

# CERTIFIED PUBLIC ACCOUNTANT ADVANCED LEVEL 2 EXAMINATION <u>A2.2: STRATEGIC PERFORMANCE MANAGEMENT</u> DATE: THURSDAY 29, FEBRUARY 2024 MARKING GUIDE AND MODEL ANSWERS

# SECTION A

# Marking guide QUESTION ONE

\$ 120	Marking guide	PAR PAR PER
JAK RI	Calculation of a correct	Marks
(a)	Material price variance	12 Drage BE
RAL P	Material yield variance	Er BED VER DY
BRUIP	Material mix variance	CP JU AL OP
BRIC	Overhead efficiency variance	02 02 02 88
3 02 5	Overhead capacity variance	UP RT REPOR
E ROM	Overhead expenditure variance	BR JOP AUTON
	Activity usage variance	201 201 42000
Str By	Activity expenditure variance	UPPOUNT RY
AST PA	Subtotal March Concerned and C	E BE BE BELOPI
(b)	Calculation of the correct controllable profit	St EF 02 201
as Bas	Calculation of the correct Net assets	P. P. AROUA
	Calculation of the correct ROI	P BE FEB BR
4200	Calculation of correct RI	RI PAK REP 02
6420	Correct discussion of RI	2AL CPLAP IA
1200	Correct discussion of Roi	O'BR BROF
AP-21	Subtotal	AP PARTCPAL
(c)	Calculation of contribution of the units to be transferred in division A	24 DOL PROV
Nº BR	Calculation of contribution of the units produced from the transferred units to division B	21 22 RED RED
	Detailed explanation of any two transfer pricing approaches-cost based, dual, market based or any	E OT NOT DATE
25 20		20 20 212 02
(d)	Identification of any three principles of corporate governance	AP BR 10P 10
St CY	Letter format	
2 ASCY	Sub total	RUARBRUNA
(e)	Calculation of any three profitability ratios	AB PH BED
A10020	Calculation of any three liquidity ratios	AL PRETURE
	Calculation of any two gearing ratios	2 2 CB BE SEE
	Explanation on Firtgeralds and Moons building block model	E. Br. CPA BEI
Korn	Explanation on perfomance prism	10,024,108, Ex
1225	Subtotal State Contraction of the second state	81 002 BO ER
P ROL	Total Philos Read Of AP	AR OFFICARIOS

# (a) GISHUGI Ltd

## VARIANCE INVESTIGATION REPORT FOR NOVEMBER 2022

I wish to convey the variance investigation report for November 2022.Members of the board, as you can see from the report, the firm is not doing all bad. Total material price variance, yield variance, Material mix variance for material N and activity usage variance for dispatches to customers are all adverse, the rest of the variances are favorable. Attached are the computations of the required variances.

(a)	Model answers Material price variances for material N,D and F	AN CANCE	OAD OP NY
S (a)	(SP-AP)AQ	Brok 02 42	DA CY OP
2 april	8,600*2,000+12,100*6000+28400*4000 -203,800,000=	400,000	ARTAR
29.081	Material yield variance	Real Property C	RECENCE
JA RU	(Standard yield-Actual yield)Standard cost per unit	Star Bear	622,022 AS
AP DE	Standard cost per kg of Nexh in FRW	Real R	AP 120 at
Star A	4000*0.60+6000*0.35+2000*0.15=	4,800	UN-PACT
120-	If 1.1 kg of input= 1kg of ouput	Call Brag	PART OF ALL
No. 22	Therefore 49,100kg= ?	12 CP 2 10	Prat aprace
JAC AL	(49,100 *1kg)/1.1kgs=	44,636.36	SHOOM R
a crai	MYV=(42,000-44,636.36) 4800	12,654,528	A BE IC
MAN R	Material mix variance	22,034,520	2800 3G
Straver.	MMV=(Revised std mix-Actual mix)Standard price	P. TOX ACT	READEN
EP ar	Material F, D and N	120 22 8	92.82
ast of the	MMV F=(0.65/1.1*49,100-28,400)4000=	2,454,545.45	FREERE
A PUT	MIV D=(0.35/1.1*49,100-12,100)6000=	21,136,363.64	EP PAPET
A BOAR	MMV D (0.15/1.1*49,100-8,600)2000=	3,809,090.91	ANOUND
Stor 2	Total MMV	19,781,818.18	EBBRER
X of	Overhaed expenditure variance(OEV)	19,701,010.10	Cherry Str.
ACTOR	OEV=Budgeted overhead-Actaual overhead spent	BE BE LOUT	NT DATES
and all	(80,000,000+120,000,000)-(78,000,000+48,000,000)	74,000,000	F 2002 88
C C C C	VINCTAR ANTAR	74,000,000	1 25 al
57 6 M	Overhead capacity variance OCV=(Budgeted input of D-Actual input of D)Std overhead absorption rate per Kg of D	On ON OFF	Br. Br. Cr.
AL DO		Con the top	A 022 1201
A COL	Calculating budgeted input of material D	Cropped 2	212 2 2 2 2 2 C
Co Star	1Kg of Nexh= 0.35 Kg of D	ANDRENA	102 12 00
212100	40,000 kgs of Nexh = ?	14,000	KCC
Sp 27 P	40,000*0.35/1=	14,000	KGS
et and	Overhead absorption rate(OAR)	Cr Ar EP	ET PROJA
00000	OAR=Budgeted OH/Budgted activity level	1000000	
1220	OAR=200,000,000/14,000	14,285.71	FRW PER KG
2 Stat	0CV=(14,000-12,100) 14,285.71	27,142,849	FARTER
SUPERD.	Overhead efficiency variance	0,00,000	10 JUNEUM
2 2 2 2 V	(Budgted input of D for the production level achieved-Actual input of D) Standard OH absorption rate	11 P 190	212, 212, 27
al Alar	Input of D for production level achieved=42,000*0.35	14,700	KGS
AF OV A	0ev=(14,700-12,100) 14,285.71	37,142,846	FORKOVI
PAL Cr	Activity usage variances	King and	120 ABE
Strace	(Standard number of deliveries for the production level achieved-Actual deliveries)Std cost per delivery	N. K. ROW	Er Brock
20 all	Calculating standard input quantity of materials	BR BRY BY	CX, Cr. AN
CRA B	1Kg of Nexh= 1.1kgs of input of materials	Streep 240	10 × 21 × 01
The of	40,000 kgs of Nexh = ?	08 12 12 B	WARD B
52 1200	40,000*1.1/1	44,000	KGS
AF 254	Standard number of deliveries	BEERWARIES	Dr. Or Olyr
2Unghr	44,000/440	100 CT AND	DELIVERIES
12 02	Standard cost per delivery	201 Mr. R.	UMBRUA
2634	120,000,000/100 FRW	1,200,000	PER DELIVERY
01 2 RUN	Dispatches to customers	E OF DAR OF	RY OLA
EB BK	40,000/100	400	DISPATCHES
Rt 202	Standard cost per dispatch	00404400245	NUBR OF
ET JA	80,000,000/400 FRW	200,000	PER DISPATCH
Bra	Standard number of deliveries for the production level achieved	RUDAROP	ALC PALY
	If 40,000kgs= 100		
AL PAY	Therefore 42,000kg= ?		
	42,000*100/40,000	105	DELIVERIES
	Number of disptaches for the production level achieved	REPEBETCH.	
	If 40,000kgs= 400 dispatches		
	Therefore 42,000kg= ?		
	42,000*400/40,000	420	DISPATCHES
	Activity usage variances(Deliveries)		
	AUV (Deliveries)=(Standard deliveries for production achieved-Actual deliveries)Standard cost per delivery	DAT OPPOTO	AP OUP R
x bord	(105-102)1,200,000 FRW	3,600,000	FEBROOM
RUNA.	Activity usage variance(Dispatches)	EBIOFFICI	SEE ATON
BEIDE	AUV (Dispatches)=(Standard disptatches for production achieved-Actual dispatches)Standard cost per dispatch	RI CPARTON	5-202022
		an ar	AQUIST

