

**AUGUST 2022 PROFESSIONAL EXAMINATION
INTRODUCTION TO MANAGEMENT ACCOUNTING (PAPER 1.4)
CHIEF EXAMINER'S REPORT, QUESTIONS & MARKING SCHEME**

STANDARD OF THE PAPER

The paper was administered in August 2022 examinations. The paper covered all relevant topics of the syllabus and the questions were standard and comparable to other accountancy examining bodies. Mark allocation to the questions followed the weighting in the syllabus. It was also found that marks allocated to questions were commensurate with the amount of work and time required. In general, appropriate marks were fairly allocated to the time and load required from the students to answer each question.

PERFORMANCE OF CANDIDATES

The general performance of the candidates was average. Most candidates answered Question 1, Question 3 and Question 4 very well and even significant number of candidates passed the paper heavily as a result of these questions.

High performers were very few and spread across all centres. Low performers were also spread in all centres but certain centres registered more low performers than the others.

Question 2 appeared difficult to the candidates as many could not relate the statement in the question to the effect that monthly sales are evenly distributed within each quarter. This statement was not properly and correctly considered by the candidates when answering the question. Question five (5) also appeared a bit tough for reasonable number of candidates in identifying and using the high and low levels of activities in twin-desk in the calculation of the fixed cost and variable cost. Quite a number of the candidates openly deviated by using trend analysis meanwhile, the question clearly specified that High-Low method should be used.

NOTABLE STRENGTH AND WEAKNESSES OF CANDIDATES

Nature of strong performance and areas

The strong performance of few candidates depended on the volume of knowledge and skill in approaching specific questions like operating statements under marginal and absorption costing methods, and reasons for the differences in the profits under each technique in Question 1, objectives of management accounting and qualities of management accounting information in Question 3 and calculation of cost of goods issued and disclosing inventory using weighted average cost. Strong performers exhibited accuracy, precision and better understanding of these areas.

Observed reasons for the strengths; strong performers really and adequately understood the costing methods and principles; develop the skills in applying the costing principles.

Weaknesses demonstrated by candidates in answering the questions

Reasonable number of candidates did not adequately understand the costing principles required very well to enable them successfully write the exams.

Most candidates did not make adequate time and effort to understand the requirements of the questions and therefore did not do well in questions on budgeting and high-low method.

QUESTION ONE

- a) Marginal costing and Absorption costing are cost management techniques used to allocate cost to the products produced for their valuation. There are differences in the operating profit when either marginal costing or absorption costing is deployed.

Required:

State **TWO (2)** reasons that account for the differences in the operating profit under Marginal costing and Absorption costing systems. **(4 marks)**

- b) Adam Ltd is a producer of product Wale. In a period, it produced 20,000 units and sold 18,000 units of product Wale. The selling price per unit of the output is GH¢5. In the planned production period, relevant cost and revenue data were stated as:

	GH¢
Sales	100,000
Production cost:	
Variable	35,000
Fixed	15,000
Administration and selling overhead:	
Fixed	25,000

Required:

Prepare a profit or loss statement based on the following costing systems:

- i) Marginal costing systems. **(8 marks)**
 ii) Absorption costing systems. **(8 marks)**

(Total: 20marks)

QUESTION TWO

Kikaw Ltd engages in the manufacturing and trading of two products namely: Product A and Product B. Kikaw Ltd is presently in the process of preparing budgets for the year ending 31 March 2023, and the following information was estimated.

Purchases:

Material cost per unit:

	Product A
Material X (GH¢200 per Kg)	GH¢550

Sales:

The following quarterly sales have been forecasted. Monthly sales are evenly distributed within each quarter.

	Apr-Jun 2022	Jul-Sep 2022	Oct-Dec 2022	Jan-Mar 2023	Apr-Jun 2023
Product A (Units)	84,000	88,200	93,000	96,000	100,800
Product B (Units)	63,000	66,000	67,800	69,000	72,000

Additional information:

- Kikaw Ltd operates FIFO method in issuing inventory and maintains a material inventory of 20% of the following quarter's production requirement.
- The policy of the company is to maintain month end inventory of finished goods equal to 50% of sales of the following month.

