NOVEMBER 2019 PROFESSIONAL EXAMINATIONS
MANAGEMENT ACCOUNTING (PAPER 2.2)
CHIEF EXAMINER'S REPORT, QUESTIONS AND MARKING SCHEME

EXAMINER'S GENERAL COMMENTS

The questions were within the approved syllabus of the Institute. The requirements were acceptable within the time frame allowed. Written questions/comments accounted for 40% of the total marks allocated whilst calculated questions for 60%. There were no errors and ambiguities identified in the questions. Marks allocations per the questions were also considered appropriate.

AREAS EXAMINED

The candidates were examined in the following subject areas of Management Accounting in the November 2019 Examinations:

- Ratio Analysis and performance evaluation.
- Budgetary Control and Operating Statements at various activity levels.
- Standard Costing and Variance Analysis in profit reconciliations.
- Investment Appraisal and decision making.
- Pricing Strategy and Break-Even Analysis.

SUMMARY PERFORMANCE

The performance of the candidates were considered unsatisfactory. The following are some of the problems identified by the Examiner:

- Lack of clarity and poor presentation of answers by candidates.
- Lack of understanding of principles and concepts of management accompanying and poor interpretation of results.
- Poor expression of English language in the presentation of written answers.

QUESTION ONE

GRAT Authority operates passenger railway service and is also responsible for the maintenance of track signalling equipment, and other facilities such as stations. In recent years it has been criticised for providing poor services to the travelling public in terms of punctuality, safety and the standard of facilities offered to passengers. Last year, GRAT Authority invested over GH¢20 million in new carriages, station facilities and track maintenance programmes in an attempt to address these criticisms.

Summarised financial results for GRAT Authority for the last two years are given below:

Extracts of Statement of Profit or Loss account for the year ended 31 December

	2017	**2018**
	GH¢m	**GH¢m**
Sales revenue	180.0	185.0
Earnings before interest and tax	18.0	16.5
Interest	(3.2)	(4.7)
Tax	(4.4)	(3.5)
Earnings available to ordinary shareholders	10.4	8.3

Statement of Financial Position as at 31 December

	2017		**2018**	
	GH¢m	**GH¢m**	**GH¢m**	**GH¢m**
Non-current assets (net)		100.4		120.5
Current assets				
Inventory	5.3		5.9	
Receivables	2.1		2.4	
Cash	6.2	13.6	3.6	11.9
		114.0		**132.4**
Ordinary share capital (GH¢1 shares)		35.0		35.0
Reserves		50.6		68.2
Amounts payable after more than one year				
8% Debenture 2019		20.0		20.0
Payables due within one year		8.4		9.2
		114.0		**132.4**

Required:

a) Calculate the following ratios for GRAT Authority for 2017 and 2018, clearly showing your workings.

i) Return on capital employed (ROCE)
ii) Net profit margin
iii) Asset turnover
iv) Current ratio **(8 marks)**

b) Evaluate the financial performance of the entity in 2017 and 2018 as revealed by the above ratios. **(6 marks)**

c) Suggest **THREE (3)** non-financial indicators that could be useful in measuring the performance of a passenger railway service and explain why your chosen indicators are important. **(3 marks)**

d) Explain the term ***short-termism*** and suggest ways in which a long-term view can be encouraged. **(3 marks)**

(Total: 20 marks)

QUESTION TWO

a) Management Accountants are often engaged in decision making processes that would yield optimal results, given a limited amount of resources available. Such decisions are expected to yield to shareholder wealth maximization through the maximization of profits. Unfortunately, however, constraints sometimes lead to ***satisficing*** rather than ***optimizing*** on decision making.

Required:

i) Explain how profit maximization can lead to shareholder wealth maximization. **(4 marks)**

ii) Explain how ***constraints, satisficing and optimizing*** affect the management accountant's decision. **(6 marks)**

b) The following monthly budgeted cost values have been taken from the budget working papers of MZ Ltd for the year ended 30 September 2019.