1 (b)	Calculation of correct ROI for Division B with new investment	R. BULER, B. B. B. B.
EARG	Sales= 850 +850*12.5%	956.25
19 APY	Less controllable costs	141 CPALET VO 2420 AS
XIQ. PAK	Industrial averege (Normal) 450*25%*90%	101.25
24 DUA	Addittional variable production cots =2,000,000/10*1500	00 5B 5B 5B 5300
FOR TO	Controllable profits	ARCRATCP PER 555
*1202°	Net Assets=1850+480	2330
2 CALLER	ROI=Controllable profits/Net assets	23.82%
A 2024	Calculation of the correct RI for Division B with new investment	20242020 12 12 12 12 12 12 12 12 12 12 12 12 12
AP UMP	RI=Controllable profits-Imputed interest charge	JAGBE UN RACOPACT
EP RUM	Controllable profit	PLANDAL OF 555
FEDAL	Imputed interest charge	APAY 212 PENDEN
AUGA	2330*15%	349.5
AP AG	Residual income	205.5
Cr of Pr	Calculation of ROI for Divison B without new investment	241 RUARUARUAR
A. O. B.	Sales Start Of U SUN AUTOR UNA SUN AUTOR SUN AUTOR SUN AUTOR SUN	66 <sup>10</sup> 2 <sup>10</sup> 2 <sup>10</sup> 850
St BR GE	Controllable costs 450*25%*90%	101.25
T. AAG. T	Controllable profit	748.75
x12013	Net ssets	S 2 1850
AP 2023	S ROI 22 2 2 2 Profile 2 P	40.5%
AS DON	calculation of RI for Divison B without new investment	AU 02 220 2 2 20 08
AP 2200	Sales 2 State Of a Contract of	P 11 2 850
UN CPM	Imputed interest charge 1850*15%	B 277.7
014502°	Residual income	572.3

# **Return on investment**

It measures in percentage the profits earned relative to the capital employed or net assets. For a firm to be perceived profitable, ROI must be greater than the company's cost of capital. Currently the cost of capital is 15% for Gishugi Ltd. With the new investment, the ROI is 23.8%. The rate is far much higher than the cost of capital. Most firms want to add value for the shareholders. In this case, the board should proceed with the new investment. Further analysis indicates that the ROI without new investment is 40.5% This further complicates the decision to be made. The board has a discretion on the decision to make.

## **Residual income**

ROI can lead to suboptimal(dysfunctional) decision.

This is an absolute measure that can enable one to make a decision of investing in a project that maximizes shareholder's wealth. Finance charge is deducted. This is the amount that belongs to the owners of capital. With the new investment, an RI of FRW 205.5 million is realized. Currently the RI is FRW 572.3 million. This is a wide reduction. The board of directors should think otherwise.

