CERTIFIED PUBLIC ACCOUNTANT

FOUNDATION LEVEL EXAMINATIONS

F2.1: MANAGEMENT ACCOUNTING

DATE: WEDNESDAY 28, AUGUST 2024

MARKING GUIDE & MODEL ANSWERS

QUESTION ONE

Criteria of awarding marks	**Marks**
(a) (i) Explanation of cost classification according to nature	1

(ii) Explanation of cost classification according to behavior	1	
(ii) Explanation of cost classification according to function	1	
citing examples in each classification	3	
Maximum		**6**
b) break even chart		
Computation of BEP units	1	
Computation of BEP in value	1	
Graphical illustration of BEP	3	
Computation of profit	2	
Graphical illustration of profit earned	1	
Computation of margin of safety in units and value	2	
Graphical illustration of margin of safety	1	
Computation of target profit (formula, 1 mark; expression 1 mark; answer 1 mark)	3	
Maximum marks		**14**
Graphical illustration of BEP		
Total		**20**

Model Answers

(a)

Classification of cost according to nature

In this classification, costs are classified according to their characteristics.

Examples include:

Direct cost: Direct Materials, Direct labor

Indirect cost: Labor and overheads.

Classification of cost according to function

In this classification cost are classified according to the function they play in an organization Examples of these costs include:

Production/manufacturing costs

Administrative costs

Selling and distribution costs

Classification of cost according to behavior

In this cost classification the consideration is the cost behaviour. Cost behaviour is the observable increase or decrease in the value cost as a result of change in the level of output Examples of these costs:

Direct/variable cost like direct materials, direct labour and variable production overheads. Fixed costs like rent

Semi-fixed costs like electricity, guaranteed minimum wage

(b)

Break-even formula (units)

$$BEP = \frac{\text{Fixed costs}}{(\text{selling price per unita} - \text{variable cost per unit})}$$

$$BEP = \frac{300{,}000 \text{ million}}{(50 \text{ million} - 20 \text{ million})}$$

$BEP = 10{,}000\ UNITS$

$$BEP = \frac{\text{Fixed costs} * \text{selling price per unit}}{(\text{selling price per unit} - \text{variable cost per unit})}$$

$$BEP = \frac{300{,}000 \text{ Million}}{(50 \text{ million} - 20 \text{ million})}$$

$$BEP = Frw\ 500{,}000\ million$$

Profit when the company sells 20,000 units

Profit = total revenue – total cost

Profit = 20,000 units *50 million – (300,000 million + 20,000 * Frw 20 million)

Profit = Frw 300,000 million

Margin of safety

Margin of safety (units)= budgeted sales units – BEP units

=20,000-10,000

=10,000 units

Margin of safety in value= budgeted sales units * selling price per unit - BEP sales

=20000x50-500,000.

= FRW 500,000 Million

To attain target profit

=fixed cost + target profit/contribution margin

=300,000+450,000/(50-20)

