

**NOVEMBER 2019 PROFESSIONAL EXAMINATIONS
INTRODUCTION TO MANAGEMENT ACCOUNTING (PAPER 1.4)
CHIEF EXAMINER'S REPORT, QUESTIONS AND MARKING SCHEME**

STANDARD OF THE PAPER

The paper is a new course introduced in November 2019, therefore no reference and comparison could be made with the same previously administered ones. The paper covered all relevant topics of the syllabus and the questions were standard and comparable to other accountancy examining bodies.

The actual marks allocated to the questions in the paper were significantly in line with the syllabus as follows:

Table 1: Actual mark allocation compared to that of the syllabus

	Actual Allocation	Syllabus allocation	Difference
Scope of management accounting	15	15	-
Cost Elements	14	15	(1)
Costing Techniques	25	25	-
Forecasting Techniques	15	15	-
Budgeting	20	20	-
Performance differences	<u>11</u>	<u>10</u>	<u>1</u>
Total marks	<u>100</u>	<u>100</u>	<u>0</u>

From Table 1 above marks were allocated fairly and appropriately to the actual examination questions in line with that of the syllabus. This was evident with respect to the main and sub-questions. Only difference of 1 mark could be found with respect to Cost elements and Performance Difference.

It was also found that marks allocated to questions were commensurate with the amount of work and time required.

Areas where questions were 'too loaded' or 'too generous': With respect to the 'too generous' questions, in Question 3a(ii) candidates were asked to state two (2) features of control system used at tactical level of management in a commercial entity for five (5) marks, that is, 2.5 marks each for 2 features. The fair marks should have been 1½ each. Apart from the above-mentioned question all other questions were fairly weighted in terms of marks and the amount of work required.

PERFORMANCE OF THE CANDIDATES

The general performance was below average with the following reasons:

- Many candidates could not answer Question 3a(i) very well and even significant number of candidates deviated from the question by stating and explaining the qualities of information instead of features.

- With respect to Question 3a(ii), many candidates could not understand this question on the features of control systems; candidates did not do very well.
- High performers were evenly spread across all centres as almost all the centre envelopes had high performers;
- Low performers were also spread in all centres but certain centres registered more low performers than the others;
- There were no signs of copying at a particular centre identified

Preparedness of candidates:

- There was an indication that the candidates did not prepare adequately for the paper because they either could not attempt Question 1 on Job costing or did extremely bad due to inadequate knowledge in the job costing which was the easiest among the costing methods.
- Similarly, reasonable number of candidates did not do well in Question 5(a) on seasonal variation using quarterly moving average. They could not do calculation up to Average (Trend), Variation and Table of summary of variations.

NOTABLE STRENGTH AND WEAKNESS OF CANDIDATES

- The strong performance of few candidates depended on the volume of knowledge and skill in approaching specific questions like Job costing, Standard costing, costing of labour and budgeting. All of the strong performers exhibited accuracy, precision and better understanding of the concepts.
- 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 candidates did not adequately understand the costing principles required very well to enable them successfully write exams,
- Many candidates did not take adequate time and effort to understand the requirements of the questions and therefore deviated from some questions on features of operational information and features of control systems in Question 3(a), and calculation of overtime premium in Question 4(c). On the side of the candidate strength, many of them were able to explain correctly the treatment of overtime premium. These weaknesses were exhibited by few peculiar candidates.

QUESTION ONE

You have just been appointed the full-time Management Accountant for Genuine Jobbers Limited, a company based in the North Industrial Area in Accra that produces cartons to meet customers' specific requirements. You have been tasked to determine the cost and invoice price per job for the forthcoming period and have been provided with the following:

Budgeted statement of profit or loss for the financial year ended 31 March, 2020:

	GH¢'000	GH¢'000	GH¢'000
Revenues			4,800
Costs:			
Direct material		1,578	
Direct labour:			
Grinding department (10,000 @ 40/Hr)	400		
Finishing department (13,000 @ 40/Hr)	<u>520</u>	920	
Production overheads:			
Grinding department	350		
Finishing department	<u>416</u>	766	
Non-production overheads:			
Administration costs	234		
Selling and distribution costs	<u>342</u>	<u>576</u>	<u>3,840</u>
Net profit			<u>960</u>

The sales department is currently negotiating a price for an enquiry for job number 45A/2020 and the following information has been provided for that purpose:

Direct costs estimates:	GH¢
Direct material	18,000
Direct labour: Grinding department 400 hours @ GH¢10 each	4,000
Finishing department 300 hours @ GH¢12 each	<u>3,600</u>
	<u>25,600</u>

Note:

- It is recommended that production overheads are charged to jobs on the basis of direct labour hours worked.
- Selling and administrative expenses are charged at 10% of production cost.
- It is a policy of the company to make a profit margin as budgeted on each job.