Activity level	***75%***	***85%***	***95%***
	GH¢	**GH¢**	**GH¢**
Direct materials	9,375	10,625	11,875
Direct labour	11,250	12,750	14,250
Direct expenses	4,875	5,525	6,175
Production overhead	6,200	7,500	7,000
Selling overhead	10,000	11,000	12,000
Administration overhead	13,000	13,000	13,000
	54,700	**60,400**	**64,300**

During May 2019, actual cost for activity level of 82% were as follows:

	GH¢
Direct materials	10,500
Direct labour	12,250
Direct expenses	5,600
Production overhead	6,250
Selling overhead	15,150
Administration overhead	14,200
	63,950

Required:

Prepare a budgetary control statement for MZ Ltd on a flexible budget basis for the month of September 2019. **(10 marks)**

(Total: 20 marks)

QUESTION THREE

a) Explain what is meant by ***basic standards*** and ***ideal standards*** and their effect on employee motivation. **(5 marks)**

b) Sasraku Ltd manufactures and sells standard quality fuel pumps. Other companies integrate these pumps in their production of petrol engines. At present, Sasraku Ltd manufactures only three different types of fuel pumps-oil pump, gas pump and diesel pump. Simon, the Management Accountant, allocates fixed overheads to these pumps on an absorption costing system.

The standard selling price, volumes and cost data for these three products for the last period are as follows:

	Oil Pump	**Gas Pump**	**Diesel Pump**
Selling price per unit (GH¢) Direct material (GH¢)	91.00 35.10	97.50 26.65	117.00 31.52
Direct labour per unit (GH¢6.50 per hour)	3.25 hours	5.20 hours	4.55 hours
Machine hours per unit	1.95 hours	3.90 hours	5.20 hours
Budgeted production and sales (units)	10,000	13,000	9,000

The total fixed production overhead for the last period was estimated in the budget to be GH¢526,500. This was absorbed on a machine hour basis.
The Board of Directors has decided to calculate the variances for the period in order to analyse the sales performance of the company.

The following information of actual volumes and selling prices for the three products in the last period was obtained.

Products	**Actual selling price per units (GH¢)**	**Actual production and sale (units)**
Oil Pumps	94.25	9,500
Gas Pumps	100.75	13,500
Diesel Pumps	123.50	8,500

Required:

i) Calculate standard profit per unit **(3 marks)**

ii) Calculate the following variances for overall sales for the last period:

- Sales profit margin variance
- Sales mix profit variance
- Sales quantity profit variance
- Sale volume profit margin **(8 marks)**

iii) Prepare a statement showing the reconciliation of budgeted profit for the period to actual sales less standard cost. **(4 marks)**

(Total: 20 marks)

QUESTION FOUR

a) Pagsana Company plans to introduce a new product line for production of its local drink in Walewale. The company therefore, decided to acquire either semi-automated plant or an automated plant. The relevant data for the two proposed plants are as follows:

	AUTOMATED	**SEMI-AUTOMATED**
	GH¢	**GH¢**
Original purchase price	2,000,000	1,000,000
Installation cost	500,000	200,000
Yearly Sales revenue	2,000,000	2,000,000
Yearly material and labour cost	900,000	1,400,000
Yearly variable overhead	600,000	300,000
Yearly apportioned fixed overhead	200,000	100,000
Estimated useful life	15 years	14 years
Method of depreciation	Straight line	Straight line
Cost of Capital	10%	10%

Required:

i) Select the appropriate plant on the basis of:

- Payback Period **(4 marks)**
- Net Present Value **(7 marks)**

ii) Explain **TWO (2)** advantages of ***discounted cashflow method*** of investment appraisal. **(4 marks)**

b) Good decisions do not only emanate from good decision makers but also the quality of information used in the decision making process.

Required:

Identify **FIVE (5)** qualities of good management accounting information. **(5 marks)**

(Total: 20 marks)

QUESTION FIVE

Graphix Communication Group Limited (GCGL) is a magazine publishing company. It comprises a number of different divisions, each publishing magazines in a different sector. GCGL is now considering publishing Financial Magazine. The Financial Magazine market is very competitive with a number of well-established titles already being published by GCGL's competitors.
Financial Magazine is a monthly magazine.

GCGL has therefore commissioned an advertising campaign to launch its Financial Magazine. The price of the Financial Magazine has been set at full cost plus a mark-up of 20%.

