
CERTIFIED ACCOUNTING TECHNICIAN

STAGE 3 EXAMINATIONS

S3.2: MANAGEMENT ACCOUNTING

DATE: THURSDAY, 26 AUGUST 2021

Instructions

- 1 Time allowed: **3 hours**.
- 2 This examination has **three** sections: **A, B and C**.
- 3 Section A has **10** multiple choice questions equal to 2 marks each.
- 4 Section B has **2** questions equal to 10 marks each.
- 5 Section C has **3** questions equal to 20 marks each.
- 6 All questions are compulsory.

Section A – ALL questions are compulsory and MUST be attempted

1. Which of the following statements are incorrect about management accounting as opposed to financial management?

- (i) Management accounts are prepared for interested parties external to the organization
 - (ii) The primary role of management accounts is to support shareholders and investors with planning, monitoring, and decision making
 - (iii) Management accounts can take any format depending on decisions to be taken
- Management accounts are both historical and future based while financial accounts are mainly historical based

- A (i) only
- B (i) and (iv) only
- C (i) and (ii) only
- D (ii) and (iv) only

(2 Marks)

2. Select correct statements from the following statements about data.

- (i) Data obtained from a survey conducted by the organization are highly reliable secondary data
- (ii) The main sources of secondary data include Governments and Banks
- (iii) Internet is a reliable source of both primary and secondary data
- (iv) Secondary data are very expensive to obtain due to the lengthy logistics involved in the collection process
- (v) Quantitative and qualitative data can be both collected as primary and secondary data

- A (iv) and (v) only
- B (i), (ii) and (iv) only
- C (ii) and (v) only
- D (i) and (v) only

(2 Marks)

3. Which of the following statements are correct in relation to costs?

- A Prime costs include rental expenses, direct material costs, and direct labour costs
- B Cost codes can only be used and are only possible in a computerized environment that ease the recording and identification process
- C Profit centres will be involved in the planning and monitoring of company direct costs which have a significant impact on profits but will not be involved in the management of indirect costs which have less impact of company profits
- D The process of attributing distinct numerical sequence numbers to items is an example of progressive coding system

(2 Marks)

4. A start-up company based in Musanze produced 76 units at a total cost of Frw788,000 in the month of June 2020. In the following two months, units produced were 69 at Frw 720,000 and 83 at Frw 855,000 respectively. **With the use of high – low method, which of the below represents the start up’s total monthly fixed cost?**

- A Sixty-one thousand, one hundred and one, sixty-four cents Rwandan francs
- B Fifty-Four thousand six hundred and forty-two, eighty-six cents Rwandan francs
- C Fifty-nine thousand, six hundred and forty-two Rwandan francs
- D Nine thousand six hundred forty-two, eighty-six cents Rwandan francs

(2 Marks)

5. The below statements relate to the budgetary process.

- (i) Lack of readily available labour hours is not a significant problem to be classified as the principal budget factor
- (ii) One of the key responsibilities of the budget committee is approving the final budget agreed upon by all concerned departments
- (iii) Usually, individuals responsible for the preparation of annual budgets should be different from individuals responsible for implementing the budget to avoid conflicts of interest within teams
- (iv) A budget manual is a key component of the approved budget as it contains important data such as targeted revenue figures and instructions on budget revision.
- (v) All the above statements are false

Which of the above statements are correct about budgeting process?

- A (i) and (iv) only
- B (i) and (ii) only
- C (ii) and (iv) only
- D (v) only

(2 Marks)

6. Mukire consultancy was hired to perform and collect a sample made of 100 items from a population with known three strata (A: Population 320; B: Population 370; C: Population 310). **Which of the below statements in relation to the above planned sampling exercise are true?**

- (i) Using stratified sampling, stratum A and B will contribute a combined sample of 69
- (ii) Using stratified sampling, each stratum is represented by a randomly chosen sample
- (iii) Using stratified sampling, stratum C will contribute a sample of 32 items
- (iv) Using stratified sampling, stratum B and C will contribute a combined sample of 68
- (v) Stratified sampling is similar to multistage sampling since populations in both methods are further subdivided into smaller populations

- A (i), (iii) and (iv) only
- B (i) and (ii) only
- C (i), (ii) and (iv) only
- D (iii) and (iv) only

(2 Marks)

7. A new project is to last 3 years and requires an immediate investment of Frw 60M. The applicable interest rate is 10% and expected cash flows are Frw 23M in the 1st year, Frw 28M and Frw 25M in the second and third year respectively.

Which of the below statements are true about the new project?

