

Level 3 Certificate in Management Accounting



International
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Annual Qualification Review

2011

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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 2011 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 2010 and 31 August 2011.

Global pass rate 45.28%

Grade distributions

Pass	40.50%
Credit	43.89%
Distinction	15.61%

GENERAL STRENGTHS AND WEAKNESSES

STRENGTHS

- Students are getting better with their written answers
- Time management, which enables them to answer all the questions

WEAKNESSES

- Not reading the questions fully, or re-checking their work
- Not showing all their workings

TEACHING POINTS BY SYLLABUS TOPIC

Syllabus Topic 1 – SHORT-TERM COST BEHAVIOUR

1.5 – Forecasting costs using the high-low method

Generally, the question set on this element of the syllabus topic was reasonably well answered. However, some candidates used incorrect high and low figures of sales revenue and operating costs to determine the variable costs/sales ratio and, hence, the incorrect total variable costs. Also, the failing candidates were unable to derive the fixed costs per period as being the difference between the operating costs and the total variable costs, at a given level of sales.

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

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

2.2 – Calculation of break-even point in a single product situation

2.3 – Calculation of margin of safety

2.4 – Application of CVP analysis in given situations

Candidates attempted the questions set on these elements of the syllabus topic reasonably well. The calculations of the break-even point (in sales revenue) and the margin of safety for a single product were correctly done by most candidates.

2.7 – Discussing the assumptions and limitations of CVP analysis

Generally, the question set on this element of the syllabus topic was reasonably well answered by the few candidates who attempted it. However, it would appear that most candidates had anticipated the question, but some of them made a poor attempt at regurgitating memorised answers.

Syllabus Topic 3 – SHORT-TERM DECISION MAKING

3.4 – Explanation of the meaning of opportunity costs and relevant costs

Most candidates offered a reasonable explanation of the meaning of opportunity costs and relevant costs. However, very few candidates managed to relate the use of these terminologies to the appropriate decision-making situations.

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

The question set on this element of the syllabus topic was fairly well attempted. However, many of the candidates were unable to work out the cost savings from the manufacture of each product as being the difference between the purchase price from the supplier and the variable cost per unit. Some candidates confused the cost saving per machine hour not utilised with the cost savings from manufacture per unit of output. Consequently, the latter was incorrectly used to rank products required to be manufactured.

3.8 – Solving linear programming problems using the graphical method

The question set on linear programming was quite straightforward but, unfortunately, many candidates scored very few marks on it. The errors which featured commonly in candidates' answers include the following:

- Incorrect formulation of the linear programme specifying the decision variables, objective function and constraints;
- Omission of the minimum units of production of the second product as a constraint;
- Incorrect labelling of the axes for the products on the graph paper;
- Inaccurate plotting of constraint

When attempting a linear programme question, it is important for candidates to set out their workings clearly, in a step-by-step manner, from defining decision variables, objective function and constraints through to drawing the graph and determining the optimum solution.

3.10 – Using relevant cost principles for special order decisions

There was a fair attempt of the question set on this element of the syllabus topic. Generally, candidates were able to identify the relevant costs of the different types of material, labour and overheads in the special order question. Unfortunately, in the case of skilled labour costs, some candidates incorrectly included the annual salary (unavoidable cost) of the second supervisor. Also, failing candidates wrongly omitted the cost of dismantling the first machine from the overheads.

3.14 – Calculation of selling price for a product to achieve a given profit margin

Most candidates performed reasonably well on the question set on this element of the syllabus topic. The main difficulty for some candidates was the calculation of the figure for the required return on capital employed (ROCE) per unit. Whilst their calculation of the total figure for ROCE was correct these candidates, however, failed to relate the total value to the planned sales units in order to obtain the per-unit value.

