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

EXAMINER'S GENERAL COMMENTS
This report is focused on the evaluation of the Management Accounting paper written in the March 2024 professional examination. The questions were balanced and covered all the areas in the syllabus and were not beyond the competence of candidates. Though the overall performance was good, there is still room for improvement.

STANDARD OF THE PAPER
The standard is as good as the previous diets. Overall, the question quality and standard are excellent. The questions are straight forward, unambiguous, clear and error-free. The five questions have a wide coverage of the syllabus, with appropriate marks allocated which is also in line with the syllabus. The questions have fair balance between theory (31 marks) and practice (69 marks) and the time allotted is appropriate for the tasks at hand. Detailed supporting information is provided for each question. An appropriate level of testing in accordance with the Bloom's taxonomy is achieved and all questions reflect the inherent difficulty of the level of qualification (application) and the requirement to attain professional competence.

PERFORMANCE OF CANDIDATES
Though there was an improvement in the performance of candidates it could have been better. The performance seems to be concentrated. For instance, some packs of 40 scripts had more candidates passing than other packs.
No signs of copying were observed. Generally, the questions were within the competence of an average candidate. Some candidates scored very high marks while a great number of them scored low marks reflecting the level of preparation of candidates.

NOTABLE STRENGHTS AND WEAKNESSES
Candidates performed quite well in the functional budget. The sales budget was well prepared, production budget was good, but most candidates could not compute the crude requirement for the preparation of the crude purchase.

The questions on the variances were well attempted. Candidates are encouraged to note that in calculating the sales volume, mix and quantity variances the contribution margin or profit is used not the selling price.

Payback period as a capital budgeting technique was very well understood.

Question five under short term decision making is an area candidate demonstrated good knowledge of the principles. The theory questions were fairly answered except that in cases where qualitative factors were required some candidates discussed quantitative factors.

Candidates had challenge with the Performance management in question 1. Even though they understand the appraisal technique (ROI and RI) some of them did not adjust the cashflows with the depreciation to arrive at the appropriate income and the capital employed. The question on operating leverage was also poorly attempted.

QUESTION ONE

a) The Board of Otmost Beauty Ltd, a beauty care production company is planning to introduce a new product. The Board has tasked the Divisional Manager of the fragrance division to evaluate two options to buy a production plant. Both options will have the same capacity and expected life of four years but they will differ in capital costs and expected net cash flows as shown in the table below:

	Option 1 GH¢'million	Option 2 GH¢'million
Initial capital investment year 0	640	520
Net cash flows (before tax)		
Year 1	240	260
Year 2	240	220
Year 3	240	150
Year 4	240	100
Net present value at 16% p.a	31.6	19.0

All divisions of the company are expected to generate pre-tax returns on divisional investments in excess of 16% per annum, which the fragrance division currently is just managing to achieve. Anything less than 16% would make the divisional managers ineligible for the annual performance bonus.

The performance bonus is linked to Return on Investment (ROI) and Residual Income (RI) and also has an impact on the calculation of retirement benefits, as the retirement benefits take into consideration the performance bonus earned during the two preceding years. The manager of the fragrance division is due to retire at the beginning of Year 3.

In calculating divisional returns, divisional assets are valued at the net book values at the beginning of the year. Depreciation is charged on a straight line basis with nil residual value.

Required:
i) Calculate the **ROI** and **RI** for years 1 to 4 and select the best option from the point of view of the fragrance division based on ROI and RI criteria. **(10 marks)**

ii) Explain why the fragrance Divisional Manager will not invest in the option showing the higher NPV and comment on whether it will be acceptable to the Board. **(5 marks)**

b) Medo Ltd produces and markets a single product. The following information is relevant for Medo Ltd and its main competitor:

	Medo Ltd	Medo Ltd's competitor
Annual turnover	GH¢100 million	GH¢100 million
Contribution to sales	80%	45%
Fixed cost per annum	GH¢20 million	GH¢10 million

Required:
Compute the *operating leverage* for both Medo Ltd and its competitor and comment on your results. **(5 marks)**

(Total: 20 marks)

QUESTION TWO

a) Squash Refinery has planned the following monthly sales for the first four months in the year:

Months	1	2	3	4
Gasoline (litres)	140,000	200,000	220,000	250,000
Diesel (litres)	100,000	130,000	180,000	210,000

The proposed ex-refinery prices are GH¢12.5 and GH¢10.8 per litre for gasoline and diesel respectively.

