

**MARCH 2025 PROFESSIONAL EXAMINATIONS
MANAGEMENT ACCOUNTING (PAPER 2.2)
CHIEF EXAMINER'S REPORT, QUESTIONS AND MARKING SCHEME**

EXAMINER'S GENERAL COMMENTS

The questions were fairly balanced between computation and theory and covered all the areas in the syllabus. The overall performance is expected to be one of the best in recent times.

The standard was fair in view of the level of assessment and competence required of candidates to undertake the tasks. An appropriate level of testing, in accordance with the Bloom's taxonomy, was deployed in the test items and all questions reflected the expected inherent difficulty of the level of qualification and the requirement to attain professional competence.

Detailed supporting information was provided for each question. The five questions generally covered the syllabus and were balanced between theory (47 marks) and practice (53 marks). The marks allocated commensurate with the tasks involved.

PERFORMANCE OF CANDIDATES

Performance of candidates was better than the previous diets. The good performance was widespread.

Question 5 (a) posed a little challenge to candidates. The remaining questions (2,3, 4 and 5b) were within the competence of an average candidate. The performance of candidates in questions 2(a) stages in budget preparation and 2(b) criticisms of budgeting, 3(a) sales volume variance and 5(b) cost volume profit analysis were exceptional.

NOTABLE STRENGTHS AND WEAKNESSES

Strengths

Candidates performed quite well in the theory questions. The budgeting question was well answered. The discussion on the performance in question one was fairly answered. Question 3 (a) on the variances was well attempted. Candidates demonstrated excellent knowledge in the calculation of PVs of costs and benefits for CBR. Question five (b) under CVP analysis was quite simple for those who understand the multi-product approach.

Weaknesses

Candidates had challenges with make or buy decision with opportunity cost. Besides, others, instead of using the cost benefit ratio to appraise mutually exclusive projects used the net benefit which was not a requirement.

Question 3 (c) on different categories of environmental cost accounting was poorly attempted. Some candidates had good idea of the specific cost items but could not categorize them appropriately.

QUESTION ONE

Vovome Advisory Limited (VAL) began trading three years ago, on 1 January 2022. It specialises in the provision of expert advice to clients in accountancy, taxation and regulatory compliance. It has a team of professional advisers, each specialising in one of these three areas of advice.

VAL has a target for delivering its services to clients promptly. From the time the client asks for advice, VAL undertakes to provide a formal report to the client within 10 working days.

The following information relates to the financial year ended 31 December 2024:

- i) The professional advisers are budgeted to work 220 days each year. They charge GH¢1,400 per day to new clients and GH¢1,200 to established clients.
- ii) As a marketing measure intended to win new business, the advisers also give consultations to potential clients on a 'no fee' basis. These consultations, which are budgeted to take one day each, are accounted for as business development costs in the marketing budget.
- iii) The professional advisers are also required to attend some 'workshops' with new clients who are having difficulties with implementing the advice that they have been given by VAL. These workshops, which are also given on a 'no fee' basis, are budgeted to last two days.
- iv) VAL also has a help desk to provide client support. It responds to telephone and e-mail enquiries from all new and established clients.
- v) The team of professional advisers is exactly 50. It is a policy of VAL to limit the team to 50, regardless of the volume of demand for its services.
- vi) All professional advisers are paid a salary of GH¢100,000 per year. In addition, they are entitled to share equally in an annual bonus. The bonus is 50% of the amount by which fee income generated exceeds budget minus the revenue forgone as a result of having to give workshops for clients. This revenue forgone is assessed at a notional daily rate of GH¢1,200 per adviser/day.
- vii) Operating expenses of the business, excluding salaries of the advisers, were GH¢3,100,000 in 2024. The budget for these expenses was GH¢2,800,000.

