MAY 2018 PROFESSIONAL EXAMINATIONS
MANAGEMENT ACCOUNTING (PAPER 2.2)
CHIEF EXAMINER'S REPORT, QUESTIONS AND MARKING SCHEME

STANDARD OF PAPER

Candidates were examined in such area as Investment Appraisal and Divisional performance measurement using RI and ROI, Budgeting, the use of marginal and absorption costing in preparation of profit statements, decision making using relevant costs and Standard Costing using variance analysis.

All the questions were within the approved syllabus. Calculations and theoretical questions accounted for about 70% and 30% of the total marks respectively. No errors were dictated in the question and the contents were acceptable to be answered within the times allocated.

The general performance of the candidates was satisfactory compared with the previous sitting.

QUESTION ONE

a) The Maintenance Manager of Prudence Ltd insists that management should maintain an old equipment that had been used for 5 years and is fully depreciated rather than buy a new one. The old equipment has a current operating cost of GH¢53,000.00 per annum. The operating cost of the equipment is expected to increase at 5% every year over the next four years, with a sale value of GH¢6,500.00 in the fifth year.

The Maintenance Manager has proposed, that a new system with enhanced technology to reduce operating cost to GH¢32,000.00 for the next three years and GH¢33,600.00 for the fourth and fifth years be introduced. The new equipment will cost GH¢60,000.00 and when introduced, a redundancy cost of GH¢25,000.00 will be paid, with the old equipment sold for GH¢12,000.00. The sale value of the new equipment will be GH¢10,200.00 after its five years' useful life.

Required:
Using Net Present Value (NPV) method of capital appraisal with 20% cost of capital, advice management on which option Prudence Ltd should go for. **(10 marks)**

b) Compare and contrast the use of ***residual income*** and ***return on investment*** in divisional performance measurement, stating the advantages. **(7 marks)**

c) The Bottle Labelling Division of Crush Drink Ltd currently has capital employed of GH¢100,000 and earns an annual profit after depreciation of GH¢18,000. The divisional manager is considering an investment of GH¢10,000 in an asset which will have a ten-year life with no residual value and will earn a constant annual profit after depreciation of GH¢1,600. The cost of capital is 15%.

Required:
Calculate the following and comment on the results.

i) The ***return on divisional investment***, before and after the new investment
ii) The ***divisional residual income*** before and after the new investment.

(8 marks)

(Total: 25 marks)

QUESTION TWO

a) Diligence Research Ltd, a research and advocacy company has undertaken an attitude survey of recent buyers of particular brands of cars in Ghana. As part of this study, recent buyers of Japan cars and recent buyers of German cars were asked to agree or to disagree with a number of statements. They were asked to choose only one out of the four options and indicate whether they agree or disagree. One of the summary tables from the survey is shown below.

	Agree	**Disagree**
Japan cars are:		
Easy to get serviced	65	35
Economical	81	19
Reliable	76	24
Comfortable	69	31
German cars are:		
Easy to get serviced	32	68
Economical	61	39
Reliable	74	26
Comfortable	85	15

Required:
Analyse the above data highlighting the most significant features of these data. Illustrate your analysis with tables. **(10 marks)**

b) The Sales Director has recently attended a course entitled 'Finance for Non-Accounting Managers'. He wants to understand more about a number of management accounting terms that he feels may be relevant to him.

Required:
Prepare a memorandum explaining and providing examples of the following:

i) Activity Based Budgeting
ii) Zero Based Budgeting
iii) Rolling Budgeting

(6 marks)

c) Explain **TWO** limitations of management information in providing guidance for managerial decision-making. **(4 marks)**

(Total: 20 marks)

QUESTION THREE

a) Resol Ltd commenced trading on 1 April 2011 making the product Resol. The standard cost sheet for Resol is as follows:

	GH¢
Direct Materials	8.00
Direct Labour	5.00
Variable Production Overhead	2.00
Fixed Production Overhead	5.00
Total Standard Cost	**20.00**
Sales price	35.00

The fixed production overhead figure has been calculated on the basis of a budgeted normal output of 24,000 units per annum. Fixed Sales and Administration costs are estimated at GH¢24,000 per annum. You may assume that all budgeted fixed expenses are incurred evenly over the year.