One metric tonne of crude oil when processed can yield 2,000 litres of gasoline and 2,500 litres of diesel. The inventory policy of the company is as follows:

- Closing inventory at the end of each month:
  Finished products: Twice of the monthly sales for gasoline and 150% of the monthly sales for diesel.
  Crude: 80% of the following month's requirement.

- The opening inventory are:
  Finished products: Gasoline 200,000 litres, diesel 180,000 litres and crude: 140 metric tonnes.

Note: The purchase of crude is based on the production requirement of gasoline.

Required:
Prepare the following budgets for each of the first three months:
i) Sales for gasoline and diesel. **(3 marks)**
ii) Quantity of crude to be purchased. **(12 marks)**

b) Business Process Re-engineering (BPR) is the fundamental redesign of workflows and business processes within an organisation. BPR aims to streamline operations, improve outcomes, cut costs and drive growth in business processes.

Required:
Explain **THREE (3)** conditions that may empower employees and junior managers to make operational decisions under BPR. **(5 marks)**

(Total: 20 marks)

QUESTION THREE

a) The following information relates to the estimate and actual results of Manjo Plc for the month of January.

Particulars	KO	TO	KA
Budgeted sales (units)	36,000	27,000	18,000
Standard selling price (GH¢)	15	10	12.5
Standard variable cost (GH¢)	8	4	7.5
Actual sales (units)	30,000	35,000	25,000
Actual sales (GH¢)	420,000	367,500	325,000

Required:
i) Calculate the sales price variance **(3 marks)**
ii) Calculate the sales volume variance **(3 marks)**
iii) Analyse the sales volume variance into:
• Sales quantity variances **(5 marks)**
• Sale mix variances **(4 marks)**

b) Total Quality Management (TQM) is a management framework based on the belief that an organisation can build long-term success by having all its members from low level workers to its highest ranking executives focus on improving quality and thus delivering customer satisfaction.

Required:
Explain **THREE (3)** principles of TQM that improve operational processes in organisations. **(5 marks)**

(Total: 20 marks)

QUESTION FOUR

a) The following mutually exclusive investment opportunities are being proposed to Kwame who wants reliable cash receipts on annual basis:

Proposal A: Purchase of a commercial vehicle at the cost of GH¢90,000 that will generate weekly sales of GH¢800. The owner will incur the following annual expenses on the vehicle:

	GH¢
Insurance	1,200
Tyres	10,400
Road worthy	1,400
Routine maintenance	9,000

Note: assume 52 weeks in a year.

Proposal B: The repair of an unoccupied two-bedroom flat at the cost of GH¢90,000. The flat was bought by Kwame for GH¢650,000 three years ago. The monthly rental will be GH¢1,450 subject to 8% rent tax. The owner will also pay property tax of GH¢1,200 per year.

Required:
i) Advise Kwame which of the proposals is acceptable using the payback period method of investment appraisal. **(8 marks)**
ii) Explain **TWO (2)** factors that can affect the reliability of the cash flow of the transport business. **(2 marks)**
iii) State **TWO (2)** qualitative factors that may influence the decision to opt for proposal B. **(2 marks)**
iv) Explain **TWO (2)** reasons the NPV may be a better appraisal technique than the payback period. **(3 marks)**

b) Just-In-Time (JIT) is an inventory management system in which goods are received from suppliers only as they are needed. The main objective of this method is to reduce inventory holding costs and increase inventory turnover. Despite the benefits of JIT, it has some disadvantages.