Other information:

	Budget 2024	Actual 2024
Professional advisers, by category		
Accounting	15	10
Tax	20	20
Compliance	15	20
Enquiries about seeking new advice		
New clients	2,600	2,200
Established clients	4,000	3,700
Number of chargeable client days		
New clients	2,600	2,750
Established clients	5,100	5,500
Average client days per job	4	4
Mix of chargeable client days		
Accounting	1,155	1,650
Tax	1,540	3,300
Compliance	1,155	3,300

The following are actual results for each of the three years 2022-2024

	2022	2023	2024
Number of clients	160	248	347
Number of complaints from clients	50	75	95
Number of accounts in dispute	10	7	5
Support desk: Percentage of calls resolved	86%	94%	97%
Percentage of jobs completed within 10 days	90%	95%	98%
Average time to complete a job (days)	12.6	10.7	9.5
Chargeable client days	7,200	7,750	8,250
Number of consultations (business development)	50	100	150
Number of workshops given	110	135	165
Revenue (GH¢000)	8,920	9,740	?
Net profit (GH¢000)	1,740	1,940	?

Required:

Using the information provided, analyse and discuss the performance of VAL for the year ended 31 December 2024, under the following headings:

- Financial performance and competitiveness;
- Internal efficiency; and
- External effectiveness.

(Total: 20 marks)

QUESTION TWO

- a) The preparation of budgets is a lengthy process which requires great care if the ultimate master budget is to be useful for the purposes of management control within an organisation.

Required:

Explain **EIGHT** stages involved in the budgeting process in a manufacturing organisation. **(10 marks)**

- b) Budgeting serves a number of useful purposes. They include planning annual operations, coordinating the activities of the various parts of the organisation, communicating plans to various responsibility centre managers among others. Notwithstanding these useful purposes, budgeting has been criticised for several reasons.

Required:

Identify **FIVE** criticisms of budgeting. **(5 marks)**

- c) Despite the benefits of minimised inventory cost, waste elimination and quick turnaround time for customers, a lean production model is beset with inherent limitations.

Required:

Explain **FOUR** limitations to the efficient implementation of a lean production model in an organization. **(5 marks)**

(Total: 20 marks)

QUESTION THREE

- a) The data below relates to Azumah Enterprise for the month of August. The data relates to activities for his four areas of distribution in Accra.

Distribution Area	Selling Price Per Unit (GH¢)	Standard Variable Cost Price Per Unit (GH¢)
Awoshie (A)	120	80
Banana-Inn (B)	100	60
Cantonments (C)	80	45
Dansoman (D)	45	25
<i>Sales Units</i>	<i>Budgeted</i>	<i>Actuals</i>
Awoshie (A)	65,000	48,000
Banana-Inn (B)	45,000	55,000
Cantonments (C)	35,000	28,000
Dansoman (D)	25,000	28,000

Required:

Estimate the sales volume variance for each distribution area and in total for the month using a contribution income statement. **(5 marks)**

- b) There are many models of evaluation available to a Management Accountant. Benchmarking is one of such models.

Required:

Under what circumstances would benchmarking be an effective model of evaluating performance? **(5 marks)**

- c) IFAC describes Environmental Management Accounting as “The management of environmental and economic performance via management accounting systems and practices that focus on both physical information on the flow of energy, water, materials, and wastes, as well as monetary information on related costs, earnings and savings.” The above quotation shows the increasing relevance of Environmental Management Accounting.

Required:

Discuss with examples **FOUR** categories of environmental costs. **(10 marks)**

(Total: 20 marks)

QUESTION FOUR

- a) GKIA, an Early Childhood Development Centre (ECDC) under Ghana’s Ministry of Health (MOH) has obtained funding from the Global Fund (GF) to implement targeted programmes in line with the vision of the GF. In GF’s recent grant releases, GKIA received an amount of GH¢2 million and has the option of spending the amount on any project provided it falls within any of the thematic areas specified by the GF.

Accordingly, GKIA is considering spending the funds on either of two projects. The first option involves the construction, equipping and full furnishing of a 30-bed paediatric unit for the Centre. The second option involves the refurbishment of all existing leisure and recreational facilities that the Centre currently operates. Both options qualify for funding under the thematic areas of the GF.

The information in the table below presents financial details of both options that GKIA is considering.

	Option A:		Option B:	
	Paediatric Unit		Leisure and recreational facilities	
Initial capital outlay	GH¢2 million		GH¢2 million	
	Costs	Benefits	Costs	Benefits
Year	GH¢	GH¢	GH¢	GH¢
1	175,000	150,000	150,000	1,000,000
2	218,750	225,000	187,500	1,050,000
3	262,500	562,500	225,000	997,500
4	301,875	1,687,500	258,750	847,875
5	332,062.50	5,906,250	271,687.50	975,056.25

The required rate of return on any investment project undertaken by GKIA is 20%.