Required:

- a) Prepare a production forecast in units for Products A and B separately on quarterly basis, for the year ending 31 March 2023. **(9 marks)**
- b) Prepare Material Purchase budget for material X in quantity for the first three quarters for product A only. **(7 marks)**
- c) Identify **FOUR (4)** benefits Kikaw Ltd will gain from preparing budgets. **(4 marks)**

(Total: 20 marks)

QUESTION THREE

- a) Management Accounting is that branch of accounting known for management decision-making. It is a more intimate merger of the two older professions of management and accounting, wherein the information needs of the manager determine the accounting means for their satisfaction.

In Management Accounting, managers use accounting information in decision-making and to assist in the management and performance of their control functions. Management accounting information should comply with certain qualities and characteristics to be useful in planning, control and decision-making.

Required:

- i) Identify **THREE (3)** objectives of Management Accounting. **(6 marks)**
 - ii) Explain **FIVE (5)** qualities of management accounting information. **(5 marks)**
- b) All deployed cost-accounting controls and processes should bring to focus opportunities for improvement and engender decision makers' trust in results. Operational control and cost control management approaches are needed to add insight into where and how cost improvements can be implemented.

Required:

Distinguish between *operational control* and *cost control*. **(4 marks)**

- c) Specific order costing methods are appropriate for business organisations which are involved in construction, manufacturing or assembling of products to individual customers' specifications.

Required:

State **THREE (3)** characteristics of Specific Order Costing. **(5 marks)**

(Total: 20 marks)

QUESTION FOUR

- a) The following extracts are from the books of Bediako Enterprise in the month of February:

Date	Description	Units	Per unit cost (GH¢)
01	Receipts	400	42
04	Receipts	700	45
07	Issue	450	
10	Receipts	600	48
14	Issue	700	
20	Receipts	1,200	50

Required:

Using the Weighted Average Method;

- i) Calculate the cost of goods issued to Cost of Sales. **(3 marks)**
 ii) Compute the value of closing inventory. **(12 marks)**

- b) Identify **TWO (2)** possible causes for each of the following variances:

- i) Material cost variance.
 ii) Labour cost variance. **(5 marks)**

(Total: 20 marks)

QUESTION FIVE

- a) Takyi Carpentry makes twin-desk for local schools in the Daboase District. To facilitate control, the owner of the shop has asked you to assist him in analysing cost into fixed and variable element.

Below is his six-year financial information.

Year	No. of twin-desk	Revenue (GH¢)	Profit (GH¢)
2016	1,800	19,600	6,000
2017	1,700	22,000	6,200
2018	1,750	20,300	5,800
2019	2,100	26,200	8,000
2020	1,950	22,400	7,500
2021	2,050	21,800	6,800

Required:

- i) Establish total cost function using *high-low method*. **(5 marks)**
 ii) Calculate profit for making 3500 units of the twin-desk if the selling price is fixed at GH¢20. **(3 marks)**
 iii) Identify **TWO (2)** advantages and **TWO (2)** disadvantages of using high-low method. **(4 marks)**
 iv) Identify **THREE (3)** importance for classifying cost as fixed and variable. **(3 marks)**

- b) For managers within a company, exercising control through standards and standard costing is a creative program aimed at determining whether the organisations' resources are being used optimally. Standard costs are typically determined during the budgetary control process because it uses predetermined standard costs for direct material, direct labour and factory overheads.

Required:

Explain **THREE (3)** benefits to a company that uses standard costing. **(5 marks)**

(Total: 20 marks)

SUGGESTED SOLUTION

QUESTION ONE

a) Factors causing difference in profit:

- **Fixed factory overhead.** marginal costing system excludes fixed factory overhead from stock evaluation whereas, absorption costing system includes fixed factory overhead into stock evaluation.
- **Differences in closing stock.** differences in closing stock values may causes difference(s) in the reported profit under both marginal and absorption costing.

(2 points @ 2 marks each = 4 marks)

b)

i) Marginal cost per unit

marginal cost/total production unit

= GH¢35,000 / 20,000units

= GH¢1.75

Profit Statement, Marginal costing statement

	GH¢
Sales (18,000 x GH¢5)	90,000
Less marginal cost of production:	
Variable production cost	35,000
Closing stock (20,000 - 18,000) 2,000 x GH¢1.75	(3,500)
Total marginal cost	(31,500)
Contribution	58,500
Less, fixed production cost:	
Fixed production cost	15,000
Fixed selling and administration	25,000
Total expenses	<u>(40,000)</u>
Net profit	18,500

