

Fundamentals Level – Skills Module

Performance Management

September/December 2015



Time allowed

Reading and planning: 15 minutes

Writing: 3 hours

This question paper is divided into two sections:

Section A – ALL 20 questions are compulsory and MUST be attempted

Section B – ALL FIVE questions are compulsory and MUST be attempted

Formulae Sheet is on page 7.

Do NOT open this question paper until instructed by the supervisor.

During reading and planning time only the question paper may be annotated. You must NOT write in your answer booklet until instructed by the supervisor.

Do NOT record any of your answers on the question paper.

This question paper must not be removed from the examination hall.

The Association of Chartered Certified Accountants

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Paper

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Section B – ALL FIVE questions are compulsory and MUST be attempted

Please write your answers to all parts of these questions on the lined pages within the Candidate Answer Booklet.

- 1** The Chemical Free Clean Co (C Co) provides a range of environmentally-friendly cleaning services to business customers, often providing a specific service to meet a client's needs. Its customers range from large offices and factories to specialist care wards at hospitals, where specialist cleaning equipment must be used and regulations adhered to. C Co offers both regular cleaning contracts and contracts for one-off jobs. For example, its latest client was a chain of restaurants which employed them to provide an extensive clean of all their business premises after an outbreak of food poisoning.

The cleaning market is very competitive, although there are only a small number of companies providing a chemical free service. C Co has always used cost-plus pricing to determine the prices which it charges to its customers but recently, the cost of the cleaning products C Co uses has increased. This has meant that C Co has had to increase its prices, resulting in the loss of several regular customers to competing service providers.

The finance director at C Co has heard about target costing and is considering whether it could be useful at C Co.

Required:

- (a) Briefly describe the main steps involved in deriving a target cost.** (3 marks)
- (b) Explain any difficulties which may be encountered and any benefits which may arise when implementing target costing at C Co.** (7 marks)

(10 marks)

- 2 Bus Co is a large bus operator, operating long-distance bus services across the country. There are two other national operators in the country. Bus Co's mission is to 'be the market leader in long-distance transport providing a greener, cleaner service for passengers nationwide'. Last month, an independent survey of 40,000 passengers was carried out, the results of which are shown in the table below:

Table: Bus passenger satisfaction % by national operator

Operator	Overall satisfaction	Value for money	Punctuality	Journey time
Bus	*	67	80	82
Prime	*	58	76	83
Express	*	67	76	89

* denotes that the percentage has not yet been calculated.

The 'overall satisfaction' percentages, which have not yet been inserted into the table, are calculated using a weighted average which reflects the importance customers place on each of the other three criteria above. The weightings used are as follows:

Value for money	40%
Punctuality	32%
Journey time	28%

The managing director (MD) of Bus Co has said: 'Independent research has shown that our customers are the most satisfied of any national bus operator. We are now leading the way on what matters most to customers – value for money and punctuality.'

Required:

- (a) Calculate the 'overall satisfaction' percentage for each operator. (2 marks)
- (b) Taking into account all the data in the table and your calculations from part (a), discuss whether the managing director's statement is true. (4 marks)
- (c) When measuring performance using a 'value for money' approach, the criteria of economy, efficiency and effectiveness can be used.

Required:

Briefly define 'efficiency' and 'effectiveness' and suggest one performance measure for EACH, which would help Bus Co assess the efficiency and effectiveness of the service it provides. (4 marks)

(10 marks)

3 The Organic Bread Company (OBC) makes a range of breads for sale direct to the public. The production process begins with workers weighing out ingredients on electronic scales and then placing them in a machine for mixing. A worker then manually removes the mix from the machine and shapes it into loaves by hand, after which the bread is then placed into the oven for baking.

All baked loaves are then inspected by OBC's quality inspector before they are packaged up and made ready for sale. Any loaves which fail the inspection are donated to a local food bank.

