CERTIFIED PUBLIC ACCOUNTANT

FOUNDATION LEVEL 2 EXAMINATIONS

F2.1: MANAGEMENT ACCOUNTING

DATE: WEDNSDAY ,27 JULY 2022

MARKING GUIDE AND MODEL ANSWERS

QUESTION ONE

Marking Guide

Sub	Criteria	Marks
a)	2 Marks awarded for a clear definition of process costing	2
b)	1 Mark awarded for each step outline maximum 5	5
c) i)	**Equivalent units' statement and cost per unit statement**	
	Output units' presentation in equivalent units statement	1
	Closing work in progress units	1.5
	Total equivalent units	1.5
	Total amount	1.5
	Cost per unit	1.5
ii)	**Process account:**	
	Value of output	1.5
	Value of closing work in progress	1.5
	Correct posting of opening work in progress, materials, added materials and conversion (0.5 marks awarded for each *4	2
	Correct balancing of the totals of process account	1
	Total	**20**

Model Answer

a) **Process costing** is a term used in cost accounting to describe one method for collecting and assigning manufacturing costs to the units produced.

b) **Process Costing consists of the following steps:**

Step 1: Physical flow of units

Step 2: Equivalent units statement preparation showing total equivalent units

Step 3: Cost per equivalent unit statement preparation

Step 4: Find the value of output, abnormal loss or gain and closing work in progress

Step 5: Prepare process account

c) i)

Equivalent units' statement and cost per unit statement

Details	Output Units	Closing WIP Units	Total Equivalent Units
Materials	28,000	(100%*10,000)=10,000	38,000
Added Materials	28,000	(60%*10,000)=6,000	34,000
Conversion	28,000	(40%*10,000)=4,000	32,000

Cost per unit statement

Details	Total Amount	Total Equivalent Units	Cost per Unit
Materials	(47000+181000)= 228,000	38,000	6
Added Materials	(6,000+96,000) =102,000	34,000	3
Conversion	(10000+118000) =128,000	32,000	4
Total			**13**

ii) Process 2 account for March 2021

Value of output

Details	Output Units	Cost per Unit	Total Amount
Materials	28,000	6	168,000
Added Materials	28,000	3	84,000
Conversion	28,000	4	112,000
Total Value of Output			**364,000**

Value of closing work in progress

Details	Units	Cost per Unit	Total Amount
Materials	10,000	6	60,000
Added Materials	6,000	3	18,000
Conversion	4,000	4	16,000
Total Value of Closing stock			**94,000**

Process 2 Account

Particulars	Units	Amount	Particulars	Units	Amount
Op. WIP	8,000	63,000			
Materials	30,000	181,000	Output	28,000	364,000
Added materials		96,000	Cl. WIP	10,000	94,000
Conversion costs	-	118,000		-	-
	38,000	**458,000**		**38,000**	**458,000**

QUESTION TWO

Marking Guide

Criteria	**Marks**
a) Break-even point and margin of safety calculation:	
Award 1 Mark for BEP calculation	1
Award 1 Mark for total number of rooms	1
Award 1 Mark for correct budgeted occupancy	1
Award 0.5 Marks for MOS in units and 0.5 Marks for MOS %	1
b) Advise on whether the hotel should close over the duration of Q1:	
Award 1 Mark for contribution calculation	1
Award 1 Mark for Fixed cost calculation and explanation	1
Award 1 Mark for explanation for the loss	1
Award 1 Mark for advice not to close	1
c) Breakeven point in sales value for project 1 and advise on adoption:	
Calculation of Contribution to sales ratio	1
Correct calculation of breakeven revenue	2
Correct advise	1
d) Quantification and comment on the effect of project 2:	
Statement on increase in fixed cost	1
Revenue per occupied room statement	1
Total cost prediction at 8000 units	2
Increase in breakeven point	1
Margin of safety statement	1
Correct final comment	2
Total	**20**

