NOVEMBER 2024 PROFESSIONAL EXAMINATIONS
MANAGEMENT ACCOUNTING (PAPER 2.2)
CHIEF EXAMINER'S REPORT, QUESTIONS AND MARKING SCHEME

EXAMINER'S GENERAL COMMENTS

The questions were fairly balanced in terms of spread over the syllabus and with respect to theory and practice. Specifically, areas examined included transfer pricing, return on investment, budgeting and budgetary control, activity-based costing, variance analysis, public sector investment appraisal, limiting factor decisions and profit maximization. Theory questions covered 34% while 66% were computational.

STANDARD OF THE PAPER

The standard was not different from previously administered papers. Almost all the areas in the syllabus were covered and marks were fairly allocated based on the weightings.
The standard matched up with the level of the professional qualification since it offered opportunity for analysis and evaluation of business scenarios. Marks were fairly allocated for questions based on tasks involved.

PERFORMANCE OF CANDIDATES

Performance of candidates was far below expectation in view of the level of difficulty of the paper. Questions 2 (a) and 4 were poorly attempted as a lot of candidates had to struggle to score the pass mark from the remaining three questions. The theory questions were quite straight forward and most candidates scored some good marks from them.
The poor performance was wide spread but a few scored high marks. Generally, the questions were within the competence of an average candidate.

NOTABLE STRENGHTS AND WEAKNESSES

Most candidates performed well in the theory questions. Those who attempted the questions on transfer pricing, ROI, variances and decision making did fairly well. Applicability of Activity Based Costing in the service sector posed a little challenge to some candidates. Again the budgeted income statement (Q2a) and cost benefit analysis in the public sector (Q4ai) were not well responded to.

QUESTION ONE

a) Kako PLC is a multinational company with production divisions trading in many countries across the globe. Trade takes place between a number of the divisions in different countries, with intermediate products being transferred between them. Where a transfer takes place between divisions trading in different countries, it is the policy of the board of the company to determine centrally the right transfer price without reference to the managers in the division.

Required:

i) Explain **THREE** possible reasons for Kako PLC to determine transfer prices of goods from the head office. **(6 marks)**

ii) Explain **TWO** criticisms of the central determination of transfer pricing. **(4 marks)**

b) Dondo LTD is a manufacturing company based in Nsawam. The following data represents the budgeted performance of Dondo LTD for the year 2025:

	GH¢'000
Profit	660
Plant and equipment (net of depreciation)	1,560
Working capital	750

Dondo LTD is considering undertaking the following separate one-off transactions:

1) A cash discount of GH¢16,000 will be offered to its customers on annual basis. This will on the average reduce the trade receivables figure by GH¢60,000.
2) An increase in average inventories by GH¢80,000 throughout the year. The increased inventory level is expected to increase sales resulting in GH¢30,000 increased contribution per annum.
3) At the beginning of the year, the company will buy a plant worth GH¢360,000. This is expected to reduce operating costs by GH¢105,000. The plant has a five-year useful life with nil residual value.

Required:

i) Compute the ROI for each of the one-off transactions above. **(7 marks)**

ii) Advise Dondo LTD on whether the above one-off transactions should be carried out. **(3 marks)**

(Total: 20 marks)

QUESTION TWO

a) Ankawa LTD makes and sells a single product 'Dee'. The following information is available for use in the budgeting process for the year 2025.

i) Sales targets have been proposed for four quarters in 2025 and first quarter in 2026.

	2025				2026
	Quarter 1	**Quarter 2**	**Quarter 3**	**Quarter 4**	**Quarter 1**
Sales (GH¢)	240,000	160,000	144,000	224,000	192,000

Selling price per unit of Dee is expected to be GH¢20

ii) Inventory levels
At 31 December 2024: Finished units of Dee: 3,000 units
Raw materials: 7,000kg

Closing inventory of finished product Dee at the end of each quarter are budgeted as a percentage of sales units of the following quarter as follows:
Quarters 1 and 2: 25%
Quarters 3 and 4: 35%

Closing inventory of raw material are budgeted to fall by 600kg at the end of each quarter.

iii) Product Dee unit data:
Material: 8kg at GH¢1.60 per kg
Direct labour: 1.2 hours at GH¢3.50 per hour

iv) Other budgeted quarterly expenditure for 2025

	Quarter 1	**Quarter 2**	**Quarter 3**	**Quarter 4**
Fixed overhead (GH¢)	10,000	18,000	27,000	30,000
Capital expenditure (GH¢)		10,000		

v) Property is depreciated on a straight-line basis at 5% per annum based on the total cost. Value of property as at 31 December 2024 is GH¢100,000.

vi) Inventory of product Dee are valued on a marginal cost basis for internal budget purposes.