Required:
Examine **THREE (3)** challenges associated with the implementation of JIT Inventory Management System. **(5 marks)**

(Total: 20 marks)

QUESTION FIVE

Hwerema Technologies produces various components for telecom companies. The demand for these components is increasing. However, Hwerema Technologies' production facility is restricted to 50,000 machine hours. Therefore, the company is considering whether to import certain components to make up for the shortfall in production so as to meet market demand. In this respect, the following information has been gathered:

Description	Components			
	A	**B**	**C**	**D**
Estimated demand in units	6,500	2,000	7,100	4,500
Machine hours required per unit	8	4	5	2
	GH¢	**GH¢**	**GH¢**	**GH¢**
Selling price per unit	37.00	50.00	35.50	38.00
In- house cost per units:				
Direct material	20.00	28.00	23.00	22.00
Direct labour	9.00	5.00	9.00	8.00
Factory overheads	16.00	8.00	8.50	5.00
Allocated administrative overheads	5.00	4.00	3.00	2.00
	50.00	**45.00**	**43.50**	**37.00**
External price of the components	**35.00**	**40.00**	**34.00**	**33.00**

Factory overheads include fixed overheads estimated at GH¢1.50 per machine hour.

Required:
a) Determine the optimal units to be produced in-house and units to be imported. **(16 marks)**
b) State **FOUR (4)** qualitative consideration relevant to make-or-buy decision. **(4 marks)**

(Total: 20 marks)

SUGGESTED SOLUTION

QUESTION ONE

a)

i) **Computation of ROI and RI**

	Option 1 (GH¢ Million)				
	Y1	**Y2**	**Y3**	**Y4**	**Total**
NBV at the beginning of the year	640	480	320	160	
Net cash flows	240	240	240	240	960
Depreciation	160	160	160	160	640
Profit	80	80	80	80	320
Imputed Interest 16%	102	77	51	26	256
Residual Income	**(22)**	**3**	**29**	**54**	**64**
ROI	12.5%	16.7%	25.0%	50.0%	

	Option 2 (GH¢ Million)				
	Y1	**Y2**	**Y3**	**Y4**	**Total**
NBV at the beginning of the year	520	390	260	130	
Net cash flows	260	220	150	100	730
Depreciation	130	130	130	130	520
Profit	130	90	20	-30	210
Imputed Interest 16%	83	62	42	21	208
Residual Income	**47**	**28**	**(22)**	**(51)**	**2**
ROI	25.0%	23.1%	7.7%	-23.1%	

Over the entire life of the project both ROI and RI favour Option 1. ROI and RI averages to 26.05% and GH¢16 million for Option 1 whereas it is 8.18% and GH¢0.5 million for option 2.

Alternatively:
Option 1
workings
Depreciation =   640/4   = 160

Year	**1**	**2**	**3**	**4**
Beginning NBV	640	480	320	160

Profit (Cashflow – Depreciation) =   240 - 160   = 80

ROI

Year	**1**	**2**	**3**	**4**
Profit	80	80	80	80
Capital Employed	640	480	320	160
	12.5%	**16.7%**	**25%**	**50%**

RI

Year	1	2	3	4
Profit	80	80	80	80
Less ICC	102.4	76.8	51.2	25.6
	(22.4)	**3.2**	**28.8**	**54.4**

*ICC = Implied Cost of Capital

Option 2
workings
Depreciation =   520/4   = 130

Year	1	2	3	4
Beginning NBV	520	390	260	130
*Profit	130	90	20	(30)

*Profit (Cashflow – Depreciation)

ROI

Year	1	2	3	4
Profit	130	90	20	(30)
Capital Employed	520	390	260	130
	25%	**23%**	**7.7%**	**(23%)**

RI

Year	1	2	3	4
Profit	130	90	20	(30)
Less ICC	83.2	62.4	41.6	(20.8)
	46.8	**27.6**	**(21.6)**	**(50.8)**

(Marks are evenly spread using ticks = 10 marks)

ii) The manager will favour Option 2 because it yields a higher ROI   and RI over the first two years. He will probably focus on a two-year time horizon because of his personal circumstances, as choosing option 1 is likely to result in losing the bonus.