Required:

As the Management Accountant of GKIA, you are required to evaluate the acceptability of each projects on the basis of *benefit-cost ratio*. **(12 marks)**

- b) The term Value for Money (VFM) is synonymous with spending in the public sector, where it is expected that little resources should be used to generate the best possible output/outcome for the public good.

Required:

Explain the '*three Es*' that public sector management accountants will need to take into consideration when making public spending decisions. **(3 marks)**

- c) In the application of the controllability principle, identify the cost centre manager who is responsible for any adverse impact of labour on production. (provide three reasons to justify your answer). **(5 marks)**

(Total: 20 marks)

QUESTION FIVE

- a) Moree Engineers LTD (MEL) makes electrically-driven disability scooters aimed at elderly and/or disabled customers. At present, wheels and tyres are bought from external suppliers but all other parts are manufactured in-house. The scooters have a strong reputation due mainly to innovative designs, special power units that can be recharged at home and seats that enable easy access for a wide range of disabilities. MEL also sells power units to other firms.

Current monthly costs are as follows:

	Seating Department	Power Unit Department
Costs	GH¢	GH¢
Direct Materials	9,300	4,140
Direct Labour	12,600	9,450
Apportioned overheads	26,700	17,200
	48,600	30,790
Production level	60 units	90 units

The power unit department currently produces 90 units a month, 60 units are used in MEL's own scooters while 30 units are sold externally at GH¢376 each.

A contract has been won to supply an additional 10 scooters per month. However, the directors are considering how best to meet the additional demand.

Sufficient capacity exists for the company to increase its monthly production to 70 scooters, except that making an extra 10 seating assemblies would require reallocation of labour and other resources from the power unit to the seating department. This would cut power unit output by 20 units per month.

The alternative course would be to buy 10 seating assemblies from an outside supplier and fit the 10 power units from the present production of 90 units. The cheapest quote for seating assemblies is GH¢610 per assembly.

Required:

- i) Based on the figures given, show whether Moree Engineers LTD should make or buy the extra seats. **(8 marks)**
 - ii) Discuss **FOUR** other factors that should be considered before a final decision is taken to make or to buy the extra seats. **(4 marks)**
- b) Bambo LTD produces three medical products namely, gloves, bandages and syringes. The budgeted sales in the coming year for the three products is GH¢4,530,000. The company accordingly projected GH¢750,000 post-tax profit on the three products for the period.

Detailed budgeted Cost and sales data for the coming year are as follows:

	Gloves	Bandages	Syringes
Sales Volume (%)	40%	25%	35%
Variable cost to Sales ratio	60%	67.5%	54.5%

The fixed cost for Bambo LTD amounted to GH¢1,330,000.

Other information:

Corporate tax rate is 25%

Required:

- i) Calculate *margin of safety* in percentage (%) terms. **(5 marks)**
- ii) Calculate post-tax revenue to achieve the projected profit. **(3 marks)**

(Total: 20 marks)

SUGGESTED SOLUTION

QUESTION ONE

a) **Financial performance and competitiveness**

VAL achieved a net profit that was over 12% in excess of budget in 2024. Total sales grew by 7% in 2024 compared with 2023, in spite of the fact that the budget provided for very little revenue growth.

The net profit margin was 21.1%, compared with 19.9% in 2023 and 19.5% in 2022.

VAL appears to have established a very profitable and successful business in the three years since it was established.

The competitiveness of VAL can be judged to some extent by the increase in the number of clients, which has gone up from 160 in 2022 to 350 in 2023. The average revenue per client, however, has gone down. On average clients were paying for 23.6 days of advice in 2024. However, there is no information about the share of the market that VAL now has for professional advice.

b) **Internal efficiency**

Internal efficiency can be measured by productivity. The budgeted number of chargeable client days was 7,700 days. The total number of adviser days in the year should have been 11,000 (50×220 days). This means that the budget was for 70% of days to be chargeable days, and 30% non-chargeable. Actual chargeable days were 8,250, which was 75% of total days, leaving 25% of days as non-chargeable days.