Forecast variable cost per copy of the Financial Magazine:

	GH¢
Paper	0.83
Ink	See note (i)
Machine cost	0.22
Other variable cost	0.15

The following additional information is available:

i) Each Financial Magazine needs 0.2 litres of ink. However, 10% of the ink input to the printing process is wasted. Ink costs GH¢5.40 per litre.

ii) In month 1, GCGL expects to sell 50,000 copies of the magazine to new customers at this price.

iii) After their first month of sales, GCGL expects 90% of first month's customers to purchase the Financial Magazine in month 2. After the second month of purchase, GCGL expects to retain 85% of month 2 customers in subsequent months.

iv) As the magazine circulation area increases, sales to additional new customers in month 2 will be 20% of month 1 sales figure. 90% of this would be retained in month 3.

v) Sales to additional new customers in month 3 would be 30% of month 1 sales figures

vi) Fixed overhead costs are apportioned by GCGL to the Financial Magazines based on first month sales volume. Total budgeted annual fixed overhead is GH¢18,000,000 and total budgeted annual magazine sales, including the Financial Magazine, is 12,000,000 copies.

vii) The sales price of the Financial Magazine will remain unchanged throughout the first three months.

Required:

a) Discuss **TWO (2)** advantages and **TWO (2)** disadvantages of the managing director's pricing strategy in the circumstances described above. **(4 marks)**

b) Produce a statement that shows the total profit for the first three months of Financial Magazine. **(10 marks)**

c) Calculate the number of copies of the Financial Magazine that need to be sold to achieve a profit of GH¢100,000. **(6 marks)**

(Total: 20 marks)

SOLUTION TO QUESTIONS

QUESTION ONE

a) Financial ratios

		2017	2018
Return on capital employed =	$\frac{\text{profit before interest and tax}}{\text{capital employed}}\%$	$\frac{18}{105.6}\%$ $= \mathbf{17}\%$	$\frac{16.5}{123.2}\%$ $= \mathbf{13.4}\%$
Net profit margin =	$\frac{\text{profit before interest and tax}}{\text{Sales}}\%$	$\frac{18}{180}\% = \mathbf{10}\%$	$\frac{16.5}{185.0}\%$ $= \mathbf{8.9}\%$
Asset turnover =	$\frac{\text{Sales}}{\text{capital employed}}$	$\frac{180}{105.6}$ $= \mathbf{1.7\ times}$	$\frac{185}{123.2}$ $= \mathbf{1.5times}$
Current ratio =	$\frac{\text{Current assets}}{\text{Current liabilities}}$	$\frac{13.6}{8.4} = \mathbf{1.6:1}$	$\frac{11.9}{9.2} = \mathbf{1.3:1}$

(2 marks each for every ratio calculated = 8 marks)

b) **Profitability**

Return on capital employed has fallen from 2017 to 2018 caused by a decrease in operating profit and an increase in capital employed. The fall in operating profit may have been caused by an increase in costs, whilst the new investment programme will have caused an increase in capital employed.

Asset turnover has fallen. Sales have only increased by 2.8% between 2017 and 2018 so the new investment programme may not yet have had a significant effect upon sales.

In the short term, the investment programme has increased assets and costs but has not yet influenced sales.

(4 marks)

Liquidity

The current ratio has deteriorated so the firm's ability to meet its short-term obligations from its short-term resources has been reduced. The expenditure on the investment programme may have decreased the cash balance between 2017 and 2018, causing the deterioration in liquidity.

(2 marks)

c)

Non-financial performance indicator	**Importance**
% of trains on time	Punctuality is important to passengers
% of trains cancelled	Reliability is important to passengers
Accidents per 1,000,00 passengers	Safety is vital in any form of travel, and an important PR issue for railways in recent time

Customer rating of cleanliness	Passengers required good quality service facilities
% utilisation of rolling stocks profits	Underused staff do not help to grow profits
% utilisation of staff	Underused staff do not help to grow profits
% of new customers	New customers are vital for sustained growth
Employee morale	Happy employees (particularly those who deal with customers), are vital for success in a service business

(Any 3 points well explained for 3 marks)

d) ***Short-termism*** is when there is a bias towards short-term rather than long-term performance. **(1 mark)**

Steps that could be taken to encourage managers to take a long-term view, so that the 'ideal' decisions are taken, include the following:

- Making short-term targets realistic. If budget targets are unrealistically tough, a manager will be forced to make trade-offs between the short and long term.
- Providing sufficient management information to allow managers to see what trade-offs they are making. Managers must be kept aware of long-term aims as well as shorter-term (budget) targets.
- Evaluating managers' performance in terms of contribution to long-term as well as short-term objectives.
- Link managers' rewards to share price. This may encourage goal congruence.
- Set quality based targets as well as financial targets. Multiple targets can be used.