The sales price is GH¢35.00 and the actual number of units produced and sold was as follows:

	April	**May**
Production – units	2,000	2,500
Sales – units	1,500	3,000

Required:
Prepare a profit statement for each of the months April and May using:

- Marginal costing.
- Absorption costing.

(12 marks)

b) Identify **THREE** disadvantages of a standard costing system. **(3 marks)**

c) Dunning Limited has recently introduced an Activity Based Costing System and has provided the following details for the month of January:

Cost Pool	**Overhead Cost**
	GH¢
Parts	10,000
Maintenance	18,000
Stores	10,000
Administration	2,000

You have ascertained the following activity information:

Number of employees	40
Total number of parts	500
Number of materials requisitions	20
Maintenance hours	600

During the month, 500 units of Product Y were produced. This production run required 100 parts and 150 maintenance hours; 5 material requisitions were made and 10 employees worked on the units.

Required:

i) Using Activity Based Costing, calculate the total amount of overhead absorbed by each unit of Product Y. **(7 marks)**

ii) Identify **THREE** different types of controls and explain how activity based costing assists in the control of costs? **(3 marks)**

(Total: 25 marks)

QUESTION FOUR

PieceJoz FM, a media organisation is considering hosting a two-day beauty pageant in June 2018. The show will be expensive to run and promote. There will be three cash prizes on offer for the pageant, namely:

- 1st Place - GH¢5,000, 2nd Place = GH¢2,000, 3rd Place = GH¢1,000.

Other costs will include:

- Three judges of the show will each be paid GH¢400 per day plus a one-off travel expense allowance of GH¢150.

The following costs will be incurred by PieceJoz FM if they were to organise the show;

- Promotional costs of GH¢ 3,000 have been spent to date. A further GH¢1,000 per month will have to be incurred for the five months leading up to the pageant and GH¢4,000 in the month of the show.

- Utility costs incurred each day of the pageant are estimated to follow the function GH¢ 200 + 5X where X is the number of contestants performing. The council expects 30 contestants per day.

- Stocks of wood and steel to construct the stage. 400 metres of wood already in stock will be used. This originally cost GH¢20 per metre but will not be replaced. It was due to be sold to an employee at a price of GH¢8 per metre. 60 metres of steel that originally cost GH¢18 per metre is to be used. Steel has a scrap value of GH¢10 per metre. This steel will have to be replaced. The market price of steel has increased to GH¢15 per metre.

- 140 labour hours to build the stage. Currently, PieceJoz FM maintenance employees are paid GH¢600 each, plus 20% employers' costs for a 40-hour week. Two such employees will be idle for the week required to build the stage. The remaining labour will be hired in at a casual rate of GH¢10 per hour.

PieceJoz FM expects that:

- 1,000 people will attend the beauty pageant on the first day and 2,000 on the final day.

- Daily tickets will sell at GH¢12 per adult ticket and GH¢5 per child ticket. It is expected that ticket sales will be 40% children and 60% adult.

- An event organiser called Magic Media have submitted proposal to organise this program on behalf of PieceJoz FM at a fee of GH¢13,100 including utility cost of GH¢900.

Required:

a) Using the information above, advise, from a financial perspective, whether management of PieceJoz FM should organise the beauty pageant or outsource it to Magic Media. **(12 marks)**

b) Explain **THREE** non-financial factors PieceJoz FM should also consider when making the decision to outsource. **(3 marks)**

(Total: 15 marks)

QUESTION FIVE

a) The following information relates to product Jupiter, produced by Bfield Ltd during January. This represents the information that remains after a fire in the premises destroyed most of the accounting records.

Variances	**GH¢**
Selling price	50,000 A
Materials price	28,500 F
Materials usage	7,500 A
Labour rate	18,700 F
Labour efficiency	20,400 A

Actual data

Sales (25,000 units at GH¢10)	250,000
Materials costs (112,500 kg at GH¢1.20)	135,000
Labour costs (75,000 hrs. at GH¢1.9	142,500

There was no opening or closing inventories

Required:

Calculate the following;

i) Standard selling price per unit; **(3 marks)**

ii) Standard cost of material per kilogram; **(3 marks)**

iii) Standard kilograms of materials required per unit; **(2 marks)**

iv) Standard labour rate per hour; **(2 marks)**

v) Standard hours of labour required per unit. **(2 marks)**

b) Prepare the standard cost card per unit of product Jupiter. **(3 marks)**

(Total: 15 marks)