(8marks)

ii) Absorption cost per unit

= full cost of production/production unit

= GH¢50,000 / 20,000 units

= GH¢2.5

Profit Statement, Absorption costing statement

	(GH¢)
Sales (18,000 x GH¢5)	90,000
Less production cost:	
Variable production cost	35,000
Fixed	15,000
Closing stock (20,000 - 18,000) 2,000 x GH¢2.5	(5,000)
Total production cost	(45,000)
Gross profit	45,000

Less, selling and administration overheads	<u>(25,000)</u>
Net profit	20,000

(8marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

The question was standard, and candidates who attempted it scored very high marks. At least 80% of the candidates who attempted scored 15 and above out of 20. A few of the candidates had difficulty in calculating the marginal cost per unit and the absorption cost per unit. Some candidates also had difficulties in calculating the closing inventory for both methods. A few also had challenges with the treatment of the fixed overhead cost.

QUESTION TWO

a) Production forecast for Product A and B

	2021	2021	2021	2022
	April - June	July - Sep	Oct- Dec	Jan - March
Product A				
Sales	84,000	88,200	93,000	96,000
Add: Closing stock	14,700	15,500	16,000	16,800
Less: Opening stock	(14,000)	(14,700)	(15,500)	(16,000)
Production	84,700	89,000	93,500	96,800
Product B				
Sales	63,000	66,000	67,800	69,000
Add: Closing stock	11,000	11,300	11,500	12,000
Less: Opening stock	(10,500)	(11,000)	(11,300)	(11,500)
Production	63,500	66,300	68,000	69,500

(9 marks)

b) Material X Purchase budget (in kgs)

	April - June	July - September	October - December	Total
Production	84,700	89,000	93,500	96,800
	2.75	2.75	2.75	2.75
	323,925	244,750	257,125	266,200
Add Closing Stock	48,950	51,425	53,240	
	281,875	296,175	310,365	
Less Opening Stock	46,585	48,950	51,425	
	235,290	247,225	258,940	

(7 marks)

c) Purposes of budgeting

- To plan the operation in advance
- To coordinate the activities of various parts of an organisation for a common organisational goal.
- To communicate the plans to the various responsibility centre managers
- To motivate managers to strive to achieve the organisational goals
- To compare the actual results with the budget and to take controlling measures.

(Any 4 points @ 1 mark each = 4 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

Almost all candidates did not understand the question, the question appeared difficult both the production forecast and the purchase budget. About half the candidates who sat for the paper did not attempt the question. Those who attempted only answered sub-question c) on Purposes of Budgeting. As for a) and c), the candidates who attempted could only state only the sales and production figures. Some interchanged the closing and opening inventory figures.

QUESTION THREE

a)

i) Objectives of management accounting

- Planning; setting the objectives of the organization and designing measures to ensure their achievement.
- Control; monitoring the actual performance and comparing that with the plan to take action on deviations.
- Other decisions; provide information on both long and short term decisions. E.g. make or buy, special pricing, deletion of segment.

(3 points @ 2 mark each = 6 marks)

ii) Management accounting information should comply with a various number of qualities including:

verifiability, objectivity, timeliness, comparability, reliability, understandability and relevance if it is to be useful in planning, control and decision-making.

(Any 5 points @ 1 mark each = 5 marks)

b) **Operational control**; a system put in place to ensure that the day to day activities are directed towards the expected outcome. (2 marks)

Cost control; where costs are monitored to ensure that they are brought in line with planned. (2 marks)

c) Characteristics of Specific Order Costing.

- Cost of each cost object is calculated separately.
- expenses are classified into cost elements and traced to cost unit.
- several jobs can be undertaken at the same time.
- each job is identified for cost accumulation purposes.
- job cards are issued for each job containing details of the customer.

(Any 3 points @ 1.67 marks = 5 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

Question 3 was a standard question and was attempted by all candidates. Majority of those who attempted the question had a very high score out of twenty (20). The question was understood by the candidates and they answered satisfactorily. The only challenge was characteristics of specific Order Costing.