1 (c )	Turnover if 1000 units of Mexh are sold externally 1000*2800 FRW	2,800,000
STREE ARGEBI	Less variable costs FRW	2,000,000
202410 APPER	Contribution out sales of 1000 units of Mexh externally	800,000
202 BROEBE	Turnover if 1000 units of Mexh are transferred to division B to make Nexh which will later be sold	2412024
	Turnover 1000/2=500*6500	3,250,000
	Less costs M. 2. Charles Reserved and the contract of the cont	A LONAL
AR RY2 FEB	Transfer costs	2,000,000
20 CPATOY	Additional cost 500*1500	750,000
124 120 420	Contribution out of sales of 500 units of Nexh	500,000
FEBRUAR	Internal transfer will cause a reduction of Gishugi Ltd overal profit by 800,000-500,000	300,000
	Its therefore important not do do internal transfers. Mexh should be sold externally.	PAPE REED
	The problem will be the consequences of dealing with irrate customers who have alread trusted	LICPUP R
	Nexh .Its upon the firm to look for a cheaper way of producing Nexh.Alternatively,they can s	EBEREER
	ubcontract the production of Nexh.	LOP CP ST

# **Transfer pricing approaches**

# Cost based transfer pricing

Goods and services are transferred from one division to the other either by using variable cost, full cost or variable/full cost-plus transfer price. The plus denotes a small increment in costs that acts as a gain to the transferring division.

## Market based transfer pricing

Divisional managers transfer goods and services from each other based on the current market prices of such goods or similar goods as charged in the external market.

## Negotiated transfer pricing

Allows the management of the divisions to negotiate to agree of which approach of transfer pricing to be adopted by both of them.

## **Dual based transfer pricing**

Two divisions may agree to apply two different transfer prices for the goods being transferred. One division may use market-based transfer pricing while another may use cost-based transfer pricing. **1 (c)** 

Student name..... Physical address.....

Arline Mujawayezu Gishugi Ltd -Masoro Date.....

## **Dear madam director**

#### Re corporate governance and corporate governance principles

Corporate governance is the manner corporations are managed. This was introduced in order to avoid concentration of power in the hands of only one individual. Corporations are managed through a board. Board members are elected by shareholders for a specified term period. Management and administration is made through majority support in board meeting. Board members should meet quite often to discuss the happening in the firm. Members of the board are required to join any of the four main committees established by the board. The members of the board are required to elect one of them to be the chairperson of the board. The board should recruit a legal expert to be the secretary of the board. Board members should run the firm for the best interest of the shareholders. They are not expected to compete with the firm. They are also required to file statutory returns on an annual basis without fail.

Board members are required to be ethical and uphold the following;

#### Transparency

The board members should disclose information on finances, performance, ownership and governance structure in a timely manner.

#### Accountability

The board must at any given time explain the purpose of its activities and explain its conduct. It must report issues of importance to the shareholders.

## Fairness

The board must treat employees, shareholders, vendors and other investors with impartiality Any other relevant principles like risk management, accountability etc.

Yours faithfully.....

1 (e )	Calculating any three profitability ratios	2019	2020	2021	2022	2023
EE AR	Gross profit margin	310	290	350	482	410
ALCAR	Turnover	700	780	890	1002	750
AS PAR	Gross profit margin ratio	44.29%	37.18%	39.33%	48.10%	54.67%
2ther	Profit after tax	75.6	79.8	80.5	110.6	117.6
A CONT	Turnover	5 2 700	780	890	1002	750
AL PAGA	Net profit margin ratio	10.80%	10.23%	9.04%	11.04%	15.68%
	Profit after tax	75.6	79.8	80.5	110.6	117.6
Dr. Extra	Equity Charles A	2000	2000	2000	2000	2000
201 PAT	Return on equity	3.78%	3.99%	4.03%	5.53%	5.88%
JAR UN	Calculating any three liquidity ratios	FBR DAUCPTOP	02ALCPAD	RUNEBR	UARCARED	SWALCPAR
GEN BEU	Current assets	545	825	655	530	424
AL TY	Current liabilities	295	190	190	115	175
FE BROK	Current ratio	1.85	4.34	3.45	4.61	2.42
ALCE OF	Current assets	545	825	655	530	424
LANKOY!	Less inventory	350	400	280	340	150
	EB 25 BRUAR 202 TEB FEB PARTEBRAN 024	195	425	375	190	274
RE ONR	Current liabilities	295	190	190	115	175
AL 202	Quick ratio	0.66	2.24	1.97	1.65	1.57
120-140	Cash	45	FUR P25 F	15	70	24
AP 12	Current liabilities	295	190	190	115	175
RU ACP	Cash ratio	15.25%	13.16%	7.89%	60.87%	13.71%
20 20 20	Loan	500	500	500	500	500
20, FED	12% loan note	RI FELDAL 50	50	UN8850	50	50
	Total debt	550	550	550	550	550
SW EXT	Equity FOR REAL 28 24 20 20 02	2000	2000	2000	2000	2000
RU BR	Total debt+Equity	2550	2550	2550	2550	2550
RE CPA	Total assets	2955	2915	2880	2835	2790
024,08	Debt to Equity ratio	28%	28%	28%	28%	28%
of all	Debt to capital ratio	22%	22%	22%	22%	22%
	Debt to asset ratio	19%	19%	19%	19%	20%

# Comments

The firm performed poorly in terms of profitability in the year 2020. The best performance was reported in the year 2023.

Returns on equity have progressively increased from year 2019 to 2023.

Current ratio is more than one in all the year, implying the firm's ability to settle short term liabilities quickly.

Debt to equity, capital and asset ratios are below 30%. This firm is not highly geared thus saves a lot on finance costs.

The number of warranty claims are reducing year by year implying that the firm has invested heavily on better customer care and quality products.

The number of customer complaints are on an upward trend. This may in the long run affect performance.