The focus is on short term rather than long term. Sub-optimal decision as manager is considering personal interest as against company interest.

Board comment:
The Board will not accept this short term option (Option 2) because:
- It does not give a clear objective that builds value and does not ensure long-term stability and profitability.
- It does not place emphasis on risk management.

(5 marks)

b) **Calculating of operating leverage =** contribution margin/ operating income

Or

(sales – variable cost)/ (sales – variable cost – fixed cost)

	Medo Ltd	Medo Ltd's Competitor
Contribution margin/operating income	80/(80-20)	45/(45-10)
Operating leverage	1.33 times	1.28 times

Comments

Medo Ltd has a higher operating leverage compared to its competitor which means Medo Ltd can earn more operating income from increasing sales through good marketing than competitor. On the other hand, Medo Ltd is more vulnerable than competitor, to the decline in revenue.

(5 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

Sub-question a) though not beyond the competence of candidates did not receive the correct responses. Candidates understand Return on Investment and Residual Income as a technique for divisional performance measure and got the formulae right.

i) Calculation of ROI and RI; The challenge for most of the candidates was the determination of the appropriate income and capital employed. Some candidates disregarded the depreciation while others who calculated it could not apply it in arriving at the income and capital employed as required in the question. Most of the candidates used the cash flows given in the question for the periods and the beginning capital in calculating the ROI. In the same way the imputed cost of capital was based on the initial capital for all the periods. Few of the candidates also used 31.6% and 19.0% respectively for the cost of capital for options one and two respectively. Based on the outcome of the formula used, the decisions were correct in most cases indicating an understanding of the principle involved in the technique.

ii) Decision of the Divisional Manager against that of the board; This portion which tries to bring to fore the probability of taking a wrong decision with short-term as against long-term perspective was well argued out by candidates except that some lost marks because they did not state whether the Board would take a long-term view and reject the decision of the Divisional Manager.

For sub-question b), computation of operating leverage; candidates demonstrated lack of knowledge of the concept of operating leverage. Most of them ended with the calculation of the profits for Medo Ltd. and her competitors. Those who went beyond did not get the formula right. The meaning or significance of operating leverage could not be explained by most of the candidates who attempted the question.

QUESTION TWO

a)

i) Sales Budget

Month	1		2		3	
Products:	Gasoline	Diesel	Gasoline	Diesel	Gasoline	Diesel
Quantity	140,000	100,000	200,000	130,000	220,000	180,000
Selling Price GH¢	12.5	10.8	12.5	10.8	12.5	10.8
Sales value GH¢	**1,750,000**	**1,080,000**	**2,500,000**	**1,404,000**	**2,750,000**	**1,944,000**

(Marks are evenly spread using ticks = 3 marks)

ii) Production Budget (Gasoline)

Month	1	2	3	4
Sales	140,000	200,000	220,000	250,000
Add closing stock	280,000	400,000	440,000	500,000
	420,000	600,000	660,000	750,000
Less opening stock	200,000	280,000	400,000	440,000
	220,000	**320,000**	**260,000**	**310,000**

(Marks are evenly spread using ticks = 6 marks)

Crude to Purchase

Month	1	2	3	4
Requirement	110	160	130	155
Add closing stock	128	104	124	
	238	264	254	
Less opening stock	140	128	104	
Quantity to purchase	**98**	**136**	**150**	

(Marks are evenly spread using ticks = 6 marks)

b) **Conditions that will help employees to take operational decisions**
- Employees need to have immediate access to information.
- Junior managers without financial background should be trained.
- Accounting information should be made simple and understandable.
- Operating environment should encourage employees to take initiative.