Syllabus Topic 4 – BUDGETARY PLANNING AND CONTROL

4.5 – Preparation of budgets for sales, production, direct materials, direct labour and profit and loss and statement

The question set on this element of the syllabus topic was generally well attempted. However, the following errors featured commonly in candidates' responses:

- The figures for opening and closing stocks were incorrectly added and subtracted, respectively, from the budgeted sales units when preparing the production budget;
- Incorrect calculation of the decreases and increases in the end-of-period stockholdings of finished goods and raw materials;
- Budgeting for only one period's non-production overheads in the combined two-period profit statement;
- Omission of the expenses of depreciation and discount allowed from the budgeted profit statement

Syllabus Topic 5 – CASH AND WORKING CAPITAL MANAGEMENT

5.2 – Preparation of cash budget on a monthly basis

The questions set on cash budgets were well answered for the most part. However, the following errors frequently featured in candidates' answers:

- Mistiming of receipts from credit sales from one month to the next;
- Miscalculating the cost of sales and the changes in stock levels, in order to determine the payment for monthly credit purchases;
- Including non-cash item of depreciation as a payment in the cash budget;
- Denoting net cash flows (receipts less payments) as surpluses or deficits.

5.5 – Preparing working capital budgets

5.6 – Showing the effects of sales and production contraction on working capital requirements

Generally, the questions set on these elements of the syllabus topic were poorly answered. Many candidates, unfortunately, were unable to construct working capital budgets based on forecast changes in debtors' collection period, sales volume and related costs.

5.8 – Calculation and interpretation of ratios for stock turnover, debtor's collection, creditor's settlement and liquidity

The numerical questions set on this element of the syllabus topic were generally well answered. By contrast, candidates' responses to the narrative parts (i.e., interpretation of profitability, asset utilisation and liquidity ratios) were either non-existent or very poorly composed.

5.10 – Calculation and explanation of the working capital cycle

Many of the candidates who attempted the question set on this element of the syllabus topic exhibited a very poor grasp of the mechanics of working capital cycle. In particular, candidates had difficulty calculating the number of days of raw materials and work-in-progress held in stock. Unfortunately, very few candidates were able to outline the steps required to reduce the working capital cycle.

Syllabus Topic 6 – STANDARD COSTING AND VARIANCES

6.1 – Explanation of the difference between ideal standard and attainable standard

Generally, the question set on this element of the syllabus topic was reasonably well answered by the candidates who attempted it. However, candidates could have gained higher marks by stressing that attainable standards would normally be used to set the criteria for performance at a level that would enable employees with proper training and experience achieve the required standard without extraordinary effort.

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

6.6 – Calculation of total fixed production variances – expenditure and volume variances

Questions requiring basic calculation of sales and cost variances seem to be popular with candidates and, generally, such questions were well answered.

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

Candidates' overall performance on the questions set on this element of the syllabus topic was mixed. Some candidates were able to apply the appropriate formulas to derive the budgeted, standard and actual figures for production and sales units, direct material, direct labour and production overheads. On the other hand, many candidates demonstrated very little understanding of how to use information on variances to obtain the budgeted and actual figures for sales, production and costs.

6.10 – Explanation of the use of standard costs and variances for cost control

Very few candidates attempted the questions set on this element of the syllabus topic and, unfortunately, the quality of their responses was very poor. It is obvious that most candidates have not made the effort to learn the principles of standard costing and their use for cost control.

6.14 – Calculation of planning and operational variances

A few of the candidates answered the question set on planning and operational variances well, whilst many candidates made a poor attempt at it. Of the failing candidates, there was a clear lack of understanding of the differences between traditional variances and planning and operational variances.

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

Generally, candidates demonstrated a good understanding of how to prepare capital investment appraisals using the traditional methods of payback and ARR.

7.4 – Evaluation of the effectiveness of traditional appraisal methods and identification of their limitations

7.6 – Explanation of the NPV and the IRR discounting methods

The questions set on these elements of the syllabus topic were poorly answered. Candidates generally lacked the ability to answer the narrative parts of questions.

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 calculate the NPV and IRR of capital investment proposals.

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

The question set on this element of the syllabus topic was poorly answered. Most candidates were unsure how to adjust for the price changes. In the instances where the correct price adjustments were made on sales and costs, the figures were out of sequence with the years. However, provided the calculation of NPV was done correctly, candidates were awarded the maximum marks available even though they might have used incorrect figures of net cash flows.

7.15 – Interpretation of the results of capital investment appraisals

The questions set on this element of the syllabus topic were straightforward and candidates' responses were reasonably well composed.