# Fitzgerald's and Moons building block model

This evolved from the balanced score card to address the needs of service industry. It links the firm's strategy and objectives to employees targets and motivation. It looks at three areas of performance: dimensions-results and determinants, standards and rewards. This model connects a firm's strategic objective to a range of forward looking, non-financial performance measures like customer service levels, rate of innovations, customer complaints, rate of repeat works, rate of claim of warranties etc. It aligns individual performance targets to corporate objectives.

# **Performance prism**

This a second-generation balanced score card focused on meeting stakeholder needs. It has five facets.

Stakeholder satisfaction, stakeholder contribution, strategies, processes and capabilities.

# SECTION B QUESTION TWO

	Marking guide	Marks						St. Rt o
(a)	Determination of the correct discounted price for Luxembourg market	PA PALAICI		aRU 10	JIC'S	Lan Phys		RUBRI
	Determination of the correct discounted price forBelgium market	A 004 xa						
422	Determination of the correct profit for Luxembourg market	2 02 1				29 42	LAP' OF	Patro
122-67.	Determination of the correct profit for Belgium market	01254021				2 Pril	Dr. Pr.	2º at
	Determination EV with PI	NP 2 02						
MACY	Determination of EV without PI	and 2	E SEV			24.02		
21-22	Stating that laplce rule uses equally likely probability	3K UP CPM2						
JAN 2J	Subtotal	10						12 49
(b)	Apportionment of rent	2	100/20		NY ASY	A	102 x2	AL AL
	Apportionment of machine set up cost Apportionment of material handling costs	N 6 8 1 2	1 m 1			12000		
Strop 2	Calculating correct profit of Luxembourg using ABC	2 2 2 2 2 1						A RACKAG
R of	Calculating correct profit of Edgemboding dang ABC	81680241						
1024	Explaining Activity based costing	01 1 1 2	- The	12 660	10.00	age of	1024.00	Pink ou
21 200	Subtotal	10					P.R.J	
(c))	Identifying maximum payoff	38 68 851		20002	AT OF I	ALUAR		SB COM
101	Identifying minimum payoff	SP 68 81						
	Making a decision under maximax	A CAL						
	Making a decision under maximin	20 DATOP1						
	Stating the steps towards maximax	12 85 61						
	Stating the steps towards maximin	all all a						
	Subtotal Show of the state of t	P CP ALS						
	Total marks	225						
		The spect						
2522	Drast Brack Brack Al 201 AL AR JACK	WAR BED						
1 Aray	BER BE CH DEP OF DO BY DO BY DE	BH CPM ALC	DAY CY	PT-1A		RI BRY	Br. ON	
SMAC	SLOCK ON BUSINESS PROVIDENCEN PERCENTICAL	22 200 42				CR CR		
3 OAY		C. P. A. P.	C CON	ED BE				Dr. CO, C
2 (a)	A BE DO BE EN ROLED AV DE DE AND	Luxembourg				A ARA		220 22
a Ala	AT BE BE OF A BE OF A BE A BE A BE A BE	HPX -EV	HPY-EV	XX OX S	A SPI			CSP St
229 14	Units sold Prices in FRW	500	800 32,000,000					
	Discount rate	30,000,000	1. 1					24200
Po Mp	Discount in FRW	2400000	12.50% 4000000	S SPACE	1687 A	20 Park	2 22	
1 AC	Discounted price		28,000,000				TROP	Part 10
	Less specific costs	27,600,000	28,000,000	123.00				
RANG	Ordering cost	250,000	400,000					142 al
bx c	Distribution cost	500,000			30,102		at ist	
2 Dents	Direct material cost		16,400,000					
1000	Profit	A	10,700,000		1000	20,000		ACK ASP
2801	A CE CE OF A P 24 OF 28 CE CE CE	10,000,000	20,100,000	Paul A	2 68	RE RM	as and	
2 PALOF	A CPARTUR OF REALED STORMED AND		States of na	ture				
	Decision alternatives	Strong	Modorate	Weak	Total	Devide by 3		
V. Kal	Large plant	500	450	250	1200	2 8 3	400	* Ev with PI
	Medium plant	300	-400	150	50	2FPON3	16.66667	
	Small plant Charles and Charle	200	300	100	600	M CI 3	200	AL ARIO
2222	Highets value	500	450	250	1200	22 22 3	400	EV without P
R						104 124		
2 (b)	Activity based costing	Y BY OY						
			AN 190"	VI, VI		UP, 62		Dr. VE. C
2 EV aB	KCE 24 02 HCL BE 20 HBR OU SEPART PH	88 02× 202	82,301	SRUPEB		RUPP RY	CRAY	129193
2 BEBB	2 40° A 01 40° 82 40° 82 60° 60° A 60° 10° 10° 10° 10° 10° 10° 10° 10° 10° 1	Luxembourg		BRUAR		RUAL CPAR	22021 02 PT	CPARY A
A BY 2	100 04 00 00 00 00 00 00 00 00 00 00 00 0	HPX -EV	HPY-EV	PRUNE PREFE	AREED AREED	PAICE AP	22022	CPARY P
ART AR		HPX -EV 500	HPY-EV 800		APREND APREND APREND	RUARAS	2202 2202 2202 2202 2202 202 202 202 20	CT AL
A B B B	Prices in FRW	HPX -EV 500 30000000	HPY-EV 800 32000000		REFERENCE STREET	ALCENE ALCENE PALCON PRESE OFFICER	02024 22022 22022 22022 22022 22022 22022 22022	CR PUP REUPPER RAVE RAVE RAVE RAVE RAVE RAVE RAVE RA
A REAL	Prices in FRW Discount rate	HPX -EV 500 30000000 8%	HPY-EV 800 32000000 13%		ALL AR	PAICE ME PAICE ME PAI	CPAL CPAL CPAL CPAL CPAL	
