

Level 3 Certificate in Management Accounting



International
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Annual Qualification Review

2008

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INTRODUCTION

The annual qualification review provides qualification-specific support and guidance to centres. This information is designed to help teachers preparing to teach the subject and to help candidates preparing to take the examination.

The reviews are published in September and, in this case, take into account candidate performance, demonstrated in the Series 3 2008 examination. Global pass rates are published so you can measure the performance of your centre against these.

The review identifies candidate strengths and weaknesses by syllabus topic area and provides examples of good and poorer candidate responses. It should therefore be read in conjunction with details of the structure and learning objectives contained within the syllabus for this qualification found on the website.

The review also identifies any actual or proposed changes to the syllabus or question types together with their implications.

PASS RATE STATISTICS

The following statistics are based on the performance of candidates who took this qualification between 1 October 2007 and 30 September 2008.

Global pass rate 43.22%

Grade distributions

Pass	17.23%
Credit	18.40%
Distinction	7.60%

GENERAL STRENGTHS AND WEAKNESSES BY SYLLABUS TOPIC

Syllabus Topic 1 – SHORT-TERM COST BEHAVIOUR

1.3 – Using high-low method to identify cost behaviour

Generally, candidates made a fair attempt at answering questions set on this element of the syllabus topic. However, a few of them showed little understanding of the methodology of applying the high-low method. For instance, some candidates were unable to identify the highest and the lowest values from a given table of units of production and their associated semi-variable costs.

Syllabus Topic 2 – COST-VOLUME-PROFIT (CVP) ANALYSIS

2.1 – Calculation of contribution/sales (C/S) ratio for a single product

Candidates attempted this element of the syllabus topic fairly well.

2.2 – Calculation of break-even point in single product

The calculation of the break-even point was generally well attempted by most of the candidates. Unfortunately, a few of the candidates were unable to correctly apply the relatively simple formula which requires the division of fixed cost by the C/S ratio in order to derive the break-even point in units of sales.

2.3 – Calculation of margin of safety

While many of the candidates demonstrated an understanding of how the margin of safety is calculated, some of them, however, did not seem to comply with the requirement of the question in terms of how the results of their calculation should be stated. For example, where the question specifically asked for the margin of safety to be stated in units, some candidates submitted their answers in percentage terms. Unfortunately, this resulted in an unnecessary loss of some of the allocated marks for the required answer.

Syllabus Topic 3 – SHORT-TERM DECISION MAKING

3.3 – Discussion of the usefulness of both marginal costing and absorption costing as the basis for decision making

This element of the syllabus topic was very poorly attempted. Most of the candidates produced strange workings from imaginary figures in an attempt to demonstrate the differences in profit figures due to the level of closing stock when using the absorption costing method compared with the marginal costing method. However, the appropriate answer should have emphasised the distinction between the use of absorption costing in determining the long-term profitability of products and the application of marginal costing in the context of short-term decision-making.

3.4 – Explanation of the meaning of avoidable cost, opportunity cost and sunk cost

A few of the candidates offered reasonable explanation of the meaning of sunk cost. However, most of the candidates showed a lack of understanding of the meaning of avoidable cost and opportunity cost. It is important for candidates to understand the meaning of these terminologies in the determination of relevant costs for decision-making.

3.6 – Calculation of contribution per unit of the limiting factor and recommend the product mix to maximise profits

As the questions set on this element of the syllabus topic have appeared a few times in previous examinations, candidates would have been expected to be reasonably familiar with them.

While most candidates were able to correctly calculate the unit contribution for each product many of them, however, failed to calculate the contribution per limiting factor and apply it in the ranking of products for profit maximisation. A typical error made by candidates was to use absorption costing principle to rank products based on profit per unit of limiting factor rather than contribution per unit of limiting factor.

3.10 – Using relevant cost principles for special order decisions

For the majority of candidates, the questions set on relevant costing were very poorly attempted. For instance, many of the candidates were unable to treat depreciation charges and other types of historical costs as irrelevant costs.

The relevant cost approach to decision-making is a key element of the syllabus topic and candidates need to understand how to identify relevant costs and revenues when deciding to accept or reject special orders.

3.13 – Calculation of selling price for a product from a given price/demand relationship

Candidates' attempt at the questions set on this element of the syllabus topic was quite good.

Syllabus Topic 4 – BUDGETARY PLANNING AND CONTROL

4.1 – Explanation of the difference between a forecast and a budget

4.5 – Preparation of production, materials usage and materials purchases budgets

These elements of the syllabus topic have regularly appeared in previous examinations and candidates should have been quite familiar with them.