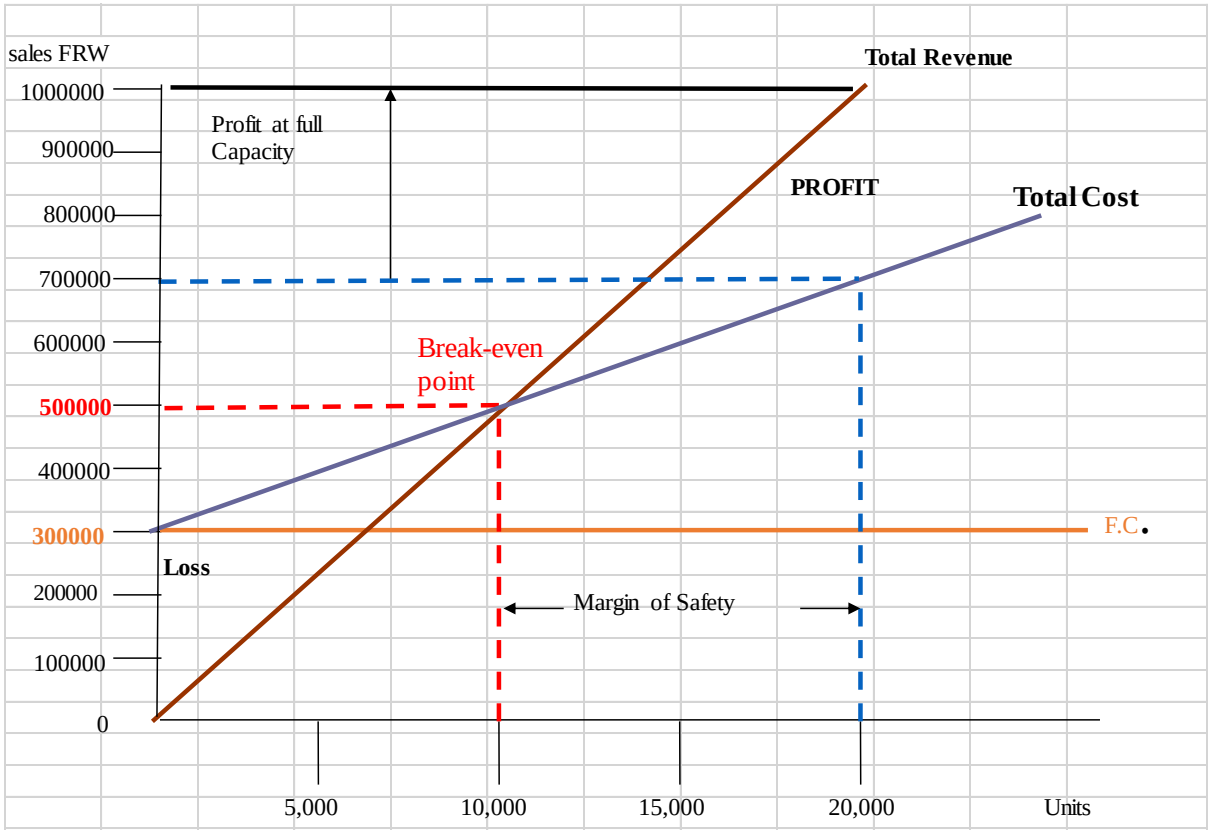
=750,000/30

= 25000 units

Drawing the Break-Even Chart

X axis 10,000

Y axis FRW 500,000



QUESTION TWO

Criteria of awarding marks	Marks
(a) Award **2 marks** for a well explained difference(each 2 marks x 2)	4
(b) i. total prime cost	
Award **1 mark** for workings and **1 mark** for correct answer	2
ii. total production cost for Job KJ	
Award **1 mark** for workings and **1 mark** for correct answer	2
iii. total non-manufacturing overhead	
Award **1 mark** for workings and **1 mark** for correct answer	2
iv. total sales revenue	
Award **1 mark** for workings and **1 mark** for correct answer	2
Maximum marks to be awarded	8
C i. Prime cost per batch	
Award **0.5 Mark** for workings and **0.5 Mark** for correct answer	1
ii. Production cost per batch	
Award **1 Mark** for workings and **1 Mark** for correct answer	2
iii. Selling price per batch	
Award **1 mark** for workings and **1 mark** for correct answer	2
iv. Profit per batch	
Award **0.5 mark** for workings and **0.5 mark** for correct answer	1
v. profit per unit	
Award **0.5 mark** for workings and **0.5 mark** for correct answer	1
vi. selling price per unit	
Award **0.5 mark** for workings and **0.5 mark** for correct answer	1
Maximum marks to be awarded	8
Total	**20**

Model Answers

(a)Differences between production and service industry

Production industry	Service industry
The production industry produces tangible products that may be standardized or customized	On the other hand, the service industry provides products that are intangible and in most cases, they are not standardized but customized to satisfy specific needs

