NOVEMBER 2024 PROFESSIONAL EXAMINATIONS
INTRODUCTION TO COST AND MANAGEMENT ACCOUNTING (PAPER 1.4)
CHIEF EXAMINER'S REPORT, QUESTIONS AND MARKING SCHEME

EXAMINER'S GENERAL COMMENTS

The paper covered all relevant sections of the syllabus and the questions were standard and comparable to other accountancy examining bodies. Marks allocation to the questions followed the weighting in the syllabus: the actual marks allocated to the questions in the paper were significantly in line with the syllabus.

It was 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 THE CANDIDATES

The Introduction to Cost and Management Accounting paper aimed to assess candidates' understanding of fundamental management accounting principles and concepts and their application to decision-making. The examination required candidates to demonstrate analytical thinking, computational accuracy, and theoretical understanding. Overall, while many candidates showed some level of preparedness, a significant number struggled to address questions requiring critical concept application.

The standard of the paper was consistent with previous years, covering key syllabus areas such as cost classification, budgeting, variance analysis, and decision-making under uncertainty.

Candidates' performance was average, with a minority demonstrating excellent understanding. A significant proportion scored between 40% and 60%, reflecting adequate but not exceptional preparation. High performers were evenly distributed across centres, showing competence in budgeting, cost-volume-profit analysis, and short-term decision-making techniques.

Low performers struggled with regression analysis, risk management techniques, and interpreting theoretical questions. These challenges were common across most centres.

Many candidates appeared familiar with basic concepts but lacked deeper understanding and computational proficiency, especially in advanced areas like control accounts, standard costing and variance analysis.

NOTABLE STRENGTHS AND WEAKNESSES OF CANDIDATES

Strengths

Candidates excelled in cost classification, cost apportionment and regression techniques, with most showing the ability to categorise costs correctly and construction regression model. Familiarity with foundational topics and prior practice of similar question types contributed to these strengths. Candidates are encouraged to build on their understanding by integrating these concepts with decision-making scenarios.

Weaknesses

Weaknesses were most evident in computational and application-based questions, such as control accounts and variances (Questions 2 & 3). Candidates also struggled with narrative questions requiring an explanation of limitations of government budgeting, value for money and relevant cost (Questions 2 & 3). Limited exposure to theoretical application led to vague and incomplete answers in narrative questions.

The weaknesses were somewhat widespread, suggesting a gap in syllabus coverage during candidates' preparation.

QUESTION ONE

The following data has been extracted from the operating records of Agongon LTD for the last two quarters of the year to 31 December, 2023:

Quarter	**3**	**4**
Production units	8,400	10,200
Sales units	6,600	11,400

	GH¢
Selling price per unit	120
Variable manufacturing cost per unit:	
Direct material cost	24
Direct labour cost	18
Variable overheads	12

Fixed production overheads are budgeted at GH¢144,000 for a budgeted production of 9,600 units per quarter. These overheads are absorbed on per unit of production basis.

Non-production overheads comprised:
Fixed administration expenses of GH¢48,000 per quarter.
Selling and distribution expenses 10% of sales.

Required:
Prepare a statement of profit or loss for each quarter using:

a) The Marginal Costing technique **(10 marks)**
b) The Absorption Costing technique **(10 marks)**

(Total: 20 marks)

QUESTION TWO

a) The following balances have been extracted from the Statement of Financial Position of Zena LTD as at 31 December 2023:

	GH¢
Debtors	55,000
Creditors	60,000

The information below has been extracted from the 2024 budget.

- Sales are GH¢250,000 out of which 25% is cash. The sales are evenly distributed and the business gives one- month credit to her customers.
- Total purchases of GH¢180,000 which are evenly distributed are all on credit. Suppliers allow two months' credit.

Required:
Calculate;

i) The cash to be collected from debtors during the year. **(5 marks)**
ii) Cash to be paid during the year. **(5 marks)**

b) A company has annual sales revenues of GH¢45 million and the following working capital periods:

Inventory conversion period	2.5 months
Accounts receivable collection period	2.0 months
Accounts payable payment period	1.5 months

Production costs is 70% of sales revenue.

