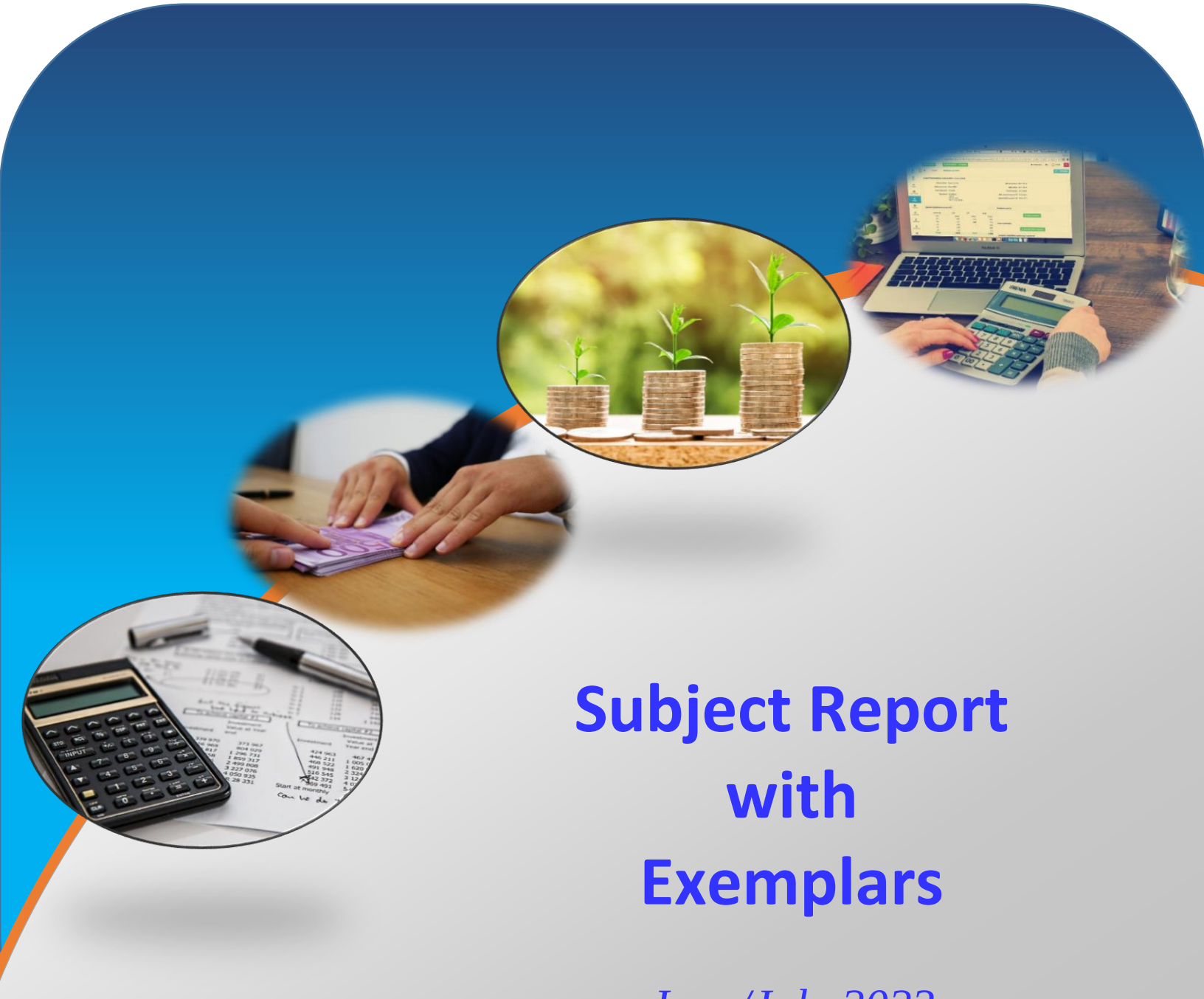
CARIBBEAN EXAMINATIONS COUNCIL

ACCOUNTING UNIT 2



Subject Report with Exemplars

June/July 2023

CARIBBEAN EXAMINATIONS COUNCIL

REPORT ON CANDIDATES' WORK IN THE
CARIBBEAN ADVANCED PROFICIENCY EXAMINATION

JUNE/JULY 2023

ACCOUNTING
UNIT 2

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INTRODUCTION

This report focuses on three papers from the 2023 CAPE Accounting Unit 2 examination.

- Paper 01 consists of 45 compulsory multiple-choice items, 15 items from each of the three modules.
- Paper 02 consists of three questions, a mixture of computations and short essays. Each module is covered by a separate question.
- Paper 031 is a school-based assessment which is marked by the class teacher and moderated by CXC.

PAPER 01 – MULTIPLE CHOICE

Candidates' performance on the 45 multiple choice items produced a mean of 65 per cent.

PAPER 02 – STRUCTURED ESSAY

This paper comprised three compulsory questions.

Question 1

The mean mark for this question was 42.40 per cent.

In Part (a), candidates were asked to distinguish between direct labour and indirect labour. Most candidates were able to make the differentiation. However, some candidates only provided enough information to secure one of the two marks allotted.

Common weaknesses included the following.

- Some candidates used an example of indirect labour cost instead of providing the required definition.
- Some candidates did not highlight that direct labour costs are directly traceable to the specific product or service.

Candidate's Response to Part (a) – Sample 1

Write your answer to Question 1 (a) on the lines below.

Direct labour is the labour that directly contributes to producing a product or service. It can therefore be traced back to the production of it, eg. bakers in a bakery. While indirect labour is ~~not~~ does not directly contribute to producing the product or service and ~~can~~ therefore cannot be traced back, eg. factory cleaners.

[2 marks]

Candidate's Response to Part (a) – Sample 2

Write your answer to Question 1 (a) on the lines below.

Direct labour is a labour ~~cost~~ that is directly traceable to a product or job^ (e.g. factory workers) while indirect labour is labour not directly traced to a product, e.g. factory supervisors

[2 marks]

Examiner's Comments

These candidates demonstrated a clear understanding of the distinction between direct and indirect cost.

Part (b) presented hours worked by an employee for three weeks and a company's pay policy. Candidates were required to complete a table to determine the gross pay employee. Most candidates were able to calculate all the components of the payroll table correctly.

Common weaknesses included the following.

- Some candidates were unable to work out the basic pay correctly because they failed to follow the instruction which reminded them not to include overtime and holiday payments in the basic pay calculation.
- Some candidates lost the marks for the premium pay section of the table.
- In calculating the holiday pay, some candidates used time and a half instead of double time.

Candidate's Response to Part (b) – Sample 1

Write your answer to Question 1 (b) in the table below.

April	Number of Hours Worked	Units Produced (Pair of Shoes)	Basic Pay	Premium	Overtime	Holiday Pay	Gross Pay
5–9	30	15	540	0	0	0	540
12–16	45-30 = 15	23-15=9	540	(8X5) 40	(15X1.5X18) 405	0	985
19–23	30	17-15 = 2	432 ~~540~~	(2X5) 10	0	(6x2x18) 216	658
						Total	2183

[6 marks]

Candidate's Response to Part (b) – Sample 2

Write your answer to Question 1 (b) in the table below.

April	Number of Hours Worked	Units Produced (Pair of Shoes)	Basic Pay	Premium	Overtime	Holiday Pay	Gross Pay
5–9	30	15	540	0	0	0	540
12–16	45	23	540	40	405	0	985
19–23	30	17	432	10	0	216	658
						Total	2183

[6 marks]

Examiner's Comments

These candidates demonstrated clear understanding of calculating basic and overtime pay, and gross pay.