The production industry produces products that are durable	in the service industry, the services are highly perishable and therefore they have to be consumed at the same time they are offered
In the production industry, estimating capacity needs is easy because the products can be stored for later use.	In the service industry, it is not easy to estimate the capacity needs because the services cannot be stored for later use. Services are delivered when need arises.
In the manufacturing industry, the scheduling involves the activities which will lead to the production of goods.	In the service industry, scheduling of the workers is very complex

b)	Amount (Frw)
Total prime cost for job KJ	
Direct material cost (75,000×30,000)	2,250,000,000
Direct labour cost (60,000×30,000)	1,800,000,000
Total prime cost	**4,050,000,000**
Total production cost for job KJ	
Prime cost for job KJ	4,050,000,000
Production overheads 60/100 (1,800,000,000)	1,080,000,000
Total production cost for job KJ	**5,130,000,000**
Total non-manufacturing overhead	
30% * 5,130,000,000	1,539,000,000
Total sales revenue for job KJ	
Total production cost	5,130,000,000
Non-manufacturing overhead	1,539,000,000
Cost of sales for job KJ	**6,669,000,000**
Profit charged 20/80*(6,669,000,000)	1,667,250,000
Total sales revenue for job KJ	8,336,250,000

Computing total profit realized for job KJ

Profit margin is 20%

NOTE

Profit margin is based on the selling price, therefore, it has to be converted to mark-up which is profit expressed as a percentage on cost. This is done by deducting the numerator from the denominator as follows;

20/100 = 20/ (100-20) = 20/80 = 20/80(6,669,000,000) = 1,667,250,000

C	
Prime cost per batch	
Cost element	Amount (FRW)
Direct material cost per batch	36,000,000
Direct labour cost per batch	30,000,000
Total prime cost	66,000,000
Production cost per batch	
Total prime cost	66,000,000
Production overheads: department A (2000×2500)	5000000
Production overheads: department B (1000×3000)	3000000
Production overhead department D	3,000,000
Production overheads: department C (2500×1500)	3750000
Total production cost per batch	80,750,000
Cost of sales per batch	
Cost element	Amount (FRW)
Production cost per batch	80,750,000
Administration cost	3000000
Total cost of sales per batch	83,750,000
Seling price per batch	
Cost of sales per batch	83,750,000
Profit charged (25%x80,750,000)	20937500
Selling price per batch	104,687,500
Profit per batch	20,937,500
profit per unit	
Profit per batch/ units in a batch	
20,187,500/20,000	1,047
Selling price per unit =selling price per batch/ Total number of units in a batch	100,937,500/20,000
=	5234.375

QUESTION THREE

Marking guide

Criteria of awarding marks	**Marks**
i. Service costing	
Award 2 marks for correct explanation	2
ii. Cost units	
Award 1 mark for correct cost unit	4
iii. Merits of service costing	
Award two marks for correct explanation	4
b)	
Award 1 mark for correct occupancy room days (1x3)	3
Award 0.5 marks for correct equivalent single rooms (0.5x 3)	1.5
Award 1 mark for total cost	1
Award 1 mark for correct profit	1
Award 0.5 marks for correct single room eqation	0.5
Award 1 mark for correct rent of each suite (1 mark x3)	3
Maximum marks	10
Total	**20**

Model Answers

(a)

i. Service costing

Service costing is defined as "cost accounting for services or functions. For example, canteens, maintenance and HR. These may be referred to as service centers, departments or functions".

Or

It is a costing method or cost accounting approach that is used by service industry entities like transport, communication among others. This costing approach is ideal for service industry since entities in this sector don't manufacture tangible products(goods) but rather offer intangible products (services). In manufacturing entities, we have cost of manufacturing/production while in service industries we have the cost-of-service delivery

ii. Identification of appropriate cost units

Service	**Cost unit**
Hospital	Patient days
Restaurant	Meals served
Accommodation	Occupied bed or night per guest
Electricity	Kilowatt hours

Advantages of service costing

(i) Determination of cost per service unit.
This costing method helps businesses to find out the cost per unit for their services.

