

**MARCH 2026 PROFESSIONAL EXAMINATIONS  
MANAGEMENT ACCOUNTING (PAPER 2.2)  
CHIEF EXAMINER'S REPORT, QUESTIONS AND MARKING SCHEME**

**STANDARD OF THE PAPER**

The standard of the paper 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 (application) and the requirement to attain professional competence.

Overall, the question quality and standard were good. Detailed supporting information was provided for each question. The five questions generally covered the syllabus but were skewed towards computational (70 marks) as against theory (30). Opportunities were given to candidates to comment on their outcomes and draw relevant conclusions.

**PERFORMANCE OF CANDIDATES**

Performance of candidates was better than the previous diets though below expectation considering the level of difficulty of the paper. Question one on transfer pricing covered the relevant aspects i.e. impact of adjusted market price under idle capacity and negotiated price as an optimum. Question 3(a) posed a little challenge to candidates because of the actual output from the input materials which resulted in a huge yield variance. In 4(a) it appeared the incremental cost effectiveness ratio is not popular with candidates. The remaining questions were within the competence of an average candidate. The performance of candidates in questions 4(a) cost effectiveness and 5(a) profit statement for the regular grade of material were good.

**NOTABLE STRENGTHS AND WEAKNESSES**

**Strengths**

Candidates performed quite well in the theory questions. Question one on transfer pricing was well answered as well as 4(a) cost effectiveness of the vaccination programme. Those who attempted 5(a) (i) were able to adjust the prime cost of production for the regular material and correctly produced the contribution statement.

**Weaknesses**

Candidates had challenge with computation of overhead absorption rates using material and labour cost percentages as well as cost driver rates under the ABC. Some of the candidates were unable to separate mixed cost into fixed and variable so could not compute the production and selling and distribution overheads in the flexible question (3b). As stated above majority of the candidates who attempted question 4 did not compute the incremental cost effectiveness ratio.

Candidates lost marks in question 5(a)(i) because they could not make the correct adjustment for the normal loss of 5% on the cheaper material. They ought to have grossed up the adjusted prime cost to 100% by dividing by 0.95 to get the cost per unit of the product.

## QUESTION ONE

Ankafo LTD is a decentralised organisation with two production divisions; Division X and Division Y. Division X is responsible for producing a single, standardised product called “creamy”. A portion of this output is sold to external customers, while the remaining units are transferred internally to Division Y, where they serve as a sub-component in the production of Division Y’s final product.

The unit cost structure for creamy is as follows:

|  | <b>GH¢</b>          |
|--|---------------------|
| Variable cost                          | 20.00               |
| Fixed manufacturing overheads          | 8.00                |
| Selling and packing expense – variable | <u>2.00</u>         |
|  | <b><u>30.00</u></b> |

Division X produces at a maximum capacity of 15,000 units each year. It sells 10,000 units externally at a standard price of GH¢60 per unit and 5,000 units are transferred annually to Division Y.

Selling and packaging costs are avoidable when transfers are made internally.

The unit cost breakdown for Division Y is as follows:

|  | <b>GH¢</b>           |
|--|----------------------|
| Transferred-in item (from Division X)  | 58.00                |
| Variable costs                         | 76.00                |
| Fixed overheads                        | 24.00                |
| Selling and packing expense – variable | <u>2.00</u>          |
|  | <b><u>160.00</u></b> |
| Selling price                          | 180.00               |

The Manager of Division Y disagrees with the current method used to determine the internal transfer price. He argues that transfers from Division X should be priced at variable cost plus a minimal, pre-agreed mark-up, rather than the current rate. His reasoning is that Division Y is absorbing outputs that Division X would otherwise be unable to sell at the external market price of GH¢60.

The Manager of Division Y proposes that a transfer price of GH¢24 would provide Division X with a fair contribution toward its fixed overheads, while also enabling Division Y to achieve a reasonable profit margin.

### Required:

- Prepare a statement showing the contribution of Division X and Division Y with the current transfer price. Comment on your results. **(8 marks)**
- Determine the likely effect on the contribution of *each* division if Ankafo LTD adopts the proposal by Division Y’s manager of a transfer price of GH¢24. **(4 marks)**
- Explain how multinational corporations utilise transfer pricing strategies to manage their global tax obligations. **(4 marks)**
- Explain **TWO** disadvantages of negotiated transfer pricing. **(4 marks)**

**(Total: 20 marks)**

## QUESTION TWO

a) Bonsuo LTD, an indigenous manufacturing company, makes and sells a number of products including Product A and B.