(Any 2 points for 2 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

Performance in this question is satisfactory. The computation of the ratios and their interpretation were ok. The only difficulty the candidates have relates to the steps managers can take to encourage management to consider a long term view which include:

- Making short-term targets realistic;
- Providing sufficient management information;
- Evaluating managers performance in terms of contributing to long-term aims;
- Linking rewards of managers to share prices;
- Setting quality based targets as well as financial targets.

QUESTION TWO

a)

i) ***Shareholder wealth maximization*** is pursuing the corporate objective of satisfying the shareholder of the firm by pursuing decisions that would add to the value of the shareholder and ensure his or her maximum satisfaction. ***(1 mark)***

- The achievement of this objective is reflected in payment of regular dividend and ensuring share price appreciation. These indicators are themselves influenced by maximizing the profits of the firm.
- Profit conditions the size of dividend payment for firms and the market price of a share is influenced greatly by the earnings per share of that firm.
- Thus, pursing profit maximization that ensures adequate generation of operational cash flows would lead to shareholder wealth maximization.

(3 points for 3 marks)

ii) A constraint can be a resource, a company policy or management mindset**. The concept is applied to the allocation of scarce resources to reduce a company's costs and improve profitability.** **(2 marks)**

Satisficing: Bounded rationality may lead to satisficing. It is the condition where the search for an optimal solution is abandoned upon finding a satisfactory solution. Normally in satisficing, the course of action chosen only leads to the achievement of the minimum basic requirement but does not necessarily give you the best of options. **A management accountant that is always interested in meeting the basic requirement will not assist his/her firm to be competitive in this changing world**.

(2 marks)

Optimizing: optimizing means looking for the best of options to pursue given the constraint faced by the decision maker. Optimal solution seeking takes time and effort but its rewards are enormous. **It leads the organization to satisfy its shareholders and achieve competitive advantage. Decision tools like limiting factor analyses and linear programming are useful in making optimal decisions.**

(2 marks)

b)

Flexible Budget

Basic calculations

Direct Material

Cost per unit = $\frac{\text{Cost}}{\text{Activity Level (AL)}}$

At 75% AL = GH¢9,375/75 = **GH¢125**; At 85% AL = 10,625/85 = **GH¢125**; At 95% AL = GH¢11,875/95 = **GH¢125**. Thus, direct material cost is variable cost. It is constant at the unit level but changes with activity level. **(0.5 mark)**

Direct Labour

Cost per unit = <u>Cost</u>
Activity Level

At 75% (AL) = GH¢11,250/75 = **GH¢150**; At 85% AL = 12,750/85 = **GH¢150**; At 95% AL = GH¢14,250/95 = **GH¢150**. Thus, direct labour cost is variable cost. It is constant at the unit level but changes with activity level. **(0.5 mark)**

Direct Expenses

Cost per unit = <u>Cost</u>
Activity Level

At 75% (AL) = GH¢4,875/75 = **GH¢65**; At 85% AL = 5,525/85 = **GH¢65**; At 95% AL = GH¢6,175/95 = **GH¢65**. Thus, direct expense cost is variable cost. It is constant at the unit level but changes with activity level. **(0.5 mark)**

Production Overhead

Cost per unit = <u>Cost</u>
Activity Level

At 75% (AL) = GH¢6,200/75 = **GH¢82.67**; At 85% AL = 6,600/85 = **GH¢77.65**; At 95% AL = GH¢7,000/95 = **GH¢73.68**. Thus, production overhead is semi-variable cost.. It changes at both total and activity level.
Therefore, using high-low method the separation would be done as follows:
VC/unit = (GH¢7,000 – GH¢6,200)/(95% – 75%) = GH¢800/20 = **GH¢40 per 1%**
Fixed Cost (Using highest activity level) = 7,000 – (95 x GH¢40) = ***GH¢3,200***
(1 mark)

Selling Overhead

Cost per unit = <u>Cost</u>
Activity Level

At 75% (AL) = GH¢10,000/75 = **GH¢133.33**; At 85% AL = 11,000/85 = **GH¢129.41**; At 95% AL = GH¢12,000/95 = **GH¢126.32**. Thus, selling overhead cost is a mixed cost. It changes at both total and activity level.