Model Answer

a) Break-even point (BEP) in units and Margin of safety as a percentage

- **Break Even Point (Rooms):**

Break Even Point (BEP) = Fixed Cost / Contribution per unit

BEP (Units) = FRW 600,000,000 / (FRW 180,000 – FRW 60,000) = 5,000 room nights

- **Margin of Safety (%):**

Margin of Safety (%) = ({Budgeted rooms - BEP rooms} / Budgeted rooms) * 100

Budgeted rooms = 365 days * 25 rooms = 9,125 rooms * 70% = 6,388 rooms

Break Even Point in rooms = 5,000 rooms

Margin of Safety (%) = ({6,388 – 5,000}/6,388) * 100 = 21.72%

b) Profit or loss for Q1

Profit / Loss = (Selling price/unit – Variable cost/unit) * Sales units – Fixed cost

- Selling price/unit = FRW 180,000
- Variable cost/unit = FRW 60,000
- Sales units = 900 rooms
- Fixed Cost per quarter = FRW 600,000,000 / 4 = FRW 150,000,000

Profit / Loss = (180,000 – 60,000) * 900 – 150,000,000

Profit / Loss = 108,000,000 – 150,000,000

Loss = FRW (42,000,000)

Kubaho Hotel should not close in Q1. The fixed costs will still be incurred and closure would result in lost contribution of FRW 108, 000,000. This in turn would result in a decrease in annual profits of FRW 108,000,000. In addition, the hotel could lose customers at other times of the year, particularly their regular business customers, who may perceive the hotel as being unreliable.

c) Break Even Point in Sales value of project 1 and advise on whether the hotel should adopt the project

Sales value of two room nights (2 * FRW 67,500) = FRW 135,000

Sales value of a pair of theatre tickets = FRW 100,000

Total sales value = 135,000 + 100,000 = FRW 235,000

Variable cost of two room nights (2 * FRW 60,000) = FRW 120,000

Variable cost of a pair of theatre tickets = FRW 95,000

Total variable cost = 120,000 + 95,000 = FRW 215,000

Contribution = Sales – Variable cost = 235,000 – 215,000 = FRW 20,000

Contribution to Sales ratio (C/S) = 20,000/235,000 = 8.51%

Break-even point in FRW = Fixed cost/Contribution to sales ratio

Breakeven point = FRW 20,000,000/8.51% = FRW 235,000,000

BEP (units) = Fixed cost /contribution per unit =FRW 20,000,000/FRW 20,000 = 2000 tickets

The unit contribution per theatre package is low and it requires a large number of sales to break even. Each theatre package would require two room nights to be sold which would mean 2,000 room nights needed in Q1 to break even.

d) Quantification and comment on financial impact of project 2

Project 2 will cause the fixed costs of the hotel to rise from FRW 600,000,000 per annum to FRW 800,000,000 per annum for the hotel and restaurant combined. This is an annual increase of FRW 200,000,000.

Revenue per occupied room will rise from FRW 180,000 to FRW 250,000 (FRW 2,000,000,000 / 8,000 rooms) which reflects the extra guest expenditure in the restaurant**.**

The total cost predicted at a level of 8,000 occupied rooms is FRW 1,560,000,000 which means the variable costs must be FRW 760,000,000 (FRW 1,560,000,000 – FRW 800,000,000 fixed costs). This is a variable cost per occupied room of FRW 95, 000 which is an increase of FRW 35,000. This reflects the variable costs of the restaurant**.**

As a result of these changes, the breakeven point has increased from 5,000 to 5,161 occupied rooms so the hotel needs to sell more room nights to cover costs**.**

However, budgeted occupancy is now 7,300 occupied room nights which gives 80% occupancy (7,300 / 9,125). This gives a margin of safety of 2,139 occupied room nights or 29%. This is an increase on the current position and the hotel's position appears safer. At 7,300 occupied room nights the KUBAHO Hotel's budgeted profit is FRW 331,500,000 (FRW 250, 000 – FRW 95,000) * 7,300 – FRW 800,000,000**.**