Syllabus Topic 8 – PERFORMANCE EVALUATION AND TRANSFER PRICING

8.3 – Evaluation of investment centres on the basis of return on capital employed (ROCE) and residual income (RI)

8.4 – Contrasting ROCE with RI and assessing the strengths and weaknesses of the two ratios

Generally, the questions set on these elements of the syllabus topic were reasonably well answered by the candidates who attempted them.

8.6 – Discussion of the use of the balanced scorecard approach to performance evaluation

Very few candidates attempted the question on balanced scorecard approach to performance evaluation and their responses were, generally, very poor.

8.9 – Evaluation of the financial consequences of transfer pricing methods for divisions and the groups as a whole

Generally, candidates produced good responses to the question set on transfer pricing. Most candidates demonstrated a clear understanding of the effects of transfer pricing decisions on individual divisions and on the company as a whole.

FURTHER GUIDANCE

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;
- Learn the relevant managerial accounting concepts and terminologies in order to adequately attempt the narrative parts of questions;
- Practise past examination questions on a regular basis, preferably under strict examination condition;
- 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.

EXAMPLES OF CANDIDATE RESPONSES

The following is a specimen question taken from the Series 4 2010 question paper together with three examples of candidate responses:

Question 4

A company has prepared the following estimate of costs for a contract that will take one year to complete:

		£	Notes
Material P	(9,000 kilos × £26 per kilo)	234,000	1
Material Q	(5,000 kilos × £37 per kilo)	185,000	2
Material R	(7,000 kilos × £41 per kilo)	287,000	3
Unskilled labour	(8,000 hours × £7 per hour)	56,000	4
Skilled labour	(15,000 hours × £18 per hour)	270,000	5
Supervision labour		92,000	6
Lease of machine		40,000	7
Depreciation of machinery		60,000	7
General overhead	(15,000 hours × £21.50 per hour)	322,500	8

Notes

- 1 Material P is in continual use and there are 3,000 kilos of material in stock, which was purchased at £26.00 per kilo. The current cost of the material is £32 per kilo
- 2 Material Q has not yet been ordered; its current cost is £37 per kilo.
- 3 Material R was purchased a few years ago at a cost of £41 per kilo, but it does not have an alternative use. If not used for the contract, the existing stock of 7,000 kilos could be sold for £28.00 per kilo. However, costs of £6,000 would be incurred in getting the material to the customer.
- 4 Unskilled labour is only employed when such workers are required.
- 5 The existing skilled workers are fully employed on various contracts, but would be willing to work overtime for the required hours at one and a quarter times their hourly pay rate. Alternatively, additional skilled labour could be hired for the duration of the contract at £21.00 per hour.
- 6 Supervision labour cost includes the salaries of two supervisors. The first supervisor, who is paid £42,000 per annum, is due to retire immediately, but will be willing to work specifically on the contract for another year. The second supervisor is paid £50,000 per annum for working on existing contracts. If she specifically supervises the contract, her replacement will cost £44,000 for the duration of the contract.

- 7 Two machines are required for the contract. The first machine was purchased four years ago at a cost of £300,000 with an annual straight-line depreciation of £60,000. The machine has no scrap value and is due to be dismantled at a cost of £5,000. However, if it is used for the contract, the dismantling cost is expected to be £8,000 when the contract is completed. The second machine would need to be leased at a cost of £40,000 for the duration of the contract.
- 8 General overheads are absorbed on the basis of skilled labour hours used on the contract. The variable element of general overheads is £11.60 per hour.

REQUIRED

- (a) Prepare a revised estimate of costs for the contract, using a relevant cost basis. (14 marks)
- (b) Explain the meaning of the terms **opportunity cost** and **relevant cost** used in the context of decision-making. (6 marks)

(Total 20 marks)

Excellent (distinction) candidate response

EXCELLENT RESPONSE

Question 1)

(a) Revised estimate of costs for the contract, using a relevant cost basis.