Unfortunately, the preparation of the purchases budget presented the most difficulty to candidates with many of them unable to calculate the required raw material usage for the different products.

In preparing the budgeted production for different periods, many candidates incorrectly added the opening stock units to the sales units and also incorrectly deducted the closing stock units from the sales units. Some candidates did not seem to understand that the closing stock for one period was the opening stock for the following period.

4.6 – Distinguishing between fixed and flexible budgets

The responses from candidates were quite poor. Most of the candidates simply did not appear to have any understanding of the meaning of the two terms and the differences between them.

This is an important element of the syllabus topic which candidates need to understand as it is likely to feature in future examinations.

Syllabus Topic 5 – CASH AND WORKING CAPITAL MANAGEMENT

5.2 – Preparation of summary cash budget

5.7 – Reconciliation of profit budgets and cash budgets

The questions set on these elements of the syllabus topic were generally well answered by candidates. However, the following errors frequently featured in candidates' answers:

- mistiming of cash receipts and payments (for example, receipts expected from debtors in one period were wrongly accounted for in the following period);
- including non-cash item of depreciation in the cash budgeted;
- denoting net cash flows (receipts less payments) as surpluses or deficits.

Syllabus Topic 6 – STANDARD COSTING AND VARIANCES

6.2 – Calculation of total sales variances – selling price and sales volume variances

6.3 – Calculation of total direct material variances – material price and usage variances

6.5 – Calculation of total direct labour variances – labour rate and efficiency variances

6.7 – Analysis of fixed overhead volume variance into efficiency and capacity variances

Overall, the answers submitted by candidates to the questions set on these elements of the syllabus topic were good. Unfortunately, a significant minority of candidates showed a lack of knowledge and understanding of how to calculate basic variances such as direct material variances (price and usage) and direct labour variances (rate and efficiency).

In the questions requiring the calculation of fixed overhead variances, the expenditure variance was generally well done but a few candidates experienced difficulty with the volume variances.

Some candidates, despite calculating the variances correctly, either omitted stating the appropriate sign (adverse or favourable) or stated the sign incorrectly. Unfortunately, this resulted in candidates losing a valuable mark.

6.9 – Using given cost and sales variances to calculate standard and actual costs

Many of the candidates struggled with the question set on this element of the syllabus topic. It is evident that candidates lacked the understanding of how to apply the relevant variance formulae together with the figures of variances provided in the question in order to calculate standard or actual costs.

6.12 – Calculation of the ratios of production volume, production efficiency and capacity

Candidates' attempt at questions set on this element of the syllabus topic was quite good.

Syllabus Topic 7 – LONG-TERM DECISION MAKING

7.2 – Identification of relevant and irrelevant costs in capital investment appraisal

7.3 – Preparation of capital investment appraisals using payback and ARR methods

7.7 – Calculation of net present value (NPV) of a proposed capital investment

7.8 – Calculation of internal rate of return (IRR) of a proposed capital investment

Generally, candidates demonstrated a good understanding of how to apply the methods of payback, ARR, NPV and IRR to capital investment appraisals. However, the main difficulty experienced by majority of candidates was in identifying the relevant cash flows to be used in their calculations. For example, when a company is deciding whether to buy-in services or to provide its own in-house services, candidates need to understand that the differential costs and savings between the two options are the ones to be considered as the relevant cash flows.

7.10 – Calculation of discounted payback of a proposed capital investment

The majority of candidates wrongly used undiscounted cash flows to calculate the discounted payback period for capital investment project. It was difficult to establish if this error was due to candidates not correctly reading the requirement of the question or whether it was due to lack of understanding of the relevant concept.

7.14 – Incorporating elementary aspects of the impact of inflation in capital investment appraisals

Questions requiring candidates to adjust annual project cash flows for the impact of inflation were poorly answered. Many of the candidates experienced difficulty in identifying and applying the appropriate inflation rates to the different cost components of the capital investment project on annual basis.

Candidates are well advised to carefully study this element of the syllabus topic as questions are likely to be set on it in future examinations.

Syllabus Topic 8 – PERFORMANCE EVALUATION AND TRANSFER PRICING

8.3 – Evaluation of divisional performance on the basis of ratios by calculating the return on capital employed (ROCE) and the residual income (RI)

8.5 – Calculation and interpretation of profitability and use of asset ratios

8.9 – Calculation and use of market and cost-based transfer prices

Most of the candidates were able to calculate the return on investment and residual income for different divisions. Some candidates, however, incorrectly calculated the figures for residual income in percentage terms.