1) Estimated product data for the forthcoming period is as follows:

| Details                          | Product A | Product B | Other Product |
|----------------------------------|-----------|-----------|---------------|
| Production/Sales (units)         | 6,300     | 12,200    | 65,000        |
| Total Direct Material Cost (GH¢) | 91,350    | 244,000   | 2,820,000     |
| Total Direct Labour Cost (GH¢)   | 63,000    | 427,000   | 760,000       |

2) Variable overhead cost is GH¢2,100,000 of which 65% is related to the acquisition, storage and use of direct materials and 35% is related to the control and use of direct labour.

3) It is current practice in Bonsuo LTD to absorb variable overhead cost into product units using material and labour percentages on direct material cost and direct labour cost as the absorption bases.

### Additional information:

Bonsuo LTD is considering using an activity based costing (ABC) approach. Below is a proposed cost driver details for the products:

| Cost Driver                        | Product A | Product B | Other Product |
|------------------------------------|-----------|-----------|---------------|
| Material bulk proportions per unit | 5         | 2         | 3             |
| Labour operations per unit         | 4         | 3         | 2             |

### Required:

- i) Identify the steps involved in absorbing overheads to the cost of a product using ABC. (3 marks)
  - ii) Prepare estimated unit product cost for Product A and Product B using the existing absorption basis. (6 marks)
  - iii) Prepare estimated unit product cost for Product A and Product B using activity-based costing approach. (6 marks)
- b) In Management Accounting, budgeting plays a crucial role in planning, controlling and evaluating performance. Among the various types of budgets, flexible budgets and flexed budgets are often confused due to their similar names, yet they serve distinct purposes and are used at different stages of the budgeting process.

### Required:

- i) Differentiate between *flexible budget* and *flexed budget*, including their purpose and timing of preparation. (3 marks)
- ii) Justify **TWO** reasons a flexed budget is preferred to a fixed budget for control purposes. (2 marks)

(Total: 20 marks)

### QUESTION THREE

- a) The following data were extracted from the books of Totobi LTD for the month of May in respect of product “obido” which consist of a mix of three materials, B, D and F. The standard material cost of a unit of obido is as follows:

|            |             | <b>GH¢</b> |
|------------|-------------|------------|
| Material B | 5kg @ GH¢4  | 20         |
| Material D | 2kg @ GH¢12 | 24         |
| Material F | 3kg @ GH¢ 8 | 24         |

During the month of May, 30,000 units of obido were produced, the actual usage was:

|             |           |
|-------------|-----------|
| Material B: | 13,200 kg |
| Material D: | 6,500 kg  |
| Material F: | 9,300 kg  |

**Required:**

- i) Calculate the materials yield variance for the month of May. **(7 marks)**  
 ii) State **THREE** purposes of standard costing system. **(3 marks)**

- b) Koobi LTD manufactures a single standard product and, like many companies in the industry, is currently facing a downturn in market conditions. Due to ongoing trading challenges, the company is operating at 70% of its production capacity, which equates to an output of 6,300 units. However, the Sales Director has indicated that a more realistic forecast for the upcoming budget period would be to produce at an activity level of 50%.

|                                  | <b>Level of activity</b> |                |                |
|----------------------------------|--------------------------|----------------|----------------|
|                                  | <b>60%</b>               | <b>70%</b>     | <b>80%</b>     |
|                                  | <b>GH¢</b>               | <b>GH¢</b>     | <b>GH¢</b>     |
| Direct material                  | 37,800                   | 44,100         | 50,400         |
| Direct labour                    | 16,200                   | 18,900         | 21,600         |
| Production overheads             | 37,600                   | 41,200         | 44,800         |
| Administration overheads         | 31,500                   | 31,500         | 31,500         |
| Selling & distribution overheads | 42,300                   | 44,100         | 45,900         |
| <b>Total cost</b>                | <b>165,400</b>           | <b>179,800</b> | <b>194,200</b> |