- (i) The new project has a final net terminal value of Frw 4.2M and should be undertaken
- (ii) The new project has a final net terminal value of Frw 3.7M and should be undertaken
- (iii) The new project has a negative net terminal value of Frw 3.7M and should be undertaken
- (iv) The new project has a negative net terminal value of Frw 4.2M and should not be undertaken
- (v) The use of terminal value method to evaluate this project is not appropriate and a better NPV method should be used

- A (i) only
- B (ii) only
- C (ii) and (v) only
- D (iv) only

(2 Marks)

8. The following statements have been made about the Public and Private sector.

- (i) The most common 3E's used in Government entities in relation to performance measurements are Efficiency, Emergency and Effectiveness
- (ii) In public sector, there is little interest in market competition and profit motive while the same factors are very key in private sector
- (iii) The efficiency can be roughly defined as the utilisation of resources such that the output of the activity achieves the desired results
- (iv) Public sector institutions tend to have multiple objectives that often become almost impossible to identify and quantify, ultimately complicating the budgeting process
- (v) The performance indicators of public sector entities are subject to far more onerous legal requirements than those of private sector entities

Which of the above statements are incorrect?

- A (i), (ii), (iv) only
- B (ii), (iii), (v) only
- C (i) and (iii) only
- D (iv) and (v) only

(2 Marks)

9. Which of the following are not true about budgets?

- (i) Flexed budgets are budgets that are designed to remain the same regardless of the produced volume or sold items
- (ii) Budget assumptions may need to be re-visited when assessing performance against a flexed budget
- (iii) Fixed budgets are budgets that are prepared at the actual activity level that was achieved in the period, to show what the standard costs should have been at that activity level
- (iv) Given the fact that fixed overheads do not vary with the volume of units produced, budgeted fixed overheads should ideally be the same in the fixed and flexed budgets
- (v) For comparison purposes, it is of less importance to record actual results using marginal costing principles if the budget is set under the same principles

- A (i), (ii) and (iv) only
- B (ii), (iii) and (iv) only
- C (ii) and (iv) only
- D (iii), (iv) and (v) only

(2 Marks)

10. An experienced Chief Finance Officer (CFO) of a Manufacturing company located in Burera has just finished his monthly review of accounts and has noted the following:

- (i) The monthly depreciation expenses were not computed due to identified failure in the system, which overstates the expected profit. The IT team is working to fix the issue
- (ii) The company Chief Executive Officer (CEO) requested the finance team to disregard a monthly provision in receivables for no apparent reasons
- (iii) The monthly petty cash reconciliation has an unexplained discrepancy
- (iv) An IT equipment will be removed from the asset register following an internal auction that sold the equipment to the CFO
- (v) A major liability due on the last date of the year will not be recorded in the same year but in the next month instead, so as not to affect inappropriately the P/L statement

Which of the CFO's statements point to potential fraud cases?

- A (i), (ii) only
- B (ii), (iii) only
- C (iii), (iv) and (v) only
- D (ii), (iii) and (v) only

(2 Marks)

Section B – BOTH questions are compulsory and MUST be attempted

- 11.** Mahire Innovation Company (MIC) has been in existence for over 5 years now. The company has experienced successful growth mainly due to its innovative products that are increasingly becoming popular among a young generation.

MIC is in the initial planning of developing a new product which the company management believes will be revolutionary and will highly contribute to the development of scientific research. The company founder has already identified three materials (X, Q, P) which will be required to make the new product.

The technical team and the purchasing unit are already familiar with the two of three materials. 5,715 units of material X are available and regularly used to produce other active company products, whereas 1,320 units of material Q, while being available, are no longer in use. The third material P was never used by the company before and will need to be outsourced for the first time.

The purchasing unit noted that material X which initially costed Rwf1,500 per unit is currently priced at Rwf1,570 per unit. Material Q which initially costed Rwf790 per unit, is currently priced at Rwf1,150 per unit. The material P will cost Rwf2,100 per unit.

It was also noted that scrap values for material X, Q, and P are estimated at Rwf85, Rwf56 and Rwf99 respectively. The technical team has estimated that 9,300 units of material X, 3,330 units of material Q and 2,450 material of P will be used to make the new product.

Required:

- (A) **The company management has requested you, a Management Accountant, to show the relevant costs which will be considered as production costs for each required material.** (5Marks)
- (B) **Compute the total direct material cost for the new product.** (2Marks)
- (C) **Describe how MIC Management could use Discounted Cash Flow method to evaluate the new product success.** (3Marks)
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- (Total 10Marks)**

- 12.** Ms. Mwiza Madeleine is a recently CPA qualified accountant. She has been fortunate enough to be born from a rich family. For more than three decades now, Ms. Mwiza's family has been running successful businesses in different sectors, all grouped under one holding company; WH Ltd. Ms. Mwiza's father; Mr. Kamiko who is the current group leader and majority shareholder is credited to have grown the company's business to more than seven folds over the past decades. He has plans to fill vacant managerial positions and would want to recruit Ms. Mwiza among the newcomers.

Mr. Kamiko has already tasked Ms. Mwiza with the responsibilities to perform a deep analysis of the existing accounting system and come up with recommendations which will help the group in improving the efficiency of its financial operations.

In her just concluded review, Ms. Mwiza noted that only two staff in the finance unit have access to the system with the rest requiring their support to input data. Important financial reports are manually prepared by accountants and reviewed by the chief accountant. There was a data loss last year which required the company to hire consultants to reconcile past data. The internal auditor report shows that monthly bank reconciliations are performed but contain numerous errors.

