costs FRW
June PMAY 2012-11-CPARMAY 2012	11 PARMAY Y2024ICPARMA 3,800 ARMAY 2024ICPARMA 3,800 CPARMAY 2024	CPARMAY2024ICPAR 304,000 PARMAY2024ICPAR
July ARMAY 2024 CPARMAY 202	AICPARWA VY2024ICPARWA 3,400 PARWAY 202	1CPARMA 20241CPA 274,000 PARMAY 20241CPA
August Ay 2024 CPARMAY 20	24ICPARM AY2024ICPAR 3,200 PARMAY202	41CPARMAY 2024ICPA 280,000 CPARMAY 2024ICPA
September	024ICPARNU AY2024ICPAR 3,000 CPARMAY 202-	141CPARMAY 2024ICP 286,000 HCPARMAY 2024ICP
October	2,600 CIARMAY 2024 CPA 2,600	241CPARMAY20241CP 262,000 41CPARMAY20241C
November	2024ICPARN AY 2024ICPA 2,200 ICPARMAY 20	024ICPARMAY2024IC 256,000 CPARMAY2024IC
December	V2024ICPAR IAY2024ICPA3,100 AICPARMAY2	282,000 IICPARMAY2024 282,000 IICPARMAY2024

Required:

Using high low method

i. Estimate the variable cost per patient (3 Marks)

ii. Estimate the fixed cost incurred by Mediplan Hospital (2 Marks)

iii. Estimate the Admission Department Cost of admitting 2,100 patients in the hospital using which function/model-one determined by high-low method or one determined by regression analysis. (2 Marks)

(Total: 20 Marks)

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QUESTION THREE

a) The following data relates to **Kayunga company ltd** for the year ended 31st December 2021.

Budget details

- 1. Direct material purchases 50,000 kgs @ FRW 80 per kg
- 2. Direct labor cost 60,000 hours @ FRW 70 per labor hour
- 3. Variable production over heads 60,000 hours @ FRW 50 per labor hour
- 4. Fixed production overheads FRW 1,000,000
- 5. Budgeted production 100,000 units

Actual performance

- 1. Direct material 48,000 kg @ FRW 85 per kg
- 2. Direct labor cost @ FRW 65 per hour FRW 3,770,000.
- 3. Variable production overhead @ FRW 45 per hour FRW 2,610,000
- 4. Fixed production overhead FRW 1,200,000
- 5. Actual production 90,000 units

Required:

Calculate the following variances

(1)241	Material price variance MAY2024ICPARMAY202	(2 Marks)
yii,24	Material usage variance May 2024 ICPARMAY 20	(2 Marks)
iii.	Labor rate variance CPARMAY 2024 ICPARMAY 20	(2 Marks)
iv.	Labor efficiency variance	(2 Marks)
V.	Variable overhead efficiency variance	(2 Marks)
vi.	Variable overhead expenditure variance	(2 Marks)

b) Explain the following terms as used in standard costing

PARM	Attainable Standards Attainabl	(2 Marks)
P ii. M	Ideal Standard PARMAY2024ICPAR	(2 Marks)
iii.	Current Standard MAY2024ICPARMAYAMAY2024ICPARMAYAMAY2024ICPARMAYAMAY2024ICPARMAYAMAY2024ICPARMAYAMAYAMAYAMAYAMAYAMAYAMAYAMAYAMAYAMA	(2 Marks)
iv.	Basic Standard ARMAY 2024 CPARMAY 2024 CPARM	(2 Marks)

(Total: 20 Marks)

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QUESTION FOUR

(a) Amani Ltd manufactures three products namely A, B and C.

The following data relates to the three products

MAY2024ICPARMAY2024ICPARMAY2024ICPARMAY2024IGPARMAYAY0AYA	RMAY202 ACPARMAT	2024ICPARMB(2024ICPARM)	MAY2024IC CARMAY2024I
Demand in units	2,000	3,000	1,800
RMAY 2024ICPARMAY 2024ICPARMAY AU- MAY 2024ICPARMAY 2024I	FRW PARMA	20241C FRW 20241C	FRW
Selling price per unit	2,500	3,200	4,600
Production cost per unit:	4ICPARMAY2024ICPARMA CPARMAY2024ICPARMA	AY2024ICPARMAY2024ICPA	RMAY2024ICPARMAY20 PARMAY2024ICPARMAY
Labour cost	ICPAR 400	560	800
Raw materials	700 24ICPA	1,100	1,550

Additional information:

- 1. Highly skilled labour is required for the installation of the three products in the customer's premises. A maximum of 25,000 hours of highly skilled labour are currently available at FRW 80 per hour during the production period
- 2. Fixed cost for the production period is FRW 4,500,000.