Profit is 20% of selling price

**Required:**

- Prepare a flexible budget for 50% level of activity. **(10 marks)**

**Total: 20 marks)**

## QUESTION FOUR

- a) The National Vaccination Centre (NVC) of the Ghana Health Service is considering a number of different options of vaccination drives to help curb the rising incidence of the six childhood killer diseases among children below five years in the country. The six childhood killer diseases include diphtheria, measles, pertussis, poliomyelitis, tetanus and tuberculosis. Subsequently, six different approaches outlined below are being considered by the Centre:
- 1) Programme A – *Hospitals and health centres campaign*. This option involves providing the needed logistics and supplies to all existing hospitals and other health facilities to vaccinate all new born babies and eligible children who visit such facilities for medical care. This campaign expects to vaccinate a total of 86,500 new born babies and 113,500 other eligible children visiting such facilities for medical care. This campaign is expected to cost GH¢2 million in total.
  - 2) Programme B - *Community centres and chief palaces*. This option will require parents and guardians to converge with eligible children at certain designated locations including chief's palaces and community centres for the exercise. This programme is expected to cost GH¢4.4 million in total and result in the vaccination of 400,000 children in total across all the regions in the country.
  - 3) Programme C - *Churches, mosques and other places of worship*. This programme involves targeting various places of worship on their special worship days to vaccinate all eligible children. This option is expected to cost GH¢7.4 million and result in the vaccination of approximately 600,000 children in total.
  - 4) Programme D - *House to house campaign*. This is expected to be carried out by health professionals who are expected to visit all households in the communities and suburbs in the southern, central and northern zone to ensure that all eligible children are vaccinated. 310,000 children are expected to be vaccinated in the southern, 290,000 children in the central and 400,000 children in the northern zones respectively. This campaign is expected to cost GH¢10.5 million in total.
  - 5) Programme E - *Combination of programmes A, B and C*. This option involves a combination of the strategies proposed in programmes A, B and C with the same costs and benefits of each programme applying.
  - 6) Programme F - *Combination of programmes A, B, C and D*. This option involves deploying the strategies stated in the related programmes with costs and benefits of respective programmes being the same.

### Required:

As Management Accountant of the NVC:

- i) Compute the cost effectiveness and the incremental cost-effectiveness ratio of all the programme options. **(8 marks)**
- ii) Determine the most cost-effective programme among the options presented. Ignore scale issues. **(2 marks)**
- iii) Assuming that the objective is to vaccinate at least 500,000 children nationwide, which programme will be considered as the most cost-effective? **(2 marks)**

- iv) What does the incremental cost-effectiveness ratio of a programme measure? **(2 marks)**  
v) If the NVC believes that each vaccination provides social benefits equal to GH¢10, then which programme should it adopt? **(1 mark)**

b) Standard costing is a core technique for cost control and performance measurement in Management Accounting. Standards set the expected cost/price, time or usage for resources in producing goods and services. As a result, standards allow companies to compare actual results against expected performance.

**Required:**

Explain what is meant by *attainable standard* and *current standard* and their effect on employee motivation. **(5 marks)**

**(Total: 20 marks)**

## QUESTION FIVE

- a) Bolekyer LTD manufacture blocks for Kintampo Township. In the last quarter of 2024 it was estimated that Bolekyer LTD will have produced and sold 20,000 units of blocks by the end of the year. At this level of activity, it is estimated that the average unit cost will be:

|                   |            |
|-------------------|------------|
|                   | <b>GH¢</b> |
| Direct material   | 30         |
| Direct labour     | 10         |
| Variable overhead | <u>10</u>  |
|                   | <u>50</u>  |

This is in line with the standards set at the start of the year. The Management Accountant of Bolekyer LTD is now preparing the budget for 2025. She has incorporated into her preliminary calculations the following expected cost increases:

|                                      |     |
|--------------------------------------|-----|
| Raw material: Price increase of      | 20% |
| Direct labour: Wage rate increase of | 5%  |
| Variable overhead: Increase of       | 5%  |

The Production Manager believes that if a cheaper grade of raw materials were to be used, this would enable the direct material cost per unit to be kept at GH¢31.25 for 2025. The cheaper material would however lead to a normal loss of 5%. However, it would also be necessary to introduce inspection stage at the end of the manufacturing process to identify the faulty items. The cost of this inspection process would be GH¢30,000 per year.

The Marketing Manager estimates that demand for the product varies with price as follows:

|                    |        |        |        |        |        |        |
|--------------------|--------|--------|--------|--------|--------|--------|
| <b>Price (GH¢)</b> | 90     | 92     | 96     | 100    | 120    | 140    |
| <b>Demand</b>      | 20,000 | 19,000 | 17,000 | 15,000 | 13,000 | 12,000 |

### Required:

- i) Prepare a profit or contribution statement for each grade of material. **(12 marks)**
- ii) At what price will it be more profitable to use the regular material? **(2 marks)**
- iii) Determine the price at which it would be indifferent to use either regular or the cheaper grade of material. **(2 marks)**

- b) Pricing strategies involve setting product or service prices to balance profitability, coverage and market competition.