Required:
Prepare the budgeted profit and loss account for the year ended 31 December 2025.
(15 marks)

b) According to IESBA Handbook of the International Code of Ethics for Professional Accountants, 2024 Edition, a distinguishing mark of the accountancy profession is its acceptance of the responsibility to act in the public interest and uphold ethical standards.

Required:
Explain the need for ethical standards in business (make reference to threats to ethical behaviour). **(5 marks)**

(Total: 20 marks)

QUESTION THREE

a) The budget and actual income statement of Shatta Company PLC for the month of April have been presented in the Table below:

	Budget		**Actual**	
Output (production and sales)	10,000		9,000	
	GH₵		**GH₵**	
Sales Revenue	175,000		162,000	
Raw Materials	(80,000)	100,000 meters	(64,380)	74,000 metres
Labour	(35,000)	5,000 hours	(30,960)	4,300 hours
Fixed overheads	(35,000)		(36,225)	
Operating profit	**25,000**		**30,435**	

Required:

i) Prepare a flexible budget for Shatta Company PLC. **(4 marks)**

ii) Calculate the following variances using the marginal costing system:

- Sales (price, volume) **(2 marks)**
- Material (price and usage) **(2 marks)**
- Labour (rate and efficiency) **(2 marks)**

b) In their effort to build equitable, resilient and sustainable systems for health, both The Global Fund and Gavi have approached you on the implementation of ABC systems to improve their customer profitability analysis.

Required:

Assess the applicability of ABC in the services sector. (In explaining your answer, identify ***four*** units in the health sector that ABC systems are applicable and an appropriate cost driver). **(10 marks)**

(Total: 20 marks)

QUESTION FOUR

a) The Faith Specialist Hospital (FSH) is a special government health facility under the Ghana Health Service (GHS) that provides specialised medical scans for complex health conditions. Management of FSH are planning to install an ultra-modern imaging machine that will improve the quality and accuracy of scans. The new installation will require an additional capital investment of GH¢420,000. The GHS policy on capital projects is that all new projects should achieve an internal rate of return of at least 30%.

Forecast demand for the services of this new machine over its five-year useful life are as follows:

Year	**Number of scans**
1	1,250
2	2,700
3	3,500
4	1,400
5	675
Projected charge per scan	GH¢650
Variable costs per scan:	
Consumables	GH¢330
Labour and overheads	GH¢176
Operating fixed costs per year	GH¢264,000 (includes depreciation on a straight-line basis)

Apart from the financial forecasts above, it is also envisaged that the project will produce non-financial benefits in several forms. Although it is hard to place a precise value on this, expert opinion suggests/ that this could approximate GH¢70,000 per annum.

Required:

As the Management Accountant of FSH:

i) Using cost-benefit analysis (CBA) computations, evaluate if the project should be undertaken. **(11 marks)**

ii) Enumerate **TWO** limitations of evaluating projects in the public sector. **(4 marks)**

b) Standard costing has been employed by organisations as a control technique to analyse the deviation of results from those that are expected.

Required:

i) Explain **TWO** ways managers have effectively deployed standard costing as a tool in decision making analysis. **(2 marks)**

ii) Explain **THREE** key factors a manager should consider before deciding to institute an investigation into reported variances. **(3 marks)**

(Total: 20 marks)

QUESTION FIVE

a) Manche produces two products from different quantities of the same resources using a just-in-time (JIT) production system. The selling price and resource requirements of each of the products are shown below:

Product	**C**	**L**
Unit selling price (GH¢)	130	160
Resources per unit:		
Direct labour (GH¢8 per hour)	3 hours	5 hours
Material A (GH¢3 per kg)	5 kg	4 kg
Material B (GH¢7 per litre)	2 litres	1 litre
Machine hours (GH¢10 per hour)	3 hours	4 hours
Fixed overhead (GH¢8 per hour)	1 hour	1 hour

Market research shows that the maximum demand for products C and L during August 2024 is 500 units and 800 units respectively. This does not include an order that Manche has agreed with a commercial customer for the supply of 250 units of C and 350 units of L at selling prices of GH¢100 and GH¢135 per unit respectively. Failure by Manche to deliver the order in full by the end of August will cause Manche to incur a GH¢5,000 financial penalty.