SOLUTION TO QUESTIONS

QUESTION ONE

a) **Calculation of savings in operating cost**

Year	0	1	2	3	4	5
Old system GH¢		53,000	55,650	58,432	61,354	64,422
New " "		32,000	32,000	32,000	33,600	33,600
Savings	**(73,000)**	**21,000**	**23,650**	**26,432**	**27,754**	**30,822,**
Residual value						3,700
Discount factor	1	.833	.694	.579	.482	.402
DCF	(73,000)	17,493	16,413.10	15,304.13	13,377.43	13,877.84
NPV of savings					**GH¢3,465.15**	

Alternative method

year	0	1	2	3	4	5
Operating cost		53,000	55,650	58,432	61,354	64,422
Residual value						(6,500)
DF		.833	.694	.579	.482	.402
PV of operating cost		44,149	38,621.1	33,832.13	29,572.63	23,284.64
NPV of operating cost						**GH¢169,459.50**

New

Year	0	1	2	3	4	5
Op'ting cost		32,000	32,000	32,000	33,600	33,600
Initial cost	73,000					
Residual value						(10,200)
DF	1	.833	.694	.579	.482	.402
PV of op'ting cost	73,000	26,656	22,208	18,528	16,195.2	9,406.8
NPV of cost						**GH¢ 165,994**

Note; initial cost (60,000+25,000-12,000=73,000)

New system should be introduced.

(10 marks evenly spread using ticks)
(11

b)

Contrasting Residual Income & Return on Income

- Return on investments is a financial ratio that measures the rate of return of a company's investments. Companies use ROI to compare the efficiency of a number of investments. Residual income is another approach to measuring the performance of an investment. It is the net operating income an investment earns above the minimum required return on its operating assets.
- The residual income (RI) for a division is calculated by deducting from the divisional profit an imputed interest charge, based on the investment in the division. The return on investment (ROI) is the divisional profit expressed as a percentage of the investment in the division.
- It can be difficult to compare the percentage ROI results of divisions if their activities are very different: residual income can overcome this problem through the use of different interest rates for different divisions.
- Rigid adherence to the need to maintain ROI in the short term can discourage managers from investing in new assets, since average divisional ROI tends to fall in the early stages of a new investment. Residual income can overcome this problem by highlighting projects which return more than the cost of capital.

(Any 3 points for 3 marks)

Comparing Residual Income & Return on Income

- Both methods suffer from disadvantages in measuring the profit and the investment in a division which include: Assets must be valued consistently at historical cost or at replacement cost. Neither valuation basis is ideal.
- Both methods use the same basic figure for profit and investment, but residual income produces an absolute measure whereas the return on investment is expressed as a percentage.
- Divisions might use different bases to value inventory and to calculate depreciation. Any charges made for the use of head office services or allocations of head office assets to divisions are likely to be arbitrary.

(Any 2 points for 2 marks)

Advantages of ROI & RI

- Focus management's attention upon earning the best profit possible on the capital (total assets) available.
- Serve as a yardstick in measuring management's efficiency and effectiveness in managing the company as a whole and its major divisions or departments.
- Tie together the many phases of financial planning, sales objectives, cost control, and the profit goal.
- Afford comparison of managerial results both internally and externally.
- Develop a keener sense of responsibility and team effort in divisional and departmental managers by enabling them to measure and evaluate their own activities in the light of the results achieved by other managers.

(Any 2 points for 2 marks)

c)

i) Return on Divisional Investments

= Divisional Profit/Divisonal Investments * 100

	Before Investment GH¢	After Investment GH¢
Divisional profit	18,000	19,600
Divisional investment	100,000	110,000
Divisional ROI	18%	17.82%

(2.5 marks)

Comment

The ROI will fall in the short term if the new investment is undertaken. This is a problem which often arises with ROI, as noted in part (b) of this solution.

(1.5 marks)

ii) Divisional Residual Income

= Divisional Profit – (Cost of Capital (15%)* Divisional Investment)

	Before Investment GH¢		After Investment GH¢
Divisional profit	18,000		19,000
Imputed cost of capital = (0.15*100,000)	15,000	(0.15*110,000)	16,500
Divisional RI	**3,000**		**3,100**

(2.5 marks)

Comment

The Residual Income will increase in the short term if the new investment is undertaken.