Required:

- a) Compute the overheads absorption rates for each of the production departments. **(4 marks)**
- b) As the Management Accountant, estimate the costs of Job 45A/2020 in the light of the information provided, and hence an invoice price for the Sales Manager's use.

(16 marks)

(Total: 20 marks)

QUESTION TWO

You have been approached by the Managing Director of a small company that has recently been set up. The company is hoping to obtain a significant amount of bank finance to support its activities and it has been asked to supply various documentations as part of its funding application. The Managing Director has provided all of the required information except that of the forthcoming year. He has explained to you that he really doesn't understand why this has been requested and further confesses that he is unsure about how exactly a budget is prepared.

Required:

- a) State and explain **THREE (3)** purposes of budgeting. **(6 marks)**
- b) State the stages in the budgeting process. **(6 marks)**
- c) Differentiate between *master budget* and *functional budget* and identify **TWO (2)** advantages and **ONE (1)** disadvantage associated with these budgets. **(8 marks)**

(Total: 20 marks)

QUESTION THREE

- a) The role of Management Accounting is to assist managers at all levels of management (Strategic, Tactical and Operational) of an organization in decision making.

Required:

- i) With examples from a manufacturing company, identify **FIVE (5)** features of information that is provided at the operational level of management. **(10 marks)**
 - ii) State **TWO (2)** features of a control system that is used at the tactical level of management in a commercial entity. **(5 marks)**
- b) State and explain **FIVE (5)** features of *specific order costing methods* used in cost ascertainment. **(5 marks)**

(Total: 20 marks)

QUESTION FOUR

- a) Walata Ltd manufactures and sells a unique anti-cold formula called the Magic Ball. The product is produced from a combination of two ingredients; R and Q with the following details:

Standard quantity per unit:

Q	3kg
R	2kg

Standard prices:

	GH¢
Q	2.50
R	4.00

For the quarter just ended, the following results were recorded:

Actual production 2,000 units

Material	Quantity purchased and used	Price per Kilogramme.
		GH¢
Q	4,800	4.25
R	5,400	2.20

Required:

- i) Calculate the price variance for each material. **(3 marks)**
ii) Calculate the usage variance for each material. **(3 marks)**
- b) Apagya Ltd has two product lines AB and CD. Time rate and piece rate labour rewarding systems are used for AB and CD products respectively.

Required:

Explain the terms *time rate* and *piece rate*, clearly outlining their differences and giving examples of business setting where each could be applied. **(4 marks)**

- c) AB Ltd operates a 40-hour weekly work regime and rewards labour for all overtime worked at time and one-half.

The wage rate is GH¢80 per hour.

The following details are recorded for the month of October 2019 for an employee (Adamu):

Week	Hours Worked
1	36
2	48
3	45
4	46

Required:

- i) Compute the total direct labour costs for Adamu for the month of October 2019. (4 marks)
- ii) Calculate the total indirect labour costs for Adamu for the month of October 2019. (4 marks)
- d) Explain the treatment of overtime premium in accounting for labour costs. (2 marks)

(Total: 20 marks)

QUESTION FIVE

- a) FB Logistics has been clearing containers from the port of Tema over the past seven years. Management is aware that the business has been facing seasonal fluctuations but there is no scientific basis for the determination of such variations that can be used to predict future revenue.

As a newly engaged Cost Accountant you have been provided with some past quarterly performance over a three-year period. Details of the performance are shown below:

	Year 1	Year 2	Year 3
1 st Quarter	120	180	150
2 nd Quarter	140	160	200
3 rd Quarter	160	185	230
4 th Quarter	180	210	220

Required:

Using quarterly moving average, calculate the seasonal variation for the company. (15 marks)

- b) Standards as used in performance measurement are norms or benchmarks set for comparison purposes in performance evaluation.