(ii) Evaluation of variable, mixed and fixed costs.
This costing methods enables users to do cost analysis and ascertain which ones are variable, mixed and fixed for easy management of costs.

(iii) For performance evaluation of service units
It is possible for users of service costing to assess performance of every service unit and make improvements where performance isn't good.

(iv) Fair pricing
Service costs helps users to determine fair pricing so as to attract clients and/or retain those clients already on board.

b)

(i) Total equivalent single room suites				
Nature of suite	**Occupancy (Room days)**	**Occupancy frequency**	**Equivalent single room suites (Room – days)**	**Equivalent single room suites**
Single room suites	(100 rooms × 360 days × 100%)=	36,000	(36,000 × 1)=36,000	36,000
Double rooms suites	(50 rooms × 360 days × 80%)=	14,400	(14,400 × 2.5)=36,000	36,000
Triple rooms	(30 rooms × 360 days × 60%)=	6,480	(6,480 × 5)=32,400	32,400
				104,400

(ii) Statement of total cost:	**Amount (Frw)**
Staff salaries	142,500,000
Room attendant's wages	45,000,000
Lighting and heating	21,500,000
Repairs and maintenance	12,350,000
Laundry	8,050,000
Interior decoration	7,400,000
Sundry costs	15,300,000
building rent* (1,000,000 * 12 Months)	12,000,000

Total cost	**264,100,000**
Profit	**52,820,000**

Let x be rent for single rooms suite		
Details	**Working**	**Amount (Frw)**
	104,400 x = 264,100,000 + 0.2 × 104,400 x	
	104,400x=264,100,000+20880x	
	83520x=264,100,000	
	x=	3,162
Rent for a single room =		3,162
Rent for a double room=		7,905
Rent for triple room=		15,811

QUESTION FOUR

Marking guide

	Marks
a) i. freight charges to materials based on cost	
Award 1 mark for correct workings and 1 mark for correct answer	2
freight charges to materials based on shipping weight	
Award 1 mark for correct workings and 1 mark for correct answer	2
Maximum marks awarded for part (a) i, ii	4.0
ii. computation of EOQ	
Award 0.5 mark for the formula, 1 mark for correct expression, and 0.5 mark for correct answer	2.0
b) documents that are used during the purchasing process	
Purchase Requisition Form	1.0
Purchase Order Form	1.0
Specification of Materials	1.0
Goods Received Note	1.0
Goods Rejected Note	1.0
(0.5 marks for stating and 0.5 marks for explanation) Maximum marks awarded for part (b)	4.0
c)	
Award 2 marks for standard cost card for production	2

Income statement using absorption costing	
Award 1 mark for correct sales figure, 1 mark for gross profit and 1 mark for net profit	3
Income statement using marginal costing	
Award 1 mark for correct sales figure, 1 mark for gross profit and 1 mark for net profit	2
Reconciliation statement	
Award 0.5 marks for correct marginal profit, 0.5 marks for adjusting opening inventory, 0.5 for adjusting closing inventory and 0.5 marks for correct profit as per absorption	2
Maximum marks	10
Total	**20 Marks**

Model answers

i.

Product	**Invoice amount (FRW)**	**Weights**
A	860,000	6,530
B	506,000	4,340
C	384,000	3130
TOTAL	**1,750,000**	**14,000**
Transport cost (Frw)	**2,800,000**	**2,800,000**

1

Transport costs allocated to materials based on cost			
Transport costs/total invoice amount			
2,800,000/1,750,000 =	**1.6**	**per FRW of cost**	
ALLOCATION			
Product	**Invoice amount (FRW)**	**per FRW of cost**	**Allocated**
A	860000	1.6	1,376,000
B	506000	1.6	809,600
C	384000	1.6	614,400
			2,800,000