QUESTION THREE

Marking Guide

	Marks
A) i) Production units budget	
0.5 mark awarded for the formula of production units budget	0.5
Calculation of closing inventory for each month (0.5 marks *3)	1.5
Correct posting of opening inventory for each month (0.5 marks * 3)	1.5
Correct answer for production units for	1.5
ii) Material purchase budget in kgs and FRW for A01:	
Correct materials usage budget for each month (0.5 marks * 3)	1.5
Correct materials purchase budget in kgs (1 mark * 3)	3
Correct materials purchase budget in FRW (0.5 marks * 3)	1.5
B) Marginal costing profit statement for each month	
Correct calculation of sales total figure for each month (0.5 marks * 3)	1.5
Correct answer for variable cost of sales for each month (1 mark * 3)	3
Correct contribution for each month (0.5 marks * 3)	1.5
Correct fixed cost computation for each month	1.5
Correct net profit (marginal cost profit) (0.5 marks * 3)	1.5
Total:	**20**

Model Answer

a) i) Production budget in units

Production units = Sales units + Closing inventory units - Opening inventory units

Details	**July**		**August**		**September**	
	Working		Working		Working	
Sales Units		18,000		22,000		24,000
Add Closing Stock	50% of 22000	11,000	50% of 24000	12,000	50% of 20000	10,000
Less Opening Stock	50*of 18000	9,000		11,000		12,000
Production Budget		20,000		23,000		22,000

ii) Material purchase budget for A01 in kgs and FRW

- Materials Usage Budget (kgs) = Production Units * Kgs per Unit
- Materials Purchase Budget (Kgs) = Materials Usage Budget (kgs) + Closing Inventory (kgs) - Opening Inventory (kgs)
- Material Purchase Budget (FRW) = Materials Purchase Budget (FRW) * Price per kg

Details	July		August		September	
	Working		Working		Working	
Production Budget		20,000		23,000		22,000
Material Usage per unit		2		2		2
Total Material Usage		40,000	-	46,000	-	44,000
Add closing	20%of 46000	9,200	20% of 44000	8,800	20% of 41000	8,200
Less opening stock	20% of 40000	8,000		9,200		8,800
Materials Purchases in Kgs		41,200		45,600		43,400
Price per Kgs		4		4		4
Materials Purchases in value		**164,800**		**182,400**		**173,600**

b) TURYENEZA Ltd Marginal Costing Profit and Loss Account for three months

Details	July		August		September	
	Working	FRW "000"	Working	FRW "000"	Working	FRW "000"
Sales	18000*50	900	22000*50	1,100	24000*50	1,200
Less Variable Cost						
Opening Inventory	9000*35	315	11000*35	385	12000*35	420
Production	20000*35	700	23000*35	805	22000*35	770
Less closing inventory	11000*35	385	12000*35	420	10000*35	350
		630		770		840
Less Variable selling OH	2.5% of 900	22.50	2.5% of 1100	27.50	2.5% of 1200	30
Total Variable cost		652.50		797.50		870
Contribution		247.5		302.5		330
Less Fixed Cost						
Production	324000/3	108	324000/3	108	324000/3	108
Selling and Distribution	125000/3	41.667	125000/3	41.667	125000/3	41.667
Administration	105000/3	35	105000/3	35	105000/3	35
Total Fixed cost		184.667		184.667		184.667
Profit		62.833		117.833		145.333

W1	**Kgs/Hour**	**FRW Per Kg or per Hour**	**FRW**
Material A01	2	4	8
Material B01	3	6	18
Direct labour	1.5	4	6
Variable production	1.5	2	3
Total variable cost per unit			35

QUESTION FOUR

Marking Guide

Item	**Marks**
a)	
i) Cost of goods sold variable cost per unit and fixed cost:	
Variable cost per unit computation	2
Fixed cost computation	2
ii) Operating expenses variable cost per unit and fixed cost	
Variable cost per unit computation	2
Fixed cost computation	2
iii) Total cost equation	
Total cost equation for cost of goods sold	1
Total cost computation for operating expenses	1
Maximum	**10**
b)	
i) Determination of whether labour is a limiting factor	2
ii) Determination of optimal production plan and total contribution:	
Calculation of contribution per unit	1
Calculation of contribution per unit of limiting factor	1
Ranking of the products in the order of production	1
Allocation of scarce resources to each product	1
Finding the optimal production plan (production units for each product)	2
Finding the total contribution	2
Maximum	**10**
Total	**20**