Required:
Calculate the total amount held in working capital excluding cash and cash equivalents. **(5 marks)**

c) Budgeting in the public sector relates to a process of translating government plans and policies into financial terms by systemically relating cost to attaining the objectives of government plans and policies. As important as this process is, there are some challenges and limitations associated with government budgeting.

Required:
State **FOUR** challenges (limitations) of government budgeting. **(5 marks)**

(Total: 20 marks)

QUESTION THREE

a) Value for Money (VFM) is an objective that can be applied to any organisation whose main objective is non-financial but has restrictions on the amount of finance available for spending which the public sector is no exception.

Required:
Explain the components of VFM. **(6 marks)**

b) Relevant cost should be used for assessing the economic and financial consequences of any decision made by management. Only relevant cost and benefits should be taken into consideration when evaluating the financial consequences of a decision.

Required:
Explain **TWO** key concepts of relevant cost. **(4 marks)**

c) The data below relates to Agbamame Enterprise for its flagship product, "Herb of Life":

Standard Cost Card – Per Unit of Herb of Life	
Direct materials: 5 kg at GH¢4 per kilogram	GH¢20
Direct labour: 4 hours at GH¢15 per DLH	GH¢60
Variable overhead: 4 hours at GH¢20 per DLH	GH¢80
Fixed overhead: GH¢50 per Unit	
Budgeted production: (Units)	600
Actual sales and production: (Units)	550
Actual cost of 1650 hours of labour	GH¢16,500
Actual cost of 1650 Kg of materials	GH¢5,775
Fixed overhead	GH¢15,000
Actual variable overhead costs	GH¢13,275

Data shows that 5% of labour hours paid for was idle while 10% of materials bought was in stock at the end of the period.

Required:
i) Calculate the material variances **(3 marks)**
ii) Calculate the labour variances **(3 marks)**

d) Explain ***fixed overhead volume variance*** and **TWO** possible causes of such variances. **(4 marks)**

(Total: 20 marks)

QUESTION FOUR

a) The following expenses were estimated for the month of June 2024.

Item	**GH¢**
Electricity	80,000
Rent	18,000
Property rate	6,000
Insurance premium (office equipment)	15,000
Internet and communication	25,000
Indirect wages	60,000

There are three departments A, B and C. The following additional information has been provided on the departments.

Department	**A**	**B**	**C**
Area occupied (sq. metres)	300	450	250
Number of customers	700	600	500
Number of employees	120	150	130
Value of office equipment (GH¢)	50,000	40,000	60,000

Required:

Apportion the above overheads using the most appropriate base and determine the total overhead for each department. **(14 marks)**

b) Amanda LTD is a manufacturing company and its management is considering the introduction of a high day rate incentive scheme. During one of such production periods, record shows that, if an employee makes 100 units in a 40 hour per week, the employee is paid GH¢2 per hour but if 120 units are made, the employee is paid GH¢2.50 per hour. Production overhead is added to cost at the rate of GH¢2 per direct labour hour.

Required

What is the cost per unit for the following schemes?

i) Low day-rate scheme **(3 marks)**

ii) High day-rate scheme **(3 marks)**

(Total: 20 marks)

QUESTION FIVE

a) Ebo LTD is planning to determine its variable and fixed cost elements for its planned activity level for the next year. The company has recorded the following costs and production units in the past six months:

Months	Units	Cost
January	5.8	40.3
February	7.7	47.1
March	8.2	48.7
April	6.1	40.6
May	6.5	44.5
June	7.5	47.1

Required

i) Construct the least square regression model. **(5 marks)**
ii) Determine the variable cost per unit of output using the model. **(4 marks)**
iii) Determine the fixed cost for the month using the model. (**4 marks)**
iv) Estimate the total cost if the company plan to produce 6,200 units. **(2 marks)**

b) Efforts to improve Public Financial Management (PFM) Systems in Ghana led to the Ghana Integrated Financial Management Information System (GIFMIS), which is an adaptation of Integrated Financial Management Information System (IFMIS). The rationale of the GIFMIS is to establish an integrated ICT based PFM into systems in Ghana at national, regional and district levels.