In Part (c) (i), candidates were asked to list three categories of hazardous materials. Most candidates were able to identify three types of hazardous materials. Some candidates responded with solid, liquid and gas. Additionally, some candidates treated toxins and poison as separate items, and as such only secured one of two marks for those items.

Common weaknesses included the following.

- Some candidates were only able to correctly identify one or two types of hazardous materials.
- Some candidates did not produce a response for the question, while others identified fixed assets such as 'machines' as hazardous materials.

Candidate's Response to Part (c) (i)

Write your answer to Question 1 (c) (i) on the lines below.

Three categories of hazardous materials include flammable materials like petrol corrosive materials like acid and poisonous / toxic materials like lead.

[3 marks]

Examiner's Comments

The candidate identified all three categories of hazardous materials.

Part (c) (ii) asked candidates to suggest three controls that may be implemented for the safekeeping of the type of inventory listed in Part (c) (i). Most candidates who attempted this section were able to earn all three marks. They were able to link the correct internal control for safety to the hazardous material stated in Part (c) (i). Some candidates did not provide a response.

Candidate's Response to Part (c) (ii) – Sample 1

Write your answer to Question 1 (c) (ii) on the lines below.

1. Ensure that these materials are labeled with the correct danger signs.
2. Keep away from materials and chemicals that may appear similar to prevent a mix up.
3. According to the instructions and properties of materials, store accordingly. For example, if they are flammable, store them away from oxygen.

[3 marks]

Candidate's Response to Part (c) (ii) – Sample 2

Write your answer to Question 1 (c) (ii) on the lines below.

Three internal controls that may be implemented for the safe keeping of the inventory are proper labelling of material, ensure it is within a plastic container with a good lid and do not mix solids with liquids.

[3 marks]

Examiner's Comments

This candidate provided a clear explanation of the internal controls used to protect inventory of hazardous materials.

In Part (d) (i), candidates were asked to define the term *economic order quantity (EOQ)*. Most candidates only explained that EOQ is an estimate of the number of units per order but failed to mention that it provides the optimal balance between the cost of ordering and the cost of carrying inventory. Therefore, many candidates only earned one of the two possible marks. Additionally, some candidates provided the formula as part of their definition but secured no mark for this.

Candidate's Response to Part (d) (i)

Write your answer to Question 1 (d) (i) on the lines below.

The term Economic Order Quantity refers to the ideal quantity of inventory that an entity should purchase at any point in time in order to minimize inventory costs such as Holding and Ordering Costs.

[2 marks]

Examiner's Comments

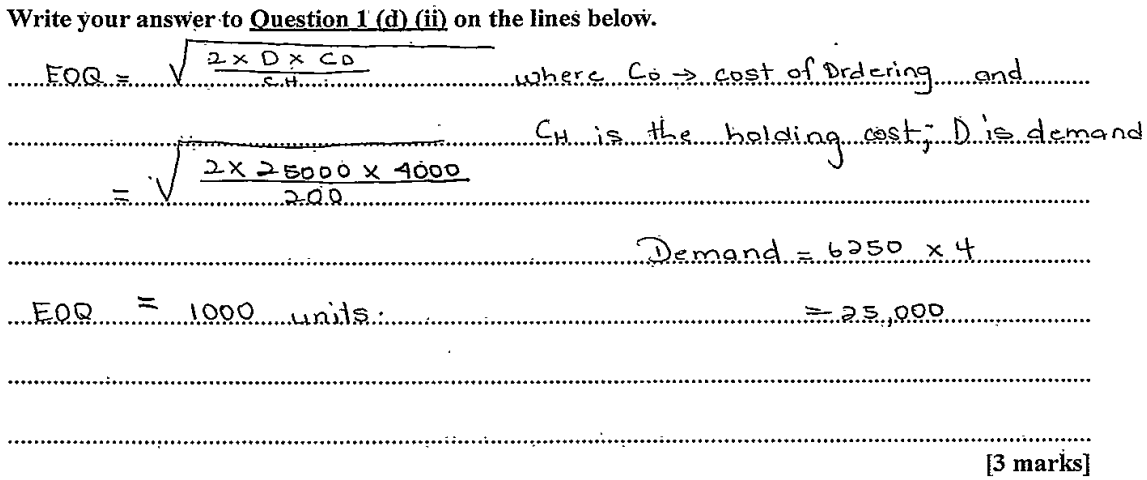
This response was thorough as the candidate demonstrated a clear understanding of the definition of Economic Order Quantity.

Part (d) (ii) required that candidates calculate economic order quantity from given information. Most candidates were able to correctly record the EOQ formula but failed to follow through with its application; hence, many earned only two of the three marks allotted.

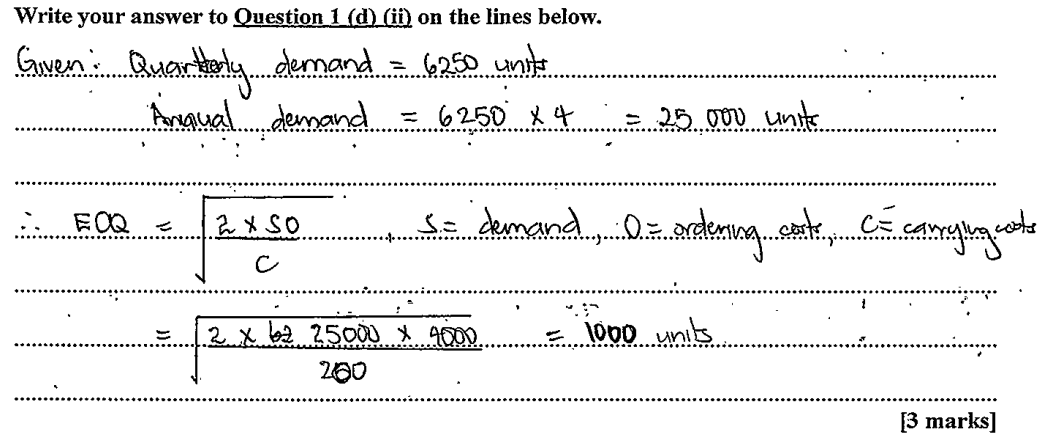
Common weaknesses included the following.

- Some candidates used the quarterly demand figure instead of multiplying it by four to get the correct annual demand figure.
- Some candidates interchanged annual ordering cost with the annual carrying cost in the formula.
- For some candidates, although they had the square root in the formula, did not include it in their calculation.

Candidate's Response to Part (d) (ii) – Sample 1



Candidate's Response to Part (d) (ii) – Sample 2



Examiner's Comments

These candidates provided clear calculations of the EOQ (Economic order quantity).

Part (d) (iii) required that candidates determine the reorder point without the safety stock. Most candidates earned the two marks. However, it was obvious that some candidates did not know the correct formula and thus did not perform the calculation.

Candidate's Response to Part (d) (iii) – Sample 1

Write your answer to Question 1 (d) (iii) on the lines below.

reorder point = daily average usage x daily average lead time
= (300/7) x (2x7) | 500 x 2 = 1000
= 1000 units

[2 marks]

Candidate's Response to Part (d) (iii) – Sample 2

Write your answer to Question 1 (d) (iii) on the lines below.

Reorder point = maximum usage x marimum lead time
= 500 x 2
= 1000 units.

[2 marks]

Examiner's Comments

These candidates provided a clear calculation of the reorder point without the safety stock.

Part (d) (iv) required candidates to determine the reorder point with the safety stock. As with Part (d) (iii), most candidates earned the two marks. However, some candidates were not sure how to perform the calculation and omitted the section.

Candidate's Response to Part (d) (iv) – Sample 1

Write your answer to Question 1 (d) (iv) on the lines below.