### Required:

Explain the following pricing methods:

- i) Full cost plus pricing. **(2 marks)**
- ii) Demand based pricing. **(2 marks)**

**(Total: 20 marks)**

## SUGGESTED SOLUTION

### QUESTION ONE

a)

i) Unit X

Contribution margin for external sales

SP-VC

$$60-22 = 38$$

Contribution for internal sales

$$58-20=38$$

Total contribution:

$$10,000 \times 38 = 380,000$$

$$5,000 \times 38 = \underline{190,000} \qquad 570,000$$

Unit Y

Contribution margin for external sales

SP-VC

$$180-136 = 44$$

$$\text{Contribution} = 44 \times 5,000 \qquad \underline{220,000}$$

$$\text{Company} \qquad \underline{790,000}$$

Comment: Unit X reports higher profit than unit Y because the fixed cost is passed on to unit Y. Any inefficiency may also be passed be borne by unit Y.

**(8 marks)**

ii) **Proposed transfer price**

Unit X

$$\text{External sales } 10,000@38 = 380,000$$

$$\text{Internal sales } 5,000@4 = \underline{20,000} \qquad 400,000$$

Unit Y

Revised contribution margin  $((180-102) = 78$

$$5,000@78 \qquad \underline{390,000}$$

$$\underline{790,000}$$

Comment: The contribution for unit X has reduced in favour of unit Y. It is a fair basis for transfer price.

**(4 marks)**

iii) By setting transfer prices in a way that shifts profits from high-tax jurisdictions to subsidiaries located in low-tax or tax-friendly countries, companies can reduce their overall tax burden. For example, a subsidiary in a high-tax country might purchase goods or services from a related entity in a low-tax country at inflated prices, thereby lowering its taxable income. Conversely, the subsidiary in the low-tax country reports higher income but pays less tax due to favourable local tax rates. **(4 marks)**

iv) **Disadvantages of negotiated transfer pricing**

- **Time-consuming and resource intensive:** Negotiations require significant management time, effort, and resources, distracting managers from core operational tasks.
- **Divisional conflict and reduced cooperation:** It can foster rivalry instead of cooperation, as divisions may prioritise their own profits over the company's overall welfare.
- **Performance measurement distortion:** The final price often reflects a manager's bargaining skills rather than the true efficiency of their division. This leads to inaccurate, or biased performance assessments.
- **Suboptimal decision-making:** If one division has more power, they may set a price that discourages the other, leading to suboptimal output levels and resource allocation for the company as a whole.
- **Information asymmetry:** One division may take advantage of the other if they have better information regarding costs or market conditions.

**(4 marks)**

**(Total: 20 marks)**

### EXAMINER'S COMMENTS

Question 1 was to examine the effect that transfer price will have on the performance of both the transferring and receiving divisions. Since there was idle capacity for the units to be transferred using the adjusted market price would not favour the receiving division. Most of the candidates were able to prepare the statement to determine the contribution for both divisions, however they could not assign the reasons why the receiving division reported far lower contribution than the supplying division.

The proposal to transfer at marginal cost plus which appears to be the most optimal price was to be demonstrated by candidates in the form of a contribution statement. Some candidates did well to respond to the requirement yet others could just not appreciate the simple fact that the difference between the old price and the new will reduce the contribution of the transferring division and increase that of the receiving division by the same amount.

Candidates appreciated the fact that transfer price can be used to move profit from high tax areas to low tax areas except that some could not illustrate that fact with specific scenarios.

The responses to negotiated transfer pricing was very good and most candidates scored the marks assigned.

## QUESTION TWO

a)

- i) Activity Based Costing is the process of attributing cost to cost unit on the basis of how much the units have benefited from the indirect activities such as ordering, machine set up, order processing etc.