The standard cost card for OBC's 'Mixed Bloomer', one of its most popular loaves, is as follows:

		\$
White flour	450 grams at \$1.80 per kg	0.81
Wholegrain flour	150 grams at \$2.20 per kg	0.33
Yeast	10 grams at \$20 per kg	0.20
Total	610 grams	1.34

Budgeted production of Mixed Bloomers was 1,000 units for the quarter, although actual production was only 950 units. The total actual quantities used and their actual costs were:

	Kg	\$ per kg
White flour	408.5	1.90
Wholegrain flour	152.0	2.10
Yeast	10.0	20.00
Total	570.5	

Required:

- (a) Calculate the total material mix variance and the total material yield variance for OBC for the last quarter. (7 marks)
- (b) Using the information in the question, suggest THREE possible reasons why an ADVERSE MATERIAL YIELD variance could arise at OBC. (3 marks)

(10 marks)

- 4 Cardio Co manufactures three types of fitness equipment: treadmills (T), cross trainers (C) and rowing machines (R). The budgeted sales prices and volumes for the next year are as follows:

	T	C	R
Selling price	\$1,600	\$1,800	\$1,400
Units	420	400	380

The standard cost card for each product is shown below.

	T	C	R
	\$	\$	\$
Material	430	500	360
Labour	220	240	190
Variable overheads	110	120	95

Labour costs are 60% fixed and 40% variable. General fixed overheads excluding any fixed labour costs are expected to be \$55,000 for the next year.

Required:

- (a) Calculate the weighted average contribution to sales ratio for Cardio Co. (4 marks)
- (b) Calculate the margin of safety in \$ revenue for Cardio Co. (3 marks)
- (c) Using the graph paper provided and assuming that the products are sold in a **CONSTANT MIX**, draw a multi-product breakeven chart for Cardio Co. Label fully both axes, any lines drawn on the graph and the breakeven point. (6 marks)
- (d) Explain what would happen to the breakeven point if the products were sold in order of the most profitable products first.

Note: You are NOT required to demonstrate this on the graph drawn in part (c). (2 marks)

(15 marks)

- 5 Cardale Industrial Metal Co (CIM Co) is a large supplier of industrial metals. The company is split into two divisions: Division F and Division N. Each division operates separately as an investment centre, with each one having full control over its non-current assets. In addition, both divisions are responsible for their own current assets, controlling their own levels of inventory and cash and having full responsibility for the credit terms granted to customers and the collection of receivables balances. Similarly, each division has full responsibility for its current liabilities and deals directly with its own suppliers.

Each divisional manager is paid a salary of \$120,000 per annum plus an annual performance-related bonus, based on the return on investment (ROI) achieved by their division for the year. Each divisional manager is expected to achieve a minimum ROI for their division of 10% per annum. If a manager only meets the 10% target, they are not awarded a bonus. However, for each whole percentage point above 10% which the division achieves for the year, a bonus equivalent to 2% of annual salary is paid, subject to a maximum bonus equivalent to 30% of annual salary.

The following figures relate to the year ended 31 August 2015:

	Division F \$'000	Division N \$'000
Sales	14,500	8,700
Controllable profit	2,645	1,970
Less apportionment of Head Office costs	(1,265)	(684)
Net profit	<u>1,380</u>	<u>1,286</u>
Non-current assets	9,760	14,980
Inventory, cash and trade receivables	2,480	3,260
Trade payables	2,960	1,400

During the year ending 31 August 2015, Division N invested \$6.8m in new equipment including a technologically advanced cutting machine, which is expected to increase productivity by 8% per annum. Division F has made no investment during the year, although its computer system is badly in need of updating. Division F's manager has said that he has already had to delay payments to suppliers (i.e. accounts payables) because of limited cash and the computer system 'will just have to wait', although the cash balance at Division F is still better than that of Division N.

Required:

- (a) For each division, for the year ended 31 August 2015, calculate the appropriate closing return on investment (ROI) on which the payment of management bonuses will be based. Briefly justify the figures used in your calculations.

Note: There are 3 marks available for calculations and 2 marks available for discussion. (5 marks)

- (b) Based on your calculations in part (a), calculate each manager's bonus for the year ended 31 August 2015. (3 marks)

- (c) Discuss whether ROI is providing a fair basis for calculating the managers' bonuses and the problems arising from its use at CIM Co for the year ended 31 August 2015. (7 marks)

(15 marks)

Formulae Sheet

Learning curve

$$Y = ax^b$$

Where Y = cumulative average time per unit to produce x units

a = the time taken for the first unit of output

x = the cumulative number of units produced

b = the index of learning ($\log LR / \log 2$)

LR = the learning rate as a decimal

Demand curve

$$P = a - bQ$$

$$b = \frac{\text{change in price}}{\text{change in quantity}}$$

a = price when Q = 0

$$MR = a - 2bQ$$

End of Question Paper