(1.5 marks)

(Total: 25 marks)

EXAMINER'S COMMENTS

The performance of the candidates in respect of RI and ROI was satisfactory. They have difficulties in determining the NPV of the investment. The problem could be solved in one of the two. Either calculating the operating the savings in operating costs with the acquisition of the new equipment or comparing the operating costs of the existing and the new equipment.

The difficulties encountered were:

- Wrong computation of the initial cost that is GH₵60,000 +25,000 -12,000 which is GH₵73,000.00.
- Non-inclusion of the initial cost of GH₵73,000 in determining the NPV of the savings in operating costs as an investment in year zero.
- Some candidates still considered the initial investments of GH₵73,000 in appraising the existing equipment.

QUESTION TWO

a)

	Agree	Disagree	Agree %	Disagree %
Japan cars are:				
Easy to get serviced	65	35	22%	32%
Economical	81	19	28%	17%
Reliable	76	24	26%	22%
Comfortable	69	31	24%	28%
	291	**109**	**100%**	**100%**
German cars are:				
Easy to get serviced	32	68	13%	46%
Economical	61	39	24%	26%
Reliable	74	26	29%	18%
Comfortable	85	15	34%	10%
	252	**148**	**100%**	**100%**

(5 marks)

- For buyers of Japan Cars, they are of the view that it is economical and reliable whereas for German Cars they are of the view that it is comfortable and reliable.
- For buyers of Japan Cars, they are of the view that it is not easy to get serviced and comfortable whereas for German Cars they are of the view that it is not easy to get serviced and economical.
- Buyers of cars who care much about reliability and comfortability would opt for German Cars whereas buyers who care much about economy and reliability would opt for Japan Cars
- Those who look for reliability in buying a vehicle would be in a dilemma as to which vehicle to purchase.
- Those who are looking for an easy to get serviced vehicle would opt for a Japan vehicle.
- There is no significant differences between the numbers who opted for each of the options given for the Japan Vehicles. The same cannot however be said about the German Cars. A significant number choose comfortability and disagreed on easy to get serviced.

(5 points for 5 marks)

b) MEMORANDUM

To: Sales Director
From: Technician Student
Re: Accounting Terminology
Date: X/X/XX

Management accounting can provide information for managers to support decision making, planning and control within an organisation. You have been introduced to a number of management accounting theories and related terminology. This paper aims to provide further information and explanation of a number of key terms.

Activity Based Budgeting
Is a method of budgeting in which the activities that incur costs in every functional area of an organisation are recorded and their relationships are defined and analysed. Activity based budgeting stands in contrast to traditional, cost-based budgeting practices in which a prior period's budget is simply adjusted to account for inflation or revenue growth. As such, ABB provides opportunities to align activities with objectives, streamline costs and improve business practices.

(2 marks)

Zero Based Budgeting
Traditional budgeting approaches are not always clearly linked to strategy and are focused on financial aspects only. In this scenario, the annual budget uses an incremental approach whereby increases and decreases are applied to previous out-turn positions. In contrast, Zero based budgeting supports a more innovative approach, requiring managers to justify all costs as if the proposals were being considered for the first time. This approach is focused on opportunity costing and can eliminate efficiencies, however it can be quite complex and time-consuming to administer.

A definition of zero based budgeting provided by CIMA is 'a method of budgeting whereby all activities are re-evaluated each time a budget is formulated. Each functional budget starts with the assumption that the function does not exist and is at zero cost. Increments of cost are compared with increments of benefit, culminating in the planning of maximum benefit for a given budget cost'.

An example of zero based budgeting
It is proposed to increase the maintenance budget by 20% to take account of the age of some equipment and other inflationary factors. Due to zero based budgeting analysis, it is identified that a particular machine, which costs €/£8000 to maintain is only used once per quarter. An alternative outsourcing option has been identified and the budget adjusted accordingly.

(2 marks)

A rolling budget
Is one that is revised at regular intervals by adding a new budget period to the full budget as each budget period expires. A budget for one year, for example, could have a new quarter added to it as each quarter expires. In this way, the budget will continue to look one year forward. Cash budgets are often prepared on a continuous basis.