Required:

MAY2	Find the current short fall in the highly skilled labour	(2 Marks)
ii.	Calculate the optimal production plan	(6 Marks)
iii.	. Calculate the profit at the optimal production plan	(2 Marks)

(b) Chrystal Ltd has two production departments and two service departments. The company incurred overheads and the management accountant has provided you with the following basis of apportionment.

RMAY2024ICPARMAY2024ICPARMAY20 RMAY2024ICPARMAY2024ICPARMAY2024 RMAY2024ICPARM	Production Department Service Department		Production Department Service Dep		on Department Service Department		Total
RMAY 2024ICPARMAY 2024ICPARMAY 202 PARMAY 2024ICPARMAY 2024ICPARMAY 2	1241CPAR A 20241CP	RMAY2 B ₂₄ ICPA	Stores	Maintenance	24ICPARMAY20 4ICPARMAY20		
Cubic Capacity (M3)	02419 8,000 2419	5,000	1,000	2,000	16,000		
Floor Area (M2)	4,500	6,200	3,500	1,300	15,500		
Number of Employees	202419420	280	™ 140 ^{AC}	120 may	960		
Value of Equipment FRW	120,000	240,000	80,000	100,000	540,000		

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The following overheads were recorded for the month just ended

AY2024ICPARMAY2024	RMAY2 24ICPARMAY2024ICPARMAYFRW
Rent PARMAY 2024ICPARMAY 2024IC	ARMAY 2014 18,000,000
Heat & Light ALCPARMAY 2024IC PARMAY 2024IC	2,400,000
Welfare Costs (CPARMAY 2024 CPARMAY 2024 CPA	0241CPARMAY 2024 4,600,000
Depreciation of Equipment	2024ICPARMAY 202 2,000,000
Indirect Labour Dept A 2024 CPARMAY 2024 CPARMAY 2024 CPARMAY 2024	V2024ICPARMAY20 1,450,000
Indirect Labour Dept B	41CPAR 4720241CPARMAY20241,200,000
Indirect Labour Dept Stores Character Stores Control of the Contro	24ICPAR 14Y2024ICPARMAY2024IC 800,000
Indirect Labour Dept Maintenance	MAY 20241CPARMAY 20241 920,000

Service centres support other centres as follows:

PARMAY 2024 CPARMA	Production Department	AY202410	Service Department	RMAY 2024ICPARMAY
PARMAY2024ICPARMA	AY D24ICPAN W20024ICPARMAY2024ICPAR W20024ICPARMAY2024ICPAR W20024ICPARMAY2024ICPAR	\mathbf{B}^{24}	Stores	Maintenance
Stores	AY 3241CPARMAY20250% RMAY20241CP2	40%	CPARMAY 2024ICPARMAY 2024IC	10%
Maintenance	10241CPARMAY2045% RMAY20241CP	50%	1CPARMAY 20241C	PARMAY2024ICPARM

Required:

i. Allocate and apportion the overheads to each department. (5 Marks)

ii. Reapportion overheads using simultaneous equation method (5 Marks)

(Total: 20 Marks)

QUESTION FIVE

(a) The following details were obtained from the stores manager of Rusage ltd for the month ended 30th September 2023. Opening inventory was 1,000 units valued at FRW 250 each.

Dates	Purchases ARMAY2024ICPARMAY202	AR Sales ACPARMAY 2024 CPARMAY
1st/2024ICPARM	2,000 units @ FRW 250 each	PAR MAY 2024ICPARMAY 2024ICPARM
3rdY2024ICPARM	RMAY20 4ICPARMAY 2024ICPARMAY 2	2,500 units @ FRW 300 each
5th MAY2024ICPAR	1,500 units @ FRW 260 each	CPARMAY 20241CPARMAY 20241CPARMAY 20241CV2RMAY 20241CPARMAY 20241CPARM
7th MAY 2024 ICPA	ARMAY 2024ICPARMAY2024ICPARMAY2024ICPARMAY2024 RMAY20 4ICPARMAY2024ICPARMAY2024ICPARMAY2024 ARMAY20 2024ICPARMAY20	1,500 units @ FRW 300 each
10 th 1AY2024ICPA	1,000 units @ FRW 280 each	19241 PARMAY20241C
15 th AY 20241CP	1,500 units @ FRW 290 each	2,000 units @ FRW 320 each
20th	500 units @ FRW 300 each	202 CPARMAY2024ICP
25 th MAY 2024 C	1,000 units @ FRW 300 each	500 units @ 320 each
30 th	HICPARN AY2024ICPARMAY2024ICPARMAY2024ICPARMAY	1,500 units @ FRW 300 each

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Required:

Calculate the value of closing inventory using the weighted average method (13 Marks

(b) A company manufactures a product branded **DG**. The main raw materials used in the manufacture of product DG is called M2. The current inventory control policy of the company is to order material M2 twice a year. The quantity of each order is equivalent to one half of year's forecast demand.