	£	£
Material P (9,000 kilos x £ 32)	288,000	
Material Q	185,000	
Material R (7,000 kilos x £ 28) - £ 6,000	190,000	663,000
Unskilled labour	56,000	
Skilled labour : Additional labour hire (W1)	315,000	
Supervision labour :		
First supervisor	42,000	
Second supervisor (50,000 - 44,000)	(6,000)	407,000
Lease of machine : First machine		
Dismantling cost (£ 8,000 - 5,000)	3,000	
Second machine	40,000	
Depreciation of machinery	Nil	43,000
General overhead		
Variable (£ 11.60 x 15,000 hr)		174,000
		1,287,000

(W1)	<u>Existing skilled labour</u>	
		£
	Overtime ($1.25 \times £18 \times 15,000 \text{ hrs}$)	337,500
	Additional labour hire ($£21 \times 15,000 \text{ hrs}$)	315,000
(b)	<u>Opportunity cost</u>	
	Opportunity cost is used in decision-making to mean the benefit foregone by not pursuing the next best alternative.	
	For example, where a business's available resources are insufficient to meet customer's demand for a business's product or service, the use of resources in a particular way will mean giving up the opportunity of using them in one or more other ways. The benefits that would have arisen from an alternative use of the resources become the opportunity cost of the course of action being considered.	
	<u>Relevant cost used in decision-making</u>	
	Future costs and revenue should be considered.	
	Expenditure that has already spent should be irrelevant.	
	Costs which are common to all alternatives are irrelevant.	
	Overhead absorption rate is irrelevant.	

Strengths

- All of the relevant costs of the different elements of direct material and overheads are correctly calculated.
- Unskilled labour cost (£56,000) and skilled labour cost (£315,000) are correctly calculated.
- The concepts of opportunity cost and relevant cost are fairly well defined.

Weaknesses

- The second supervisor's salary (£50,000) is an unavoidable cost, but this is incorrectly deducted from the relevant cost of labour.
- The explanation of the concept of opportunity cost, using a particular example, is somewhat muddled.

Moderate (pass) candidate response

Question (7)

(a)

Revised estimate cost (relevant cost)

	£	£
material P (9,000 kilo x £32)	96,000	
material Q	185,000	
material R (£28 x 7,000) - 6,000	<u>190,000</u>	
		471,000
unskilled labour	56,000	
skilled labour (15,000 x £21)	315,000	
supervision labour	<u>44,000</u>	
		415,000
Lease of machine	<u>40,000</u>	40,000
general overhead	<u>174,000</u>	174,000
		1,100,000
estimate cost		(1,346,500)
cost save (profit)		<u>446,500</u>

(b)

opportunity cost

Opportunity cost is relevant cost for decision making. It is benefit by not pursuing the next best alternative. It is not recorded in the accounting system.

Relevant cost

Relevant cost (resources) direct material, direct labour, car, machine hour should be considered. Further cost and revenue are relevant cost. It has considered in decision making.

Strengths

- The relevant costs of Material Q (£185,000) and Material R (£190,000) are correctly calculated.
- Unskilled labour cost (£56,000), skilled labour cost (£315,000) and the replacement cost for the second supervisor (£44,000) are all correctly calculated.
- The cost of leasing the second machine (£40,000) and the incremental variable costs (£174,000) are correctly included in the overheads.

Weakness

- The first supervisor's salary (£42,000) is omitted from the relevant cost of labour.
- The net cost of dismantling the first machine (£3,000) is not included in the overheads.
- The concepts of opportunity cost and relevant cost are not properly defined or explained.

Poor (fail) candidate response

Question 1			
(b)	Opportunity cost is buying outside.		
	Relevant cost included	Total variable cost.	
		£	£
	<u>Relevant cost</u>		
	D.M (P) (3000 x 32) (3000 x 26)	96,000	
		78,000	174,000
	D.M (Q)		185,000
	D.M (R)		196,000
	Unskilled Labour		56,000
	Additional skilled labour (15000 x 21)		315,000
	Machine disposal		28,500
	General overhead (15000 x 11.6)		174,000

Strengths

- The relevant cost of Material Q (£185,000) and part of the cost of Material R (£196,000) are correctly calculated.
- Unskilled labour cost (£56,000), skilled labour cost (£315,000) and incremental variable costs (£174,000) are correctly calculated.

Weaknesses

- Incorrect calculation of the cost of Material P.
- Delivery cost of £6,000 has not been deducted as a saving to reduce the cost of Material R.
- Supervision costs totalling £86,000 are omitted from the relevant costs of labour.
- The net cost of dismantling the first machine (£3,000) and the cost of leasing the second machine (£40,000) are not included in the overheads.
- The response to part (b) is virtually non-existing; thus, the candidate has lost all of the allocated marks.

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