(2 marks)

(Each needs to be briefly explained to get marks)

c) **Limitations of Management Information for managerial decision making**
Management accounting information may fail to meet its objective of assisting management in the decision making process.

- **Failure to meet the requirements of good information**
  If information supplied to managers is deficient, then inappropriate management decisions may be made.
- **The problem of relevant costs and revenues**
  Not all information produced by accounting systems is relevant to the decisions made by management.
- The figures presented to assist in management decision-making are those that will be affected by the decision, i.e. they should be:
  Future – ignoring costs (and revenues) that have already been incurred – 'sunk costs'
  Incremental – ignoring items such as the reapportionment of existing, unchanging fixed costs
  Cash flows – ignoring book values, historical costs, depreciation charges.
- **Non-financial information**
  Managers will not always be guided by the sort of financial and other information supplied by the management accounting system. They will also look at qualitative, behavioural, motivational, even environmental factors. These non-financial factors can be just as important in relation to a decision as financial information – but they are often more difficult to estimate and quantify.
- **External information**
  The environment refers to all of the external factors which affect a company and includes government actions, competitor actions, customer demands and other factors such as the weather. An organisation should have information on its environment available to it within its accounting information systems – the organisation needs external information as well as internal information.

(Any 2 points for 4 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

Most of the candidates have difficulties in analysing the research data. About 95% of the candidates could not compute the percentage agreement and disagreement of the various parameters which they are supposed to compute to help in the analysis.

Also, the candidates have difficulty explaining what a Rolling Budget is and to give an example. A rolling budget is a budget that is revised at regular intervals by adding a new budget period to the full budget as each budget period expires. Example Cash Budget.

QUESTION THREE

a) (i) **Marginal Costing Profit Statement**

	April 2011 GH¢		May 2011 GH¢	
Sales		52,500		105,000
Cost of Sales	0		7,500	
Opening Stock	30,000		37,500	
Variable production cost	(7,500)		0	
Closing Stock	22,500		45,000	
Contribution		**30,000**		**60,000**
Fixed production Overheads	10,000		10,000	
Sales & Administration	2,000		2,000	
Overheads		12,000		12,000
Profit for period		**18,000**		**48,000**

(6 marks)

ii) **Absorption Costing Profit Statement**

	April 2011 GH¢		May 2011 GH¢	
Sales		52,500		105,000
Cost of Sales				
Opening Stock	0		10,000	
Production cost (total)	40,000		50,000	
Closing Stock	(10,000)		0	
		30,000		60,000
Gross Profit		**22,500**		**45,000**
Sales & Administration Overheads		2,000		2,000
Over-absorbed fixed production overhead		0		(2,500)
Profit for period		**20,500**		**45,500**

(6 marks)

WORKINGS
Calculation of Unit costs

	GH¢
Direct Materials	8.00
Direct Labour	5.00
Variable overhead	2.00
Variable production cost	15.00
Fixed Overhead	5.00
Total production cost	**20.00**

Closing stock calculations

April 500 units

Marginal costing @GH¢15.00 = GH¢7,500

Absorption costing @GH¢20.00 = GH¢10,000

Fixed Production Overhead

24000 x 5.00 = GH¢120,000 pa = GH¢10,000 per month (i.e. 2000 units @ GH¢5)

Over absorption of fixed production overhead

May production 2500 x 5.00 = 12,500- 10,000 = GH¢2,500 over absorbed

Fixed Sales and Administration cost

GH¢24,000/12 = GH¢2,000 per month

b) Disadvantages of standard costing system

- Reports and information is prepared after the event on a historical basis.
- Standards used inappropriately, with a focus on negative impacts, can have a demotivational impact.
- Calculation of efficiency variances assume labour is always variable and that normally production is a factor of labour.
- Favourable and adverse variance can be difficult to understand.
- No consideration of qualitative factors

(Any 3 points for 3 marks)

c)

i) Product Y – Overhead Absorption

Cost Pool	**Workings**	**GH¢**
Parts	100 x 20	2,000
Maintenance	150 hours x 30	4,500
Stores	5 x 500	2,500
Administration	10 x 50	500
Total Overhead Absorbed		9,500
Per unit		19

Workings:

Schedule of Activity Based Overhead Absorption

	Parts	**Maintenance**	**Stores**	**Administration**
Overhead Cost	10,000	18,000	10,000	2,000
Cost driver	Total no. of parts	Maintenance hours	No. of requisitions	No. of employees

Activity level	500	600	20	40
ABC overhead recovery rate	GH¢20 per part	GH¢30 per Maintenance hour	GH¢500 per requisition	GH¢50 per employee

(7 marks evenly spread by way of Ticks)

ii) Control is one of the key features of management accounting and follows on from planning. Control can be exercised at a strategic and an operational level.