2

Transport costs allocated to materials based on weight				
Transport costs/ weights (Kgs) 2,800,000/14,000= Frw 200 per weight (Kgs)				

ALLOCATION				
Product	**weights**	**per FRW of cost**	**Allocated freight charge**	
A	6,530	200	1,306,000	
B	4,340	200	868,000	
C	3,130	200	626,000	
	14,000		**2,800,000**	

ii. computation of EOQ

EOQ=√(2DCo/Ch)

EOQ= √(2*100000*5500/12.5%*5500

EOQ= √(1100000000/687.5)

EOQ=1,265

b) documents that are used during the purchasing process

The Purchase Requisition

It is a form used to advise the purchasing department of the factory requirements and also to Authorize the purchasing department to make the necessary purchase.

The Purchase Order

It is an official form that is sent to the supplier to show that the order is an official one and it is sent out on behalf of the firm. In the case of new or non-standard materials, issue of the order will be preceded by tendering procedure so that the best supplier can be selected. The purchase order normally incorporates the purchaser's terms and conditions of purchase; acceptance of the order is deemed to imply acceptance under the purchaser's terms.

Specification of Materials

A specification of materials (also known as a bill of materials) is a form which shows all the materials and items which will be required for a particular order; this is prepared by the drawing office.

Delivery note

It is a document that records all the items that have been delivered. It is prepared in triplet.

Goods Inwards Book and Goods Received Note

A goods inwards book may be kept to record all receipts from suppliers. Often goods cannot be checked immediately on unloading, and recording the receipt of the goods in the goods inwards book will ensure adequate control of the goods.

Goods Rejected note

It is a document used by customers or businesses who are not satisfied with the quality of the goods that have been delivered and therefore they would like to reject them.

(c)

Standard cost card for production		
Cost element	Marginal costing approach	Absorption costing approach
Direct material	7,000	7,000
Direct labour	11,000	11,000
Variable production overhead	4,000	4,000
Fixed production overhead	-	7,500
Total	**22,000**	**29,500**

Net profit using absorption costing approach		
Particulars	FRW	FRW
Sales (50,000*32,600)		1,630,000,000
Less production cost		
Opening inventory	162,250,000	
Production (30,000*29,500)	885,000,000	
Closing inventory (2,900*29,500)	85,550,000	961,700,000
Gross profit		668,300,000
Less non production costs		
Variable selling overhead		97,800,000
Fixed selling overhead		180,000,000
		390,500,000
Over/under absorbed overheads		15,000,000
Net profit		375,500,000

Net profit using marginal costing approach		
		JULY
Particulars	FRW	FRW
Sales (50,000*32,600)		1,630,000,000
Less variable production cost		
Opening inventory	121,000,000	
Production (30,000*22,000)	660,000,000	
Closing inventory (2,900*22,000)	63,800,000	717,200,000
Gross contribution		912,800,000
Less other variable costs		
Selling overhead		97,800,000
Net contribution		815,000,000

Less fixed overheads		
Production overhead		240,000,000
Selling overhead		180,000,000
Net profit		395,000,000

Reconciliation statement			
Profit as per marginal		395,000,000	
adjust for			
opening inventory		41,250,000	add
Closing inventory		(21,750,000)	minus
Profit as per absorption		375,500,000	

ii. other important factors to consider

Variable production cost: It is a necessary cost because it relates to the total cost of making the product. Fixed costs are not relevant costs.

Opportunity cost: it relates to the potential benefits that are foregone by choosing one alternative i.e either make in-house or outsource.

Attributable specific fixed cost: Only additional fixed costs that are specific to the product to be manufactured should be considered. General fixed costs are not relevant costs.