Reorder Point = (weekly quantity used x lead time) + safety stock
= (500 units x 2 weeks) + 500 units
= 1000 units + 500 units
= 1500 units

[2 marks]

Candidate's Response to Part (d) (iv) – Sample 2

Write your answer to Question 1 (d) (iv) on the lines below.

Reorder point w/ safety stock = (Weekly usage x lead time) + Safety stock

Safety stock = (Maximum usage - Average usage) x lead time

= [1000 - 500] x 2

= 1000 units

∴ Reorder point = (500 x 2) + 1000

= 2 000 units

[2 marks]

Examiner's Comments

These candidates provided clear calculations of the reorder point with safety stock.

In Part (e), candidates were asked to define each of the following costs and state if they are relevant or irrelevant to decision-making.

- Avoidable costs
- Unavoidable costs
- Opportunity costs

Most candidates earned half of the six marks for this part. Most candidates were able to define and identify opportunity cost as relevant to decision-making and determine whether each cost was relevant or irrelevant.

Common weaknesses included the following.

- Candidates were not able to correctly differentiate between avoidable cost and unavoidable costs. Hence, avoidable cost was shown as irrelevant to decision-making and unavoidable cost as relevant.
- Some candidates lost marks for the definition of each cost.

Candidate's Response to Part (e) (i-iii) – Sample 1

Write your answer to Question 1 (e) (i–iii) on the lines below.

(i) Avoidable costs - or relevant costs are those costs (~~that~~) whose incurrence depends on the course of action taken. It is therefore relevant to decision making as the firm can used these costs to make decisions that will cost them less.

(ii) Unavoidable costs - are sunk costs ; these are costs that have already been incurred. These costs are irrelevant and as such, is not necessary for decision making as these costs have already occurred.

(iii) Opportunity cost refers to the next best alternative foregone. It is relevant to decision making. This is because it lets ~~us~~ the firm see what they're giving up to get something else.

[6 marks]

Candidate's Response to Parts (e) (i)–(iii) – Sample 2

Write your answer to Question 1 (e) (i–iii) on the lines below.

(i) Avoidable Costs are those costs that are incurred when making a specific business decision that will change in the future as a result of that decision. Avoidable costs are relevant to decision making.

(ii) Unavoidable costs are those costs that do not change in relation to the decision being made. Unavoidable costs are irrelevant to decision making.

(iii) Opportunity costs refers to the different /alternative cost that is given up when making one business decision over the other. Opportunity costs are relevant to decision making.

[6 marks]

Candidate's Response to Parts (e) (i)–(iii) – Sample 3

Write your answer to Question 1 (e) (i–iii) on the lines below.

(i) Avoidable costs are those costs that are only incurred based on the option chosen by the firm. When choosing between alternatives, the option that is not chosen would be the cost that can be avoided, which makes this cost relevant to decision making.

(ii) Unavoidable costs are those costs that will be incurred no matter what the firm decides to do. Any option taken the firm will still incur the costs, even if no option at all is taken, which makes this cost irrelevant to decision making.

(iii) Opportunity costs are those ~~costs~~ benefits that are foregone when one option is pursued. Choosing between alternatives will mean that one option will be forgone, with all the benefits that would have come with it. This cost is relevant to decision making.

[6 marks]

Examiner's Comments

These candidates provided clear definitions of all the costs (avoidable, unavoidable and opportunity costs).

In Part (f), candidates were asked to compare job-order costing and process costing by stating three similarities and three differences. Most candidates secured between three and five marks for this section. Candidates on average were only able to identify two differences and two similarities.

Regarding the differences, the main response was that job-order costing was for unique or custom-made jobs while process costing was used in mass production. For similarities, the main response was that they both determine product cost and allocate overheads using a predetermined overhead rate.

Common weaknesses include the following.

- A few candidates confused the two types of costing, identifying job-order costing with mass production and process costing with custom-made products.
- Some candidates stated that a subsidiary ledger for work-in-process was only done for process costing.

Candidate's Response to Part (f) – Sample 1

Write your answer to Question 1 (f) on the lines below.

(i) Job-order costing is used where the products are unique while process costing is used where products are uniform or relatively homogenous.

(ii) Job-order costing is used in industries with batch production while process costing is done on a more continuous flow basis.

(iii) Job-order costing is used to produce smaller quantities of products while process costing is used in industries with mass production.

The similarities are: (i) they are both costing system which only allocate manufacturing costs to the product.

(ii) they allocate overhead using a predetermined overhead rate (POHR)

(iii) they are both traditional costing system and they both focus on overhead allocation, rather than overhead minimization.

[6 marks]

Candidate's Response to Part (f) – Sample 2

Write your answer to Question 1 (f) on the lines below.

Similarities	Differences
1) Job Costing and Process Costing have the same 3 manufacturing elements which are Direct Materials, Direct Labour and Manufacturing overhead 2) Both Systems require Direct Materials to be Debited to Direct Materials, Direct Labour Debited to Direct Labour and Manufacturing Overheads debited to Factory overhead 3) Both cost systems use work in process to determine their costs	1) Job Costing uses a Job Cost Sheet whilst Process Costing uses a production cost report 2) Job Costing uses a work in proces account for each Job whilst Process Costing uses one for each proces 3) Job Costing is used for customized products in small quantities while Process Costing is used for standardized products which are mass produced.

[6 marks]

Examiner's Comments

These candidates provided adequate responses to the similarities and differences of job-order and process costing.

Recommendations

- Teachers should emphasize the key difference between direct labour and indirect labour, using clear examples.
- Teachers should provide opportunities for students to get adequate practice in payroll calculations.
- When discussing internal control systems, it is recommended that teachers afford the opportunity for students to explain different internal control strategies based on different scenarios. This will help students expand their knowledge and develop their critical thinking skills.
- Teachers should afford students more practice in applying the formula for EOQ, and the reorder point (with and without safety stock).
- Teachers should pay keen attention to the definition of terms related to costing and ensure that students can determine which are relevant or irrelevant to decision-making.
- Teachers should focus on students explaining the unique characteristics of each costing system and clearly highlight differences and similarities where applicable. Classroom discussion may be helpful in this regard.

Question 2

The mean mark for this question was 23.09 per cent.

The question was based on a company producing washing machine parts — A11, B12 and C13. In the scenario, the complex setup and assembly has made it increasingly difficult to produce the parts. The company used a traditional costing approach to assigning overheads, based on machine hours. The system is currently under review, with the intention of recommending a costing system that is more appropriate for product diversity. The question presented production information for the three parts.

Part (a) required candidates to describe a system other than traditional costing that may be more suitable for costing the diverse and complex parts. In responding, most candidates correctly identified activity-based costing as an appropriate system for costing the diverse and complex parts. Many were able to provide at least one description regarding activity-based costing, such as the following.

- Uses cost drivers to allocate overheads
- Assigns overheads based on the level of activity
- Provides more accurate results
- Is less aggregated
- Demonstrates the close relationship between cost and cost driver
- Uses multiple cost drivers to allocate overhead costs

Common weaknesses included the following.

- A few candidates described the process of tracing costs to activities, then to products and other cost objects.
- Many candidates simply quoted from the question, stating that activity-based costing is “more suited for diverse and complex parts”.
- In their explanations, some candidates did not distinguish between activity cost pools and departments.
- Some candidates chose other costing systems such as process costing, job costing and absorption costing.
- Some candidates expressed themselves poorly.

Candidate's Response to Part (a)

Write your answer to Question 2 (a) on the lines below.

Activity-based-costing can be used for costing diverse and complex parts. This costing method uses unique activity drivers for each overhead activity to allow for more appropriate allocation over of overhead costs. This results in more accurate per unit costs. Activity based-costing tends to be used on jobs with various overhead expenses.