This indicates that actual productivity in earning revenue was better than the budget target. Internal efficiency and external efficiency can both be measured by flexibility. VAL has a policy of restricting the team of advisers to 50. However, within this limit of 50 advisers, VAL has been flexible enough to respond to a pattern of customer demand in which the demand for accounting advice was less than budget but the demand for advice on compliance is much higher. This suggests that VAL has the flexibility to switch advisers from one speciality to another.

At an operational level, internal efficiency can be measured by process time. The information provided shows that the average time to complete each 'job' has continued to fall, indicating greater efficiency, and a growing number of 'jobs' are being completed within the target time of 10 days.

Internal efficiency can also be measured at an operational level by waste. Here, the performance is not as good as it might have been. Waste could be measured by the number of 'no fee' workshops given to clients. These have gone up by 50% since 2022, to 15 workshops in 2024. At two days per workshop, this represents 30 days that have been lost that might otherwise have been used to earn income. The potential loss of revenue at GH¢1,400 a day was therefore GH¢42,000.

Management should look into the reasons for the growth in the number of workshops, to establish what measures might be taken to reverse the trend.

c) **External effectiveness**

External satisfaction can be measured by customer satisfaction and flexibility (as indicated earlier).

There are some indications that customer satisfaction is quite high. The growth in client numbers is one indicator.

A better indicator might be the rate of converting enquiries into 'sales'. The budget for 2024 provided for 7,700 chargeable days and an average of 4 days per 'job'. This means that the

budget provided for 1,925 ‘jobs’. It also provided for 6,600 enquiries from customers, which means that about 30% of enquiries would be converted into fee-earning work.

Actual results in 2024 were 8,250 chargeable days, giving about 2,062.5 ‘jobs’. There were 5,900 enquiries, making a conversion rate of about 35% of enquiries into fee-earning work. This indicates that actual performance was better than budget in this all-important area of making sales.

Increasing customer satisfaction might also be evident in the decline in the number of customer complaints, which was down to 5 in 2024.

However, it is not clear that the increasing number of consultations (business development) is having a significant effect in increasing sales. This should be investigated.

At an operational level, external effectiveness can be measured by delivery. There is only a limited amount of data, but the performance of the help desk indicates improvements in the service delivery, with the increasing percentage of calls being resolved. The 97% level of successfully-resolved enquiries in 2024 is high, although management might set targets for more improvements in the future.

External effectiveness can also be measured by quality. The quality of professional advice might be measured by the number of unresolved disputes with customers, which has declined. However, quality can also be measured by the number of customer complaints, which has been increasing. The growth in complaints (up from 75 to 95 in 2024) is inconsistent with improving customer satisfaction, and this is another aspect of performance that management should investigate.

Workings

	Budget 2024 GH¢	Actual 2024 GH¢
Revenue		
2,600 × GH¢1,400	3,640,000	
2,750 × GH¢1,400		3,850,000
New clients		
5,100 × GH¢1,200	6,120,000	
5,500 × GH¢1,200		6,600,000
	<hr/>	<hr/>
Established clients	9,760,000	10,450,000
	<hr/>	<hr/>

	GH¢
Actual revenue	10,450,000
Budgeted revenue	9,760,000
Excess revenue	690,000
Notional revenue foregone from workshop days (165 workshops × 2 days × GH¢1,200)	396,000
Net excess revenue	294,000
Bonus paid to advisers (50%)	GH¢147,000

	Budget 2024	Actual 2024
	GH¢	GH¢
Revenue	9,760,000	10,450,000
Costs		
Basic salaries	5,000,000	5,000,000
Bonus	0	147,000
Operating expenses	2,800,000	3,100,000
Total costs	7,800,000	8,247,000
Net profit	1,960,000	2,203,000

(Total: 20 marks)

EXAMINER'S COMMENTS

Most candidates were unable to compute the net profit probably because of the calculation of the bonus, so most of them could not score appreciable marks under requirement (a). The internal efficiency and external effectiveness were well discussed since there were enough data in the question that could be used without further processing.

The performance was average.