Therefore, using high-low method the separation would be done as follows:
VC/unit = (GH¢12,000 – GH¢10,000)/(95% – 75%) = GH¢2000/20 = ***GH¢100 per 1%***
Fixed Cost (Using highest activity level) = 12,000 – (95 x GH¢100) = ***GH¢2,500***
(1 mark)

Administration Overhead

This is a fixed cost. It remained constant over all activity level. **(0.5 mark)**

		Budget at 82% activity		
		Flexed budget	**Actual**	**Variance**
		GH¢	***GH¢***	***GH¢***
Direct material	(82 x GH¢125)	10,250	10,500	250 (U)
Direct labour	(82 x GH¢150)	12,300	12,250	50 (F)
Direct expense	(82 x GH¢65)	5,330	5,600	270 (U)
Production overhead	(GH¢3,200 + 82 x GH¢40)	6,480	6,250	230 (F)
Selling overhead	(GH¢2,500 + 82 x GH¢100)	10,700	15,150	4,450 (U)
Administration overhead		13,000	14,200	1,200 (A)

(Any 18 ticks @ 1/3 = 6 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

This question was poorly answered by the candidates. About 75%of the candidates had difficulties answering this question. They had three (3) main problems:

- Explaining constraints, satisficing, optimizing and how profit maximization can lead to shareholder wealth maximization.
- Separating the fixed costs relating to Production Overhead and Selling Overhead using the high-low method. That is calculating the cost per unit for all the factors of production.
- Calculating the Flexed budget at the activity level of 82%

QUESTION THREE

a) An ***ideal standard*** is one which can be attained under perfect operating conditions: no wastage, no inefficiencies, no idle time, and no breakdowns. **(1 mark)**

A ***basic standard*** is a standard which remains unchanged over the years and is used to show trends. **(1 mark)**

Effect on employee motivation

Ideal standards can be seen as long-term targets but are not very useful for day-to-day control purposes as they cannot be achieved. It is claimed that they provide employees with an incentive to be more efficient.However, they may have an unfavourable effect on employee motivation as variances will always be adverse. **(1.5 marks)**

Basic standards may have an unfavourable effect on motivation as employees discover over time that they are easily able to achieve the standards. **(1.5 marks)**

b)

i) Calculation of standard profit per unit

	Oil pump	**Gas Pump**	**Diesel Pump**
	GH¢	GH¢	GH¢
Selling price (a)	91.00	97.50	117.00
Less:			
Direct material	35.10	26.65	31.52
Direct Labor	21.12	33.80	29.58
Fixed production overhead (w1)	8.78	17.55	23.40
Standard cost (b)	(65.00)	(78.00)	(84.50)
Standard profit (a-b)	**26.00**	**19.50**	**32.5**

Working

W1 calculation of overhead absorption rate

Budget machine hours = (10,000*1.95) + (13,000*3.90) + (9,000*5.20) =117,000 hours

As company follows absorption costing method, fixed overheads are allocated don machine hours' basis.

Overhead adsorption rate = GH¢526,500/117,000 hours = GH¢4.50 per machine hour.

(3 marks evenly spread using ticks)

ii)

- Budget sale quantity in standard mix at standard profit

Product	Quantity	Standard Profit GH¢	Total Profit GH¢
Oil Pump	10,000	26.00	260,000
Gas Pump	13,000	19.50	253,500
Diesel Pump	9,000	32.50	292,500
	32,000		806,000

- Actual sales quantity at actual profit margin (at actual selling price less standard cost)

Product	Quantity	Standard Profit GH¢	Total Profit GH¢
Oil Pump	9,500	29.25	277,875
Gas Pump	13,500	22.75	307,125
Diesel Pump	8,500	39.00	331,500
	31,500		916,500

- Actual sales quantity at actual mix at standard profit

Product	Quantity	Standard Profit GH¢	Total Profit GH¢
Oil Pump	9,500	26.00	247,000
Gas Pump	13,500	19.50	263,250
Diesel Pump	8,500	32.50	276,250
	31,500		786,500

- Actual sales quantity at standard mix at standard profit

Product	Quantity	Standard Profit GH¢	Total Profit GH¢
Oil Pump	9,844	26.00	255,944
Gas Pump	12,797	19.50	249,542
Diesel Pump	8,859	32.50	287,917
	31,500		793,403