[3 marks]

Examiner's Comments

This candidate correctly identified why activity-based costing is more suitable for costing the diverse and complex parts. Mention was made of this method using cost drivers closely related to the activity and therefore allowing for more appropriate allocation of costs and hence, more accurate costing of the units produced.

Part (b) required candidates to perform a number of calculations. For Part (b) (i), candidates had to calculate the plantwide predetermined overhead rate. Most candidates were able to do this.

Common weaknesses included the following.

- Some candidates did not indicate that the rate calculated was based on machine hours, so the response was '$12.50' instead of *$12.50 per machine hour*.
- A few candidates calculated separate machine hourly rates for Parts A11, B12 and C13, rather than finding one plantwide rate.
- In calculating the rate, candidates correctly identified machine hours as the base, but then only used the hours for one machine part as the denominator, as opposed to using total machine hours for all parts.
- Some candidates used bases such as units produced to calculate the plantwide rate.

Candidate's Response to Part (b) (i)

Write your answer to Question 2 (b) (i) on the lines below.

$\frac{5,000,000}{400,000} = \$12.5$ per a machine hr

[2 marks]

Examiner's Comments

This candidate was able to calculate the predetermined overhead rate by dividing the total overhead by the total machine hours. It was clearly indicated that the overhead rate was to be charged per machine hour.

For Part (b) (ii), candidates had to calculate the unit overhead cost for each of the three parts. Many candidates performed the calculation by doing the following.

- Applying the rate calculated in Part (b) (i) to obtain the total overhead allocated to each part
- Dividing the overhead allocated by the number of parts produced

Common weaknesses included the following.

- Candidates successfully calculated total overhead allocated to each part but did not follow through by calculating a rate per unit.
- Some candidates did not use the predetermined rate obtained in the previous section.

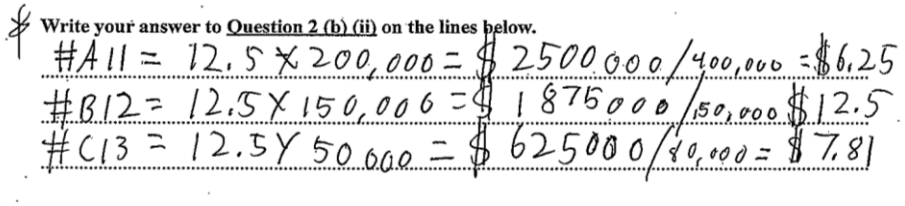
Candidate's Response to Part (b) (ii) – Sample 1

Write your answer to Question 2 (b) (ii) on the lines below.

Details	#A11 $	#B12 $	#C13 $
Overhead Costs (200k x $12.5), (150k x $12.50), (50k x $12.50)	2500000	1875000	625000
÷ # of units produced	400000	150000	80000
Unit Overhead Costs	6.25	12.50	7.81

[6 marks]

Candidate's Response to Part (b) (ii) – Sample 2

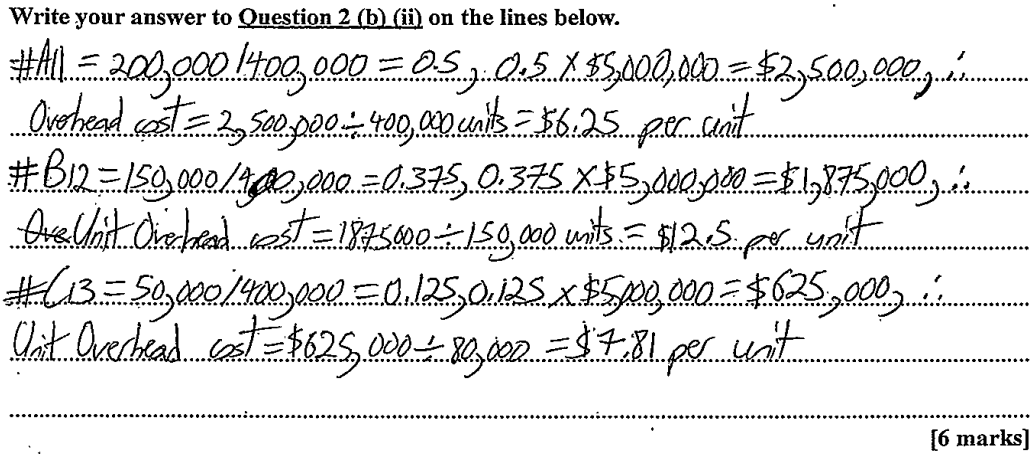


Examiner's Comments

These candidates calculated the cost per unit for each product by doing the following.

- Calculating the total overhead for each product (predetermined rate x number of machine hours for the product)
- Dividing the result by the number of units of the relevant product

Candidate's Response to Part (b) (ii) – Sample 3



Examiner's Comments

This candidate calculated the cost per unit for each product by doing the following.

- Computing the proportion of total machine hours used in the production of each part (machine hours used in production of the part divided by the total machine hours)
- Multiplying the result by the total overhead cost

For Part (b) (iii), candidates were required to calculate the overhead over- or under-absorbed for Part C13, given the actual overhead provided. Some candidates were able to do this by doing the following.

- Finding the difference between the actual overhead provided in the question and the overhead computed in the previous section
- Stating whether the difference was over- or under-applied

Common weaknesses included the following.

- The overhead applied used in the calculation did not reflect the overhead calculated in the previous section.
- Candidates correctly deduced that overhead was over- or under-applied but provided no supporting calculation.
- Candidates correctly calculated the difference between actual and applied overhead but did not state whether this represented an over- or under- application.
- Candidates correctly calculated the difference between actual and applied overheads but incorrectly identified the difference as over- or under- application.

Candidate's Response to Part (b) (iii)

Write your answer to Question 2 (b) (iii) on the lines below.

680,000 − 625006 = $55000 under absorbed

[2 marks]

Examiner's Comments

The candidate correctly calculated the overhead under-absorbed by doing the following.

- Finding the difference between the actual overhead provided in the question and the overhead absorbed, calculated in the previous section
- Stating that the overhead was, in fact, under-absorbed

For Part (b) (iv), candidates were required to calculate the unit overhead cost for a specific part using activity-based costing. Candidates took different approaches when responding to this part. One approach for calculating the overhead per unit was by doing the following.

- Calculating the correct activity rate for each activity (activity cost/total units of activity cost driver)
- Calculating the overhead cost for each activity based on the amount of cost driver used in production of Part A11. (activity rate x units of activity cost driver used in production of Part A11)
- Dividing the total overhead calculated above by the number of units of Part A11 produced

In the second approach, candidates did the following.

- For each activity, computed the proportion of the total activity cost driver used in the production of Part A11 (activity driver used in A11/total activity cost driver)
- For each activity, computing the total activity cost incurred in the production of Part A11 (proportion calculated above x total activity cost)
- Totaling the overheads calculated above and dividing by the units of Part A11 produced to arrive at the overhead cost per unit.

Common weaknesses included the following.

- Candidates calculated the total overhead applied to Part A11 but did not calculate the cost per unit.
- The question required candidates to multiply the activity cost by the units of cost driver related to Part A11 and divide by the total units of cost driver. Several candidates multiplied by the total units of cost driver and divided by the units related to Part A11.
- A few calculated activity rates for each product, as opposed to one rate per activity.
- Some candidates did not show supporting workings.

Candidate's Response to Part (b) (iv) – Sample 1

Write your answer to Question 2 (b) (iv) on the lines below.