QUESTION TWO

a) Stages in the budgeting process

Stage 1: Identify the principal budget factor

Stage 2: Prepare the budget for the principal budget factor

Stage 3: Prepare the other functional budgets in logical sequence

Stage 4: Submit the functional budgets to the budget committee

Stage 5: Prepare the master budget

Stage 6: The master budget and the supporting functional budgets should be submitted to the budget committee for approval

Stage 7: The detailed budgets are communicated to the managers responsible for their implementation

Stage 8: Control process

(1.25 marks for each stage explained = 10 marks)

b) Criticisms of the budgeting process

- A cumbersome process which occupies considerable management time. The budgeting process involves detailed negotiations between the budget holders and their superiors and the accountancy staff. Because the process is very time-consuming it must be started well before the start of the budget year. Subsequent changes in the environment and the fact that the outcomes reflected in the master budget may not meet financial targets, may necessitate budget revisions and a repeat of the negotiation process.
- Concentrating unduly on short-term financial control. Short-term financial targets are normally set for the budget year and the budget is used as a mechanism for achieving the targets. Budget adjustments are made to ensure that the targets are achieved, often with little consideration being given to the impact such adjustments will have on the longer-term plans.
- Having undesirable effects on the motivation of managers. Managers are often rewarded or punished based on their budget performance in terms of achieving or exceeding the budget. There is a danger that the budget will be viewed as a punitive device rather than as an aid to managers in managing their areas of responsibility. This can result in dysfunctional consequences such as attempting to slack into the budgeting system by overstating costs and understating revenues. The overriding aim becomes to achieve the budget, even if this is done in a manner that is not in the organisation's best interests.
- Emphasizing formal organisation structure. Budgeting are normally structured around functional responsibility centres, such as departments and business units. A functional structure is likely to encourage bureaucracy and slow responses to environmental and competitive changes.
- There is a danger that there will be a lack of goal congruence and that managers may focus on their own departments to the detriment of the organisation.
- If budgets are extended to the lower levels of the organisation employees will focus excessively on meeting the budget and this may constrain their activities in terms of the feasibility that is required when dealing with customers.

(5 points well- explained @ 1 mark each = 5 marks)

c) Limitations of Lean Production Model

- 1) It might result in high purchase cost of inventory leading to increase product cost
- 2) Waiting for customer requests to drive production may result in idle time and waste of human resources.
- 3) The concept of zero defects may not be realistic
- 4) It may not be applicable in certain organizations where inventory is supplied in advance, example, hospitals
- 5) Supplier failure might disrupt the planned flow of production defeating the purpose of the lean model.

(4 points @ 1.25 marks each = 5 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

Though question 2 (a) related to the stages of budgeting in a manufacturing organisation, the key elements are applicable to other entities. It was a straight forward question where most candidates scored some very good marks. A few however discussed stages in capital budgeting process. As expected in most theory questions, the responses to the question were generally good.

For the (b) part of the question; since the candidates were required to identify the criticisms, not much explanations were needed so most candidates scored good marks.

Candidates demonstrated inadequate knowledge of the term "lean production model". However, by likening it to JIT inventory management system they were able to raise valid points that relates to implementation challenges.

Performance here was quite good.

QUESTION THREE

a) Contribution Income Statement - Standard

	A	B	C	D	Total
Selling Price	120	100	80	45	345
Variable Cost	80	60	45	25	210
Contribution (a)	40	40	35	20	135
Actual sales	48,000	55,000	28,000	28,000	159,000
Budgeted sales	65,000	45,000	35,000	25,000	170,000
Volume variance (b)	17,000 A	10,000 F	7,000 A	3,000 F	11,000 A
Sales VV @ Contribution (a x b)	680,000 A	400,000 F	245,000 A	60,000 F	1,485,000 A

(5 marks)

b) Circumstances for effective benchmarking

- 1) It is important to select key aspects of performance for benchmarking. These are the aspects of performance that have to be successful and improved in order to gain a competitive advantage over rivals.
- 2) It must be a continuous process, not a once only exercise. Competitors do not stand still, and successful competitors will continually innovate and improve. It is essential to keep repeating benchmarking exercises in order to avoid falling behind again as the business environment changes
- 3) Benchmarking should be a method of becoming better than competitors, not just for closing the gap on competitors and catching up. The aim should be to achieve superior performance
- 4) When benchmark partners are used for process benchmarking, the collaboration should be open and honest. A company should be prepared to give more information to its benchmark partner than it is hoping to obtain from the benchmark partner.