QUESTION FIVE

MARKING QUIDE

Criteria of awarding marks	**Marks**
limitations of the cost-volume-analysis (CVP)	
Award 1 mark for well explained point (1 mark x 5)	5
differences between the accountants and economists view on CVP	
Award 1 mark for correctly explained difference (1 mark x 5)	5
Maximum	10
B i. whether to accept the special order under issue	
Award 1 mark for variable production cost %	1
Award 1 mark for fixed production cost %	1
Award 1 mark for total production cost	1
Award 1 mark for correct advice	1
Maximum	4
ii. **option under issue 2**	
Direct material	0.5

Direct labour	0.5
Variable overheads	1
Total cost	1
Advice	1
Award 1 mark for correct identification of other important factor	2
Maximum marks	6
Total	**20 Marks**

MODEL ANSWERS

(a)

i. Limitations of CVP

- ✓ The CVP analysis is time consuming
- ✓ The analysis is only applicable to a single product
- ✓ Where there is difficult in classifying costs between variable and fixed, it is difficult to apply it
- ✓ At all levels of output, it assumes that sales price remains constant
- ✓ At all levels of output, it assumes that unit variable cost is constant
- ✓ At all levels of output, it assumes that fixed cost is constant which is not practicable in the long run
- ✓ Inventory is not taken into consideration
- ✓ It is not useful for production planning

ii

Differences between accountants and economists view on CVP

Accountants view	Economists view
The total revenue as well as the total cost are assumed to be curvilinear.	The total revenue as well as the total cost are assumed to be linear.
In this analysis, it results into two break even points	In this analysis, only one break-even point exists.
Mainly used for internal decision making	Mainly used for external decision making
Mainly focuses on financial aspect	Mainly focusses on economic aspect
This model does not include opportunity of capital	This model incorporates opportunity cost of capital

	Variable production cost (%)=	$= \frac{\text{variable cost}}{\text{labour cost}} * 100$	(12,800,000,000/16,000,000,000)x100=	80 %
	Fixed production cost (%)	$= \frac{\text{fixed cost} * 100}{\text{labour cost}}$	19,200,000,000/16,000,000,000)X100=	120%

NOTE	
80% + 120% = 200%	
b	
Issue 1:	
particulars	Production cost (FRW)
Direct material	160,000
Direct labour	80,000
Variable production cost	
80%x80,000	64000
Total cost	**304,000**
Offer price =	320,000
Profit per unit	Frw 16,000

Advice: the company should accept the offer since the offer price is higher than the total variable cost of production and therefore the organization will gain profit of Frw 16,000 per unit.

Issue 2	
Making the product	
Particulars	**Amount (FRW)**
Direct material	120,000
Direct labour	80,000
Variable production overheads (80% x 80,000)	64,000
Total cost	**264,000**

Advice:

The company should continue making the product because it is cheaper compared to outsourcing.

QUESTION SIX

Criteria of awarding marks	**Marks**
(a) importance of budgeting	
Planning and coordination	1
Communication	1
Performance evaluation	1
Performance evaluation	1
Controlling activities	1
Raising Finance	1
Improved Co-ordination	1
Maximum marks	**6**
(b) Cash budget	
Sales figure (0.5 mark each)	1.5
Total receipts (0.5 marks each)	1.5
Purchases (o.5 marks each)	1.5
Total payments (0.5 marks each)	1.5
Net cash inflow (0.5 marks each)	1.5
Closing cash position(0.5 marks each)	1.5
Loan and income tax(0.5 marks each)	1
Maximum marks	**10**
Total	**20**

Model Answers

(a) importance of budgeting in an organization

Planning and coordination. A budget acts as a guide to the organizational activities as well as coordination of the activities

Communication. A budget is a communication tool in an organization

Performance evaluation. The organizations actual performance is compared with the budget to determine whether there is any variance.

Controlling activities.

A budget is an essential tool of controlling organizational activities. This helps the organization to achieve its objectives. A system of control helps to constantly monitor the actual performance and compare it with the budget to identify variances.

Raising Finance

A budget is a requirement by financial institutions for any business that wishes to raise finance through financial assistance. The budget is an indication that the amount will be used for the intended purpose and that the company is being managed well.