(Any 3 points @ 1.667 marks each = 5 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

The a) part of the question was on Functional budget, an area candidates' usually score good marks. Candidates are familiar with the principles and procedures, but some could not relate them to the preparation of the production and crude purchases budgets.

i) Preparation of sales budget; Most candidates performed very well in this question. Almost all those who attempted the sales budget scored the full marks.

ii) Preparation of production and crude purchases budgets; Candidates lost sight of the fact that since crude purchases were based on gasoline there was no need for the preparation of production budget for Diesel. The production budget was fairly attempted by some candidates. However, some of them could not easily convert the monthly production figures to crude requirement to help them prepare the budget for crude purchases. Only a few were able to score the marks on the budget for crude purchase.

Conditions that may empower employees to make operational decisions under BPR; Some candidates wasted time talking about the concept of Business Process Re-engineering (BPR) and went on to discuss its benefits. Others wrote about the process of implementing BPR. Only a few answered the question well as per the requirement. Candidates are cautioned to read the requirements carefully and respond accordingly.

QUESTION THREE

a)

i) **Calculation of sales price variance**

SPV (KO) = (Budgeted Selling price – Actual selling price) x Actual units sold
$$= [(15 – (420,000/30,000)] \times 30,000$$
$$= (15 -14) \times 30,000 = \textbf{30,000 Adverse}$$

SPV (TO) = (Budgeted Selling price – Actual selling price) x Actual units sold
$$= [(10 – (367,500/35,000)] \times 35,000$$
$$= (10 -10.5) \times 35,000 = \textbf{17,500 Favourable}$$

SPV (KA) = (Budgeted Selling price – Actual selling price) x Actual units sold
$$= [(12.5 – (325,000/25,000)] \times 25,000$$
$$= (12.5 -13) \times 25,000 = \textbf{12,500 Favourable}$$

(3 marks)

ii) **Calculation of sales volume variance**

Particulars	KO	TO	KA	TOTAL
Actual sales (units)	30,000	35,000	25,000	
Budgeted sales (units)	36,000	27,000	18000	
Volume variance (units)	6,000 A	8,000 F	7,000 F	
Standard contribution/unit (GH¢)	7	6	5	
Volume variance (contribution)	**42,000 A**	**48,000 F**	**35,000 F**	
TOTAL				41,000 F

(Marks are evenly spread using ticks = 3 marks)

iii) **Sales quantity variance**

Workings

Particulars	KO	TO	KA	TOTAL
Standard selling price (GH¢)	15	10	12.5	
Standard variable cost (GH¢)	8	4	7.5	
Standard contribution/unit (GH¢)	7	6	5	
Budgeted sales (units)	36,000	27,000	18000	81,000
	252,000	**162,000**	**90,000**	**504,000**
Standard average contribution/ unit (GH¢504,000 / 81,000 units)				**GH¢6.2222**
Actual sales (units)	30,000	35,000	25,000	90,000

Particulars	
Budgeted sales in total (units)	81,000
Actual sales (units)	90,000
Sales quantity variance (units)	9,000 F

Standard contribution/unit (GH¢)	6.2222
Volume variance (contribution)	**56,000 F**

Alternatively:

Sales Quantity Variance	
Total budgeted sales	81,000
Less actual sales	90,000
Total increase in quantity	9,000

Increase in sales at standard mix

			Standard contribution	Amount
KO	(36,000/81,000)*9000	4,000	7	28,000
TO	(27,000/81,000)*9000	3,000	6	18,000
KA	(18,000/81,000)*9000	2,000	5	10,000
				56,000

(Marks are evenly spread using ticks = 5 marks)