Required:
State **FOUR** benefits of GIFMIS to the government of Ghana **(5 marks)**

(Total: 20 marks)

SOLUTION

QUESTION ONE

a) **Marginal Costing Statement of Profit or Loss for the two Quarters to 31st December, 2023**

	Quarter 3		Quarter 4	
	GH¢	**GH¢**	**GH¢**	**GH¢**
Sales (W1)		792,000		1,368,000
Variable cost of goods sold:				
Production cost:				
Opening Inventory		-	97,200	
Production (W2)	453,600		550,800	
Closing Inventory	(97,200)		(32,400)	
	356,400		615,600	
Non-Production Cost:				
Selling & Dist. Cost	79,200	(435,600)	136,800	(752,400)
Contribution		356,400		615,600
Fixed Costs:				
Production	144,000		144,000	
Non-production	48,000	(192,000)	48,000	(192,000)
Net profit		**164,400**		**423,600**

(23 scoring ticks)

b) **Absorption Statement of profit or loss for the two Quarters to 31st December, 2023**

	Quarters 3		Quarters 4	
	GH¢	**GH¢**	**GH¢**	**GH¢**
Sales		792,000		1,368,000
Cost of Sales:				
Opening Inventory	-		124,200	
Production	579,600		703,800	
Closing Inventory	(124,200)	(455,400)	(41,400)	(786,600)
		336,600		581,400
Expense:				
Selling & Dist.	79,200		136,800	
Admin. Expenses	48,000	(127,200)	48,000	(184,800)
		209,400		396,600
Over / (Under) Absorption		(18,000)		9,000
Net Profit		**191,400**		**405,600**

(23 scoring ticks)

WORKINGS

Computation of Product Cost/unit

	Marginal Costing	Absorption Costing
	GH¢	GH¢
Direct Material Costs	24	24
Direct Labour	18	18
Variable Overheads	12	12
Fixed Overheads	-	15
Product cost/unit	**54**	**69**

(6 scoring ticks)

Computation of over/ (under) absorption of overheads

		Quarter 3 GH¢		Quarter 4 GH¢
Overheads absorbed	**(15*8,400)**	126,000	**(15*10,200)**	153,000
Overheads incurred		(144,000)		(144,000)
Over/ (under) absorption		**(18,000)**		**9,000**

(8 scoring ticks)

(60 ticks scoring 1/3 for each tick)
***(Total: 20 marks*)**

EXAMINER'S COMMENTS

Candidates generally understood the question and performed well. Few candidates confused the over and under absorption overheads, leading to minor errors under absorption costing.

QUESTION TWO

(a)

i) Debtors control accounts

	GH¢
Credit sales (75% 8 250,000)	187,500
Add debtors b/d	55,000
Total	242,500
Less debtors c/d (25% * 250,000)	15,625
Cash to be collected	**226,875**

(5 marks)

ii) Creditors control accounts

	GH¢
Total purchases	180,000
Add bal. b/d	60,000
	240,000
Less creditors c/d ($^{2}/_{12}$ * 180,000)	30,000
Cash to be paid	**210,000**

(5 marks)

b) Inventory GH¢45m x 0.7 x 2.5/12 = GH¢6.5625m
Accounts receivable GH¢45m x 2/12 = GH¢7.5m
Accounts payable GH¢45m x 0.7 x 1.5/12 = GH¢3.9375m
Total working capital is GH¢6.5625m + GH¢7.5m - GH¢3.9375m = GH¢10.125m

(5 marks)

c) **Challenges and limitations of Government budgeting**

The Budgeting process has some challenges and limitations. Some of the challenges are:

Competition for funding

In the budgeting process, the various government organisations and departments compete for an allocation of funds for spending. Invariably, the demand for funds will exceed the amount of funding available, A challenge is therefore to make choices between competing demands for funding, prioritise them, and decide how much funding should be allocated to each department, organisation or programme. This can be a challenging task.

Cost implications

The budgeting process entails several committee meetings involving the budget committee and this usually cost the government money in terms of allowances for meetings, printing and publications.