At a recent meeting between the Purchasing Manager and Production Manager to discuss the production plans of C and L for August, the following resource restrictions for the year were identified:

Direct labour hours	90,000 hours
Machine hours	90,000 hours

The resource restrictions were evenly distributed throughout the year.

Required:

Assuming that Manche completes the order with the commercial customer;

i) Prepare the optimum production plan for August 2024 using relevant computations. **(8 marks)**

ii) Determine the contribution from adopting this plan. **(3 marks)**

iii) Using relevant computations, show whether Manche should complete the order from the commercial customer assuming any excess labour hours for not making the contract can be used to produce 300 units of product 'F' with a contribution of GH¢55 per unit. **(5 marks)**

b) Awuah deals in online business, importing and selling printers. The cost of each set of printers varies depending on the number purchased, although printers can only be purchased in batches of 1,000 units. Awuah also has to pay import taxes which vary according to the quantity purchased. Awuah has already carried out some market research and identified that sales quantities are expected to vary depending on the price charged.

Consequently, the following data has been established for the first month:

Number of batches Imported and sold	**Average cost per unit including import taxes**	**Total fixed costs per month**	**Expected selling price per unit**
	GH¢	GH¢	GH¢
1	10.00	10,000	20
2	8.80	10,000	18
3	7.80	12,000	16
4	6.40	12,000	13

Required:
Determine the number of batches of printers Awuah should import and sell to maximise profit. **(4 marks)**

(Total: 20 marks)

SOLUTION

QUESTION ONE

a) i)

- Kako may seek to improve earnings for shareholders by minimizing their worldwide tax liabilities. Transfer prices can be charged in such a way that transfers from a division in a high tax country to a division in a low tax country are fixed at high levels and lower transfer prices are set for transfer from low tax to a high tax country.
- The company may also want to use the transfer prices to reduce custom duties and manipulate remittance of dividends.
- Kako PLC may seek to invest in countries where the taxation system is more favourable. For example, Kako might seek relief from taxation for making capital investments in a country and will choose one country in preference to another on the basis of the tax advantages offered.
- Kako PLC wants to ensure that the divisions are all working towards the same target, the benefit of the organisation as a whole

(Any 3 well explained point @ 2 marks = 6 marks)

ii)

- Distortions in the divisional profit reporting system
- Divisional autonomy will be undermined if the transfer prices are imposed on the divisional managers

(2 points @ 2 marks = 4 marks)

b) Dondo LTD

Current budgeted ROI = 660,000/(1,560,000 + 750,000) = 660,000/2,310,000 =28.57%

- Revised Profit (660,000 – 16,000) = GH¢644,000
  Revised capital employed = (2,310,000 – 60,000) = GH¢2,250,000
  Revised ROI = 644,000/2,250,000*100 =28.62%

- Revised Profit (660,000 + 30,000) = GH¢690,000
  Revised capital employed (2,310,000 + 80,000) = 2,390,000
  Revised ROI =690,000/2,390,000*100 =28.87%

- Revised profit (660,000 + 105,000 – 72,000) =693,000
  Revised capital employed = (2,310,000 + 360000 -72000) =2,598,000
  Revised ROI =693,000/2,598,000*100 =26.67%

(marks are evenly spread using ticks @ 7 marks)

ii) Dondo LTD should carry out transactions (i) and (ii) because the two transactions give a higher ROI than the current budgeted ROI.

(3 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

Q1 (a). This question was straight forward and most candidates provided the required responses. The preamble drew attention to international transfer pricing but also focused on centralization or imposed pricing.