Improved Co-ordination

A budget enhances coordination within an organization. The budget communicates plans and ideas hence enabling the execution of the activities laid out in the plan.

(b) cash budget

	Cash budget	Amount (Frw '000')	Amount (Frw '000')	Amount (Frw '000')
	-	-	-	-
	Receipts	October	November	December
	Sales	191,800	197,000	94,600
	Loan	-	55,000	-
	Total receipts	191,800	252,000	94,600
	-	-	-	-
	Payments	-	-	-
	Purchases	66,620	58,000	76,000
	Production overheads	12,300	12,900	13,600
	selling overheads	15,600	20,500	20,800
	Salaries and wages	52,500	52,500	52,500
	Income tax	-	-	20,000

	Total payments	147,020	143,900	182,900
	-	-	-	-
	Net cash flow for month	44,780	108,100	(88,300)
	-	-	-	-
	Opening cash position	14,500	59,280	167,380
	Cash inflow	44,780	108,100	(88,300)
	Closing cash position	59,280	167,380	79,080

Cash Budget			
	October	**November**	**December**

Workings

SALES							
	June	July	August	September	October	November	December
cash sales (60%)	84000	132000	112800	93600	123000	124800	12000
credit sales 1 (20%)		28000	44000	37600	31200	41000	41600
credit sales 2 (20%)			28000	44000	37600	31200	41000
Total sales			184800	175200	191800	197000	94,600

Depreciation is a non cash item and therefore should be deducted

(c)

Steps followed in the preparation of a zero-based budget

Defining decision Packages

The first step involves defining the decision packages that will act as the basis of decision making. In this case, managers determine the activities that will help the organization to achieve its objectives.

Ranking of the activities

After the decision packages have been prepared, the decision maker proceeds to rank the activities based on their importance. A cost benefit analysis is applied in this case.

Allocating resources

The resources are allocated based on the ranking that was prepared in the above step. This ensures that the minimal resources are allocated to the activities that will help the organization to achieve the objectives better.

Monitoring and controlling

This is the last stage and it involves the continuous monitoring of the decision packages. This helps to determine whether the allocation was optimal and at the same time, identify any gaps that may be arising for corrective action.

QUESTION SEVEN

Criteria of awarding marks	**Marks**
(a) causes of material price variance	1
Special purchase terms	1
Discounts	1
General reduction in prices	1
Purchase of low quality material	1
general rise in prices.	1
The purchase of smaller quantities from more than one supplier,	1
Change in material specifications	1
Maximum	2
(b) standard cost card	
Award 0.5 mark for computation l standard material price	0.5
Award 0.5 mark for computation standard Material quantity	0.5
Award 0.5 mark for computation of standard Labour rate	0.5
Award 0.5 mark for computation of Standard labour hours	0.5
Award 0.5 mark for computation of Variable overhead absorption rate	0.5
Award 0.5 mark for computation of Budgeted fixed overheads	0.5
Award 1 mark for computation of Budgeted production	1
Award 1 mark for computation of direct material cost per unit	1
Award 1 mark for computation of direct labour cost per unit	1
Award 1 mark for computation of variable overhead cost per unit	1
Award 1 mark for computation fixed overhead cost per unit	1
Maximum	8

C	
reconciliation statement	
Award 1 mark for each variance computed (1 mark x 9)	9
Award 1 mark for reconciliation	1
Total	**20**

7 (a) causes of material price variance

Where the actual purchase prices are below standard prices

Special purchase terms. This arises where there is a special arrangement between the supplier and the business and favorable terms are granted.

Discounts. Discounts reduce the overall price of the material

General reduction in prices. This arises where the general prices of the material decrease and falls below the budgeted price.

Purchase of lower-quality materials. Where a business purchases material of poor quality than budgeted, the prices will be low resulting into favorable material price variance

Where the purchase prices are above standard, the cause may be

General rise in prices. Where there is a general increase in the prices resulting in the material being more expensive than budgeted.