Model Answer

a) i) Cost of goods sold variable cost per unit and fixed cost

Variable Cost/unit = (Cost at Highest Activity - Cost at Lowest Activity) / (Highest Activity - Lowest Activity)

Variable Cost/unit = (800,000 - 740,000)/(300,000 - 240,000) =

Variable Cost/unit = FRW 1 per unit

Fixed Cost = 800,000 -(1*300,000)
Fixed Cost = 800,000 - 300,000
Fixed Cost = FRW 500,000

ii) Operating expenses variable cost per unit and fixed cost

Variable Cost/unit = (450,000 - 420,000)/(300,000 - 240,000)=
Variable Cost/unit = FRW 0.50/unit
Fixed Cost = 450,000 -(0.5*300,000)
Fixed Cost = 450,000 - 150,000
Fixed Cost = FRW 300,000

iii) Total cost equation for cost of goods sold and operating expenses

Cost of Goods Sold:
$y = mx + c$
Cost of goods sold= $x + 500,000$

Operating Expenses:
$y = mx + c$
Operating expenses = $0.5x + 300,000$

b) i) Determining of labour as a limiting factor

Labour is a limiting factor if the hours needed are more than the hours available.

Total hours available = 12,000 hours

Total hours needed is computed as follows:

Product	Labour cost per unit	Labour cost per Hour	Number of Hours	Demand	Total Hours Required
A	1,200	1,200	1	1,000	1,000
B	2,400	1,200	2	5,000	10,000
C	3,600	1,200	3	4,000	12,000
D	4,800	1,200	4	2,000	8,000
Total required Hours					31,000
Available Hours					12,000

Total hours needed is 31,000 hours yet the hours available are only 12,000 hours. Therefore, labour is a limiting factor

ii) Determining of optimal production plan and total contribution

Step 1: Calculate contribution per unit

Particular	**A**	**B**	**C**	**D**
Selling price per unit	3,800	5,000	8,000	10,000
Less Variable cost per unit				
Labour cost per unit	1,200	2,400	3,600	4,800
Materials Cost per unit	1800	1800	3000	3200
Total Variable cost per unit	**3,000**	**4,200**	**6,600**	**8,000**
Contribution	**800**	**800**	**1,400**	**2,000**

Step 2: Calculate contribution per unit of limiting factor

Particular	**A**	**B**	**C**	**D**
Contribution	**800**	**800**	**1,400**	**2,000**
Limiting factor (Hour)	1	2	3	4
Contribution per Limiting Factor	800	400	467	500

Step 3: Rank the products

Particular	**A**	**B**	**C**	**D**
Contribution per Limiting Factor	800	400	467	500
Ranking	1	4	3	2

Step 4: Allocate the scarce resource, find the optimal production plan and total contribution

Ranking	**Product**	**Units to produce**	**Hours used**	**Hour Remaining**	**Contribution per unit**	**Total Contribution**
1	A	1,000	1,000	11,000	800	800,000
2	D	2,000	8,000	3,000	2,000	4,000,000
3	C	1,000	3,000	-	1,400	1,400,000
4	B	-	-	-	-	-
Total						**6,200,000**

The optimal production plan is to produce 1,000 units of A, 2,000 units of D and 1,000 units of C to have a total contribution of FRW 6,200,000.

QUESTION FIVE

Marking Guide

Item	**Marks**
a) Calculation of total emoluments	
• Straight Piece Rate	1
• BIKORIMANA Emoluments/Earnings	0.5
• HABIMANA Emoluments/Earnings	0.5
Maximum Marks	**2**
• Taylor's Differential Piece Rate System	
• Calculation of Standard Performance for 10 Hour	1
• Calculating Earning of BIKORIMANA- Below performance	1
• Calculating Earning of Habimana - Above performance	1
Maximum Marks	**3**
b) Earnings of Workers:	
• KAZI (0.5 Marks for Calculation of percentage and 0.5 Marks for calculating earning)	1
• VUBA (0.5 Marks for Calculation of percentage and 0.5 Marks for calculating earning)	1
• TAYALI (0.5 Marks for Calculation of percentage and 0.5 Marks for calculating earning)	1
Maximum Marks	**3**
c) i) Advantages and disadvantages of piece rate system	
• Advantages (At least two points each 1 mark)	2
• Disadvantages (At least two points each 1 mark)	2
ii) Description of incentive schemes giving examples (2 marks for description and 2 for examples)	4
iii) Conditions for operation of incentive schemes (at least 4 conditions of 1 mark each)	4
Maximum	**12**
Total	**20**