Three different types of control include

- **Action or behavioural controls** – these involve observing the actions of individuals (eg: work studies: quality and quantity controls) to inform corrective action.
- **Personnel and cultural controls** – support employees to be effective by establishing values, social norms and beliefs that can influence performance
- **Results and output controls** – involve the collection, analysis and reporting of information about the outcomes of work effort. An organisation should have a system of management reporting that produces control information in a specified format at regular intervals.

(Any 3 points for 3 marks)

(Total: 25 marks)

EXAMINER'S COMMENTS

The following are the challenges faced by the candidates:

- Calculation of Closing Stocks for April under the two methods that is Marginal and Absorption Costing.
  Marginal: 500 units at GH₵15 = 7,500
  Absorption: 500 units at GH₵5 = 10,000

- Over absorption of fixed production overheads.
  Fixed Production Overheads id 24,000 * GH₵5 = 120,000 per annum that is GH₵10,000 per month.
  May Production is 2,500 * GH₵5 = 12,500 less GH₵10,000 which is GH₵2,500.

- Identification of three different types of controls. Most of the candidates talked about the types of controls under Results/Output controls which involve the collection, analysis and reporting of information about the outcomes of work efforts. They ignore the other types of controls which include behavioural controls and cultural controls.

QUESTION FOUR

a) **Using Incremental Approach**

Expense	**GH¢**
Promotion costs (GH¢1,000x 5 months)	5,000
Month of show (Promotion)	4,000
Utility costs (2(200+30(5))	700
Wood (400 @GH¢8)	3,200
Steel 60 @ GH¢15	900
Labour (140-80)GH¢10	600
	14,400
Less Outsource	(13,100)
Net Gain	**1,300**

Using the Total Approach

	In House	**Outsource**
	GH¢	GH¢
Award Prices (GH¢5000+GH¢2000+GH¢1000)	8000	8000
Judges (3(GH¢400(2 days)+ 3(150)	2,850	2,850
Promotion (GH¢1000x 5months) + GH¢4000	9,000	
Utility costs (2(200+30(5))	700	900
Wood (400 @ GH¢8)	3,200	
Steel 60 @ GH¢15	900	
Labour(140-80)GH¢10	600	
Hiring fees		12,200
Idle labour cost (600*2 + 2(0.2*600)	1,440	1,440
	26,690	**25,390**

(9 marks evenly spread using Ticks)

Decision:

Net Gain: GH¢1,300 when outsourced. It will therefore be prudent from financial perspective to outsource

(3 marks)

b)

Other factors to consider may include: ·

- Can the council ensure the health and safety of participants and spectators? ·
- Is there any competing events in the region for the days for which the talent show is planned?

- Will the talent show detract from attendance at other events to be held by the council around the same period? ·
- How will an oversubscribed list of applicants be managed?
- Has the council a contingency plan in the event of poor weather? ·
- How firm is the commitment from the corporate sponsors?

(Any 3 points for 3 marks)

(Total: 15 marks)

EXAMINER'S COMMENTS

This question was not satisfactorily answered. They have problems identifying the relevant costs under the two alternatives. This can be done using either the Incremental Approach or the Total Approach.

With the incremental approach, compare all the relevant costs to the company with the cost of outsourcing. The results are the same.