### Steps

- Identify major activities within each department which create cost and create a cost pool for each activity.
- Collect, classify and assign overhead to activity cost pool
- Determine what causes the cost of each activity i.e. select appropriate cost driver
- Calculate the cost driver rate
- Assign overhead to products

(3 marks)

ii) Cost per unit - Absorption Costing

|                            | Product A    | Product B    |
|----------------------------|--------------|--------------|
|                            | GH¢          | GH¢          |
| Materials                  | 14.5         | 20           |
| Labour                     | 10           | 35           |
| <b>Prime Cost</b>          | <b>24.5</b>  | <b>55</b>    |
| Overheads:                 |              |              |
| Materials                  | 6.27         | 8.65         |
| Labour                     | 5.88         | 20.58        |
| <b>Total Cost per unit</b> | <b>36.65</b> | <b>84.23</b> |

### Workings

|           | Product A                     | Product B                     |
|-----------|-------------------------------|-------------------------------|
| Materials | $\frac{91,350}{6,300} = 14.5$ | $\frac{244,000}{12,200} = 20$ |

|        |                             |                               |
|--------|-----------------------------|-------------------------------|
| Labour | $\frac{63,000}{6,300} = 10$ | $\frac{427,000}{12,200} = 35$ |
|--------|-----------------------------|-------------------------------|

### Variable Overheads:

Materials = 65% x 2,100,000 = 1,365,000

Labour = 35% x 2,100,000 = 735,000

Materials =  $\frac{1,365,000}{(91350+244,000+2,820,000)} \times 100\%$  =  $\frac{1,365,000}{3,155,350} \times 100\%$  = 43.26%

|           | <b>Product A</b>  | <b>Product B</b>                                    |
|-----------|---|---|
| Materials | $\frac{43.26\% \times 91,350}{6,300} = 6.27$            | $\frac{43.26 \times 244,000}{12,200} = 8.65$        |
| Labour    | $\frac{735,000 \times 100\%}{(63,000+427,000+760,000)}$ | $= \frac{735,000 \times 100\%}{1,250,000} = 58.8\%$ |

|          | <b>Product A</b>                           | <b>Product B</b>                              |
|----------|--|---|
| Labour = | $\frac{0.588 \times 63,000}{6,300} = 5.88$ | $\frac{0.588 \times 427,000}{12,200} = 20.58$ |

(6 marks)

iii) Cost per unit – Activity Based Costing

|                            | <b>Product A</b> | <b>Product B</b> |
|----------------------------|------------------|------------------|
|                            | <b>GH¢</b>       | <b>GH¢</b>       |
| Materials                  | 14.5             | 20               |
| Labour                     | 10               | 35               |
| <b>Prime Cost</b>          | <b>24.5</b>      | <b>55</b>        |
| Overheads:                 |                  |                  |
| Materials                  | 2.70             | 1.08             |
| Labour                     | 15.32            | 11.49            |
| <b>Total Cost per unit</b> | <b>45.52</b>     | <b>67.57</b>     |

**Workings**

Materials

$$\text{CDR} = \frac{\text{Cost pool}}{\text{Cost Driver}} = \frac{1,365,000}{(5 \times 6,300) + (2 \times 12,200) + (3 \times 65,000)} = \text{GH¢ } 0.54 \text{ per material}$$

Absorb

|             | <b>Product A</b>         | <b>Product B</b>         |
|-------------|--------------------------|--------------------------|
| Materials = | $(0.54 \times 5) = 2.70$ | $(0.54 \times 2) = 1.08$ |

Labour

$$\text{CDR} = \frac{\text{Cost Driver}}{\text{Cost Pool}} = \frac{735,000}{(4 \times 6,300) + (3 \times 12,200) + (2 \times 65,000)} = 3.83$$

Absorb

|  | <b>Product A</b>          | <b>Product B</b>        |
|--|---------------------------|-------------------------|
|  | $(3.83 \times 4) = 15.32$ | $3.83 \times 3 = 11.49$ |

(6 marks)

b)

i) **Difference between flexible budget and flexed budget**

- A *flexible budget* is a planning tool prepared before the start of a period. It presents estimated costs and revenues at various levels of activity, allowing management to anticipate how changes in output or sales volume might affect financial performance. This type of budget is particularly useful in dynamic environments where activity levels are uncertain or variable.
- A *flexed budget*, on the other hand, is prepared after the actual level of activity is known. It adjusts the original budget to reflect the actual output achieved, enabling a more accurate comparison between budgeted and actual results. This helps in evaluating performance by isolating variances due to efficiency, cost control, or other operational factors

(3 marks)

ii) **Why flexed budget is preferred to fixed budget for control purpose**

- A flexed budget adjusts the original budget to match the actual level of activity (e.g., units produced or sold). This makes it more realistic and relevant for comparing actual performance against budgeted expectations.
- By aligning the budget with actual output, a flexed budget allows for meaningful variance analysis. It helps identify whether deviations are due to changes in activity levels or inefficiencies in operations.
- Managers can be evaluated more fairly when the budget reflects the actual conditions they operated under. A fixed budget might unfairly penalize or reward managers if activity levels differ significantly from the original plan.
- Flexed budgets provide more accurate insights into cost behavior and operational efficiency, which are crucial for making informed decisions about pricing, resource allocation, and cost control.
- In industries where demand or production levels fluctuate, a flexed budget offers the flexibility needed to maintain effective control and oversight.

