CERTIFIED ACCOUNTING TECHNICIAN

STAGE 3 EXAMINATIONS

S3.2: MANAGEMENT ACCOUNTING

DATE: THURSDAY 29, FEBRUARY 2024

MARKING GUIDE AND MODEL ANSWERS

SECTION A
MARKING GUIDE

Q/NO	Answers
Q1	A
Q2	B
Q3	C
Q4	D
Q5	A
Q6	B
Q7	C
Q8	D
Q9	A
Q10	B

Award 2 marks for each correct answer
Total: 20 Marks

Model answers

QUESTION ONE
The correct answer is A
B is not the correct answer since excuses will adversely/negatively affect the implementation process.
C is not the correct answer since by delegating it simply means the manager is not according the implementation process the required input of a manager.
D is not the correct answer because disregarding the views, opinions and contributions of others may result to lack of cooperation and instead fuel resistance or a go slow.

QUESTION TWO
The correct answer is B
A is not the correct answer because with random sampling the total population is not subdivided into strata, it involves random selection of any item from the total population
C is not the answer because in cluster sampling the total population is not subdivided into strata instead it involves selection of one definable subsection of the population as a sample representative.
D is not the correct answer because systematic sampling it doesn't require subdivision of the population into strata but rather is the method that involves selection of every nth item after a random start.

QUESTION THREE
The correct answer is C
A is not the correct answer because determining product pricing is one of the functions of standard costing.
B is not the correct answer since standard costing is used as a benchmark against which performance is rated/measured.
D is not the correct answer because standard costing essentially helps in determining/predicting the cost of a given product or service.

QUESTION FOUR
The correct answer is D

A is not the correct answer because production of less unit can never result to over absorption neither can production more units than the budgeted result to under absorption.

B is not the correct answer because it is not possible for either underproduction or overproduction be of no consequence to fixed production overheads absorbed.

C is not the correct answer because under no circumstances will the underproduction and overproduction be of similar consequence to the fixed overheads absorbed during the year.

QUESTION FIVE
The correct answer is A

B cannot be the answer because that is a clear indicator that the customer was dissatisfied reason as to why he/she returned the goods back to the sender/supplier

C cannot be the correct answer because when a customer shifts to another supply is enough evidence that the customer is dissatisfied.

D cannot be the correct answer for the obvious reason that when a customer says 'I will comfortably make payment after confirming the functionality of this item, it means he/she has reservations already.

QUESTION SIX
The correct answer is B

A is not the correct answer since financial performance indicators are apply to service companies only that when ranked in order of significance based on the nature of the business, they are ranked second after non-financial performance indicators

C is not the correct answer since there exists a reason as to why there is preference of non-financial performance indicators over the financial and that reason is that the non-financial performance indicators are directly linked to customers.

D is not the correct answer because there no way non-financial can replace the financial performance indicators, each one of them has a very distinct role to play.

QUESTION SEVEN
The correct answer is C

A is not the correct answer since the cost of loss of customer goodwill is one of the inefficiency cost that TQM was meant to address.

B is not the correct answer since the cost of re-inspection is among the inefficiencies TQM was meant to address.

D is not the correct answer since having faulty goods is a form of inefficiency cost dealt with by TQM.

QUESTION EIGHT
The correct answer is D

C cannot be the answer because the gap in the market is not a strength but an opportunity, other companies coming up with the same product is not a weakness but a threat.

B is not the correct answer because staff turnover is not a strength but rather a thorn in the flesh(weakness), the company qualified and competent staff is not a weakness but a stronghold.

A is not the correct answer because other companies developing the same product is not a strength but a threat through competition for the same market.

QUESTION NINE

The correct answer is A

B cannot be the answer because there is always natural fear when there is a change

C cannot be the answer because when the staff are not involved in the process, they will always resist change.

D cannot be the answer because the elderly especially those approaching retirement age would not want to be subjected to any other additional trainings.

QUESTION 10

The correct answer is B

A cannot be the correct answer because the problem is not normal apportionment but rather the basis and even the way suggested can't solve the problem.

C cannot be the correct answer because the problem is not in allocation but rather apportionment which not equitable and even the way suggested can't help solve the problem.