Time consuming

Putting together a budget consumes a lot of the preparer's time, which otherwise could have been used for equally important purposes. The time spent on budget preparation is as a result of budget meetings, budget hearings, budget presentations, budget examination by Parliamentary Select Committees, media discussions of the budget and so on.

Unpredictable budget assumptions

Budget functions well in a stable macroeconomic environment where economic indicators can be predicted with relative stability. Macroeconomic instability renders a budget "useless" as the estimates quickly become ridiculous due to abrupt changes in prices and exchange rates for example.

Misconception of Budget Authority

The authority of a budget is simply " spend to the budget" and therefore an spending within the ambit of the vote is appropriate. However, in practice most public administrators interpret the authority to mean "spend the budget", implying the organization is under statutory obligation to spend all the amounts appropriated to it. Thus, organisations embark on end of year rush spending to deplete the balance on an appropriation at the end of the year.

(Any four points @ 1.25 each = 5 marks)

***(Total: 20 marks*)**

EXAMINER'S COMMENTS

Performance on the narrative sub-question in 2(c) on limitations on government budgeting was not commendable. But in 2(b), some candidates omitted key components like adjustments for inventory, accounts payable and receivables in determining working capital.

QUESTION THREE

a) Value for money is expressed in terms of economy, efficiency and effectiveness (often referred to as the '3Es')

- **Economy** refers to avoiding wasteful expenditure and keeping spending within limits. It also helps to ensure that the limited finance available is spent sensibly. Targets could be set for prices paid for various items from external suppliers.
- **Efficiency** means getting more output from the available resources. Applied to employees, efficiency is often called productivity,
- **Effectiveness** refers to success in achieving end results or success in achieving objectives. Whereas efficiency is concerned with getting more output from the available resources, effectiveness is concerned with achieving outputs that meet the required aims and objectives**.**

(6 marks)

b) **key concepts in relevant cost**

- Relevant costs are costs that will occur in the future. They cannot include costs that have already occurred in the past.
- Relevant costs of a decision are costs that will occur as a direct consequence of making the decision. Costs that will occur anyway, no matter what decision is taken, cannot be relevant to the decision
- Relevant costs are cash flows. Therefore, notional costs such as depreciation charges, notional interest costs and absorbed fixed costs cannot be relevant to a decision.

(any two relevant points @2 marks each = 4 marks)

c) Direct material variances

SQ = SQ/unit * Actual Production
= 5 * 550 = 2750 kg

AQ used = 0.9 * 1650 = 1485 kg

AP / unit = 5775 / 1650 = GHS 3.5

MPV = AQP x (SP – AP)
= 1650 x (4 – 3.5) = 825 F ***1.5 marks***

MQV = SP x (SQA - AQU)
= 4 x (2750 – 1485) = 5060 A ***1.5 marks***

(3 marks)

<u>Direct labour variances</u>

SH = SH/unit * Actual Production
= 4 * 550 = 2200 hours

AH used = 0.95 * 1650 = 1567.5 hours
AR / hour = 16500 / 1650 = GHS 10

LRV = AH x (SR – ARp)
= 1650 x (15 – 10) = 8,250 F ***1.5 marks***

LEV = SR x (SHA - AHu)
= 15 x (2200 – 1567.5) = 9487.5 F ***1.5 marks***
(3 marks)

d) The FOVV ascertains the difference between actual production overheads and the budgeted production overheads, for a stated period at a standard fixed overhead rate.

Causes:
Change in production volume due to change in demand
Changes in productivity of labour or machinery
Production lost through strikes.

(4 marks)
(Total: 20 marks)

EXAMINER'S COMMENTS
Variance analysis in 3(c) was well-attempted. Very few candidates found it difficult to use the idle time of 5% to derive the effective hours of production. Narrative question on value for money in 3(a) also was poorly answered by reasonable number of candidates as they could not identify the components of Value for Money.