(3 points @ 1 mark each = 2 marks)

(Total: 20 marks)

### EXAMINER'S COMMENTS

Question 2 (a)(i) which had to do with the steps involved in absorbing overhead into product cost using the ABC were well laid out by most of the candidates to score the full marks.

Question 2 (a)(ii) was to test candidates' understanding of absorption of overheads using the traditional approach. Using the direct material and direct labour cost percentages as bases of absorbing overhead posed a challenge to candidates. Most of them who attempted the question could not determine the overhead absorption rate.

Candidates demonstrated fair idea of the ABC principles in question 2 (a)(ii), however in the case where the cost drivers had been provided, most could not calculate the cost driver rates and thus were unable to determine the unit cost of the products.

Some of the candidates were not able to bring out the differences between flexible and flexed budget with respect to purpose and timing. Most described the flexible budget as one that changes when circumstances change giving room to frequent changes. The requirement for question 2 (b)(ii) was fairly responded to.

### QUESTION THREE

a)

i)

10kg = 1 unit of obido

Therefore, 29,000kg should yield 2,900 units =  $\frac{29,000}{10} = 2,900$  units

But 29,000kg yielded 30,000 units

Therefore, yield variance = 30,000-2,900 = 27,100 x 68 = **1,842,800 F**

**OR**

If 1 unit uses 10kg, 30,000 units should use 300,000kg

| MATERIAL | SQSM    | AQSM   | YIELD<br>VARIANCE | SP/UNIT | TOTAL              |
|----------|---------|--------|-------------------|---------|--------------------|
| B        | 150,000 | 14,500 | 135,500           | 4       | 542,000 F          |
| D        | 60,000  | 5,800  | 54,200            | 12      | 650,400 F          |
| F        | 90,000  | 8,700  | 81,300            | 8       | 650,400 F          |
|          |         |        |                   |         | <b>1,842,800 F</b> |

(7 marks)

ii) **Purposes of Standard Costing**

- It aids in budget preparation.
- It is useful for planning, control and motivation
- It is used to value inventories and cost production for cost accounting purposes.
- It acts as a control device by establishing standards (planned costs), highlighting activities that are not conforming to plan and thus alerting management to areas which may be out of control and in need of corrective action
- It helps to evaluate the performance of a manager

(3 points @ 1 mark each = 3 marks)

b) **Flexible budget at a capacity of 50%**

|                                  | Note | GH¢                   |
|----------------------------------|------|-----------------------|
| Direct materials                 | 1    | 31,500                |
| Direct labour                    | 2    | 13,500                |
| Production overheads             | 3    | 34,000                |
| Administration overheads         |      | 31,500                |
| Selling & distribution overheads | 4    | <u>40,500</u>         |
|                                  |      | <b><u>151,000</u></b> |

**Notes:**

1. Direct materials at 100% capacity =  $\frac{50,400 - 37,800}{80\% - 60\%}$   
= 12,600/0.2

$$\begin{aligned} &= \text{GH}\text{c}63,000 \\ \text{The direct material at 50\% capacity} &= 50\% \times 63,000 \\ &= \text{GH}\text{c}31,500 \end{aligned}$$

$$\begin{aligned} 2. \text{ Direct labour at 100\% capacity} &= \frac{21,600 - 16,200}{80\% - 60\%} \\ &= 5,400 / 0.2 \\ &= \text{GH}\text{c}27,000 \end{aligned}$$

$$\begin{aligned} \text{The direct labour at 50\% capacity} &= 50\% \times 27,000 \\ &= \text{GH}\text{c}13,500 \end{aligned}$$

3. Assessment of production overheads suggest that it is a semi-variable cost

|      | Level of activity | Cost (GHc)    |
|------|-------------------|---------------|
| High | 80%               | 44,800        |
| Low  | <u>60%</u>        | <u>37,600</u> |
|      | <u>20%</u>        | <u>7,200</u>  |

$$\begin{aligned} \text{Total variable cost} &= 7,200 / 0.2 \\ &= \text{GH}\text{c}36,000 \end{aligned}$$

$$\begin{aligned} \text{Fixed cost} &= \text{GH}\text{c}44,800 - \text{GH}\text{c}36,000 \\ &= \text{GH}\text{c}8,800 \end{aligned}$$