Setup costs = 1,200,000/300 = 4000 x 200 = 800000

Machine Costs = 1,500,000/400,000 = 3.75 x 200000 = 750000

Inspection Costs = 500,000/2500 = 200 x 500 = 100000

Engineering Costs = 1800,000/2000 = 900 x 1000 = 900000

6.375 - 400000/2550000

Unit overhead for A11 = $ 6.38

Candidate's Response to Part (b) (iv) – Sample 2

Write your answer to Question 2 (b) (iv) on the lines below.

Setup costs rate = $\frac{1,200,000}{300}$ = $4000 per # of setups

Machine costs rate = $\frac{1,500,000}{400,000}$ = $3.75 per machine hour

Inspection costs rate = $\frac{500,000}{2,500}$ = $200 per # of inspections

Engineering costs rate = $\frac{1,800,000}{2,000}$ = $900 per engineering hour

Setup costs = 4,000 X 200 = $800,00

Machine costs = 200,000 X 3.75 = $750,000

Inspection costs = 500 X 200 = $100,000

Engineering costs = 1,000 X 900 = $900,000

Total Overhead costs for A11 = $2,550,000

Unit Overhead costs for A11 = 2,550,000 ÷ 400,000 = 6.375

≈ $6.38 per unit [7 marks]

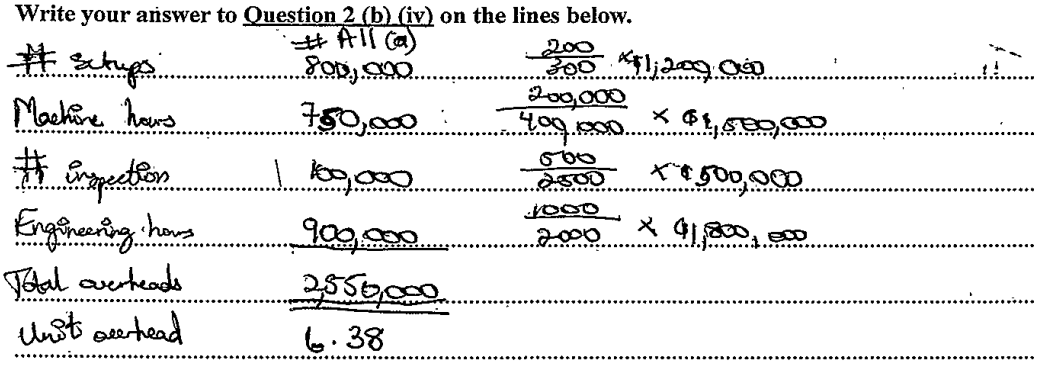
Examiner's Comments

These candidates correctly calculated the unit overhead cost for Part A11 by doing the following.

- Calculating the correct activity rate for each activity (activity cost/total units of activity cost driver)
- Calculating the overhead cost for each activity based on the amount of cost driver used in production of Part A11. (activity rate x units of activity cost driver used in production of Part A11)
- Dividing the total overhead calculated above by the number of units of Part A11 produced

Candidate's Response to Part (b) (iv) – Sample 3

Write your answer to Question 2 (b) (iv) on the lines below.



Examiner's Comments

The candidate correctly calculated the unit overhead cost for Part A11 by doing the following.

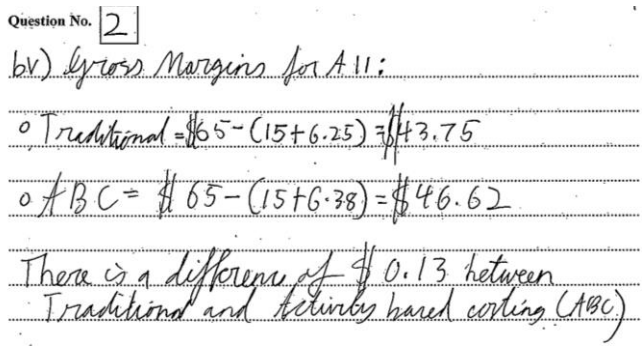
- For each activity, computing the proportion of the total activity cost driver used in the production of Part A11 (activity driver used in A11/total activity cost driver)
- For each activity, computing the total activity cost incurred in the production of Part A11 (proportion calculated above x total activity cost)
- Totalling the overheads calculated above and dividing by the units of Part A 11 produced to arrive at the overhead cost per unit.

For Part (b) (v), candidates were asked to calculate the gross margins for Part A11, under the traditional and activity-based costing approaches. In responding, some candidates were able to calculate the total gross margin and the gross margin per unit or gross margin ratio.

Common weaknesses included the following.

- Candidates did not include prime cost in the calculation.
- Candidates included prime cost, but not the overhead cost.
- Some candidates used selling price per unit and prime cost per unit but used total overhead.
- Several candidates did not attempt this section.
- Several responses were awarded no marks, since the calculations were based on erroneous principles.

Candidate's Response to Part (b) (v) – Sample 1


Question No. 2

bv) Gross Margins for A11:

o Traditional = $65 - (15 + 6.25) = $43.75

o ABC = $65 - (15 + 6.38) = $46.62

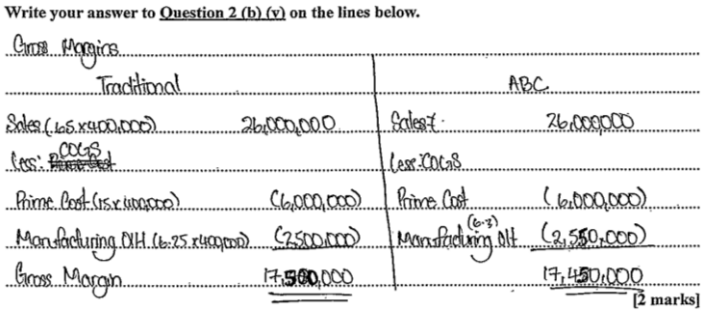
There is a difference of $0.13 between Traditional and Activity based costing (ABC)

Examiner's Comments

The candidate was able to calculate the gross margin per unit using traditional costing and activity-based costing by

- finding the difference between the selling price and the prime cost per unit plus the overhead per unit calculated in Part (b) (ii)
- finding the difference between the selling price and the prime cost per unit plus the overhead per unit calculated in Part (b) (iv).

Candidate's Response to Part (b) (v) – Sample 2


Write your answer to Question 2 (b) (v) on the lines below.

Gross Margins

Traditional		ABC	
Sales (65 x 400,000)	26,000,000	Sales	26,000,000
Less: ~~COGS~~ Prime Cost		Less: COGS	
Prime Cost (15 x 400,000)	(6,000,000)	Prime Cost	(6,000,000)
Manufacturing OH (6.25 x 400,000)	(2,500,000)	Manufacturing (6.38) OH	(2,550,000)
Gross Margin	17,500,000		17,450,000

[2 marks]

Examiner's Comments

The candidate was able to calculate the gross margin using traditional costing and activity-based costing by

- converting the sales price, direct materials per unit and direct labour cost per unit to total amounts. Unit overhead costs previously calculated were also converted to total amounts.
- finding the difference between the sales revenue and the prime cost plus the overhead calculated in Part (b) (ii) to calculate gross margin under traditional costing.
- finding the difference between the sales revenue and the prime cost plus the overhead calculated in Part (b) (iv) to calculate gross margin under activity-based costing.

For Part (c), candidates were required to use the margins calculated in the previous section to make recommendations on what actions should be taken for Part A11. They then had to justify the recommendation. The question was poorly answered.

Few candidates were able to make valid recommendations based on the results obtained in the previous section. Valid recommendations included the following.

- Continue to make Part A11, as the gross margin was positive under activity-based costing.
- Continue to make Part A11, as the margins are positive under both costing systems.
- Discontinue the part because of the high set-up costs.
- Increase the selling price to obtain a higher margin.
- Outsource production of Part A11, to reduce costs.