Change in materials specifications. Where a decision has been arrived at by the organization to purchase material of higher quality than budgeted.

The purchase of smaller quantities from more than one supplier, with a loss of discounts or less favorable terms. This will result in higher material prices than budgeted.

7 (b)

Formula	**Workings**	**Answer**
MPV=AQ(SP-AP)		
MPV=118800(X- 9.5)=59400 F	118,800x-1128600=59,400	
	x=1,188,800/118,800	x=10
MUV=SP(SQ-AQ)		
MUV=10(x-118800) =108000 A	10X-10*118,000=-108,0000	
	x= 1,080,000/10	x=108,000
LRV=AH(SR-AR)		
LRV=576000(x-7.25)=144000A	576,000X-4,176,000=-144000	
	x=4,032,000/576,000	x=7
LEV=SR(SH-AH)		
LEV=7(X-576000)=252000A	7x-1,152,000=-,252,000	
	x=900,000/7	540000

Formula	Workings	Answer
V.O.EXP.V=VOAR*AH-ACTUAL V. OVERHEADS		
V.O.EXP.V=2*576000-1209600=57600A	X*576,000-1,209,600=-57,600	
	X=1152,,000/576,000	2
V.O.EFF.V=VOAR(SH-AH)		
V.O.EFF.V=2(540000-576000)		
F.O.EXP.V=BUDGETED F.OH-ACTUAL F.OH		
F.O.EXP.V= X-4860000=90000 F	X-4860000=90,000	
	X=90,000+4860000	4950000
F.OV.V=FC/UNIT(B, PRODUCTION-A. PRODUCTION)		
F.O.V.V=49.5(X-108,000)=396000F	49.5X-108,000*49.5=396000	
	X=5346,000/49.5	100000

STANDARD COST SHEET OF 100,000 UNITS		
PARTICULARS		FRW
Direct material	108000*10	1,080,000
Direct labour	540000*7	3,780,000
Variable overheads	2*540000	1,080,000
Fixed overheads		4,950,000
Total cost		10,890,000

STANDARD COST CARD (ONE UNIT)	
Direct material (1.08KGS@ FRW10	10.8
Direct labour (5.4 HRS@FRW 7	37.8
Variable overheads	10.8
Fixed overheads	49.5
Total cost	108.9

7(c)

Formula	Working	Variance	
SMPV=SQ(SP-AP)	SMPV=1900(2600-2473.68)	240,000	A
SMQV=SP(SQ-AQ)	SMQV=2600(2000-1900)	260,000	A
MPV=AQ(SP-AP)	MPV=3900(300 - 294.87)	20,000	F
MUV=SP(SQ-AQ)	MUV=300(4000-3900)		

Formula	**Working**	**Variance**	
LRV=AH(SR-AR)	LRV=3700(400-418.92)	70,000	A
LEV=SR(SH-AH)	LEV=400(4000-3700)	120,000	F
V.O.EXP.V=VOAR*AH- ACTUAL V. OVERHEADS	V.O.EXP.V=100X3700-390000	20,000	A
V.O.EFF.V=VOAR(SH-AH)	V.O.EFF.V=100(4000-3700)	30,000	F
F.O.EXP.V=BUDGETED F.OH- ACTUAL F.OH	F.O.EXP.V= 200,000-210,000	10,000	A

RECONCILIATION STATEMENT		
Details	Variance (Amount Frw)	
Budgeted net profit	1,800,000	
Sales margin price variance (SMPV)	240,000	A
Sales margin quantity variance (SMQV)	260,000	A
Material price variance (MPV)	20,000	F
Material usage variance (MUV)	30,000	F
Labour rate variance (LRV)	70,000	A
Labour efficiency variance (LEV)	120,000	F
Variable overhead expenditure variance (V.O,EXP.V)	20,000	A
Variable overhead efficeincy variance (V.O.EFF.V)	30,000	F
Fixed overhead expenditure variance (F.O.EXP.V)	10,000	A
Actual net profit	1,400,000	