The incremental Approach is shown below:

Promotion Costs (GH₵1,000 * 5 months)	5,000
Promotion in Month of Show	4,000
Utilities (2[200+30(5)]	700
Wood (400*GH₵8)	3,200
Steel (60*GH₵15)	900
Labour (140-80)*GH₵10	600
	14,400
Less Outsource Costs	13,100
	1,300

QUESTION FIVE

a)

i) Sales price per unit

Sales price variance

	GH¢
25,000 units should have brought in (25,000 x S)	25,000S
25,000 units did bring in	25,000
Variance	**50,000A**

	GH¢
25,000 units should have brought in (25,000 x S)	300,000
25,000 units did bring in	250,000
Variance	**50,000A**

Therefore 25,000 x S = GH¢300,000
S = GH¢300,000/25,000 =GH¢12

(3 marks)

ii) Cost per kg of material
Material price variance

	GH¢
112,500 kg should have cost (112,500 x C)	112,500C
112,500 kg did cost	135,000
Variance	**28,500F**

112,500 kg should have cost	163,500 (BF)
112,500 kg did cost	135,000
Variance	**28,500F**

Therefore 112,500 x Cost = GH¢163,500
C = GH¢163,500/112,500 = GH¢1.453

(3 marks)

iii) Standard Kg material per unit of product
Material usage variance

	Kg
25,000 units should have used (25,000 x Kg)	25,000Kg
25,000 units did use	112,500
	5,162A

x standard cost per kg GH¢1.453	
Variance	**GH¢7,500A**
25,000 units should have used (25,000 x Kg)	107,338
25,000 units did use	112,500
	5,162A
x standard cost per kg GH¢1.453	
Variance	**GH¢7,500A**

Therefore 25,000 x Kg = 107,338
Kg = 107,338/25,000 = 4.29Kg

(2 marks)

iv) Standard labour rate per hour
Labour rate variance

	GH¢
75,000 hours should have cost (75,000 x C)	75,000C
75,000 hours did cost	142,500
Variance	**18,700F**

	GH¢
75,000 hours should have cost (75,000 x C)	161,200 (Bal. Fig.)
75,000 hours did cost	142,500
Variance	**18,700F**

Therefore 75,000 x Cost = GH¢161,200
C =GH¢161,200/75,000 = GH¢2.15

(2 marks)

v) Standard Labour hours per unit of product

Labour efficiency variance

	Hrs.
25,000 units should have used (25,000 x Hrs)	25,000Hrs
25,000 units did use	**75,000**
x standard cost per kg GH¢2.15	
Variance	**GH¢20,400A**

	Hrs.
25,000 units should have used (25,000 x Hrs.)	65,512 (Bal. Fig.)
25,000 units did use	**75,000**
x standard cost per kg GH¢2.150 (GH¢20,400/GH¢2.15)	9,488A
Variance	**GH¢20,400A**

Therefore 25,000 x Hrs. = 65,512
Hrs. = 65,512/25,000 = 2.62hrs

(2 marks)

Alternate Scheme
The following formula can be used;

(I) std. SP/ unit (SP-AP)AQ (SP-10) 25,000= 50,000A
SP-10 =2
SP =12

(II) Std. cost of material /unit. (SP-AP) AQ
(SP-1.2)112,500 =28500 F
(SP-1.2) =0.253 F
SP =1.453

(iii) std kgs. required (SQ-AQ)SP
(SQ-112,500) 1.453 = 7,500A
(SQ-112,500) = 5161.7
SQ =107,338
SQ/unit = 107338/25,000
= 4.29 kgs.

(iv) std rate per hour. (SR-AR) AH
(SR-1.9) 75,000 = 18,700F
(SR-1.9) =0.249 F
SR =2.149

(v) std.LH/unit (SH-AH)SR
(SH-75,000) 2.149 = 20,400 A
SH-75,000 = 9,472.8A
SH /unit = 65,527,2/25,000
=2.62 hrs.

b) Standard cost card per unit

		GH¢
Sales price		12.00
Materials cost	4.29kg @GH¢1.453 per kg	6.23
Labour cost	2.62 hours @ GH¢2.15 per hour	5.63
Contribution		**0.14**

(3 marks)

(Total: 15 marks)

EXAMINER'S COMMENTS

This question was satisfactorily answered though some of the candidates could not compute the material, labour and sales prices from the variances and output levels given.

However, most of them could not prepare the Standard Cost Card which is shown below:

Sales Price	12.00
Material Cost: 4.2a kg at ₵1.453/kg	6.23
Labour Cost: 2.62hrs at ₵2.15/hr	5.63
Contribution	**0.14**

CONCLUSION

As usual, the following observations still persist poor expression of English language, poor presentation of suggested solutions and lack of understanding of management accounting concepts.