The most common weakness was that many candidates made recommendations relating to the costing system, rather than the product. Such suggestions included the following.

- The firm should use activity-based costing as it would result in more accurate costing of the product.
- The firm should continue to use traditional costing, as the gross margin was higher.

Candidate's Response to Part (c)

Write your answer to Question 2 (c) on the lines below.

Part A11 should remain in production as it has a low direct and overhead manufacturing costs. This results in a low cost of goods produced and thus a higher gross profit. There is only a difference of $0.13 dollars between the gross margins of Activity-based-costing and traditional costing methods $43.62 and $43.75, respectively. Part A11 remains very profitable despite its difficult production process. **[3 marks]**

Examiner's Comments

This candidate made appropriate observations and recommendations based on his/her calculations in the previous section.

For Part (d), company information was presented for the year 2021. This included manufacturing costs, inventory balances and the income statement using variable costing. The question required candidates to calculate activity rates for stated activities.

Part (d) (i) asked candidates to prepare the income statement using absorption costing. In responding, candidates used a variety of approaches to the calculation of cost of goods sold.

- Cost of units produced *minus* closing inventory = cost of goods sold
- Units sold *multiplied by* total production cost per unit = cost of goods sold

Many candidates were able to calculate the fixed overhead absorption rate and the total production cost per unit. Some candidates were able to calculate the gross profit. Most candidates calculated the selling expense. Some candidates were able to calculate net income by subtracting the total selling and administration costs from the gross profit. Most statements contained appropriate elements, even where the candidate was unable to compute the correct values.

The following weaknesses were observed.

- Some candidates did not include the fixed production overhead when valuing production units.
- A significant number of candidates identified the difference between sales revenue and cost of sales as 'contribution margin' rather than *gross profit*.
- A few candidates did not use the sales revenue provided in the question.
- Some candidates used the cost of goods sold presented in the question, rather than computing the cost of goods sold using absorption costing.
- Some candidates were able to calculate the cost of goods produced but did not deduct closing stock to obtain the cost of goods sold.
- Some candidates presented the fixed production overhead cost after the gross profit.
- Some candidates did not use the sales revenue provided in the question to calculate the sales expense.
- Several candidates used the cost of goods sold (under variable costing), provided in the question.
- Some candidates did not show supporting workings.

Candidate's Response to Part (d) (i) – Sample 1

Write your answer to Question 2 (d) (i) on the lines below.

Caribbean Sea Limited

Absorption Income Statement for the period ended December

	$	$
Sales		125000
Direct Material (5000 x 4)	20,000	
Direct Labour (2.50 x 5000)	12500	
Variable FOH (1.25 x 5000)	6250	
(4 x 6) Fixed FOH ($\frac{36,000}{7500}$ x 5000)	24000	
Cost of Goods Sold		(62750)
Gross Profit		62250
Non-Manufacturing Expenses		
Administrative	25000	
Selling (10% x 125000)	12500	
Total Non-Manufacturing Expenses		(37500)
Net Profit		24750

[5 marks]

Examiner's Comments

This candidate calculated the cost of goods sold directly, calculating the direct material, labour and factory overheads based on units sold.

The candidate prepared the absorption costing statement in good form.

- The heading was appropriate.
- Direct materials, direct labour and variable factory costs were correctly calculated, based on the units sold.
- The overhead rate for fixed factory overhead was correctly calculated and used in computing the overhead cost absorbed into the units sold.
- Cost of goods sold was correctly calculated and identified.
- Gross profit was correctly calculated and identified.
- Selling expenses were correctly calculated, based on units sold.
- Total non-manufacturing expenses were identified and subtracted from gross profit to obtain net income.
- Net income was clearly identified.

Candidate's Response to Part (d) (i) – Sample 2

Question No. 2

d) i) Caribbean Sea Ltd

Absorption Costing Income Statement for the year ended

	$	$
Sales (5000 × $25)		125 000
Less: Cost of Sales		
Direct Material ($4 × 7500)	30 000	
Direct Labour (2.50 × 7500)	18 750	
Variable Factory Overhead ($1.25 × 7500)	9375	
Fixed Factory Overhead ($4.80 × 7500)	36000	
	94125	
Less Ending Inventory ($12.55 × 2500)	(31 375)	
Cost of Goods Sold		(62750)
Gross Profit Margin		62 250
Less: Selling + Admin Expense		
Selling Expense (10% × 125000)	12500	
Administrative Expense	25 000	
Total Selling + Admin Expense		(37500)
Net Income		24 750

Examiner's Comments

The candidate prepared the absorption costing statement in good form.

- The heading was appropriate.
- Direct materials, direct labour and variable factory costs were correctly calculated for the units produced.
- The overhead rate for fixed factory overheads was correctly calculated and used in computing the overhead absorbed, for the units produced.
- Closing inventory was correctly valued at total production cost.
- Cost of goods sold was correctly calculated and identified.
- Gross profit was correctly calculated and identified.
- Selling expenses were correctly calculated, based on units sold.
- Total non-manufacturing expenses were identified and subtracted from gross profit to obtain net income.
- Net income was clearly identified.

Candidate's Response to Part (d) (i) – Sample 3

Write your answer to Question 2 (d) (i) on the lines below.

Absorption Costing: Cost per unit = D/Material + D/labour + Variable Factory o/head + Fixed man. o/head

= $4 + $2.50 + $1.25 + ($36,000 / 7,500)

= $4 + $2.50 + $1.25 + $4.8 = $12.55 per unit

Caribbean Sea Ltd

Absorption Costing Income Statement

For the year ended Dec. 31, Year 2:

	$	$
Sales		125,000
Less: Cost of goods sold		
Cost of goods manufactured (7500 × $12.55)	94,125	
Less: closing inventory (2500 × $12.55)	(31,375)	
Cost of goods sold		(62,750)
Gross Profit		62,250
Less: Expenses		
Selling Expenses (10% × 125,000)	12,500	
Administrative expenses	25,000	(37,500)
Net Profit		24,750

[5 marks]

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Examiner's Comments

The candidate calculated the overhead absorption rate per unit, and added it to the direct material, direct labour and variable overhead cost per unit to obtain the total production cost per unit.

The absorption costing statement was prepared in good form.

- The heading was appropriate.
- The cost of goods manufactured was calculated using the units produced and the total production cost per unit.
- Closing inventory was correctly valued at total production cost.
- Cost of goods sold was correctly calculated and identified.
- Gross profit was correctly calculated and identified.
- Selling expenses were correctly calculated, based on units sold.
- Total non-manufacturing expenses were identified and subtracted from gross profit to obtain net income.
- Net income was clearly identified.

Part (d) (ii) provided information about units produced and sold during the period. The question required candidates to explain the effects of this sales and production activity on absorption-costing income compared to variable-costing income. Responses were poor. Some candidates correctly stated that *income under absorption costing would be lower than income under variable costing*. Some candidates stated that *the difference in net income arose because units sold exceeded units produced*. A few candidates were able to further state that *this was because the fixed production in the 500 units of opening stock would have been expensed in the previous period under variable costing but was expensed in the current period under absorption costing*.

Common weakness included the following.

- Some candidates incorrectly stated that income under absorption costing would be higher than income under variable costing.
- Many candidates identified the difference between the two methods as the treatment of 'fixed cost', rather than *fixed production cost*.
- A few candidates stated that profits were always higher/lower under one or the other method. This ignored the effect of changes in inventory levels on profit under the two methods.
- Many candidates were unable to communicate their ideas with clarity.
- A significant number of candidates did not attempt the section.
- A significant number of responses were awarded no marks.