D cannot be the correct answer because the problem is on apportionment which not equitable but the way of addressing it can't help solve the challenge

QUESTION 11

Marking Guide

Q/No	Marks Awarding Guidelines	Marks
Q11(a)	For the fairly correct explanation on a balanced score card 2mks	2 Marks
Q11(b)	**On customer perspective** – correct computation of the indicator 1mk	1 Mark
	On internal perspective	
	Productivity indicator- for each product correct computed indicator 1mk	2 Marks
	Unit cost indicator - for each product correct computed indicator 1mk	2 Marks
	Financial indicator	
	Gross profit – for the correct gross profit of each product award 1mark	2 Marks
	Innovation and learning	
	Development cost as a percentage of sales correctly computed award 1mark	1 Mark
		8 Marks
Total		**10 Marks**

Model answers

(a) Balanced score card - is a framework that can be used to determine a number of different performance indicators that are important to a business. The balanced scorecard approach is to recognise that there is not just one perspective of performance – financial performance – but four different perspectives of a business, all of which must be monitored. The four perspectives are;

(i) Customer perspective

(ii) Internal perspective

(iii) Financial perspective

(iv) Innovation and learning perspective

The balanced score card identifies other performance indicator other than financial and this enables the business as a whole to undergo self-assessment in terms of performance.

(b)performance indicators

Perspective	Existing product	New product	Overall
Customer % of sales represented by the new product	-	-	$\frac{250 \times 100}{1,350}$ =18.5%
Internal Productivity	$\frac{50,000}{5,000}$ =5units per hour	$\frac{10,000}{2,500}$ 4units per hour	-
Unit cost	$\frac{750,000,000}{50,000}$ =FRW 15,000 per unit	$\frac{140,000,000}{10,000}$ =FRW14,000 per unit	

Financial			
Gross profit	$\frac{(1,100-750)\times100\%}{1,100}$ 31.8%	$\frac{(250-140)\times100\%}{250}$ 44%	
Innovation and learning Development cost as a percentage of sales	-	-	$\frac{94\times100\%}{(1100+250)}$ 6.96%

QUESTION 12

Marking Guide

Q/No	Marks Awarding Guidelines	Marks
Q12(i)	Correctly computed inventory turnover ratio award 1mk, formula 1mk	2 Marks
Q12(ii)	Correctly computed debtors' collection period 1mk formula 1mk	2 Marks
Q12(iii)	Correctly computed creditors payment period 1mk formula 1mk	2 Marks
Q12(iv)	Correctly computed interest cover award 1mk, formula 1mk	2 Marks
Q12(v)	Correctly computed Debt: equity ratio award 1mk, formula 1mk	2 Marks
Total		**10 Marks**

Model answers

Q/No	Type of Ratio	Formular	Ratio Computation
12(i)	Inventory turnover	$\frac{\text{Cost of sales (goods sold)}}{\text{Average inventories}}$	$\frac{500,000,000}{\frac{1}{2}(450,000,000+350,000,000)}$ **1.25times**
12(ii)	Debtors' collection period	$\frac{\text{Average trade receivables}\times365}{\text{Credit sales}}$	$\frac{\frac{1}{2}(240,000,000+160,000.000)\times365}{800,000,000}$ **91.25days** **91days**
12(iii)	Creditors payment period	$\frac{\text{Average trade payables}\times365}{\text{Credit purchases}}$	$\frac{\frac{1}{2}(290,000,000+200,000,000)\times365}{490,000,000}$ **182.5days** **183days**
12(iv)	Interest cover	$\frac{\text{Profit before interest}}{\text{Interest charges}}$	$\frac{126,600,000}{10\%(600,000,000)}$ **2.11times**
12(v)	Debt : Equity ratio	$\frac{\text{Total debt finance}\times100}{\text{Total (equity +debt) finance}}$	$\frac{600,000,000\times100}{(1,850,000,000+600,000,000)}$ **24.49%**

QUESTION 13

Marking Guide

Q/No	Marks Awarding Guidelines	Marks
Q13(a)	Sales units – for correct sales value award 0.5mk	1.5 Marks
	Closing stock – for every correct figure for closing stock award 0.5mk	1.5 Marks
	Opening stock – for every correct figure for opening stock award 0.5mk	1.5 Marks
	Production – for every correctly computed units of production award 0.5mk	1.5 Marks
		6 Marks
Q13(b)	Material A – computed material usage for each product including total	2 Marks
	0.5mk	2 Marks
	Material B - computed material usage for each product including total 0.5mk	**4 Marks**
Q13(c)	Material usage units – award 0.5mk for each one of them	1 Mark
	Closing stock units - award 0.5mk for each one of them	1 Mark
	Opening stock units - award 0.5mk for each one of them	1 Mark
	Materials purchases in units - award 0.5mk for each one of them	1 Mark
	Materials unit cost - award 0.5mk for each one of them	1 Mark
	Total material cost - award 0.5mk for each one of them	1 Mark
		6 Marks
Q13(d)	Skilled – for correctly computed total labor hours and labor cost award 1mk each	2 Marks
	Semiskilled - computed total labor hours and labor cost award 1mk each	2 Marks
		4 Marks
Total		**20 Marks**