Model Answer

a)

Standard Time allowed for 30 Trucks is 1 Hour

Time rate is FRW 150,000 per Hour

Straight Piece Rate = (Standard rate per hour)/(Standard production per hour)

Hence for one truck = (FRW 150,000)/ (30 Units of truck) = FRW 5,000

That is, for every truck produced, the specialist will get FRW 5,000

Straight piece rate system:

Earnings/Emoluments = No of units produced * Piece Rate (SPR)

- BIKORIMANA Emoluments/Earnings = 260 Trucks * FRW 5, 000 = FRW 1,300,000
- HABIMANA Emoluments/Earnings = 320 Trucks * FRW5, 000= FRW 1,600,000

Taylor's differential piece rate system:

Standard Performance= 30 Units of trucks*10hours per truck = 300 Units of truck (Standard performance)

- BIKORIMANA- Below performance since he has produced 260 Units: 80% applicable to low performance (FRW 5, 000)
- HABIMANA- Above performance since he has produced 320 Units: 120% applicable to high performance (FRW 5, 000)
- BIKORIMANA Pay Rate= FRW5, 000*80/100= FRW 4, 000
- HABIMANA Pay Rate= FRW 5, 000*120/100= FRW 6, 000

Calculation of Emoluments/Earnings: Units produced*Payrate adjusted for differential piece rate

BIKORIMANA= 260 Units* FRW 4,000 = FRW 1,040,000

HABIMANA= 320 Units* FRW 6, 000 = FRW 1,920,000

b) **Earnings of each worker**

Merrick's Multiple or Differential Piece Rate System (D.P.R System)

Level of performance = Act Output/Std output*100

KAZI= 240/300*100= 80%

VUBA= 280/300*100= 93%

TAYALI=350/300*100= 116%

Calculations of Earning s= Unit Produced*Normal Pay rate

KAZI= 240 Units*FRW5, 000= FRW 1,200,000

VUBA= 280 Units*FRW5, 000*110/100= FRW1,540,000

TAYALI= 350 Units*FRW5, 000*120/100= FRW2,100,000

C) i) Advantages and disadvantages of piece rate system of remuneration

MEMORANDUM

TO: Management of Volkswagen Rwanda Limited

FROM: Management Accountant

RE: Alternative Remuneration Methods

DATE: August 2015

Further to your recent request for information I have prepared this memorandum which outlines the advantages and disadvantages of piece rate remuneration schemes, describes how incentive schemes operate and presents the conditions necessary for incentive schemes to operate successfully.

Piece rate remuneration systems

Piece rate remuneration systems are systems whereby workers are paid on the basis of output produced rather than hours worked. There are a number of different variations of piece rate remuneration systems including straight piece rate systems, piece rates with guaranteed minimum pay and differential piece rate systems.

Advantages of piece rate systems

- Each worker is paid on his/her merits and hence individual effort is encouraged.
- The employer knows in advance the direct labor cost of each job and this information is very useful in pricing or tendering for jobs.
- Workers may be more careful with tools and equipment as they know that any damage to these will reduce their earning capacity.
- Companies may ensure that time wasted by employees in production is not paid for.

Disadvantages of piece rate systems

- It may be difficult to agree an equitable rate for units produced.
- Slower workers may feel disgruntled at earning a lower wage and this may lead to demotivation.
- There may be an adverse effect on quality as workers try to increase their output.
- There may be excessive waste of material by workers trying to work as fast as possible and while the worker will not be paid for items scrapped there is a cost associated with these items**.**

C) **ii) Description of incentive schemes**

Incentive schemes operate on the basis that a target is set and actual performance is compared with that target. If actual production is greater than the target employees are rewarded for their efficiency. Thus, employees are incentivized to work harder to increase production and their remuneration. While incentives may lead to higher labor costs the resulting efficiencies lead to a reduction in the overall cost per unit of output and higher profits. In this way both the employer and the employee may be better off from a financial perspective. Incentive schemes may impact favorably on employee morale as employees are seen to receive extra reward for extra effort.