Candidate's Response to Part (d) (ii)

Write your answer to Question 2 (d) (ii) on the lines below.

How fixed overhead is applied is the major difference. In variable costing total fixed manufacturing overhead for the period is treated as an expense and not included in unit cost, this results in lower net profits and lower unit production costs. While in absorption costing total fixed manufacturing overhead for the units sold, NOT PRODUCED, is included in the unit cost, this results in higher unit costs and higher net profits. In the case of Carribbean Sea Limited 16000 unit sold while producing only 15500 units in the period. Variable ~~income~~ costing will result in higher net gross and net income as the total ~~over~~ manufacturing overhead for the period is less than if you applies absorption costing and applied overhead to each unit sold. This is because some units were produced in the previous period and variable costing does not account for the manufacturing overhead from the previous period. **[5 marks]**

Total 35 marks

Examiner's Comments

This candidate correctly stated that the net income under variable costing would be higher than net income under absorption costing. This is because the total manufacturing overheads for the period is lower under variable costing since the fixed manufacturing overhead attached to the beginning inventory would not be treated as a cost in the current year. However, under absorption costing, costs would be higher since the fixed manufacturing cost in the beginning inventory would be expensed in the cost of goods sold, resulting in lower net profit.

Recommendations

- It is recommended that teachers require students to do research on the concepts underlying the various costing systems, their uses, and the implications for costing and net income.
- Teachers should provide more opportunities for students to write about costing systems. Class discussions would also help to promote understanding.
- Students should be encouraged to always show workings.

Question 3

The mean mark for this question was 49.45 per cent.

For Part (a), information was presented about a company whose sales and production managers have a disagreement about whether to outsource or produce a motherboard. Candidates were required to explain the benefits of a budget in relation to planning, controlling and decision-making.

Candidates provided average responses, three marks being the modal score. Many candidates were able to explain at least one point for each category. They were able to

- place points under the respective planning, controlling and decision-making headings
- identify the benefit of the information from the budget to decide whether to make or buy the motherboard
- identify the benefit of planning to set production targets for the motherboard
- identify that one of the benefits of a budget in controlling is that it minimizes inefficiencies.

Common weaknesses included the following.

- Some candidates were not able to distinguish between planning and decision-making benefits.
- Some candidates were not able to properly explain how to use the budget to control the cash shortage.

Candidate's Response to Part (a) – Sample 1

Write your answer to Question 3 (a) on the lines below.

Planning - a budget helps managers to look ahead ~~and~~ to set goals and objectives (sales volume) and distribute resources

Controlling - a budget helps managers to see how close or if they are on track to achieve their goals by comparing actual results

Decision-making - if managers notice actual results are poor compared to the budget, it helps them to identify and solve problems so as to ~~gain~~ achieve objectives ~~and~~ by making decisions to perform better.

[6 marks]

Examiner's Comments

This candidate answered the question using the given heading. The points were clear and concise, and included the use of accounting terminology.

Candidate's Response to Part (a) – Sample 2

Write your answer to Question 3 (a) on the lines below.

① Planning - a budget is beneficial in that it helps forecast or plan ahead for various departments or components as it relates to forecasted sales, material needed or cash to be collected. A budget helps a business, based on inputs from managerial personell, to accurate schedule and prepare for the future. For instance, XYZ can plan expected sales for the motherboard, given circumstances, and can assess whether there will be high or low sales in the future. Additionally, ② Controlling - a budget benefits businesses in controlling the activities and resources of the business which can see the efficient use of material, monitored spending or proper allocation of resources, which in the motherboard's case, XYZ may prepare certain cash budgets to control spending. Lastly, ③ Decision-making - budgets provide managers with the opportunity to compare and evaluate actual results with budgeted which can better assist decision-making. In this case, XYZ can compare budgeted to actual results for the motherboard to make a decision. **[6 marks]**

Write your answer to Question 3 (b) (i) on the lines below.

Examiner's Comments

This candidate's points were under the applicable headings and met expectations.

Part (b) (i) required candidates to state two important decisions to be made when setting the unit standard cost for each unit of production in an ice-cream manufacturing company. In responding to this part, some candidates were able to identify at least one input cost per unit. The performance was below average; most candidates scored zero or one mark.

Common weaknesses included the following.

- Many candidates' responses were about the final product as opposed to the production inputs.
- Many candidates' responses included definitions of ideal and attainable standards.
- Responses were more applicable for Part (b) (ii).

Candidate's Response to Part (b) (i)

Write your answer to Question 3 (b) (i) on the lines below.

Two important decisions are: i) the unit standard price must first be established.

ii) The unit standard quantity must be determined.

[2 marks]

Examiner's Comments

This response was clear, concise, and accurate.

For Part b (ii), candidates were required to identify two roles and responsibilities of the operations and purchasing departments in setting standards.

The responses to Part (b) (ii) were below average. Most candidates were able to explain at least one role or responsibility for operations and purchasing.

- Candidates used appropriate headings in outlining the roles and responsibilities.
- Candidates identified the role of the purchasing department as to manage quality of raw materials and obtaining raw material at a feasible cost.
- Candidates identified the role of the operating department as determining standards for maintaining efficiency.

Common weaknesses included the following.

- Many candidates were unable to communicate their ideas with clarity.
- Many candidates' responses were focused on the final product as opposed to concentrating on setting standards for production inputs.

Candidate's Response to Part (b) (ii) – Sample 1

Write your answer to Question 3 (b) (ii) on the lines below.

Operations - they must ensure that the standard is in consensus with production goals. Also, they must ensure that the quality of material is considered as well to ensure efficiency.

Purchasing - they must ensure that standard prices are not too high which will decrease profitability. They must also ensure there are procedures in place to request purchases.

[4 marks]

Examiner's Comments

This response clearly distinguished between the roles and responsibilities of the operations department and those of the purchasing department. The correct accounting terminology was used and the candidate incorporated the standard costing system in the response.

Candidate's Response to Part (b) (ii) – Sample 2

Write your answer to Question 3 (b) (ii) on the lines below.

- Operations - ① Their role is to equip personel setting the standard cost with information regarding material quantity, actual production or units produced
② They determine the amount of workers needed to complete production (no. of hours needed to complete per unit ✓
- Purchasing - ① They provide information on material price since their responsibilities relate to purchasing material for production. This price is needed for standard setting.
② Also negotiates and gathers information on purchasing discounts which are used in establishing standards [4 marks]

Examiner's Comments

This response was under the applicable headings and was consistent with the mark scheme.

Part (c) presented information on the raw materials involved in making disposable and cloth masks. Candidates were required to produce a direct materials budget for the three materials for a month. Many candidates scored within the range of 10–13 marks. Most candidates were able to calculate the production needs.

Common weaknesses included the following.

- Several candidates did not make use of a tabular form. Multiple formats, some of which were time-consuming, were used.
- Several candidates did not include a line for units of raw material to be purchased.
- Many candidates were uncomfortable working with more than one material for a period.
- Several candidates included direct labour hours in their calculation of the total cost of the job.
- Some candidates converted the entire budget to dollars.
- A few candidates combined units and dollars.
- Several candidates were not able to correctly treat opening and closing inventory. In most cases, operations were reversed.
- Several candidates correctly calculated the closing inventory but used it as the opening inventory.

- Some candidates deviated from the accepted format of adding the ending inventory followed by subtracting the opening inventory. Instead, they subtracted the opening inventory before adding the ending inventory.
- Some candidates presented the budget in a highly aggregated format so there was no distinction between the different material types.

Candidate's Response to Part (c) – Sample 1

Write your answer to Question 3 (c) on the lines below.