Sales mix variance

Product	Actual mix Units	Standard mix Units	Mix variance Units	Standard contribution per unit (GH¢)	Mix variance (GH¢)
KO (36,000/90,000*100) = 40%	30,000	40,000	10,000 A	7	70,000 A
TO (27,000/90,000*100) = 30%	35,000	30,000	5,000 F	6	30,000 F
KA (18,000/90,000*100) = 20%	25,000	20,000	5,000 F	5	25,000 F
	90,000	90,000	0		**15,000 A**

(Marks are evenly spread using ticks = 4 marks)

b) **Achieving success in TQM**
- **Cease the dependence on mass inspection to achieve quality**. Quality should rather be built into the production process.
- **Improve every process**. There should be a continuous search for ways of introducing further improvement into processes.
- **Top management commitment and action**. The success of TQM depends on total support and commitment of top management.
- **Drive out fear**. Establish an open two-way communication system between employees and management and drive out the fear of blame for making mistakes.
- **Break down barriers**. Barriers between different functions and departments within the entity should be removed.
- **Effective communication**

(Any 3 points @ 1.667 marks each = 5 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

Candidates demonstrated good knowledge of the topic in the a) part of this question. Some however, had challenges with the sales volume, quantity and mix variances. Others lost marks because they could not interpret their outcomes as to whether they are Favourable or Adverse

i) Sales price variance; The price variances for the various products were correctly computed and most of the candidates scored the allocated marks.

ii) Sales volume variance; Candidates demonstrated they understand the concept of volume variance but some used the selling prices as against the contributions in arriving at the amounts.

iii) Sales quantity and mix variances; Similarly, some candidates used the prices instead of the contributions in calculating the amounts for the quantity and mix variances. The performance was average.

For sub-question b), Principles of TQM that improve operational processes; The question was well attempted. Candidates stated the principles and explained them quite well. Overall performance was very good.

QUESTION FOUR

a)

i)   **Transport**

Receipts	GH¢	GH¢	
Sales (800 × 52)		41,600	(0.5)
Direct expenses:			
Insurance	1,200		
Tyres	10,400		
Road worthy	1,400		
Maintenance	9,000	(22,000)	(0.5)
Net cash inflow		**19,600**	(0.5)

Payback period = **GH¢90,000/ GH¢ 19,600**
= **4.59 years**   (2)

Rental

	GH¢	
Monthly rent	1,450	
Tax (8%)	116	
Net	1,334	(1)
Annual (1,334×12)	16,008	
property tax	1,200	
Net receipt	**14,808**	(0.5)

Payback period = **GH¢90,000/ GH¢14,808**
= **6.08 years**   (2)

Advise: Accept investment in transport. (1)

(8 marks)

ii) Factors that can affect the reliability of cash flow of the transport business
- Lack of patronage by passengers due to poor customer care
- Increase in direct operational cost e.g. fuel
- Increase in the annual cost
- Careless handling of the vehicle

(Any 2 points @ 1 mark each = 2 marks)

iii) Qualitative factors for acceptance of option B
- The property may deteriorate again if not renovated now.
- Its value will appreciate after renovation
- It has a longer life span than the vehicle.
- Risk exposure is relatively low.

(Any 2 points @ 1 mark each = 2 marks)

iv) Why NPV may be preferred
- It considers the cash flow for the entire project life.
- It factors in the time value of money
- The cost of capital is considered.
- It will normally reject unprofitable projects.

(Any 2 points @ 1.5 marks each = 3 marks)

b) Problems with JIT
- Zero inventories cannot be achieved in some industries where customer demand cannot be predicted.
- It might be difficult to arrange a reliable supplier who will deliver materials at the time needed.
- EOQ minimizes the total inventory cost, any quantity greater or less than that will increase total inventory cost.
- Ensuring defect free production system may not be easily attainable.