The following relates to material M2

- Annual demand 2,400,000 units
- Ordering cost is FRW 6,000 per order
- Annual stock holding cost is 12% of the purchase price
- Purchase price per unit is FRW 7,500

Required:

- i. Compute the economic order quantity (round to the nearest whole number (2 Marks)
- ii. Explain what will happen to the ordering cost if the company increases the order size by 25%. (round the answer to the nearest whole number) (3 Marks)
- iii. How many orders will the company make annually if (ii) is adopted. (round answer to the next whole number) (2 Marks)

(Total 20 Marks)

QUESTION SIX

Vision 2020 Ltd was recently registered and started its operations in the year 2020. The company is based at Kigali Special Economic Zone and makes clothes. In the year 2020 the cost accountant used the traditional method of absorbing production overheads to cost units. In the year 2021 he shifted from the traditional method of absorbing overheads using labor hours to activity-based costing (ABC). The following cost data was for the year 2021.

Production cost per unit of each product

Products RMAY2024ICPARMAY2024ICPARMAY2024	AICPARMA X 24ICPARMA	2024ICPAR Y Y 2024ICF	RMAY20241 ZARMAY2
Direct material cost per unit (FRW)	CPARM 100 AICPARMA	2024ICPA 80 , AY2024IC	60 RMAY
Direct labor cost per unit (FRW)	ICPARMA 80 024ICPARM	V2024ICP 60 V2024IC	45 arma
Production units 241CPARMAY2024ICPARMAY20	125,000	80,000	60,000
Labor hours required per unit	241CPARMA 8 1220241CPAR	MAY 2024ICP 6 MAY 2024IC	PARMA 10
Machine hours per unit	241CPAR 2.8 (20241CPA)	MAY 202-41 2.5 MAY 202-410	CPARMA 2.5

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Additional information

- 1. Total production overhead cost was FRW 18,850,000.
- 2. For the purpose of activity-based costing as a basis of absorbing overheads the following details are provided

Overhead AY2024ICPA	Allocation	Cost driver CPARMA 2024ICPARMAY2024ICPARMA	Product X	Product Y	Product Z	
Machining cost	50%	Machine hours	350,000	200,000	150,000	
	PARMAY2024ICPARM	Y2024ICPARMAY2024ICPAR	hours	hours	hours	
Material handling	30%	Number of orders	180	140	0241CPAR 100	
	CPARMAY2024ICPAR	AY2024ICPARMAY2024ICPA	orders	orders	orders	
Set up cost	20%	Number of set ups	120	100	Y20241CTARN 60	
	CFARMAY 2024ICPA	MAY 2024ICPARMAY 2024ICF	set ups	set ups	set ups	

Required:

- a) Calculate cost per unit using traditional method of absorbing overheads on the basis of labour hours (6 Marks)
- b) Explain six steps followed in calculation of cost per unit under activity based costing (6 Marks)
- c) Calculate cost per unit using activity based costing method of absorbing overheads on the basis of labour hours (8

Marks)

Note: All calculations to be rounded off to two decimal place

(Total: 20 Marks)

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QUESTION SEVEN

(a) Virunga Ltd makes a product which is manufactured in two consecutive processes.

Information relating to process two is as follows:

Opening work in progress 1,600 units completed as

Materials	80%	FRW 9,400,000
Added Materials	60%	FRW 1,200,000
Conversion	40%	FRW 2,000,000

Normal loss was 5% and the scrap price per unit was FRW 1,500.

During the month 6,000 units were transferred from process one costing FRW 37,200,000

Added Materials cost FRW 9,600,000 Conversion FRW 11,800,000

Output units were 5,000 units.

Closing work in progress were 2,200 units completed as:

Materials 90% Added Materials 75% Conversion costs 60%

Required:

Using Average Cost Method (AVCO) prepare the following:

AYZI,	Statement of equivalent Units Statem	(2 Marks)
Aii.	Statement of cost per unit (Round to two decimal places). Mirror	this to your
	marking guide and excel. MAY2024ICPARMAY20	(2 Marks)
iii.	Calculate the value of output	(2 Marks)
iv.	Calculate value of closing inventory	(2 Marks)
ARMA	Calculate value of abnormal loss or gain	(2 Marks)
vi.	Prepare process two account	(4 Marks)

(b) Explain any three characteristics of process costing (6 Marks)

(Total 20 Marks)

End of question paper

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