Protection Company

Direct Materials Purchases Budget for the month of November

	Fabric	Elastic	Plastic Nose Wire
Production Units Required	16,000 masks	16,000 masks	16,000 masks
Required Raw Materials per unit	x 0.04 yards	x 2 pieces	x 1 wire
Total Required Raw Materials	640 yards	32,000 pieces	16,000 wires
Add: Ending Inventory	12 yards	288 pieces	432 wires
	652 yards	32,288 pieces	16,432 wires
Less: Beginning Inventory	(10 yards)	(240) pieces	(360 wires)
Required Raw Materials Purchases	642 yards	32,048 pieces	16,072 wires
Cost per unit of Raw Material	x $5	x $0.50	x $1.00
Cash Reimbursement for Purchases	$3,210	$16,024	$16,072

Examiner's Comments

This candidate's response showed distinct purchases units and total purchase cost for each type of material. The opening and closing inventories were correctly calculated and treated.

Candidate's Response to Part (c) – Sample 2

Write your answer to Question 3 (c) on the lines below.

Protection Company

Direct Materials Purchases Budget

for the month of November.

	Fabric	Elastic	Plastic	Total
No. Units to be produced	16,000	16,000	16,000	
No. Materials per unit	× 0.04 yards	×2	×1	
	640 yards	32,000	16,000	
Add: Ending Inventory (120%)	12	288	432	
Total materials required	652	32,288	16,432	
Less: Beginning Inventory (from October)	(10)	(240)	(360)	
Direct Materials Purchases	642	32,048	16,072	
Cost of direct materials	×$5	×$0.50	×$1	
Cost of Direct Materials Purchases	$3,210	$16,024	$16,072	$35,306

Examiner's Comments

The format met the examiner's expectations. The candidate showed correct treatment and calculation for each type of raw material.

Parts (d) (i)–(iv) required candidates to calculate the returns and investment using the project investment models of payback, accounting rate of return (ARR) and net Present Value (NPV). Candidates also had to make recommendations regarding whether to invest in the project.

Candidates performed best on this part. Most candidates were able to score five or more marks. Most candidates correctly calculated the payback and the NPV, and stated the formula they were using for calculating the ARR. Responses were mostly clear and concise.

Common weaknesses included the following.

- For the ARR, most candidates did not calculate depreciation.
- For the NPV, some candidates did not subtract the initial outlay from the discounted cash flows, so the resulting answer was negative.
- For part (iv), some candidates did not use their calculations to support/inform their decisions.

Candidate's Response to Part (d) (i-iv) – Sample 1

Write your answer to Question 3 (d) (i–iv) on the lines below.

(i) Payback period = Initial Investment = $600,000 / Annual cash inflow = $75,000 = 8 years

(ii) ARR = Avg. Profit / Avg. Investment × 100

= 51,000 / (600,000/2) × 100

= 51,000 / 300,000 × 100 = 17%

Calculation of Profit:

Depreciation = 600,000 / 25 = $24,000

Profit = Cash Flow - Depreciation

= 76000 - 24000 = $51,000

(iii) Net Present Value = Discounted Cash Flows - Initial Investment

= ($75,000 × 9.0720) - $600,000

= $680,775 - $600,000

NPV = $80,775

(iv) Yes, Tom should invest in the COVID testing machine because of the following reasons: ① The accounting rate of return is 17% which is more than the cost of capital of 10% and ② The net present value of the asset is a positive figure of $80,775, meaning after discounting future cash flow, the machine will yield a higher return than the cost initially spent on it.

[10 marks]

Candidate's Response to Part (d) (i-iv) – Sample 2

Write your answer to Question 3 (d) (i–iv) on the lines below.

d(i) Payback Period = Initial Investment / Annual cashflow

= 600 000 / 75 000

= 8 years

(ii) ARR = Average Profit / Initial Investment

Depres = Cost − Scrap Value / Life = 600 000 / 25

= $24 000

ARR = 75 000 − 24 000 / 600 000 × 100

= 8.5%

(iii)

Yr	Cashflow $	Disc. factor %(10%)	NPV $
0	(600 000)	1	(600 000)
1-25	75 000	9.0770	680 775

NPV = $80 775

(iv) Yes, Tom should invest in the machinery as the NPV figure is positive and the payback period is less than the life of the asset.

[10 marks]

Examiner's Comments

These candidates stated the formulae and showed the computations as well as the resulting answers for each of the project or investment models. They were also able to make the correct decision, using their calculations as support.

Recommendations

For Teaching and Learning

- It is recommended that teachers require students to do research and make presentations on areas such as the following.
  - Standard cost setting and the responsibilities of the different departments in establishing standards
  - Significance of budgets, including purpose and use

In-class Practice

- Teachers/instructors should use a balanced approach when teaching and guiding practice sessions. Attention should be given to theory and not just practical questions. Students should be given more practice in answering restricted response questions and questions based on scenarios and cases.
- Students should be reminded that their responses should be guided by the marks allotted to the question as well as the verb used in the given question.
- Teachers should provide more opportunities for students to prepare materials budgets for more than one material type for a period.
- Students should be encouraged to use a standardized format for the budgets. Although cost accounting does not have prescribed formats, there is a need for properly formatted reports with useful and relevant information that will be beneficial to decision-making.
- Students should also be given more practice in the use of PVIFA in calculating the NPV.
- Students should be encouraged to show all workings.

PAPER 031 – SCHOOL BASED ASSESSMENT

The school-based assessment comprised three module tests of 90 minutes each constructed, administered and marked by the teacher. Teachers may opt to administer two 45-minute tests for a module instead of one 90-minute test.

Strengths

- Most projects adhered to the guidelines of the syllabus.
  - Projects were generally within the hour-and-a-half stipulation.
  - Projects had more than 60 per cent of the syllabus content for each module.
- The keys, mark schemes, tests and students' responses were provided for most of the projects from the various centres.
- In most cases, keys were accurate and mark schemes were well presented allowing for moderation to occur smoothly.
- Generally, the marks awarded by the teacher were consistent with the mark schemes provided.

Weaknesses

- In a few cases the keys, mark schemes, teachers' tests and/or students' response were not properly scanned.
- In a few cases, keys, mark schemes, teachers' tests and/or students' responses were missing for one or more modules.
- The same quantum of marks was awarded for transcribing figures from the question paper and for detailed computation response figures. This does not reflect the proper awarding of marks. Awarding marks in this way results in no demarcation in the measurement of knowledge, application, interpretation and synthesis.
- In a few instances, keys were incorrect for both the structured and multiple-choice questions.
- Some tests included topics outside the syllabus.
- In some instances mark schemes were non-existent or not detailed enough, resulting in difficulty during moderation.
- For a few of the module tests, students were given more time or less time than the approved hour-and-a-half duration indicated in the syllabus. In some cases, no time was indicated.

Recommendations

- Teacher tests should be based on the content presented in the syllabus, per module. OR Teacher tests should not extend beyond the content presented in the syllabus, which is outlined per module.
- The duration for each test must be within the time prescribed in syllabus and this time should be indicated on the test.
- The teachers' test, keys and mark schemes must be submitted with every student's response for each module.
- Marks schemes should be provided detailing how marks are to be applied to each solution. This is to effectively moderate students' responses for each module test.
- Teachers should indicate when students have submitted incomplete or blank responses to test questions. Appropriate notes should be placed in a designated area on each student's response sheet or on a sheet attached to the student's response sheet. Doing this will enhance the efficiency of the process by avoiding delay since moderators will know for sure that responses are not missing/lost.
- Teachers should ensure complete familiarity with the CAPE Accounting syllabus and especially with the requirements for the SBA for Unit 2.
- Before submission, teachers should review the keys to ensure that they are correct.