(b) The requirements under the ROI for the proposed transactions were clear except for the third transaction which was a bit ambiguous with respect to the operating cost. Some candidates treated the depreciation as part of the operating cost and therefore reduced the profit by GH¢105,000. Others who excluded it, subtracted the depreciation together with the operating cost of GH¢105,000. Candidates demonstrated adequate knowledge in the calculation of ROI.

QUESTION TWO

a)

Ankawa LTD

Budgeted Profit or Loss Account for the year ended 31 December, 2025

	GH¢	GH¢
Sales		768,000
Cost of sales		
Opening stocks(30,00 units @ GH¢17)	51,000	
Production costs (36,760 units @ GH¢17)	658,920	
	709,920	
Closing stocks (3,360,units,@,GH¢17)	57,120	652,800
Gross profit		115,200
Less expenses		
Fixed overheads	85,000	
Depreciation	5,375	9,0375
Net profit		24,825

Workings

	Q1		Q2		Q3		Q4	Total
Budgeted sales (GH¢)	240,000		160,000		144,000		224,000	768,000
Production budget								
	Q1		Q2		Q3		Q4	Q5
Sales units	12,000		8,000		7,200		11,200	9,600
Closing stock	2,000		1,800		3,920		3,360	
	14,000		9,800		11,120		14,560	
Opening stock	3,000		2,000		1,800		3,920	
	11,000		7,800		9,320		10,640	**38,760**

Material Purchase Budget								
	Q1		Q2		Q3		Q4	total
Material usage	88,000		62,400		74,560		85,120	
Closing stock	6,400		5,800		5,200		4,600	
	94,400		68,200		79,760		89,720	
Opening stock	7,000		6,400		5,800		5,200	
	87,400		61800		73960		84520	
cost/kg	1.6		1.6		1.6		1.6	
	139840		98880		118336		135232	492288
Direct labour budget								
	Q1		Q2		Q3		Q4	
Production units	11,000		7,800		9,320		10,640	
Hours/unit	1.2		1.2		1.2		1.2	
Total hours	13,200		9,360		11,184		12,768	
Labour rate	1.6		1.6		1.6		1.6	
	21,120		14,976		17,894.4		20,428.8	74,419.2
Production cost/unit								
Direct material (8kg@GH¢1.6)				12.8				
Direct labour (1.2hrs@GH¢3.5)				4.2				
				17				
Depreciation (5%*100,000*3/12) + (5%*110,000*9/12)						5,375		

(***Preparation of budgeted profit and Loss Account – 8 marks)***
(Working (evenly spread = 7 marks)

b)

The need for ethical standard in business with reference to threats to ethical behaviour.

Ethical standards in business are essential for maintaining trust, credibility, and long-term success. They help ensure that businesses operate in a manner that is fair, transparent, and responsible. The work of accountants will often further the aims of their employer, and this is not a problem except when circumstances arise that create a conflict with their duty to comply with the fundamental principles. Threats to fundamental principles may arise due to: self-review, self-interest, familiarity, advocacy and intimidation.

- **Self-Review Threat**: This occurs when individuals or businesses are in a position to review their own work or decisions. It can lead to biased judgments and unethical behavior, as there may be a temptation to overlook errors or issues to protect one's interests.

- **Self-Interest Threat**: This arises when individuals or businesses prioritize personal gain over ethical considerations. Conflicts of interest can lead to unethical decisions that benefit the individual or business at the expense of others.
- **Familiarity Threat**: This threat occurs when there is a close relationship between individuals or businesses, leading to a lack of objectivity. Familiarity can result in favoritism, biased decisions, and unethical behavior.
- **Advocacy Threat**: This arises when individuals or businesses promote a particular position or interest, compromising their objectivity. Advocacy can lead to biased judgments and unethical behavior, as the individual or business may prioritize the promoted interest over ethical considerations.
- **Intimidation Threat**: This occurs when individuals or businesses are pressured or coerced into making unethical decisions. Intimidation can come from superiors, peers, or external parties, leading to compromised ethical standards.

(5 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

Q2 (a). This question was poorly attempted probably because of the approach most candidates used. Using the normal manufacturing approach to prepare the income statement required preparation of schedules for production, material purchases and labour cost budgets. A shorter approach is to prepare the production budget to be able to know the total production quantity. Since marginal costing method was to be used, the variable production cost per unit was needed after which the income statement could be prepared, shortening the process.