	Prices in FRW Discount rate Discount in FRW	HPX -EV 500 30000000 8% 2400000	HPY-EV 800 32000000 13% 4000000	27202 RTEB	ALL C	24102 M2 24102 M2 24102 M2 24202 M2 2420 M2	CP PA 420-21 2-12-21 	
	Prices in FRW Discount rate Discount in FRW Discounted price	HPX -EV 500 30000000 8%	HPY-EV 800 32000000 13% 4000000	27202 RTEB	ALE BERE		CP PAR 2200 2200 2200 2200 2200 2200 200	
	Prices in FRW Discount rate Discount in FRW Discounted price Less specific costs	HPX -EV 500 30000000 8% 2400000 27600000	HPY-EV 800 32000000 13% 4000000 28000000	21202555 2425555 242555 202455 202455	2012 2012	2012 2012	1222 122 1222 1	
	Prices in FRW Discount rate Discount in FRW Discounted price Less specific costs Direct material cost	HPX -EV 500 3000000 8% 2400000 27600000 16000000	HPY-EV 800 32000000 13% 4000000 28000000 16400000	22202 22202 2022 2022 2022 2022 2022 2	2010 2010			
	Prices in FRW Discount rate Discount in FRW Discounted price Less specific costs Direct material cost Ordering cost	HPX -EV 500 3000000 8% 2400000 27600000 16000000 250000	HPY-EV 800 32000000 13% 4000000 28000000 16400000 400000	22202 22200 20202 20200 20202 20200 20200 20200 20200 20000 20000 20000 20000 20000 200000	2012 2012			
	Prices in FRW Discount rate Discount in FRW Discounted price Less specific costs Direct material cost	HPX -EV 500 3000000 8% 2400000 27600000 16000000	HPY-EV 800 32000000 13% 4000000 28000000 16400000 400000	22202 22200 20202 20200 20202 20200 20200 20200 20200 20000 20000 20000 20000 20000 200000				
	Prices in FRW Discount rate Discount in FRW Discounted price Less specific costs Direct material cost Ordering cost Distribution cost	HPX -EV 500 3000000 8% 2400000 27600000 16000000 250000	HPY-EV 800 32000000 13% 4000000 28000000 16400000 400000 500000		Based on f	actory space		
	Prices in FRW         Discount rate         Discount in FRW         Discounted price         Less specific costs         Direct material cost         Ordering cost         Distribution cost         overheads         Rent	HPX -EV 500 30000000 27600000 16000000 250000 500000	HPY-EV 800 32000000 13% 4000000 28000000 16400000 400000 500000					
	Prices in FRW         Discount rate         Discount in FRW         Discounted price         Less specific costs         Direct material cost         Ordering cost         Distribution cost         overheads	HPX -EV 500 3000000 8% 2400000 27600000 250000 500000 400,000	HPY-EV 800 32000000 13% 4000000 28000000 16400000 500000 1,600,000 5,000,000	2,000,000 8,000,000	Number of			
	Prices in FRW         Discount rate         Discount in FRW         Discounted price         Less specific costs         Direct material cost         Ordering cost         Distribution cost         overheads         Rent         Machine set up cost	HPX -EV 500 30000000 8% 2400000 27600000 16000000 250000 500000 400,000 3,000,000 4,800,000	HPY-EV 800 32000000 13% 4000000 28000000 16400000 500000 1,600,000 5,000,000	2,000,000 8,000,000 12,000,000	Number of	f set ups		
	Prices in FRW         Discount rate         Discount in FRW         Discounted price         Less specific costs         Direct material cost         Ordering cost         Distribution cost         overheads         Rent         Machine set up cost         Material handling	HPX -EV 500 30000000 8% 2400000 27600000 16000000 250000 500000 400,000 3,000,000 4,800,000	HPY-EV 800 32000000 13% 4000000 28000000 16400000 400000 5000000 1,600,000 5,000,000 7,200,000	2,000,000 8,000,000 12,000,000	Number of	f set ups		
2 (C)	Prices in FRW         Discount rate         Discount in FRW         Discounted price         Less specific costs         Direct material cost         Ordering cost         Distribution cost         overheads         Rent         Machine set up cost         Material handling	HPX -EV 500 30000000 8% 2400000 27600000 16000000 250000 500000 400,000 3,000,000 4,800,000	HPY-EV 800 32000000 13% 4000000 28000000 16400000 400000 5000000 1,600,000 5,000,000 7,200,000	2,000,000 8,000,000 12,000,000	Number of	f set ups		
2 (c)	Prices in FRW         Discount rate         Discount in FRW         Discounted price         Less specific costs         Direct material cost         Ordering cost         Distribution cost         overheads         Rent         Machine set up cost         Material handling         Profit	HPX -EV 500 30000000 8% 2400000 27600000 16000000 250000 500000 400,000 3,000,000 4,800,000	HPY-EV 800 32000000 13% 4000000 28000000 16400000 400000 5000000 1,600,000 5,000,000 7,200,000	2,000,000 8,000,000 12,000,000	Number of	f set ups		