C) iii) Conditions necessary for incentive schemes to operate successfully

For an incentive scheme to be successful there are a number of conditions that must be met. These include:

- The objectives must be clearly stated and attainable.
- The scheme should be clearly communicated to all participants.
- Any rules or conditions should be easy to understand and not liable to misinterpretation or manipulation.
- The reward should be as nearly related to effort as possible, both in amount and time.
- The standard of performance set must be reasonably attainable by the average employee.
- The scheme must have the support of all relevant parties - e.g. staff, employer, and unions.
- The scheme should be seen to be fair from the perspective of the employees as well as from the employer's perspective.

Ideally incentives should be paid as near as possible to the time that they are earned so that the link between effort and reward is very apparent.

Only employees who invest effort in securing the incentives should receive them – employees should not be rewarded for the work of others.

Allowances should be made for factors outside employees' control which have impinged upon their performance.

If you require any further clarification or information regarding anything contained in this memorandum, please feel free to contact me.

Yours sincerely,

Management Accountant

QUESTION SIX

Marking Guide

Item	**Marks**
a) i) Waste	1
Scrap	1
Spoilage	1
ii) Material cost per unit 1 mark for cost of material 1 mark for total output and 1 mark for cost per unit)	3
b) i) Overhead reapportionment using simultaneous equations	
Formulation of service X equation	1
Formulation of service Y equation	1
Solving of the equation to find X	1.5
Solving of equation to find Y	1.5
Reapportionment of X (0.5 marks each * 4)	2
Reapportionment of Y (0.5 marks each * 4)	2
Total of each department A, B, C, X & Y	1
i) Difference between allocation and apportionment	
Allocation	2
Apportionment	2
Total	**20**

Model Answer

a) i) Explain with reasons the quantities that you will classify as:

Material issued to production	200 kg
Less- Shrinkage (1% of 200)	2 kg
Input	198 kg
Less- 12% of 198 (Trimmings in process)	23.76 kg
	174.24 kg
Less- 8% sub-standard (8% of 198)	15.84 kg
Output (80% of input)	158.40

- **Wastage**

As waste has practically no value, the accounting is relatively simple. The effect of the waste is to reduce the quantity of output. In order to arrive at the unit cost of the process, operation or job, the total cost of the process etc. is distributed over the reduced output, that is, the units of good production only. The cost of abnormal waste, should however, be excluded from the total cost and charged to Profit and Loss Account. Here, waste generated = 2 kgs**.**

- **Scrap**

Scrap is the form of incidental material residue coming out of certain types of manufacturing processes but it is usually in small amounts and has low measurable utility or market value, recoverable without further processing. Scrap is discarded material having some value. Here Scrap generated = 23.76 kgs.

- **Spoilage**

Spoilage arises when the production output is damaged in such a manner and to such an extent that it cannot be used for the original purpose for which it was designed but is to be disposed off in some suitable manner without further processing. Spoilage involves not only the loss of material but also labour and manufacturing overheads. Here spoilage=15.84 kgs.

ii) Material cost per unit

Particulars	Workings	FRW
Cost of material	200 x 50	10,000
Total output		158.4
Material cost per unit of output		63.13131

b) i) Statement showing the distribution of service dept. overheads to the production departments, by the simultaneous equation method