Production overhead at 50%

|                                 | GHc           |
|---------------------------------|---------------|
| Variable cost (50% * GHc36,000) | 18,000        |
| Fixed cost                      | <u>8,800</u>  |
|                                 | <u>26,800</u> |

4. Assessment of selling and distribution overheads suggest that it is a semi-variable cost

|      | Level of activity | Cost (GHc)    |
|------|-------------------|---------------|
| High | 80%               | 45,900        |
| Low  | <u>60%</u>        | <u>42,300</u> |
|      | <u>20%</u>        | <u>3,600</u>  |

$$\begin{aligned} \text{Total variable cost} &= 3,600 / 0.2 \\ &= \text{GH}\text{c}18,000 \end{aligned}$$

$$\begin{aligned} \text{Fixed cost} &= \text{GH}\text{c}45,900 - \text{GH}\text{c}18,000 \\ &= \text{GH}\text{c}27,900 \end{aligned}$$

Production overhead at 50%

|                                 | GHc           |
|---------------------------------|---------------|
| Variable cost (50% * GHc18,000) | 9,000         |
| Fixed cost                      | <u>27,900</u> |
|                                 | <u>36,900</u> |

**(10 marks)**

**(Total: 20 marks)**

**EXAMINER'S COMMENTS**

The yield variance has been an area candidates have problems dealing with. Candidates performed poorly in this sub-question. Stating the purposes of standard costing was quite simple and candidates responded well to that.

Adequate knowledge was demonstrated in the application of flexible budget principles to draft a budget for a given level of activity. Most candidates were able to calculate the direct material and direct labour costs. Getting the production and selling and distribution overheads was a problem to many because they could not apply the high and low method to separate the cost into fixed and variable. Those who went beyond the total cost were able to apply the concept of margin mark up to determine the profit and sales revenue.

#### QUESTION FOUR

a)  
i)

| Programme | Cost (GH¢)                    | Number of Vaccinations  |           |
|-----------|-------------------------------|-------------------------|-----------|
| A         | 2,000,000                     | 86,500+113,500 =        | 200,000   |
| B         | 4,400,000                     |                         | 400,000   |
| C         | 7,400,000                     |                         | 600,000   |
| D         | 10,500,000                    | 310,000+290,000+400,000 | 1,000,000 |
| E         | 2.0m+4.4m+7.4m=<br>13,800,000 | 200,000+400,000+600,000 | 1,200,000 |
| F         | 13.8m+10.5m=<br>24,300,000    | 1,200,000+ 1,000,000    | 2,200,000 |

**Computation of cost-effectiveness per programme and the incremental cost-effectiveness ratios**

| Programme | Cost (GH¢) | Effectiveness (No. of Vaccinations) | Cost/Effectiveness (GH¢) | $\frac{\text{change in cost}}{\text{change in effectiveness}}$ |
|-----------|------------|-------------------------------------|--------------------------|--|
| A         | 2,000,000  | 200,000                             | 10.0                     | 0  |
| B         | 4,400,000  | 400,000                             | 11.0                     | 12   |
| C         | 7,400,000  | 600,000                             | 12.3                     | 15   |
| D         | 10,500,000 | 1,000,000                           | 10.5                     | 7.75   |
| E         | 13,800,000 | 1,200,000                           | 11.5                     | 16.5   |
| F         | 24,300,000 | 2,200,000                           | 11.0                     | 10.5   |

(8 marks)

ii) Without considering differences in scale, programme A which is the door-to-door campaign is the most cost effective with a cost effectiveness of GH¢10.00 per vaccination.

(2 marks)

iii) Of the programmes that yield at least 500,000 vaccinations, programme *D* is most cost-effective with a cost-effectiveness of GH¢10.50 per vaccination. (2 marks)

iv) The incremental cost-effectiveness ratio of a programme helps to determine if the added cost of a new or alternative intervention is justified by the additional health benefit it provides compared to a comparator (e.g., the current standard of care or no intervention). (2 marks)

v) Given a shadow price of GH¢10 per vaccination, the NVC will be indifferent between doing programme *A* and not doing any other programme. (1 mark)

b) *Attainable standards*: these standards are based upon efficient but not perfect operating conditions. These standards include allowances for the fatigue, machine breakdown and normal material losses. Attainable standards motivate performance as they can be achieved and can be used for product costing, cost control, inventory valuation, estimating and as a basis for budgeting.