Disappointingly, many candidates appeared not to understand the mathematical relationship between the asset turnover ratio, the net profit margin ratio and the return on capital employed.

The question requiring candidates to suggest non-financial performance indicators was poorly answered. It must be stressed that, as well as financial measures, non-financial factors are an important consideration in assessing the performance of divisions.

Candidates' responses to questions set on transfer pricing were generally mixed. A few candidates demonstrated a clear understanding of the effects of transfer pricing decisions on individual divisions and on the company as a whole. Unfortunately, many of the candidates found it difficult to handle the questions set on this element of the syllabus topic.

FURTHER GUIDANCE

Guidance on candidates' approach to examinations

In order to improve their performance and secure the minimum pass mark in future examinations, candidates are advised to:

- have a clear understanding of the elements of the eight syllabus topics through formal instruction provided by reputable teaching institutions;
- practise past examination questions on a regular basis, preferably under strict examination conditions;
- read the requirements of a question carefully as these are designed to assist in answering the question;
- plan the layout of an answer before beginning to carry out calculations;
- show clear workings in questions that require calculations.

Changes to syllabus or question types with implications (current and/or next year)

The changes involving the deletions and additions of elements of syllabus topics have all been incorporated into the Management Accounting Level 3 Syllabus effective from 1 January 2008.

EXAMPLES OF CANDIDATE RESPONSES

Examples of candidate responses (high, medium, low with justification of assessment decisions)

The following is a specimen question taken from the Series 3 2008 question paper together with three examples of candidate responses:

Question 4

REQUIRED

- (a) Describe the steps taken when using the high/low method to forecast a semi-variable cost. NB: A numerical example is not required.

(8 marks)

Company D manufactures and sells a single product. The selling price and unit costs of the product are:

	£ per unit
Selling price	7.40
Production costs:	
Variable	3.60
Fixed	2.10
Non-production costs:	
Variable	0.50
Fixed	0.80

The fixed costs per unit listed above are based on sales and production quantities of 6,400 units per period.

REQUIRED

- (b) Calculate the:
- (i) Net profit per period (£)
 - (ii) Contribution/sales ratio (%)
 - (iii) Break-even sales revenue per period (to the nearest £ hundred)
 - (iv) Margin of safety (%)

(10 marks)

- (c) State whether the break-even point (in sales units) would increase or decrease if the selling price was raised with no change in the cost structure. Explain why.

(2 marks)

(Total 20 marks)

Poor (fail) candidate response

Question 4

- a) The steps taken when using the high/low method to forecast a semi-variable cost
- i) Same items and difference price and quantities.
 - ii) Put high in upper then is put the high price and high quantities at up.
 - iii) Put low in below then is put the low value in below and low quantities in below.
 - iv) Use $(\text{high value} - \text{low value}) \div (\text{high quantities} - \text{low quantities}) = \text{semi-variable cost}$.

b) Net profit per period (£) = Selling price - (Production costs + Non-production costs)

$$= (£7.40 \times 6400) - [(5.7 \times 6400) + (1.3 \times 6400)]$$
$$= 47,360 - (36,480 + 8320)$$
$$= \underline{\underline{£2560}}$$

ii) Contribution / sales ratio = $\frac{\text{Contribution}}{\text{Sales}}$

$$= \frac{£2560}{£47,360}$$
$$= \underline{\underline{0.05 : 1}}$$

iii) Break-even sales revenue per period = $\frac{\text{Fixed cost}}{\text{Contribution}}$

$$= \frac{(2.10 + 0.8) \times 6400}{0.05}$$
$$= \underline{\underline{£371,200}}$$

iv) Margin of safety (%) =

- c) Break-even point (in sales unit) would increase if the selling price was raised with no change in the cost structure, because the unit increase the break even point will increase.

Strengths

- The net profit of £2,560 is correctly calculated.

Weaknesses

- The response to part (a) of the question is muddled. This would have resulted in the loss of many of the allocated marks.
- The contribution/sales ratio has been incorrectly calculated by dividing the net profit figure by the sales figure.
- There is no calculation for the margin of safety.
- The response to part (a) is incorrectly stated.