Alternative approach to actual sales quantity in standard mix t standard profit
= Actual quantity * average standard profit per unit
=31,500 units* GH¢25.1875 per units
= GH¢793,403

Sales profit margin variance

Oil Pump	Gas Pump	Diesel Pump	Total
277,875	307,125	331,500	916,500
247,000	263,250	276,250	786,500
30,875 F	**43,875 F**	**55,250 F**	**130,000 F**

(2 marks)

Sales mix profit variance

Oil Pump	Gas Pump	Diesel Pump	Total
247,000	263,250	276,250	786,500
255,944	249,542	287,917	793,403
8,944 A	**13,708F**	**11,667 A**	**6903 A**

(2 marks)

Sales quantity profit variance

Oil Pump	Gas Pump	Diesel Pump	Total
255,944	249,542	287,917	793,403
260,000	253,500	292,500	806,000
4,056 A	**3,958 A**	**4,583 A**	**12,597A**

(2 marks)

Sales volume profit variance

Oil Pump	Gas Pump	Diesel Pump	Total
247,000	263,250	276,250	786,500
260,000	253,500	292,500	806,000
13,000 A	**9750 F**	**16,250 A**	**19,500A**

(2 marks)

Alternative solution

Sales profit margin variance

Products	Oil Pump	Gas Pump	Deiseal Pump	Totals
Actual Price	94.25	100.75	123.50	
Standard Price	91.00	97.50	117.00	
Difference	3.25	3.25	6.50	
Actual Sales	9500	13,500	8,500	
Variance	**30,875F**	**43,875F**	**55,250F**	**130,000F**

PRODUCT	OIL PUMP	GAS PUMP	DIESEL PUMP	TOTALS
AQ AM	9,500	13,500	8,500	31,500
AS SM	9,844	12,797	8,859	31,500
BS SM	10,000	13,000	9,000	32,000
STANDARD PROFIT	26	19.50	32.5	
ii MIX	8,944A	13,708.5F	11,667.5A	6,903A
iii QUANTITY	4,056A	3,958.5A	4,582.5A	12,597A
iv VOLUME	13,000A	9,750F	16,250A	19,500A

iii) **Reconciliation statement**

Reconciliation	Favorable	adverse	GH¢
	GH¢	GH¢	
Standard profit			806,000
Variances			
Sales profit margin variance	130,000(F)		
Sales mix profit variance		6,903(A)	
Sales quantity profit variance		12,597(A)	
	130,000 (F)	19,500(A)	110,500(F)
Actual sales at actual price less standard cost			**916,500**

(4 marks evenly spread using ticks)

(Total: 20 marks)

QUESTION FOUR

a)

i) **Pay Back Period** is defined as the period, usually expressed in years, which it takes the cash flows from a capital investment project to equal the cash flows generated.

	Semi-Automated Plant	Automated Plant
	GH¢000	**GH¢000**
Yearly sales Revenue	2,000	2,000
Less Variable cost:		
Material and Labour cost	1,400	900
Variable overhead	300	600
Contribution of cash flow	300	500

Payback period = Investment cost / Yearly cash flow = 1,200 / 300 ; 2,500 / 500

	Semi-Automated Plant	Automated Plant
Investment cost	1,200	2,500
Yearly cash flow	300	500
	4 years	5 years

(3 marks)

Decision:

Semi-automated plant is considered more suitable because of PBP of 4 years as against 5 years for an automated plant.

(1 mark)

Using Discounted Cash Flow, the NPV of the Plants

Automated

Year	Cash Flow	DCF @ 10%	Present Value
	GH¢		**GH¢**
0	(2,500,000)	1.000	(2,500,000)
1-15	500,000	7.606	3,803,000
	NPV		**1,303,000**

(3 marks)

Semi-Automated

Year	**Cash Flow**	**DCF @ 10%**	**Present Value**
	GH¢		**GH¢**
0	(1,200,000)	1.000	(1,200,000)
1-14	300,000	7.367	2,210,100
	NPV		**1,010,100**

(3 marks)

Decision

It is advisable to select **automated plant** that gives a higher NPV though the capital requirement of the plants differs. **(1 mark)**

ii) Advantages of Discounted Cash Flow
- It uses the time value of money.
- It uses the cost of capital.
- Uses cash flow instead of accounting profit.
- Considers the entire life of the project.