*Current Standards*: these standards are based on current level of efficiency and incorporate current levels of wastage, inefficiency and machine breakdown. They do not provide any incentive to improve on the current level of performance. Their impact on motivation will be a neutral one.

(5 marks)

(Total: 20 marks)

#### EXAMINER'S COMMENTS

Determining the cost effectiveness of the vaccination programme was quite straight forward and most candidates scored the full marks. A few got E and F wrong because they averaged the outcomes of the previous programmes. The incremental cost effectiveness ratio for the programmes could not be calculated. Most candidates did not attempt that at all. Those who got the computations correct were able to determine the most cost effective programmes. The responses to question 4 (a)(iv) demonstrated that most candidates did not understand incremental cost effectiveness ratio. Question 4 (a)(v) was well answered.

Candidates were able to explain fairly the two types of standards, i.e. attainable and current standards and indicated their effect on employees.

**QUESTION FIVE**

a)  
i)

**Computation of unit variable cost estimates for 2025**

|                                 | Regular material<br>GH¢ | Cheaper material<br>GH¢ |
|---------------------------------|-------------------------|-------------------------|
| Direct material                 | 30 × 1.20 = 36.00       | 31.25                   |
| Direct labour                   | 10 × 1.05 = 10.50       | 10.50                   |
| Variable overhead               | 10 × 1.05 = 10.50       | 10.50                   |
|                                 | <b>57.00</b>            | 52.25                   |
| Cost of rejects: 52.25 × 5/95 = |                         | 2.75                    |
|                                 |                         | <b>55.00</b>            |

**Calculation of total contribution for alternative grades of material**

| Regular material |                       |        |              | Cheaper material      |        |                    |              |
|------------------|-----------------------|--------|--------------|-----------------------|--------|--------------------|--------------|
| Price            | Per unit contribution | Demand | Contribution | Per unit contribution | Demand | Cost of inspection | Contribution |
| GH¢              | GH¢                   | ('000) | (GH¢'000)    | (GH¢)                 | ('000) | (GH¢'000)          | (GH¢'000)    |
| 90               | 33                    | 20     | 660          | 35                    | 20     | (30)               | 670          |
| 92               | 35                    | 19     | 665          | 37                    | 19     | (30)               | 673          |
| 96               | 39                    | 17     | 663          | 41                    | 17     | (30)               | 667          |
| 100              | 43                    | 15     | 645          | 45                    | 15     | (30)               | 645          |
| 120              | 63                    | 13     | 819          | 65                    | 13     | (30)               | 815          |
| 140              | 83                    | 12     | 996          | 85                    | 12     | (30)               | 990          |

**(12 marks)**

ii) Bolekyer LTD should use the regular material at selling price GH¢140 as a greater contribution is derived.

**(2 marks)**

iii) At price GH¢100, Bolekyer LTD is indifferent for using either regular or cheaper material as profit is the same (GH¢645,000).

**(2 marks)**

b)

- i) *Full cost plus pricing* involves calculating the full cost of an item (such as a job or contract) or the expected full cost and adding a profit margin to arrive at a selling price. Profit is expressed as either a percentage of the full cost (a profit mark-up) or a percentage of the sales price (a profit margin)

**(2 marks)**

- ii) *Demand based pricing* is a flexible strategy that sets product prices based on consumer demand and perceived value rather than production costs. Prices fluctuate in real-time or seasonally, rising during high demand to maximise profit and lowering during low demand to increase sales volume.

**(2 marks)**

**(Total: 20 marks)**

### **EXAMINER'S COMMENTS**

The (a) part of the question required candidates to adjust figures with current operational conditions, in this case price level changes and the decision to use alternative material. The initial adjustment to changes in prices of the cost elements was correctly done and the related contribution statement was well prepared using the regular materials. However, most candidates in making provision for the 5% normal loss assumed the loss on only the materials excluding the conversion cost as a result the cost per unit of the alternative material was wrong. It thus led to wrong contribution for the various price levels. Candidates who got the statements right could deduce the price that was profitable for the regular materials

The two pricing methods were well explained in the (b) part of the question. A few candidates however explained them in relation to transfer price as if the technique is limited to only internal arrangements.

### **CONCLUSION**

The overall performance was still below expectation. Candidates have always demonstrated strength in the theory questions and since such questions were few overall scores may have been affected. Besides, the attempt at some of the computational questions suggest that some candidates are deficient in basic costing principles.