Required:

Explain **FIVE (5)** uses of standard costing. (5 marks)

(Total: 20 marks)

SOLUTION TO QUESTIONS

QUESTION ONE

- a) Computation of overheads absorption rates

$$\text{Overheads Absorption Rate} = \frac{\text{Budgeted Overheads}}{\text{Budgeted Labour Hours}}$$

$$\text{Grinding Department} = \frac{\text{GH}\text{\$}350,000}{10,000 \text{ Hours}} = \text{GH}\text{\$}35/\text{Hour}$$

$$\text{Finishing Department} = \frac{\text{GH}\text{\$}520,000}{13,000 \text{ Hours}} = \text{GH}\text{\$}40/\text{Hour}$$

(4 marks evenly spread using ticks)

- b)

JOB 45A/2020 JOB COST SHEET

	GH¢	GH¢
Direct materials		18,000
Direct labour:		
Grinding (400 x GH¢10)	4,000	
Finishing (300 x GH¢12)	<u>3,600</u>	7,600
Prime costs		
Production overheads:		
Grinding (400 x GH¢35)	14,000	
Finishing (300 x GH¢40)	<u>12,000</u>	<u>26,000</u>
Production costs		51,600
Selling & Administration overheads (10% x GH¢51,600)		<u>5,160</u>
Total costs		56,760
Profit mark-up (20/80 x GH¢56,760)		<u>14,190</u>
Selling price of Job		<u>70,950</u>

(16 marks evenly spread using ticks)

(Total: 20 marks)

EXAMINER'S COMMENTS

In general, the performance of students was not good. The question was reasonable and its requirements were clear. Students who studied well had it easy and scored above 15 marks and a handful scored 20 marks. Students who failed this question either misunderstood it or were not prepared. Most of those who failed the question were not able to compute the overhead absorption rates and the mark-up. It was expected that, this question would have been the best for all students. In all, the performance was below average and generally spread across all centers. The performance reflected low level of preparedness by students and poor predictability of questions by students.

QUESTION TWO

a) Purposes of Budget

The budget of an enterprise serves the following purposes:

- Budget is an aid in making and coordinating short-range plans.
- It is a device for communicating these plans to the responsibility center managers.
- Budget is a way of motivating managers to achieve their responsibility centers goals.
- It is a bench mark for controlling on-going activities.
- Budget is a basis for evaluating the performance of responsibility centres and their managers.

(Any 3 points well explained @ 2 marks each = 6 marks)

b) Stages in the budgeting process

The stages in setting the budget might be as follows:

- **Stage 1:** Identify the principal budget factor (or key budget factor). The principal budget factor is often sales volume.
- **Stage 2:** Prepare the functional budget or plan for the principal budget factor. Usually, this means that the first functional budget to prepare is the sales budget.
- All the other functional budgets should be prepared within the limitation of the principal budget factor. For example, even if the company has the capacity to produce more output, it should not produce more than it can sell (unless it formally decides to increase the size of the finished goods inventory, in which case the production volume will be higher than the sales volume).
- **Stage 3:** Prepare the other functional budgets, in logical sequence where necessary. When the sales budget has been prepared, a manufacturing organization can then prepare budgets for inventories (=plans to increase or reduce the size of its inventories), a production budget, labour usage budgets and materials usage and purchasing budgets. Expenditure budgets should also be prepared for overhead costs (production overheads, administration overheads and sales and distribution overheads). Overheads costs budgets are usually prepared for each cost centre individually.
- **Stage 4:** Submit the functional budgets to the budget committee for review and approval. The functional budgets are co-ordinated by the budget committee, which must make sure that they are both realistic and consistent with each other.
- **Stage 5:** Prepare the 'master budget'. This is the budget statement that summaries the plans for the budget period. The master budget might be presented in the form of:
 - ✓ a budget income statement of the next financial year.
 - ✓ a budgeted statement of financial position as at the end of the next financial year
 - ✓ a cash budget or cash flow forecast for the net financial yearIt should be possible to prepare the master budget statements from the functional budgets.

- **Stage 6:** the master budget and the supporting functional budgets should be submitted to the board of directors for approval. The board approves and authorises the budget.
- **Stage 7:** the detailed budgets are communicated to the managers responsible for their implementation.

(Any 6 steps for 6 marks)

- c) **'Master budget'** is a consolidation of the various functional budgets. Budgeted financial statements are prepared on the basis of the master budget. (1 mark)

Usefulness

- A master budget helps to co-ordinate all other functional budgets and to clarify the short-term objectives of an organization. Department budget are co-ordinate with the master budget which alleviates the conflict between the departmental objectives and the organizational objectives.
- A master budget acts as a line of communication between the various departments
- A master budget is the basis for planning. Budgeted financial statements are prepared on the basis of a master budget.
- A master budget possesses the targets of all the departments and therefore acts as a basis for performance evaluation.

(Any 2 points for 2 marks)

Problems

- The main problem with any budgeting system is that it is based on forecasting and therefore subject to uncertainties.
- Master budget are prepared on the basis of certain assumptions that may not hold true in reality.

(Any 1 point for 1 mark)

'Functional budgets' are budgets for individual functions such as sales, purchases, production etc. (1 mark)

Usefulness

- Functional budgets give targets to individual managers.
- As departmental managers prepare functional budgets, they are more realistic and motivating.