QUESTION FOUR

a) Schedule of inventory movement for the month of February

Date	Receipts	Issued	Balance (GH¢)
01	400@ GH¢ 42		400 @42=16,800
04	700@GH¢45		1100 @43.9= 48300
07		450 @43.9=19,755	650@ 43.9=28,545
10	600@GH¢48		1,250@45.88=57,345
14		700@45.88=32,116	550@45.88=25,229
20	1,200@GH¢50		1,750@48.7=85,229

(9 marks)

Cost of inventory transferred to COS 1,150 units = GH¢ 51,871 (3marks)

Closing inventory 1,750 units = GH¢ 85,229 (3 marks)

b)

i) **Possible Causes of the Materials Price Variance**

If the standard price is reasonable, then a materials price variance may be caused by such valid factors as the following:

- Rush deliveries
- Market-driven pricing changes, such as changes in the prices of commodities
- Bargaining power changes by suppliers, who may be able to impose higher prices than expected
- Buying in unusually large or small volumes in comparison to what was expected when the standard was created
- A change in the quality of the materials purchased

ii) The possible causes of labor rate variance are:

- Payment at a higher or lower rate than the standard
- Changes in employee skills
- Recruitment of new personnel
- Changes in compensation methods, etc.

(Any 2 points for each variance @ 1.25 mark each = 5 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

Question 4 was another well attempted question by almost all candidates. Candidates who attempted it answered it very well, showing the closing stock and the cost of stock transferred in both Units and Cost. The b) part of the question on causes of material cost variance and labour cost variance was also fairly answered.

QUESTION FIVE

a)

Calculation of total cost		
Year	No. Twin- desk	Total Cost
2016	1800	19600-6000 = 13,600
2017	1700	15,800
2018	1750	14,500
2019	2100	18,200
2020	1950	14,900
2021	2050	15,000

$$b = \frac{18,200 - 15,800}{2,100 - 1,700} = \text{GH}¢ 6$$

$$18,200 = a + 6 (2,100)$$

$$a = \text{GH}¢ 5,600$$

i) $Y = 5,600 + 6 X$

(Marks are evenly spread = 5 marks)

ii) Profit = $20 - 6(3,500) - 5600 = \text{GH}¢ 43,400$

(3 marks)

iii) Advantages of using high-low method

- The method is easy to use
- Not many data needed
- Visually, it gives the general direction of the trend

Disadvantages of using high-low method

- May result in high variances
- Method does not use all the available data
- Cannot be used for more than one independent variable
- Method may not be reliable

(Any 2 points for each @ 1 mark each = 4 marks)

iv) Importance for cost classification

- For decision making
- To be able to calculate Break-even point
- For pricing of product e.g. MC + Mark-up
- It helps to have an appropriate costing and budgeting systems in an organisation.

(Any 3 points @ 1 mark each = 3 marks)

b) Benefits of standard costing:

- **Budgeting and planning.** standard like budgets provide basis for planning for the use of organizational resources. Standard leads to the refinement of the strategic plan and compel or force planning to take place. Without standards an organization's resources may not be used effectively and efficiently.

- **Fixing realistic prices.** standards are used to set realistic prices for the firm's output. Standards provides basis for the determination of cost of an item either using full cost assumption or marginal costing principle. Realistic standard will enable the firm to determine how much it will cost to produce one unit of output and whether the firm will make profit and how much margin should be added to the cost of production to make a profit.
- **Measurement of performance.** managerial performance could be evaluated by measuring the success of achieving the standard set. If actual results exceed those established in terms of revenue expectations, then management is considered to be efficient and effective. However, if actual costs exceed those expected, then management has not been efficient in utilizing the financial resources of the firm as predetermined. Standards provide yardsticks against which actual costs are compared with those predetermined to ascertain efficiency of performance.
- **Motivate managers.** realistic standards serve as basis to motivate functional managers. If divisional managers strive hard to achieve the standard set, then they would be motivated to work hard to achieve further heights in the next budget period. For a standard to motivate, staff must effectively participate in their development. If staff are not involved in the standard setting process, they may not be encouraged to work hard to achieving the targets set. Standard costing allows executives to be cost conscious which increases efficiency and productivity.

(Any 3 points @ 1.66 marks each = 5 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

Even though question five (5) looked a bit easy, some candidates had difficulties calculating the total Cost and Profit. 40% of the candidates who attempted it had the understanding of calculating the profit equation $y=5600+6x$. The b) sub-question on benefits of standard question was fairly answered by the candidates.

CONCLUSION

- Candidates should adequately prepare for the paper by ensuring that costing principles and methods are well understood.
- Candidates should ensure that they proficiently and capably know how costing principles and methods are applied.
- Candidates should take their time to understand the requirements of the questions before they start to answer them.
- Candidates should attempt first the questions that relatively easier and straight-forward to them.