(Any 3 points @ 1.667 marks each = 5 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

Question 4 a) was a simple capital budgeting question on two mutually exclusive projects. The payback method is well understood by candidates.
- Acceptability of projects based on payback; Candidates who attempted it were able to compute the cash flows for both projects. A few however added the sunk cost of the building and therefore could not score all the marks for the rental project.
- Factors that can affect reliability of cashflow; Candidates responded well to the requirement here. Most of them scored all the marks.
- Qualitative factors; Only a few answered this part correctly. Most of the candidates discussed factors that are quantitative.
- Reasons why NPV is preferred; Candidates explained quite well why the NPV is preferred to other techniques.

Challenges associated with implementation of JIT; Candidates were able to explain the problems associated with the implementation of Just in Time inventory management system and scored some good marks.

QUESTION FIVE

a) **Optimal decision**

Description	Components			
	A	**B**	**C**	**D**
Estimated demand in units	6,500	2,000	7,100	4,500
Machine hours required per unit	8	4	5	2
	GH¢			
In-house cost	50.00	45.00	43.50	37.00
Less irrelevant cost for decision making				
- 1.5 x machine hours per unit	12.00	6.00	7.50	3.00
- Allocated administrative overheads	5.00	4.00	3.00	2.00
Relevant cost of production	**33.00**	**35.0**	**33.50**	**32.00**
External price of the components	35.0	40.0	34.0	33.0
Incremental cost in case of external buying	**2.00**	**5.00**	**1.00**	**1.00**
Decision	**Make**	**Make**	**Make**	**Make**

Selling price	37.00	50.00	35.50	38.00
Less variable	33.00	35.00	33.50	32.00
Contribution per unit	**4.00**	**15.0**	**2.00**	**6.00**
Contribution per limiting factor	0.50	3.75	0.40	3.00
Ranking	**3rd**	**1st**	**4th**	**2nd**

Product	Decision	Quantity	Limiting factor
B	Make	2,000	8,000
D	Make	4500	9,000
A	Make	4,125	33,000/8
			50,000
A	Buy	2,375	
C	Buy	7,100	

Alternative for Determining Rankings

Components	A	B	C	D
External price	35	40	34	33
Cost of production:				
Direct Material	20	28	23	22
Direct Labour	9	5	9	8
Variable factory overheads	4	2	1	2
	33	35	33	32
Savings – In-house production	2	5	1	1
Machine hours (limiting factor)	8	4	5	2

Savings/Limiting factor	0.25	1.25	0.2	0.5
Ranking	**3rd**	**1st**	**4th**	**2nd**

(Marks are evenly spread using ticks = 16 marks)

b) Non-financial considerations relevant to make or buy decisions
   Risk of outsourcing works:
- Suppliers may produce items to a lower standard of quality.
- The supplier may fail to meet delivery date and the buyer may depend on the supplier to commit onward delivery to its buyer. In case of buying of a component, production process of the end-product may be held up by a lack of component.

   Benefits of outsourcing work:
- Outsourcing work will enable the management to focus all its efforts on those aspects of operation the entity does best.
- The external supplier may have specialist expertise which enables it to provide outsourced products more efficiently and at a cheaper price.

(4 points @ 1 mark each = 4 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS
The question was on Production plan and outsourcing; Candidates demonstrated understanding of the principles in the outsourcing decision and were able to apply it under limited resources. Those who attempted the question did well in computing the savings made when producing in house as against outsourcing. Few of them could not identify the fixed factory and administrative overheads as irrelevant and so included it in the cost build up resulting in wrong amount for savings.

Calculation of savings per limiting factor was well done to decide which products were to be produced and those to be outsourced. The ranking for the production plan was done well. On the whole candidates did well in this question.

A good number of the candidates stated factors which are quantitative instead of qualitative and could not score the full marks allocated.

CONCLUSION:
The overall performance is below expectation in view of the level of clarity and the standard of the paper. Out of 1,151 candidates who wrote the paper 294 passed representing 25.54%. If the candidates had prepared well the performance could have been better.

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.