(Any 2 points @ 2 marks each = 4 marks)

b) **Qualities of Good Management Accounting Information**
- **Relevance:** information must fit the purpose for which it was gathered and a manager wanted to use it.
- **Completeness:** an information user should have all the information he/she needs to do their job properly. This would help avoid sub-optimal decisions.
- **Accuracy:** Information must be correct because using incorrect information could lead to misleading decisions. However, it should not contain unnecessary detail for pointless accuracy.
- **Clarity:** users must properly understand the information, it cannot be put to good use. Use appropriate presentation medium and channel of communication to enhance clarity.
- **Confidence:** information must be trusted by the managers who are expected to use it. Use relevant assumptions to enhance confidence.
- **Communication:** within an organization, individuals are given the authority to do certain tasks and they must be given the information they need to do them.
- **Volume**: they are the physical and mental limitations to what a person can read, absorb and understand properly before taking an action. An enormous mountain of information, even if it is all relevant, cannot be handled. Reports to management must therefore be clear and concise.
- **Timing**: information should be available when needed. Information which is not available until after a decision is made will be useful only for comparisons and longer term control, and may serve no purpose even then.
- **Cost:** information should have some value otherwise it would not be worth the cost of collecting and filing it. The benefits obtained from the information must also exceed the cost of acquiring it.
- Channel of Communication

(Any five points well-explained for 5 marks. Half for mentioning a point and one mark for explanation)

(Total: 20 marks)

QUESTION FIVE

a) The Managing Director's pricing strategy is Cost-plus

Advantages

- Cost-plus pricing is suitable in such cases where the nature and extent of competition is unpredictable.
- The cost-plus method offers a guarantee against loss-making by a firm. If it finds that costs are rising, it can take appropriate steps by variations in output and price.
- It is the simplest method to decide the price for a product because one has just to add up all the cost and then add profit which you want to earn which will give the price for a product.

(2 points for 2 marks)

Disadvantages

- It is not possible to accurately ascertain total costs in all cases.
- The full-cost pricing theory is criticised for its adherence to a rigid price
- This method does not take into account the future demand for a product which should be the base before deciding the price of a product and therefore a serious limitation of this method.
- It cannot be use for decision marking as it may include sunk cost

(2 points for 2 marks)

b) **Statement of Profit for the first three months.**

	Month 1	month 2	month 3	TOTAL
UNITS	50,000	55,000	62,250	167,250
	GH¢	**GH¢**	**GH¢**	**GH¢**
Sales rev.	234,000	257,400	291,330	782,730
Variable cost	120,000	132,000	149,400	401,400
Fixed cost	75,000	75,000	75,000	225,000
PROFIT	39,000	50,400	66,930	156,330

WORKINGS

1) Ink cost per magazine without loses GH¢1.08. However, 10% of ink wasted during printing is GH¢1.08 x (100/100-10) = GH¢1.20

2) FOAR GH¢18,000,000/12,000,000 = GH¢1.50 per Magazine

3) New customers — Number of Financial Magazine sales

New customers	**Month 1**	**Month 2**	**Month 3**
50,000 month 1	50,000	45,000	38,250
10,000 month 2		10,000	9,000
15,000 month 3			15,000
	50,000	**55,000**	**62,250**

(10 marks evenly spread using ticks)

c) Quantity to produce to make a profit of GH¢100,000.

Fixed cost= 1.50 ×50,000×3 = GH¢ 225,000

Contribution margin; SP-VC (GH¢4.68-GH¢2.40) = GH¢2.28

$$Q = \frac{75{,}000+100{,}000}{2.28}$$

142,544 copies to be produced to make a profit of GH¢100,000

(6 marks evenly spread using ticks)

(Total: 20 marks)

EXAMINER'S COMMENTS

The performance of the candidates in this question was not satisfactory. To answer this question correctly, candidates have to determine the following.

- The cost and revenue structure per unit;
- Fixed Overhead absorption rate;
- Total fixed costs;
- New customers per month.

All these were wrongly computed by the candidates.

CONCLUSION

The general performance of the candidates was unsatisfactory. This can be attributed to inadequate preparations by the candidates for the examinations.