Moderate (pass) candidate response

Question 4

- a) The steps taken when using the high/low method to forecast a semi-variable cost.
- 1) Find out the maximum and minimum component (Quantity and Value)
 - 2) Total value / Total output = Variable cost.
 - 3) Total cost - variable cost = Fixed Cost.

b i) Net profit per period		£	£
Sales	(£7.40 × 6,400 units)		47,360
less: Variable Costs			
Variable production costs	(£3.60 × 6,400 units)	23,040	
Variable non-production costs	(£0.50 × 6,400 units)	3,200	26,240
CONTRIBUTION			21,120
less: Fixed Costs			
Fixed production costs	(£2.10 × 6,400 units)	13,440	
Fixed non-production costs	(£0.80 × 6,400 units)	5,120	18,560
NET PROFIT			<u>2,560</u> *

ii) Contribution / sales ratio = $\frac{\text{Contribution}}{\text{Sales}} \times 100\%$

$$= \frac{£21,120}{£47,360} \times 100\% = \underline{44.59}\%$$

iii) Break-even sales revenue per period = $\frac{\text{Fixed Cost}}{\text{Unit Contribution}} = \frac{£2.10 + £0.80}{£3.30}$

$$= \underline{£5,624.24}\%$$

iv) Margin of safety = $\frac{\text{Sales} - \text{Break even point}}{\text{Sales}} \times 100\%$

$$= \frac{£47,360 - £5,624.24}{£47,360} \times 100\% = \underline{88.12}\%$$

Strengths

- The net profit of £2,560 and the contribution/sales ratio of 44.49% are correctly calculated.
- The method of calculating the percentage of margin of safety is correctly applied, even though the answer is incorrect because of the use of the wrong figure of £5,624.24 as the break-even sales revenue.

Weaknesses

- The response to part (a) of the question is very inadequate.
- The workings for the calculation of break-even sales revenues are confusing and the answer of £5,624.24 should actually be £41,600.
- There is no response to part (c) of the question.

Excellent (distinction) candidate response

Question 4

Solution

(a) step 1

→ Two costs will be provided and two output also will be provided. The two costs & output is from the high and low

step 2

→ Different for two costs divided by different two output.

step 3

→ $\frac{\text{Different Different from 2 output}}{\text{Different from 2 costs}} = \text{variable costs per unit}$

step 4

→ Total costs - variable costs = fixed costs.

step 5

→ New output, Fixed costs + (variable costs per unit × output) = ^{total} costs

(b) (i) Net Profit per period (£)

	£	£
Sales (£7.40 × 6400 units)		47360
Less: Production costs		
Variable costs (£3.60 × 6400 units)	23040	
Fixed costs (£2.10 × 6400 units)	13440	36480
Gross Profit		10880
Less: Non-production costs		
Variable costs (£0.50 × 6400 units)	3200	
Fixed costs (£0.80 × 6400 units)	5120	8320
Net profit per period		<u>2560</u>

Net profit per period

$$= (£7.40 - £3.60 - £2.10 - £0.50 - £0.80) \times 6400 \text{ units}$$

$$= \underline{\underline{£2560}}$$

(ii) contribution / sales ratio (%)

$$\begin{aligned} \text{contribution} &= £7.40 - £3.60 - £0.50 = £3.30 \\ \text{sales} &= £7.40 \end{aligned}$$

$$\begin{aligned} \frac{\text{contribution}}{\text{sales}} \times 100\% &= \frac{£3.30}{£7.40} \times 100\% \\ &= 44.60\% \end{aligned}$$

(iii) Break-even sales revenue per period

$$\begin{aligned} \text{Break-even sales revenue} &= \frac{\text{fixed costs}}{\text{unit contribution to sales}} \\ &= \frac{[6400 \text{ units} \times (£2.10 + £0.80)]}{44.60\%} \\ &= £41600 \text{ per period.} \end{aligned}$$

(iv) margin of safety (%)

$$\begin{aligned} \text{margin of safety} &= \frac{\text{Target sales} - \text{Break-Even sales}}{\text{Target sales}} \times 100\% \\ &= \frac{(6400 \text{ units} \times £7.40) - £41600}{(6400 \text{ units} \times £7.40)} \times 100\% \\ &= 12.16\% \end{aligned}$$

(c) If the selling price was raised with no change in the cost structure, the break-even point (in sales units) would decrease. This is because unit contribution also will be increase and result the Break-even point in sales units.

Strengths

- The calculations required for part (b) of the question have all been done correctly; thus, the candidate has earned all of the allocated marks.
- The response to part (c) of the question is clearly stated and well explained.

Weakness

- The response to part (a) of the question is lacking in description, even though the required steps are fairly well stated.

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