(4 points @ 1.25 marks each = 5 marks)

c) Categories of environmental costs

- Conventional costs: raw material and energy costs having environmental relevance
- Potentially hidden costs: costs captured by accounting systems but then losing their identity in 'general overheads'
- Contingent costs: costs to be incurred at a future date – for example, clean-up costs
- Image and relationship costs: costs that, by their nature, are intangible, for example, the costs of preparing environmental reports.

(4 points well-explained @ 2.5 marks each = 10 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

Most of the candidates who attempted Question 3(a) scored at least 4 out of the five marks.

Candidates did not do too well in part (b) of the question. Instead of talking about the circumstances, some focused on the types of benchmarking while others described the process of benchmarking. Candidates are advised to pay attention to the operative words in the requirements to be able to give appropriate responses to questions.

For sub-question 3 (c), most candidates demonstrated adequate knowledge in environmental cost. However, they could not categorize them under the prescribed headings. Headings like preventive, restoration and social costs were used yet some of the specific cost elements were not different from what is in the scheme.

QUESTION FOUR

a)

Option A: Paediatric Unit

	Costs	Benefits	DF @ 20%	PV OF COSTS	PV OF BENEFITS
Year	GH¢	GH¢		GH¢	GH¢
0	2,000,000.00	0	1	2,000,000.00	-
1	175,000.00	150,000.00	0.833	145,877.50	124,590
2	218,750.00	225,000.00	0.694	151,812.50	156,150
3	262,500.00	562,500.00	0.579	151,987.50	325,687.50
4	301,875.00	1,687,500.00	0.482	145,503.75	813,3750
5	332,062.50	5,906,250.00	0.402	133,489.13	2,374,312.50
			Total	2,728,670.38	3,794,475
			NPV		1,065,804.62
			BCR		1.39

$$\text{Benefit cost ratio (BCR)} = \frac{\text{PV of benefits}}{\text{PV of costs}} = \frac{3,794,475.00}{2,728,670.38} = 1.39$$

Option B: Leisure and recreational facilities

	Costs	Benefits	DF @ 20%	PV OF COSTS	PV OF BENEFITS
Year	GH¢	GH¢		GH¢	GH¢
0	2,000,000.00	0	1	2,000,000.00	-
1	150,000.00	1,000,000.00	0.833	124,950.00	833,333
2	187,500.00	1,050,000.00	0.694	130,125	728,700
3	225,000.00	997,500.00	0.579	130,275	576,555
4	258,750.00	847,875.00	0.482	124,717.50	408,675.75
5	271,687.50	975,056.25	0.402	109,218.38	391,942.61
				2,619,285.88	2,939,206.36
			NPV		319,956.12
			BCR		1.122

Option A BCR of 1.39. Option B on the other hand yields a BCR of 1.122. This shows that Option A yields a higher BCR.

(12 marks)

b)

- *Effectiveness* refers to success in achieving end results or success in achieving objectives.
- *Efficiency* means getting more output from available resources. Applied to employees, efficiency is often called productivity
- Economy means keeping spending within limits, and avoiding wasteful spending. It can also mean achieving the results but for less cost.

(3 marks)

c)

The production manager is typically held responsible for labour inefficiency. This is because they oversee the production process and are responsible for ensuring that workers are working efficiently and effectively to meet production goals.

The production manager is the key figure responsible for planning, organizing, and coordinating all aspects of the production process. This includes setting production targets, allocating resources, managing personnel and ensuring that work is completed on time and within budget.

A common metric used to measure labour efficiency is the "labour efficiency variance". This measures the difference between the actual hours worked and the standard hours allowed for the work completed. If there's a significant variance, it indicates that workers are not performing as efficiently as expected. Since the production manager is responsible for overseeing the entire production process, including the utilisation of labour, they are typically held accountable for any variances in labour efficiency. This means they would be expected to investigate the reasons for inefficiency, implement corrective actions, and ensure that future production is more efficient.

(5 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

Q 4 (a) - Cost Benefit Ratio: All the relevant information needed for the appraisal were provided. No adjustments were required neither were there non-cash benefits or cost that could have confused the candidate. Most candidates did quite well in their responses. Others, on the other hand, used the net benefit approach which made them to lose marks.

Q 4 (b) - The three *Es* in value for money: Candidates responded very well to the question and scored the allocated marks.