	Prices in FRW         Discount rate         Discount in FRW         Discounted price         Less specific costs         Direct material cost         Ordering cost         Distribution cost         overheads         Rent         Machine set up cost         Material handling         Profit	HPX -EV 500 30000000 8% 2400000 27600000 16000000 250000 500000 400,000 3,000,000 4,800,000	HPY-EV 800 3200000 13% 400000 2800000 2800000 16400000 500000 1,600,000 5,000,000 -3,100,000	2,000,000 8,000,000 12,000,000	Number of Quantity o	f set ups		
	Prices in FRW         Discount rate         Discount in FRW         Discounted price         Less specific costs         Direct material cost         Ordering cost         Distribution cost         overheads         Rent         Matchine set up cost         Material handling         Profit         Decision based on Maximax and Minimax         Decision alternatives         Large plant	HPX -EV 500 30000000 8% 2400000 27600000 2500000 500000 400,000 3,000,000 4,800,000 2,650,000	HPY-EV 800 3200000 13% 400000 2800000 1640000 400000 500000 1,600,000 5,000,000 7,200,000 -3,100,000 States of na	2,000,000 8,000,000 12,000,000 ture Weak	Number of Quantity o	f set ups f orders-Mate Minimum 250	erials	
	Prices in FRW Discount rate Discount in FRW Discount in FRW Discounted price Less specific costs Direct material cost Ordering cost Distribution cost overheads Rent Machine set up cost Material handling Profit Decision based on Maximax and Minimax Decision alternatives	HPX -EV 500 3000000 27600000 27600000 250000 500000 400,000 3,000,000 4,800,000 2,650,000 5trong	HPY-EV 800 3200000 2800000 2800000 16400000 400000 500000 1,600,000 5,000,000 7,200,000 -3,100,000	2,000,000 8,000,000 12,000,000 12,000,000 ture Weak 250	Number of Quantity o Maximum 500*	f set ups f orders-Mate Minimum 250	erials	
	Prices in FRW         Discount rate         Discount in FRW         Discounted price         Less specific costs         Direct material cost         Ordering cost         Distribution cost         overheads         Rent         Matchine set up cost         Material handling         Profit         Decision based on Maximax and Minimax         Decision alternatives         Large plant	HPX -EV 500 30000000 27600000 27600000 250000 500000 400,000 3,000,000 4,800,000 2,650,000 50000 50000 50000 50000 50000 50000 50000 50000 5000000 50000000 500000000	HPY-EV 800 3200000 13% 4000000 28000000 16400000 500000 5,000,000 -3,000,000 -3,100,000 -3,100,000 States of na Modorate 450	2,000,000 8,000,000 12,000,000 ture Weak 250 150	Number of Quantity o Maximum 500*	f set ups f orders-Mate Minimum 250 (400)*	erials	
2 (c)	Prices in FRW         Discount rate         Discount in FRW         Discounted price         Less specific costs         Direct material cost         Ordering cost         Distribution cost         overheads         Rent         Machine set up cost         Material handling         Profit         Decision based on Maximax and Minimax         Decision alternatives         Large plant         Medium plant	HPX -EV 500 30000000 27600000 27600000 250000 500000 3,000,000 4,800,000 2,650,000 500000 500000 500000 500000 500000 500000 5000000	HPY-EV 800 3200000 13% 4000000 28000000 16400000 400000 5,000,000 7,200,000 -3,100,000 States of na Modorate 450 -400	2,000,000 8,000,000 12,000,000 12,000,000 Veak Veak 250 150 150	Number of Quantity o Maximum 500* 300 300	f set ups f orders-Mat Minimum 250 (400)* 100	erials	
	Prices in FRW         Discount rate         Discount in FRW         Discounted price         Less specific costs         Direct material cost         Ordering cost         Distribution cost         overheads         Rent         Machine set up cost         Material handling         Profit         Decision based on Maximax and Minimax         Construction cost         Large plant         Medium plant         Small plant	HPX -EV 500 30000000 8% 2400000 27600000 250000 500000 400,000 3,000,000 4,800,000 2,650,000 500 500 500 500 3,00 2,650,000 500 500 500 500 500 500 50	HPY-EV 800 3200000 13% 4000000 28000000 16400000 500000 1,600,000 5,000,000 7,200,000 -3,100,000 States of na Modorate 450 -400 300	2,000,000 8,000,000 12,000,000 12,000,000 Veak Veak 250 150 150	Number of Quantity o Maximum 500* 300 300	f set ups f orders-Mat Minimum 250 (400)* 100	erials	