(b) Candidates demonstrated knowledge of the code of ethics for accountants and the various threats to ethical behavior. However, discussing the need for ethical standards in business with reference to the threats appeared to be misunderstood. Most of them explained the code and the threats separately without linking them.

QUESTION THREE

a) Shatta Company PLC

i) Flexible budget for the month of April

	Budget	Flexed Budget	
Output (production and sales)	10,000	9,000	
	GH¢	GH¢	
Sales Revenue	175,000	157,500	
Raw materials	(80,000)	72,000	90,000 metres
Labour	(35,000)	31,500	4,500 hours
Fixed overheads	(35,000)	35,000	
Operating profit	**25,000**	**19,000**	

Workings

Raw material price per unit = GH¢80,000/100,000 metres = GH¢0.80 per metre

Labour rate per hour = GH¢35,000/5,000 hours = GH¢7 per hour

(4 marks)

ii) a

Sales Volume Variance = (Budgeted Sales Unit – Actual Sales Unit) x Budgeted contribution

= (10,000 – 9,000) x (17.5 – (8 + 3.5))

= 1000 x 6 = **6,000 Adverse**

Sales Price Variance = (Budgeted Selling price – Actual selling price) x Actual units sold

= [(175,000/10,000) – (162,000/9000)] x 9,000

= (17.5 -18) x 9,000 = **4,500 Favourable**

(2 marks)

ii) b

Direct material variance

Total = 72,000 – 64,380 = 7,620 Favourable

Material price variance = (standard price – actual price) x actual quantity

= (0.80 – 0.87) x 74,000

= **5,180 Adverse**

Material usage variance = (Budgeted usage – actual usage) x standard price

= (90,000 – 74,000) x 0.80

= **12,800 Favourable**

(2 marks)

ii) c

Direct Labour Variance

Total = 31,500 – 30960 = 540 Favourable

Labour rate variance = (standard rate – actual rate) x actual hours

= (7.0 – 7.2) x 4,300

= **860 Adverse**

Labour efficiency variance = (budgeted labour hours – actual labour hours) x standard rate

= (4,500 hours – 4,300 hours) x 7

= **1,400 Favourable**

(2 marks)

b)

ABC is deemed more applicable to the service sector because of the following reasons

i) ABC has been found to be more suitable for service organizations than manufacturing. This is because of the number of activities that make up the cost of a product or service.
ii) Many of the costs in service organizations are indirect as compared to a typical manufacturing company.
iii) Also, there is a higher level of support service cost than in manufacturing organizations.
iv) The need for segmental reporting has led to the need to ensure that individual services are efficient and profitable.

(6 marks)

Areas in the healthcare sector that ABC is applicable

i)	Laboratory tests / unit	-	Number of test runs
ii)	Radiology department	-	Number of imaging required
iii)	In-ward admission	-	Number of days on admission.
iv)	Out-patient unit	-	Hours spent in consultation with doctor
v)	Pharmacy unit	-	Cost per drug

(4 marks for any 4)

(Total: 20 marks)

EXAMINER'S COMMENTS

Q3 (a): This part of the question was well answered. Candidates could easily prepare the flexible budget except that a few were unable to get the fixed cost hence arriving at a wrong profit. The basic variances for material and labour were well computed. The sales price variance was equally answered well but a good number of candidates got the volume variance wrong because they used the standard selling price instead of standard contribution.

(b): It was observed that candidates understood Activity Based Costing, however most of them could not assess its applicability in the service sector. Some candidates described the process of absorbing overheads into cost units using the ABC. Identifying cost drivers for specific units in the health sector was well attempted and most of the candidates scored some good marks.

QUESTION FOUR

a.

i. COMPUTATION OF NET COST/BENEFIT

Year	Net benefits/cost GH¢	Required Rate of Return @ 30%	Present Value GH¢
0	(420,000.00)	1.000	(420,000.00)
1	70,000.00	0.769	53,830.00
2	278,800.00	0.591	164,770.80
3	394,000.00	0.455	179,270.00
4	91,600.00	0.350	32,060.00
5	(12,800.00)	0.269	(3,443.20)
			6,487.60

FSH is encouraged to undertake the project since the project shows a positive net benefit of GH¢6,487.60.