(2 points for 2 marks)

Problems

- As they are prepared by functional managers, there is the possibility that they may not be in line with the strategic objectives and may conflict with the organizational objective or the objectives of the departments unless they are properly co-ordinate.
- Like any other budget, the functional budgets are also based on forecasts and therefore affected by significant changes in the environment.

(1 point for 1 mark)

(Total: 20 marks)

EXAMINER'S COMMENTS

The requirements of the question were straight forward. The performance of the candidates in this question was above average. Comparative to the other questions this was the question most candidates attempted and had at least 5 out of 20 marks. About 50% of the candidates had more than 10 marks. Most candidates understood the question but those who had below 10 marks were not able to clearly articulate their points. The sub-question (a) on purposes of budgets was answered with ease by most of the candidates across all centres. Also the sub-question (b) "state the stages in the budgeting process" was handled well by candidates but few centres had students struggling to articulate the budgeting process as pertained in companies. On sub-question (c), a considerable number of candidates were able to clearly state the difference between master budget and functional budget but had difficulties in outlining advantages and disadvantages of same.

QUESTION THREE

a) **i) Features of Operational Information.**

- Detailed information. (Production schedules)
- Mainly quantitative. (Payroll sheets)
- Internal sources. (Stores ledger cards)
- Relates to immediate term. (current or previous week)
- Prepared frequently. (daily production reports)
- Task specific. (maintenance reports)

**(5 marks for 5 features)
(5 marks for 5 examples)**

ii) Features of a Control System.

- There should be a target set.
- Actual performance is measured
- Actual is compared with targets.
- Variances are analyzed and corrective action taken.

(Any 2 features @ 2.5 marks each = 5 marks)

b) **Some of the main features of Specific Order Costing include:**

The following are some of the principal features of specific order costing, among other things:

- A specific order is carried out or a product is produced to meet the specific requirements of the order
- Specific order costing enables a business to ascertain the cost of a job order on the basis of which quotation for the specific order may be given.
- While computing the cost, direct costs are charged to the job order directly as they are traceable to the job order.
- Indirect expenses i.e. overheads are charged to the job order on some suitable basis.
- Each specific order completed may be different from other specific orders and hence it is difficult to have standardization of controls and therefore more detailed supervision and control is necessary.
- At the end of the accounting period, work in progress may or may not exist.

(Any five points at 1 mark for 5marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

The question on the surface did not seem to be a bad one and could be managed by candidates with a little understanding of the framing of the question.

(a.i) demanded candidates to identify features of information that is provided at operational level of management. Many candidates mistook this to mean features of information that is provided to operational level management and hence were giving all kinds of answers without examples.

A greater number of the candidates just listed qualities of information instead of the FEATURES of the information at the level stated.

In spite of the above, very few who prepared well had answers that fall in line with the suggested answers provided by the Examiner. There were few who gave good examples and tried to link them to the qualities of information.

(a.ii) 'features of control systems'; This question was straight forward but candidates had answers that relate to how to control the various resources of production - namely; material, labour, finance and so on.

(b) 'features of Specific Order Costing'; This sub-question was answered above average by candidates who prepared for the examination. However, a good number concentrated on costing methods and mentioned such approaches as marginal costing, batch costing, absorption costing and other funny, funny approaches. Very, very few gave answers that are in line with the suggested solution.

On the whole, the performance was very bad. Possibly less than 10 percent of candidates got above 10. Majority had between zero and four while few had between 5 and 9.

QUESTION FOUR

a)

i. Calculation of price variances

Material R	GH¢
5,400kg should have cost (5,400 x GH¢4.0)	21,600
But did cost (5,400 x GH¢2.20)	<u>11,880</u>
Variance	<u>9,720F</u>

Material Q	GH¢
4,800kg should have costs (4,800 x GH¢2.5)	12,000
But did cost (4,800 x GH¢4.25)	<u>20,400</u>
Variance	<u>8,400A</u>

(3 marks evenly spread using ticks)

ii. Calculate the usage variance for each material

Material Q	
2,000 bottles should have used (2,000 x 3kg)	6,000kg
But did use	<u>4,800kg</u>
Difference	1,200kgF
Valued at standard price/kg	<u>GH¢2.50</u>
Variance	<u>GH¢3,000F</u>

Material R	
2,000 bottles should have used (2,000 x 2kg)	4,000kg
But did use	<u>5,400kg</u>
Difference	1,400kgA
Valued at standard price/kg	<u>GH¢4</u>
Variance	<u>GH¢5,600A</u>

(3 marks evenly spread using ticks)

b) PIECE RATE

This is a wage reward system where labour is paid based on the volume of work done. Here, the output recorded is the reference point for measuring the wages payable to the employee but not the time spent. Examples of production settings where this rate system is applicable may include, construction, manufacturing, food processing, etc.