QUESTION FOUR

a)

	A	B	C
	GH¢	**GH¢**	**GH¢**
Electricity (area occupied).	24,000	36,000	20,000
Rent (area occupied).	5,400	8,100	4,500
Property rate (area occupied).	1,800	2,700	1,500
Insurance premium (val. of eqpt.)	5,000	4,000	6,000
Telephone (no. of customers).	9,722	8,333	6,945
Indirect wages (no. of e'ployees)	18,000	22,500	19,500
Total	**63,922**	**81,633**	**58,445**

(14 marks)

Alternative Solution

	A	B	C
	GH¢	**GH¢**	**GH¢**
Electricity (area occupied).	24,000	36,000	20,000
Rent (area occupied).	5,400	8,100	4,500
Property rate (area occupied).	1,800	2,700	1,500
Insurance premium (val. of eqpt.)	5,000	4,000	6,000
Telephone (no. of e'ployees).	7,500	9,375	8,125
Indirect wages (no. of e'ployees)	18,000	22,500	19,500
Total	**61,700**	**82,675**	**59,625**

(14 marks)

b)

i) Cost per unit using a low day-rate = 40 hours x (GH¢2 + GH¢2) = GH¢160 = GH¢160/100 units = GH¢1.60 per unit.

(3 marks)

ii) Cost per unit using a high day-rate = 40 hours x (GH¢2.5 x GH¢2) = GH¢180 = GH¢180/120 units = GH¢1.50 per unit.

(3 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

Performance was great in part (a) of the question with a few difficulties shown by candidates in the calculations of cost per unit for low and high day – rate scheme in 4(b).

QUESTION FIVE

a)

i) *Construction of regression model*

Month	X	Y	X^2	XY
January	5.8	40.3	33.64	233.74
February	7.7	47.1	59.29	362.67
March	8.2	48.7	67.24	399.34
April	6.1	40.6	37.21	247.66
May	6.5	44.5	42.25	289.25
June	7.5	47.1	56.25	353.25
	$\sum x = 41.8$	$\sum y = 268.3$	$\sum_{X2=} 295.88$	$\sum_{XY} = 1,885.91$

(5 marks)

ii) Variable cost

b = variable cost

$$b = \frac{n\sum_{XY} - \sum x \sum y}{n\sum x^2 - (\sum x)^2}$$

$$= \frac{6(1,885.91) - (41.8)(268.3)}{6(295.88) - (41.8^2)}$$

$$= \frac{11,315.46 - 11,214.94}{1,775.28 - 1,747.24}$$

$$= \frac{100.52}{28.04}$$

$$= 3.58$$

(4 marks)

iii) Fixed cost

a = fixed cost

$$a = \frac{\sum y}{n} - \frac{b\sum x}{n}$$

$$a = \frac{268.3}{6} - \frac{3.58(41.8)}{6}$$

$$a = 44.71 - 24.94$$

$$a = 19.77$$

(4 marks)

iv) estimated production cost for 6,200 units

$y = a + bx$

$y = 19.77 + (3.58 \times 6,200\text{unit})$

$y = 19.77 + (22,196)$

$y = ₵22,215.77$

(2 marks)

b) GIFMIS offers the following benefits:

- Improved budgetary, financial management (record keeping) and reporting processes.
- Provision of accurate, timely and reliable financial information to the central government and to decentralized government institutions and organisations
- Uniformity in accounting and reporting with the introduction of common Chart of Accounts
- Improvement in accountability, control, monitoring and auditing of Government finances
- Improved budgetary control through reduction in manual processes and the duplication of effort.

(5 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

This question on regression analysis and cost estimation saw some commendable performance by many candidates. Few candidates correctly applied the least squares method, indicating a need for targeted practice. Surprisingly, very few candidates blatantly disregarded the requirement of the question on the least square regression model and applied high or low method. Question on the benefits of GIFMIS was averagely answered.

CONCLUSION

Observed Weaknesses and Remedies:

Statistical and Analytical Techniques: Candidates must be guided on regression analysis and its application in cost estimation. Practice on past questions and detailed step-by-step teaching of the least squares method is necessary.

Theoretical Application: Encourage candidates to explore theoretical concepts like activity-based costing in practical scenarios, ensuring they understand both "how" and "why."

Time Management: Introduce timed mock exams to help candidates allocate time effectively during examinations.

Looking Ahead:

Future candidates should focus on balancing theoretical and computational aspects of the syllabus.

- 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 are relatively easier and straight-forward to them