Contribution = Charge per scan - Variable cost

	GH¢
Charge per scan	650
Consumables	(330)
Labour and overheads	(176)
Contribution	**144**

COMPUTATION OF NET BENEFITS

Years	**1**	**2**	**3**	**4**	**5**
Sales volume	1,250.00	2,700.00	3,500.00	1,400.00	675.00
	GH¢	**GH¢**	**GH¢**	**GH¢**	**GH¢**
Contribution @ Ghc144/unit	180,000.00	388,800.00	504,000.00	201,600.00	97,200.00
Fixed costs (Cash)	180,000.00	180,000.00	180,000.00	180,000.00	180,000.00
Net Cashflow	-	208,800.00	324,000.00	21,600.00	(82,800.00)
Non-Cash benefits	70,000.00	70,000.00	70,000.00	70,000.00	70,000.00
Net benefits	70,000.00	278,800.00	394,000.00	91,600.00	(12,800.00)

Benefit cost ratio = PV of benefits ÷ PV of cost

864,607.60 ÷ 858,120 = 1.0076

A benefit cost ratio of 1.0076 indicates that the project will generate benefit of over 100.76% of the cost of the project.

Yr	Costs	Benefits	Discount rate @ 30%	PV of Costs	PV of Benefits	NPV
0	420,000.00	-	1.000	420,000.00	-	(420,000.00)
1	180,000.00	250,000.00	0.769	138,420.00	192,250.00	53,830.00
2	180,000.00	458,800.00	0.591	106,380.00	271,150.80	164,770.80
3	180,000.00	574,000.00	0.455	81,900.00	261,170.00	179,270.00
4	180,000.00	271,600.00	0.350	63,000.00	95,060.00	32,060.00
5	180,000.00	167,200.00	0.269	48,420.00	44,976.80	(3,443.20)
				858,120.00	**864,607.60**	**6,487.60**

(11 marks)

ii)

Limitations of evaluating projects in the public sector

- Since most of the projects are to provide social services, it is difficult to quantify the benefits
- Flow of funds could be unpredictable and irregular
- It may be difficult to determine the life span of the project
- There may be a lot of externalities that are difficult to quantify

(Any 2 points for 4 marks)

b)

i) Use of standard costing as a tool in management decision making

- A trend analysis of past variances can provide a very good basis to stimulate future improved performance.
- It can be used in conjunction with other indicators such as budgeting and target costing for decision analysis
- Highlight activities that deviate from plans and helps in control for future decisions.

(2 points for 2 marks)

ii) Factors a manager should consider before deciding to investigate reported variances

According to the concept of management by exception, only significant deviations are brought to management's attention. Thus, the following should be considered about a decision to investigate alleged variances.

- Cost and benefits of investigation
- Size of variance
- Trend analysis of the variance
- Extent of controllability
- Nature of the variance (favourable or Adverse)
- Reliability of values use in the computation
- Relationship with other variances

(3 points for 3 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

Q 4 (a) (i) Evaluation of projects using CBA is one of the new areas that have been introduced. Since the process is not too different from investment appraisal in the private and for-profit entities candidates performed fairly well up to the net annual flows. Some, however, excluded the non- financial benefits. Those who progressed beyond the net flows used the present value of the net benefit technique. A few did not discount the annual benefits while others included depreciation as part of the outflow.

(ii) Some limitations in evaluating public sector projects were properly explained and most of the candidates scored all the marks allotted.

(b) (i) Application of standard costing in management decision making was well explained by candidates. Most of the responses focused on budgeting and cost control.

(ii) Candidates were able to explain the factors to consider before variances are investigated.