(2 marks)

TIME RATE

This is a reward system that relates wages to the time spent by the employee. Example, hourly, daily, weekly, fortnightly or monthly, depending on the nature of

skill of the employee. This is usually used in service firms such as accounting firms, hospitality services, law firms etc. **(2 marks)**

c) AB Ltd

(i) Computation of total direct labour costs for the month of October 2019

	GH¢
Week 1 (36 x GH¢80)	2,880
Week 2 (48 x GH¢80)	3,840
Week 3 (45 x GH¢80)	3,600
Week 4 (46 x GH¢80)	<u>3,680</u>
Total direct labour costs	<u>14,000</u>

(4 marks evenly spread using ticks)

(ii) Computation of total indirect labour costs for the month of October 2019

	GH¢
Idle time (4 x GH¢80)	320
Overtime premium:	
Week 2 (8 x GH¢80 x 50%)	320
Week 3 (5 x GH¢80 x 50%)	200
Week 4 (6 x GH¢80 x 50%)	<u>240</u>
Total indirect labour costs	<u>1,080</u>

(4 marks evenly spread using ticks)

d) Overtime premium is generally accounted for as indirect labour costs. However, where overtime payments result from customer specific requirements for the production of a product or job, then such overtime premium may be accounted for as direct labour.

(2 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

In general, the performance of students was averagely good. A little over 50% of candidates obtained below 10 marks out of 20 marks, whilst a little under 50% of candidates obtained above 10 marks of the total 20 marks awarded.

The question was adequate and its requirements were clear except for the *4c*, a sub-question, which some of the candidates had difficulties in computing the direct labour cost for the month and the indirect labour cost, for the same person.

Candidates who studied well had it easy and scored above 14 marks and a high score of 19.4 marks. Candidates who failed the question either misunderstood it or were not prepared.

Most of those who failed the question were not able to compute the usage and price variances properly, and for those who scored 14 marks, most were not able to explain the treatment overtime premium in Accounting for labour cost. It was my expectation that, this question no. 4 would have been the easiest for all candidates.

In all the performance was averagely good and generally spread across particular centers. The performance reflected weak preparedness by candidates and poor predictability of questions by candidates.

QUESTION FIVE

a)

Sales	Moving total	Mid-point	Average (trend)	Variation
(1 st) 120				
(2 nd) 140				
	600			
(3 rd) 160		630	157.5	-2.5
	660			
(4 th) 180		670	167.5	-12.5
	680			
(1 st) 180		692.5	173.13	-6.87
	705			
(2 nd) 160		720	180	20
	735			
(3 rd) 185		720	180	20
	705			
(4 th) 210		725	181.25	-28.75
	745			
(1 st) 150		767.5	191.88	41.88
	790			
(2 nd) 200		795	198.75	-1.25
	800			
(3 rd) 230				
(4 th) 220				

Summary of variations

Year	Q1	Q2	Q3	Q4	Total
1			-2.5	-12.5	
2	-6.87	20	-5	-28.75	
3	41.88	-1.25			
Average	17.51	9.38	-3.75	-20.63	-2.5
Adjustment	0.63	0.63	0.63	0.63	

Seasonal variation 18.14 10.01 -3.12 -20

(15 arks evenly spread using ticks)

b) Some of the main usefulness of standard costing include the following:

- Profit planning
- Profit measurement
- Performance assessment
- Cost control and management
- Employee reward schemes

- Costs and inventory valuation

(Any 5 points at 1 mark each =5 marks)
(Total: 20 marks)

EXAMINER'S COMMENTS

This question was straight forward and easy to understand. About 10% of candidates obtained 15 marks with majority scoring averagely 5 marks. Candidates could not do the calculations of the figures correctly for part (a). Additionally, candidates also had difficulties explaining the uses of standard costing in part (b). As a whole, the performance of candidates was below average.

Areas where most candidates were ill-prepared:

- Special order/Job costing, Question 1
- Features of operational information and control systems in Question 3(a)
- Price and usage variances in Question 4(a)
- Calculation of overtime premium in Question 4(b); reasonable number of the candidates who attempted the question wrongly applied overtime wage instead of the premium, i.e. extra wage over the normal wage rates.
- Seasonal Moving Average and variation in Question 5 not well answered and reasonable number of the candidates did not attempt all.

CONCLUSION

Recommendations for the observed weakness and advice to future candidates:

- 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