## Customer profitability analysis

Customer profitability analysis (CPA) provides important information which allows an organization to determine both which classes of customers it should concentrate on and the prices it should charge for customer services. Its use ensures that those customers contributing sizeable to the profitability of the organization receive a comparable amount of attention from the organization.

Customer profitability analysis (CPA) is 'the analysis of the revenue streams and service costs associated with specific customers or customer groups'.

As per the analysis of the two markets, Luxembourg and Belgium, Luxembourg is the most profitable. It generates the highest profit of FRW 10,800,000.

## Activity based costing

This is a method of allocating overheads and indirect costs to products and services using the activities that consume them. It involves three steps

- 1. Identify all activities required to create the products or services
- 2. Divide the activities into cost pools
- 3. Calculate the total overhead of each cost pool
- 4. Calculate OAR
- 5. Absorb the overhead into the products or services using the calculated OAR.

Value of perfect information EV with PI-EV without PI FRW400 million-FRW 400million=0 PI=Perfect information

# **QUESTION THREE.**

JAS AN OPP	Marking guide	22 ACTURE
AV 02 1201	24 VACBERERUALAER RICHARDER CRAFFEBERUAR CRAFFEBERUAR CRAFFEBERUR 21 VAR	Marks
(a)	Detailed defination of benchamrking	W. C. M. C. B.
BB 10PM	Well explained challenges of benchmarking	A 1200248
20 Prov	Subtotal State and State	A REARE CP
6 (b)	Two well explained remunaration schemes each award 2.5 marks	242 24 22
PREFEB	Subtotal Company and A	St. B. 21
( c)	Formulation of objective function	EPERRUNCPI
	Formulation of the six inequalities each award 0.5 marks	BE 202 201
ED RED PA	Calculation of cordinates of the four equations except the non negativity	JA QUARRUN
202 CP	Scaling and identifying the right scale	EE REPEBL
2102,510	Plotting the graph	10 CPALEY P
21002AU	Identifying the correct four corner point ,each award 0.5 marks	2ª BR EBROS
B BROKEN	Calculating the maximum contribution and units to produce	21 APT CPAL
24 024 24	Subtotal CB CONTRACTOR CONTRACTOR STORES	12020hB121
REDUPET	Total a bar of the of the of the second at t	AL FED 2

(a) Benchmarking is comparison of a firm's business processes and performance with another firm that represents best practice. Benchmarking can be internal, external or competitive. The following are the challenging of putting benchmarking into use;

Most of the firms that represent best practice are reluctant to share the required data and information out of fear of retribution or they do not want to violate confidentiality or privacy concerns.

It's difficult for firms to identify the right benchmark-A firm that has desired features or data that can be used in comparison.

Benchmarking is backward looking and not forward looking. Past outdated data is utilized in benchmarking. This will not give a clear picture of future performance.

Benchmarking may lead to dysfunctional behavior. Managers may take action to improve their measured scores without improving overall firm's performance.

Benchmarking can be used as a tool to defend rather than improve poor performance. Managers will justify their company poor performance citing how their company is different form its peers.

(b) Workers put a lot of efforts in production or service delivery. In return, the firm reciprocate by remunerating them. It's important for a firm to elect to use an incentive scheme which is motivating. A firm may elect to rollout any of the following scheme;

# Piece work scheme

In this case the employees a remunerated based on the units produced at a specified rate. This scheme can be improved into differential piece work system. A scenario where a graduated scale of production and rates per unit are developed and utilized as a basis of remunerating workers.

The challenge with this is that it may lead to production of substandard goods,

# Time based scheme

Workers are remunerated based on hours worked subjected to an agreed upon rate per hour. The challenge with this scheme is that it requires detailed time sheet records that will provide data to be used in calculating the correct pay. Further, workers can report to work but they don't work and still get paid for pretending to be busy.

# **Bonus scheme**

In this case workers are given some normal pay but promised to get a bonus in case they increase production or improve on the quality of products made or service offered.

# **Profit sharing scheme**

In this scheme the workers are given a share of the firm's profit because of working hard to help increase firm's profit.

# (c) Linear programming

Objective function is to maximize contribution. Let X be the units of Xeroh produced Let Y be the units of Yetts produced. Let Z be the total contribution from sales of X and Y units Contribution of Xeroh =180,000- 150,000= 30,000 Contribution of Yetts =200,000- 160,000=40,000 Z= 30,000X + 40,000Y Subject to the following constraints 1. Material  $3X+4Y \le 15,000$ 2. Labor  $4X+5Y \le 16,000$ 3. Storage space

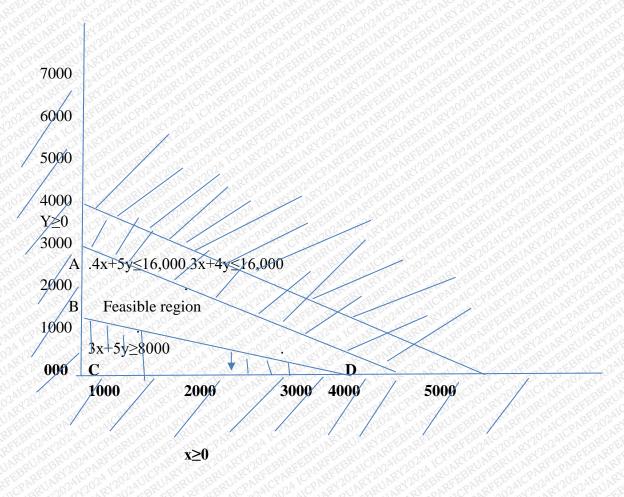
- $3X + 5Y \ge 6000$
- 4. Non negativity constraint
- 5. X≥0
- 6. Y≥0

Coordinates

3x +5y=15,000	
When X =1000	X=2000
Y=3000	Y=2250
4X+5Y=16,000	
When X=2000	X=4000
Y=2500	Y=1000
3X+4Y=8000	
When X=1000	X=2000
Y=1000	Y=400

Graph of Xeroh against Yetts

Scale	X-axis 1 big square represents 1000 units
	Y-Axis 1 big square represents 1000 units



Corner point	Possible maximum contribution=30,000X+40,000Y
A (0,3000)	120,000,000
B (0,1250)	50,000,000
C (3000,0)	90,000,000
D (4,000,0)	120,000,000

Conclusion, either produce 3000 units of Yetts or 4000 units of Xeroh to maximize contribution.