Formulate Simultaneous equations using service department overheads

x=140,000 + 10% of y

x = 140,000 +0.1y

y = 96,000 + 15% of x

y = 96,000 + 0.15x

Solve the Equations
x = 140,000 + 0.1y
x = 140,000 + 0.1(96,000 +0.15x)
x = 140,000 + 9600 + 0.015x
x - 0.015x = 140,000 + 9,600
0.985x = 149,600

x = **151,878.17**

y = 96,000 + 0.15x
y = 96,000 + 0.15*151,878.17
y = 96,000 + 22,781.73

y = **118,781.73**

	A	B	C	X	Y
Primary Distribution	240,000	210,000	250,000	140,000	96,000
Reapportion x	45,563	30,376	53,157	**(151,878.17)**	22,781.73
Reapportion y	29,695	47,513	29,695	11,878	**(118,781.73)**
	315,259	287,888	332,853	0	(0)

ii)**Explain the difference between overhead allocation and overhead apportionment**

Overhead allocation is the transfer of service department overheads to their respective departments. The term is normally used in reference to specific overheads.

Overhead apportionment is the sharing out of the overhead costs to all the departments irrespective of whether they are production departments or even service departments.

QUESTION SEVEN

Marking Guide

Item	**Marks**
a) i) Calculation of sales price planning variance	2
ii) Calculation of sales price operational variance	2
b) Labour rate variance	2
c) i) Material mix variance	2
Material yield variance	2
i) Variable overhead expenditure variance	2
Variable overhead efficiency variance	2
ii) Standard cost card when 4000 units produced:	
Material cost computation (1 Marks * 2)	2
Labour cost	1
Prime cost	1
Marginal cost	1
Standard cost	1
Total	**20**

Model Answer

i) Sales Price Planning Variance (SPPV)

SPPV = (Original standard price -Revised standard price)*Actual quantity

SPPV = (80 - 100)*220,000

SPPV = 20 * 220,000

SPPV = 4,400,000 Favourable

ii) Sales Price Operational Variance (SPOV)

SPOV = (Revised standard price - Actual price)*Actual quantity

SPOV = (100 - 90)*220,000

SPOV = 10 * 220,000

SPOV = 2,200,000 Adverse

b) Labour Rate Variance (LRV)

LRV = (Budgeted rate/hour - Actual rate/hour)*Actual Hours

LRV = (150 - {730,000/4,000})*4,000

LRV = (150 - 182.5)*4000

LRV = (130,000)

LRV = 130,000 Adverse

b)

i) Material Mix Variance (MMV) and Material Yield Variance (MYV)

MMV = (Budgeted mix for actual quantity - Actual quantity) * Budgeted price/kg

Budgeted quantity for actual production (BQAP)

BQAP (A) =	2 * 40,000 =	80,000
BQAP (B) =	3 * 40,000 =	120,000
		200,000

Actual Quantity (A) =		78,000
Actual Quantity (B) =		121,000
		199,000

Budgeted price/kg (A) =		25	
Budgeted price/kg (B) =		75	
BMAQ (A) = (80,000/200,000)*199,000 =			79,600
BMAQ (B) = (120,000/200,000)*199,000 =			119,400

MMV = (Budgeted mix for actual quantity - Actual quantity)*Budgeted price/kg

MMV (A) =	(79,600 - 78,000)*25=	40,000	Favourable
MMV (B) =	(119,400 - 121,000)*75 =	(120,000)	Adverse
Total Material Mix Variance =		**(80,000)**	**Adverse**

MYV = (Budgeted quantity for actual production -Budgeted mix for actual quantity)*Budgeted price/kg

MYV (A) =	(80,000 - 79,600)*25 =	10,000	Favourable
MYV (B) =	(120,000 - 119,400)*75 =	45,000	Favourable
Material Yield Variance		**55,000**	**Favourable**

iii) Standard cost card for 40,000 units

		FRW
Direct Material (A) =	40,000 units * 2kgs * 25 =	2,000,000
Direct Material (B) =	40,000 units * 3kgs * 75 =	9,000,000
		11,000,000
Direct Labour =	4hrs * 30 * 40,000 =	4,800,000
Prime Cost		**15,800,000**
Variable Overheads =	20 * 4 * 40,000 =	3,200,000
Marginal Cost		**19,000,000**
Fixed Overheads =	4 * 6.25 * 40,000 =	1,000,000
Absorption Costing		**20,000,000**
Non production costs (Not available)		-
Standard Cost		**20,000,000**

END OF MARKING GUIDE AND MODEL ANSWERS