Model answers

Q13(a)

Production budget

Months	January			February			March		
Products	**X**	**Y**	**Z**	**X**	**Y**	**Z**	**X**	**Y**	**Z**
Sales units	30,000	40,000	42,000	32,000	43,000	46,000	34,000	46,000	50,000
Closing stock	8,000	10,750	11,500	8,500	11,500	12,500	9,000	12,250	13,500
Opening stock	7,000	8,000	10,000	8,000	10,750	11,500	8,500	11,500	12,500
Production	**31,000**	**42,750**	**43,500**	**32,500**	**43,750**	**47,000**	**34,500**	**46,750**	**51,000**

Q13(b)

Material usage budget

Months	Products	X	Y	Z	TOTAL
	Production	32,500	43,750	47,000	123,250
February	Material A	2×32,500 = 65,000	2×43,750 = 87,500	2×47,000 = 94,000	246,500

	Material B	3×32,500= 97,500	3×43,750= 131,250	3×47,000= 141,000	369,750
March	Production	34,500	46,750	51,000	
	Material A	2×34,500 = 69,000	2×46,750 = 93,500	2×51,000 = 102,000	264,500
	Material B	3×34,500 = 103,500	3×46,750 = 140,250	3×51,000 = 153,000	396,750

Q13(c)
Material purchases budget

Details	Material A	Material B
Material usage units	246,500	369,750
Closing stock units	10%(264,500)26,450	10%(396,750)39,675
Opening stock units	25,000	36,000
Materials purchases in units	247,950	373,425
Materials unit cost (FRW)	50	40
Total material cost (FRW)	**12,397,500**	**14,937,000**

Q13(d)
Labor cost budget

Products	X	Y	Y	Total	Hourly rate	Total cost
Production	32,500	43,750	47,000	123,250		
Skilled	4×32,500 = 130,000	4×43,750 = 175,000	4×47,000= 188,000	4×123,250= 493,000	50	**493,000×50= 24,650,000**
semiskilled	5×32,500= 162,500	5×43,750= 218,750	5×47,000= 235,000	5×123,250= 616,250	40	**616,250×40= 24,650,000**
Total				**1,109,250**		**49,300,000**

QUESTION 14
Marking Guide

Q/No	Marks Awarding Guidelines	Marks
Q14(a)	For the fairly given explanation 2marks each example 1mark	4 Marks
Q14b(i)	Accurately computed variable cost per unit award 2marks	2 Marks
Q14b(ii)	Accurately computed total fixed costs award 2marks	2 Marks
Q14b(iii)	Correctly established cost function in form of Y=a+bx award 2marks	2 Marks
Q14b(iv)	Accurately computed total cost of producing 35,000units award 2marks	2 Marks
Q14b(v)	Accurately computed total cost after incorporating the changes award 2mks	2 Marks
Q14c(i)	X for each correct apportionment award 0.5mk	1.5 Marks
	Y for each correct apportionment award 0.5mk	1.5 Marks
Q14c(ii)	A for each correct overhead absorption award 1mk	1 Mark
	B for each correct overhead absorption award 1mk	1 Mark
	C for each correct overhead absorption award 1mk	1 Mark

Total		20 Marks

Model answers

Q14(a)

Mixed cost - is a cost which contains both fixed and variable components and so is partly affected by changes in the level of activity.

Examples of mixed cost

(a) Electricity – it has a fixed charge and the other cost depends on units consumed.
(b) Guaranteed minimum wage – there a fixed monthly salary plus surplus based on work done.
(c) communication costs.
(d) water cost.

Q14b(i)

Variable cost per unit

Variable cost is the gradient in the equation denoted by letter b

b = Change Y-axis
　　Change in X –axis

b = 320,000-70,000
　　　30,000-5,000

b = FRW 10 per unit

Q14b(ii)

Total fixed cost

This is denoted by letter a in the cost function

Y = a+bx
At the lowest point X =5,000 while Y = 70,000
At the highest point X =30,000 while Y = 320,000

Y = a+bx
70,000 = a + 10(5,000)
70,000 = a + 50,000
70,000 – 50,000 = a
20,000 = a
a = 20,000
Therefore, a = FRW 20,000,000
OR
320,000 = a + 10(30,000)
320,000 = a + 300,000
320,000 - 300,000 = a
20,000 = a

Q14b(iii)

Cost function in the form Y = A+BX

Y = 20,000,000 + 10X

Q14b(iv)

Cost of producing 35,000,000 units

Y = 20,000,000 + 10(25,000,000)

Y = 20,000,000 + 250,000,000

Y = 270,000,000

The total cost of producing 35,000,000 units is FRW 270,000,000

Q14b(v)

Total cost of producing the units in (iv) if the total fixed increased by 25% while variable cost per unit decreased by 25%.