Ms. Mwiza later learned that other employees are not motivated to learn how to use the system because the system is apparently slow and complex to use.

Required:

By stating clearly all assumptions made, make practical recommendations of changes to be made on the existing accounting system.

(10 Marks)

(Total 10Marks)

Section C – All THREE questions are compulsory and MUST be attempted

- 13.** Mr. Niyo is a recent graduate from the University of Rwanda (UR) who immediately joined a manufacturing company located in Burera District. The new supervisor of Mr. Niyo explained to him that the company uses Activity Based Costing (ABC) to allocate overheads. The supervisor briefly explained about the company two products X and Y, noting that the selling prices are calculated by adding a mark-up of 40% on the product cost.

When Mr. Niyo requested more information on the budgeted costs and activities, the supervisor sent him the below information (all in Frw):

Description	Frw
Direct wages	412,500,000
Procurement costs	253,000,000
Machine set up costs	138,000,000
Quality control costs	270,000,000
Machine depreciation	111,000,000

Activities

Machine hours	86,648
Labour hours	36,882
Number of inspections	472,161
Number of machines set ups	275,486
Number of purchase orders raised	667,085

	Product X	Product Y
Direct materials	19,500	21,300
Labour hours	4 Minutes	3 Minutes
Machine hours	8 Minutes	7 Minutes
Number of machine set ups	1	1
Number of purchase orders	3	5
Number of inspections	2	3

Required:

- (a) Using ABC Method and the information provided by the supervisor, compute the total product cost and selling prices of each of the two products. (14 Marks)
- (b) Describe three merits and three disadvantages of ABC method? (6 Marks)
- (Total 20Marks)**
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14. Buryohe Ltd has published its financial statements as at 31 December 2020. Your immediate supervisor has asked you to benchmark Buryohe's performance with the company you work for. Before you perform the comparison using key performance ratios, you understand that you need to first compute ratios relating to Buryohe Ltd.

Below is an extract of Buryohe Ltd.'s financial statements:

Statement of Profit or Loss for the year end 31 December 2020		Frw
Turnover		1,782,000,000
Cost of Sales		(1,128,000,560)
Gross Profit		653,999,440
Admin. Expenses		(512,800,230)
Operating Profit		141,199,210
Taxes		(84,359,763)
Net Profit		56,839,447

Statement of Financial Position as at 31 December 2020		Frw
Non-Current Assets		13,835,923,000
Inventory		650,853,000
Receivables		591,300,850
Cash		189,676,980
Total Assets		15,267,753,830
Capital		9,590,500,000
Earnings		743,800,330
Long term loans		4,302,590,000
Payables		630,863,500
Total Liabilities		15,267,753,830

Required:

- a) As per your supervisor's request, you are required to compute the following ratios on Buryohe Ltd financial statements:
- (i) **Operating profit Margin.** (1.5 Marks)
 - (ii) **Return on capital employed.** (1.5 Marks)
 - (iii) **Asset turnover.** (1.5 Marks)
 - (iv) **Quick ratio.** (1.5 Marks)
 - (v) **Inventory days.** (1.5 Marks)
 - (vi) **Receivable's collection period.** (1.5 Marks)

- (vii) **Payables' payment period.** (1.5 Marks)
- (viii) **Gearing ratio.** (1.5 Marks)
- (ix) **Noncurrent asset turnover.** (1.5 Marks)

- b) Describe the following terms relating to performance measurements and cost management:
- (i) **Productivity.** (1 Mark)
 - (ii) **Value added.** (1 Mark)
 - (iii) **Capacity ratio.** (1.5 Marks)
 - (iv) **Opportunity cost.** (1.5 Marks)
 - (v) **Limiting factor.** (1.5 Marks)
- (Total 20Marks)**
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15. Rubirizi company is a Kigali based company specializing in making unique and highly sophisticated products. To date, the company makes two products: Muneza and Mbazi. The company has seen the demand for the two products drastically improving, pushing the company management to worry about the company's production capacity to meet the high demand.

It is budgeted that Muneza will sell Frw 32,000 per unit while Mbazi will sell at Frw 37,000 per unit. Materials to make one Muneza will cost Frw 16,000 while one Mbazi will be made of materials worth Frw 19,000. The budgeted labour costs per unit are Frw 10,000 for Muneza and Frw 12,000 for Mbazi. 40% of the total budgeted production overheads (Frw 8.5M) for the year are variable costs which are allocated to products on the basis of labour hours.

Within the budget, a fixed rate of Frw 2,000 per hour is budgeted as a pay to company employees and 29,250 hours for the year have been budgeted as available. The annual demand for Muneza is budgeted as 2,600 units and 2,950 units for Mbazi

Required:

- (a) **Verify, through calculations, whether Rubirizi Company will have the production capacity to meet the demand.** (5 Marks)
 - (b) **Calculate and show the optimal production plan and expected total annual profit** (15 Marks)
- (Total 20Marks)**
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End of question paper