QUESTION FIVE

a) In order to find the optimum production, plan we must first establish what the scare resource is that is restricting production to meet all demand. We will work out the total amount of resources needed to meet maximum demand for each month and then compare this to the resources that we have available to us to determine any scarce resources.
Monthly labour available = 90,000/12 = 7,500 hours
Monthly machine hours available = 90,000/12 = 7,500 hours

Product	**Labour hours**
C = 750 x 3	2,250
L = 1150 X 5	5,750
Required	8,000
Available	7,500
Shortage	500
Labour Hour is a constraint	

Product	**Machine hours**
C = 750 x 3	2,250
L = 1150 X 4	4,600
Required	6,850
Available	7,500
Excess	650
Machine Hour is not a constraint	

Product	C	L
	GH¢ per unit	**GH¢ per unit**
Selling Price	130	160
Direct labour(GH¢8 per hour)	24	40
Material A (GH¢3 per kg)	15	12
Material B (GH¢7 per litre)	14	7
Machine hours (GH¢10 per hour)	30	40
Contribution	**47**	**61**
Constraint per hour ÷	**3**	**5**
Contribution per labour hour	**15.67**	**12.20**
Ranking in order of production	**1st**	**2nd**

Total labour hours available is 7,500 hrs however we must fulfil a commercial customer order first of 250 C's and 350 L's before working out the optimum production plan.

Product	**Type**	**Quantity**	**Limiting factor**	**Contribution**
C	Contract	250	570	4250
L	Contract	350	1,750	12,600
C	Commercial	500	1,500	23,500
L	Commercial	700	Bal. 3,500/5	42,700
Total Hours available/Contribution			7,500	**83,050**

(8 marks evenly spread using ticks)

ii) **Contribution per unit from commercial contract**

Product	C	L
	GH¢ per unit	GH¢ per unit
Selling Price	100	135
Direct labour(GH¢8 per hour)	24	40
Material A (GH¢3 per kg)	15	12
Material B (GH¢7 per litre)	14	7
Machine hours (GH¢10 per hour)	30	40
Contribution	**17**	**36**

(3 marks)

iii)

Hours required for C: 500*3 = 1,500
Hours required for L: 800*5 = 4,000
5,500
Available hours 7,500
Excess hours 2,000

Contribution for C: 500*47 = 23,500
Contribution for L: 800*61 = 48,800
Contribution for F: 300*55 = 16,500
88,800
Penalty (5,000)
83,500

Decision: Reject the contract.

(5 marks)

(c)

Batches	**Units**	**Price per unit (GH¢)**	**Total Revenue (GH¢)**	**Variable Cost per unit (GH¢)**	**Total variable (GH¢)**	**Fixed costs (GH¢)**	**Total Cost (GH¢)**	**Profit (GH¢)**
1	1,000	20	20,000	10·00	10,000	10,000	20,000	0
2	2,000	18	36,000	8·80	17,600	10,000	27,600	8,400
3	3,000	16	48,000	7·80	23,400	12,000	35,400	12,600
4	4,000	13	52,000	6.40	25,600	12,000	37,600	14,400

Awuah should import and sell four batches (4,000 units) of headphones since at this point it will make the greatest profit: GH¢14,400 for the month.

(4 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

Q5. (a) Candidates demonstrated understanding of preparing optimum production plan with limited resources. However, most of them struggled to identify the limited resource. A few of them left out the variable overheads in arriving at the contribution per unit. Those who got the contribution right and properly ranked the products had no difficulty computing the production quantities.
(ii) Some candidates did not calculate the contribution using the quoted price thus losing the three marks allocated.
(iii) Deciding whether to accept or reject the offer required a calculation of the total contribution with the offer and comparing that with contribution for rejecting the offer incorporating the opportunity cost. Most candidates calculated the contribution for the plan but failed to compute the contribution for rejecting the offer. On the whole the performance was not too good.
(b) Candidates were able to prepare a table to show the profit for the different batches and advised appropriately.

CONCLUSION:
Question two (a) was poorly attempted, candidates spent too much time trying to get figures for material and labour costs as well as the cost of goods produced, since these figures were wrongly computed the final statement was wrong. Question four also required the computation of the net flows and most candidates excluded the non- financial benefits and treated the depreciation wrongly so lost some marks. Again question 5(a) though a popular area was not well attempted.
The remaining questions were fairly attempted but for some of the candidates the scores were not enough to compensate for the shortfall in the three questions mentioned above.
Facilitators and lecturers are encouraged to broaden the scope of their application areas when preparing candidates for the paper.
Candidates writing this paper should note that questions are set to cover all the areas specified in the syllabus and so should be guided accordingly.