Fixed costs = currently = 20,000,000

Increment 25%(20million) = 5,000,000

Total fixed   = 25,000,000

Variable cost total currently FRW10 per unit

Deduction proposed 25% (10)   2.5 per unit

New variable cost per unit (10-2.5) = 7.5

Total variable cost (7.5 × 25,000,000) = 187,500,000

Total cost = fixed costs + variable costs = 25,000,000 +187,500,000 = FRW 212,500,000

Q14c(i)

Reapportion all the service department overheads to production departments

Details	Basis	Rate/Ratio	Production Departments			Service Departments	
			A	**B**	**C**	**X**	**Y**
Allocated overheads	-	-	5,000,000	4,000,000	6,000,000	2,000,000	1,000,000
From X	Labor hours	5:3:8	625,000	375,000	1,000,000	(2,000,000)	
From Y	Machine hours	4:1:5	400,000	100,000	500,000		(1,000,000)
Total			**6,025,000**	**4,475,000**	**7,500,000**	**-**	**-**

Q14c(ii)

Overheads absorption rates application in each production department

Overhead Absorption Rate (OAR) = <u>Total overhead cost</u>

                                 Units of output

Department A = <u>6,025,000</u>

               100,000

               = FRW 60.25 per unit of output

Department B = <u>4,475,000</u>

$$80,000$$

= FRW 55.9375 per unit of output

Department C = $\underline{7,500,000}$

$$120,000$$

= FRW 62.5 per unit of output.

QUESTION 15
Marking Guide

Q/No	Marks Awarding Guidelines	Marks
Q15(a)	Fuelling cost award 1mark	
	Serving cost award 1mark	
	Cost of the driver award 1mark	
	Total cost award 1mark	4 Marks
Q15(b)	Clear distinction award 2mark, each example given award 1mark	4 Marks
Q15(c)	Difference in meaning 2marks, in accounting treatment award 2marks	4 Marks
Q15(d)	For reason identified award 1mark, explanation 1mark max 2reasons	4 Marks
Q15e(i)	Clear explanation 1mark	1 Mark
Q15e(ii)	Clear explanation 1mark	1 Mark
Q15e(iii)	Clear explanation 1mark	1 Mark
Q15e(iv)	Clear explanation 1mark	1 Mark
Total		**20 Marks**

Model answers
Q15(a)
Total cost of offering transport service
Fuelling cost = $100 \times 12 \times 2,000 \times 15 = 36,000,000$
Servicing cost = $100,000 \times 10 \times 12 = 12,000,000$
Cost of driver = $400,000 \times 12 \times 2 = \underline{9,600,000}$
Total cost   **45,600,000**

Q15(b)
Administration overhead costs
Are overhead costs of an organisation for all activities relating to the general management and administration of an entity. It represents the costs of shared services like office rent, electricity, water, salaries and wages, stationary etc.
Selling and distribution overhead costs
These costs incurred exclusively to facilitate marketing, sales and distribution of company goods or services. Distribution costs include costs of warehousing, storage, shipping, delivering etc. while sales costs include marketing, advertising, direct selling costs, salesmen salaries and commissions etc.

Q15(c)
Production costs
Are costs which can identified/traced to a particular unit of output. They are costs that are directly attributable to the production of a good or service. These costs include direct (material, labour and expenses) costs.

Non production costs
These are cost which not directly linked/attributable to the production of a given product or service in an organisation. They are incurred for other purposes but not production. For example, the costs of operations in an organisation like administration, selling and distribution and financing costs.

Q15(d)
Reason(s) for use of cost codes by an organisation
(i)They ensure that every expense is well captured in the accounting system
(ii)Provides means of tracking the movement of various expenditure items
(iii)Provides an organisation with a comprehensive understanding of where costs are allocated.
(iv) it is makes easier to monitor progress as well correct inefficiencies that eventually lead to revenue loss.

Q15(e)
(i)   Cost unit
Is a unit of product or service to which costs can be traced and measured, is the basic control unit for costing purpose.

(ii) Cost centre
It is a function or department within an organisation that is charged with the responsibility of collecting/accumulating costs however without generating any revenues.

(iii) Profit centre.
It is a department of an organisation that is charged with the responsibility of incurring costs as well as generating profits for the company.

(iv) Revenue centre.
It is a division in an organisation that is responsible for raising revenues for an organisation from products sales or services provided. The manager in this centre is accountable for revenue only.

END OF MARKING GUIDE AND MODEL ANSWERS