# **QUESTION FOUR**

# Marking Guide

2 a (i)	Description	Marks	Total
REPORT	Description and uses traditional use of budgets	AND RUNEAR	EBIBIER
ABROEBR	Planning	0.5	02410
OPARFEI	Controlling	0.5	RY20FE
I UAR BI	Evaluation	0.5	Chi and
CPARICP CPARICP	Motivation	0.5	UARARY
212024141 212024141	Criticism of current budgets maximum of Max of	PARTER ATCRARTE	AJOU ALD
OPAROP	Time wasting	0.5	REFERE
2120 APA	Stifling	0.5	OPARAL!
EBRUAR	Protect expenditure	0.5	BREEBR
EBRUAT	Expensive	0.5	AL ALCEP
REED 202	Spending approval	0.5	AICPEBR
UB BRUP	No value to shareholder	0.5	PATCRAI
24 TOPART	Total	241CPP BR 2024 VARY	5.12
b <sup>r</sup> cPART	Calculation of profit in quarters		24 1202
RY2024	Calculation of variable cost	200 2 DUNER	FEBRI
UARARH	Comment on its picture it gives	JARAFE 2 ARHOP	ART202
241202 R4	D CAR UN STORE STREAM CRAAL OF ALL OF A	41202 R120241	6
CBRUNI	MARCANCE PREVOLATION REVOLUTER REPORT OF ALCONTRACTORY AND ARCHINE	EBRUJARAREOPA	ALCPAR
25 202 21	Description of ZBB	202 BC2	D2ALOUN
ABROEBI	Justification	0.5	(PARA)
CPARET	Discretionary cost	0.5	81202
UTU AL	Application in the case of Remera limited	AICUNE LUNDBRU	UARABEE
CPARICPICS	Total	2024 CPARTER 202	4,02 R
d of or	description	2	FED AIC
TOP AV	Current situation - internal control, separation of duties	2002	CARGE!
BT LOP	Committees		Cr. Br
1202m20	Function of committees	202 3 N 200	BRUAR
our ar	Relevance to Remera	REFUSION OF A	3 AF CY
OPRER AND	Total	RAT 20 BY TA	10
3K BED	Total	RUARAUABRU	25

## **Model answers**

## (a) Relevance of budgets

1. A budget is simply planned activity for the coming period in monetary form, it's as been argued traditionally that budget helps in achieving organization objectives and compels the management to plan. Otherwise, there would be noting to guide the management

- 2. Budgets are seen as a way of communicating ideas and
- 3. Plans to different sectors or the organization and
- 4. helps in coordination activities and
- 5. provides a means of establishing a performance evaluation
- 6. Budgets may also be used as a motivator to employees

## **Irrelevance of budgets**

Those beyond budgeting argue that traditional budgeting ties management to a predetermined action. Managers are no longer innovative and adaptive. Proactive rather than reactive is what a manager needs

Traditional budgets are best suited to for centralized companies

Following reason why traditional budgeting should be rejected

1. Traditional budgeting is time consuming and expensive and distracts management from focusing on more important issues but spend a lot of time in looking at data that will not add value, it is also expensive in terms of data collection as in ZBB type of budgeting

2. Budgets are short term in nature

3. Budgets do not add value to shareholders, they are made on incremental basis rater ten on value adding activities

4. Budgets are rigid and does not conform to the current fast paced word were decisions need to be taken instantly

5. Budgets protect and do not reduce cost in that budget owners will spend after authorization

6. Budgets does not allow innovation since majority of the managers are working in a budget plan

Rollin budget	Q1	Q2	Q3	Q4
BEFEBRUARD A TOPAL	FRW'million	FRW'million	FRW'million	FRW'million
Revenue	31,200	34,050	35,100	35,900
Cost of sales	17,160	18,728	19,305	19,745
Gross profit	14,040	15,323	15,795	16,155
Distribution cost	5,200	5,789	5,967	6,103

## (b) Rolling budget

Administration cost	4,800	4,800	4,800	4,800
Operating profit	4,040	4,734	5,028	5,252
REVERSION OF A BELLEVILLE	JEBPARE PAREEBRAU	2022 RY 2024 OPTOPHIL	UARBRUAR 20241	RUARUAR BRUAR

Workings: Revenue for Qtr 2 =  $(32,100 \times 95\%)$ , Q3 =  $(Q2 \times 95\%)$ , Q3 =  $(Q2x \times 95\%)$  etc Cost of sales = 55% of revenue -= Q2 =  $(30,195 \times 55\%)$ 

Distribution is variable and relates to directly to sales revenue, at quarter 1, it's at 16% of sales and is expected to remain so for the planning period Distribution for Q2 = (16% \* 30,495)

# Comments

The budget gives a more realistic picture as compared to incremental budget model,

However, rolling budget will require more resource and is time, collecting relevant information to make a quarterly budget, it may consume management's time thus distracting them from more core duties

# (c) Uses of ZBB to Remera limited

1. ZBB is mainly concerned with justification of every expenditure line, before management may allocate recourse to a particular activity, the person responsible for the activity must justify it with reason why the activity is necessary and present alternative ways of performance

2. After justification, resources can be allocated

3. ZBB is most appropriate where cost or expenditure is discretionary in nature and would need to be controlled

4. Remera limited may use ZBB to eliminate costs which are unnecessary, for example, they can decide if they want to stimulate sales, by offering discounts or through advertisements. Do they do their own distribution/transportation or outsource, wasteful activities will be eliminated or alternative ways of performing activities will be identified

5. Will therefore help in cost reduction

# (d) Corporate governance

Corporate governance is the system by which organizations are directed and controlled, a sound system of corporate governance is capable of reducing corporate failures such as one facing Remera.

Good corporate governance would have advocated for the following at Remera;

# 1. Internal control

If the company had good overnice in place, they could have instituted proper internal control system that would have been able to identify any risks facing the company

# 2. Separation of CEO and chairman positions

Nomination committee could have advised on the accepted practice that no one person should hold both post of CEO and chairman, this absolute power makes the individual to abuse the organization just like in the case of Remera

# 3. NEDs with expertise and not friends

Good overnice would have supported the appointment of people with experience and who can bring fresh ideas to the organization and advice the BOD and evaluate the executive

# 4. Committees

Committees such as risk, remuneration, and audit should be constituted. A company is managed by the subcommittees to BOD theses committees include remuneration, Audit, risk and nominate, they will cover such activities as risk management, succession plans, proper external reporting and ensuring a sound internal control system are in place

# END OF MARKIG GUIDE AND MODEL ANSWERS