Q 4 (c) - Cost Center manager responsible for labour inefficiency: This is an application of the inter dependencies of variances. Most candidates were able to relate the inefficiency to the production and human resources managers. Some even mentioned the procurement which is also right because acquisition of inferior materials can affect the efficiency of labour. A few deviated to talk about different cost centers e.g. cost, profit and investment centers.

QUESTION FIVE

a)

i)

Buy v Make Decision	
	GH¢
The buy alternative	
Cost of bought-in seats: 10 x GH¢610	6,100
	6,100
The make alternative	
Sales of power units forgone: 20 x GH¢376	7,520
Cost savings of making fewer batteries:	
(4,140 + 9,450) / 90 x 20	(3,020)
Increase in cost of making seats:	
(9,300 + 12,600) / 60 x 10	3,650
	8,150

Alternative calculation for in-house seating production

Relevant costs

Seating unit

Direct material	9,300
Direct Labour	12,600
	21,900
Number of units	60
Unit cost	365

Power unit

Direct material	4,140
Direct Labour	9,450
	13,590
Number of units	90
Unit cost	151
External price	376
Contribution	225

Cost of in-house production

Seating (365*10)	3,650
Opportunity cost (20*225)	4,500
	8,150
External price	6,100.00

Note: In either case, 10 external sales of power units will be lost as these are now used internally. You could have included the cost of these lost sales in both of the above

calculations. It is quicker to recognise they are a common cash flow and hence not relevant to the decision.

On the basis of the information given the required seats should be bought in rather than made.

(8 marks)

ii) The following factors should also be considered before a final decision is made:

- The external supplier can produce seats of the same quality as MEL.
- Customers will not view bought-in seats as inferior.
- Dependence on an external supplier of extra seating assemblies does not lead to difficulty in maintaining sales volume in the future.
- The average variable costs of production calculated above are constant over the relevant range of output, i.e. no economies of scale or learning effects result from the increased production.
- No goodwill is lost by the reduction in sales of power units to the existing external clients.
- No additional transport costs are encountered.
- Demand will be maintained at the increased level

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

b)

i)

	Gloves	Bandages	Syringes
Sales Volume (%)	40%	25%	35%
Variable cost to Sales ratio	60%	67.5%	54.5%
Contribution to sales ratio	40%	32.5%	45.5%

$$\text{Weighted c/s ratio} = (40\% \times 40\%) + (25\% \times 32.5\%) + (35\% \times 45.5\%)$$

$$= 40.05\%$$

$$\text{MOS\%} = \frac{\text{Budgeted sales} - \text{BEP}}{\text{Budgeted Sales}} \times 100$$

$$\text{BEP} = 1,330,000.00 / 0.4005$$

$$= 3,320,848.94$$

$$\text{MOS\%} = \frac{\text{¢}4,530,000.00 - \text{¢}3,320,848.94}{\text{¢}4,530,000} \times 100$$

$$= 26.69\%$$

(5 marks)

$$\text{ii) } \frac{1,330,000 + (750,000 / (1 - 0.25))}{0.4005} = \text{GH¢}5,825,218.477$$

(3 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

Most candidates fared badly in their response to requirement (a). The relevant costs of making the additional 10 units are made up of the variable (relevant) cost at the seating department plus the opportunity cost of the power unit department. In arriving at the cost of production, candidates added the overhead cost which is irrelevant so those who were able to identify the 20 units cut in production at the power unit valued them at full cost not at contribution.

(b) Cost volume profit analysis of multi-products.

(i) In the calculation of the margin of safety, the break-even sales was needed. Since it is a multi-product question, the weighted average contribution margin is what should be used. Some candidates however calculated breakeven for each of the products.

(ii) In getting the pre-tax revenue some did not gross the net profit up to arrive at the pre-tax profit but instead used the after-tax profit. Candidates demonstrated knowledge of the formula for CVP analysis.

CONCLUSION

The overall performance is encouraging. Candidates have always demonstrated strength in the theory questions and that have partly contributed to the high performance. Besides, the computational questions were quite straight forward without too much adjustments needed so candidates who know the principles under the topics easily responded to the requirements.

Candidates writing this paper should note that questions are set to cover all the areas in the syllabus and marks are allotted based on the weights of the topics so should be guided accordingly. Facilitators who prepare candidates should encourage them to attain some level of understanding of the principles before registering to write the paper. Candidates should prepare well through adequate practice in order to ensure improvement in their performance.