Planning, Control and Performance Management

Paper T7

ACCA CERTIFIED ACCOUNTING TECHNICIAN EXAMINATION

ADVANCED LEVEL

TUESDAY 7 JUNE 2005

QUESTION PAPER

Time allowed **3 hours**

ALL FOUR questions are compulsory and MUST be answered

Do not open this paper until instructed by the supervisor

This question paper must not be removed from the examination hall

The Association of Chartered Certified Accountants

ALL FOUR questions are compulsory and MUST be attempted

1 McDermott plc is a manufacturer of beds. It uses a standard absorption costing system to monitor performance of managers and departments. A standard absorption cost card for one of its models, the Dreamer, is given below.

	£	£
Selling price		250·00
Production costs		
Direct material: 12 metres at £1·50 per metre	18·00	
Direct labour: 4 hours at £6·00 per hour	24·00	
Variable overhead: 4 hours at £15·00 per hour	60·00	
Fixed overhead: 4 hours at £10·00 per hour	40·00	
		142·00
Gross profit		£108·00

Budgeted production and sales are 1,000 Dreamers per month.

Actual results for the manufacture and sale of Dreamers for the most recent month were as follows:

Sales: 1,200 beds at £240 each.
Production: 1,300 beds
Direct material (purchased and used): 16,000 metres at £1·40 per metre
Direct labour (worked and paid): 5,000 hours at £6·00 per hour
Variable overhead £75,500
Fixed overheads £54,600.

There were no opening stocks of finished goods.

Required:

(a) Calculate the following variances for the most recent month

(i) Direct material price;
(ii) Direct material usage;
(iii) Direct labour rate;
(iv) Direct labour efficiency;
(v) Variable overhead expenditure;
(vi) Variable overhead efficiency;
(vii) Fixed overhead expenditure;
(viii) Fixed overhead capacity;
(ix) Fixed overhead efficiency;
(x) Sales volume (in terms of profit);
(xi) Sales price. (22 marks)

(b) Explain the differences between standard absorption costing and standard marginal costing in the following areas:

(i) the sales volume variance;
(ii) the fixed overhead variances;
(iii) stock valuation and its effect upon profit.
(no further calculations are required) (10 marks)

(c) Some authorities view traditional variance analysis as unhelpful and misleading in modern business organisations.

Explain FOUR problems of standard costing variance analysis in today's business world. (8 marks)

(40 marks)

2 Hughes plc has recently developed a personal music player and is now considering what price to charge for the new product. A market research company has produced the following forecasts of demand at three potential selling prices:

Selling price	£250	£350	£450
Sales units per annum	10,000	8,000	6,000
Fixed costs per annum	£800,000	£500,000	£200,000

Variable costs are forecast at £220 per unit at any activity level.

Required:

(a) Calculate, for each potential selling price, the budgeted profit, the break-even point in units and the margin of safety ratio (i.e. the margin of safety expressed as a percentage). (9 marks)

(b) Using the graph paper provided, draw and label a break-even chart for a selling price of £350 for activity levels between 0 and 8,000 units. (8 marks)

(c) Define target costing and explain briefly how it could be used by Hughes plc in the design, manufacture and sale of personal music players. (3 marks)

(20 marks)

3 Case plc is preparing its budgets for the coming year and is attempting to forecast its sales. Total industry sales for this type of product for the current year and the previous four years are given below.

Year	Sales £ 000
2000	175,000
2001	193,025
2002	211,225
2003	229,250
2004	247,100

An index of price level movements, appropriate to Case plc's industry for the same periods is as follows.

Year	Price level index
2000	100
2001	103
2002	107
2003	110
2004	112
2005 (forecast)	113

Assume that it is now the end of 2004.

Required:

(a) Restate the industry sales figures for each of the above five years (2000 to 2004) to 2005 forecast price levels using the price level index. (5 marks)

(b) Using the graph paper provided, draw a scattergraph of total industry sales expressed in 2005 price levels for the period 2000 to 2004. (5 marks)

(c) Use the high-low technique to estimate a formula for industry sales expressed in 2005 price levels and use the formula to forecast industry sales revenue for 2005. (6 marks)

(d) Suggest TWO factors, other than past trends in industry sales, which Case plc should take into account when forecasting its own sales. (4 marks)

(20 marks)

4 Heighway Ltd is a railway company. Heighway Ltd operates a passenger railway service and is responsible for the operation of services and the maintenance of track, signalling equipment and other facilities such as stations. In recent years it has been criticised for providing a poor service to the travelling public in terms of punctuality, safety and the standard of facilities offered to passengers. In the last year Heighway Ltd has invested over £20 million in new carriages, station facilities and track maintenance programmes in an attempt to counter these criticisms. Summarised financial results for Heighway Ltd for the last two years are given below.

Summarised profit and loss account for the year ended 31 December

	2003	2004
	£ Million	£ Million
Sales	180·0	185·0
Earnings before interest and tax	18·0	16·5
Interest	(3·2)	(4·7)
Tax	(4·4)	(3·5)
Earnings available to ordinary shareholders	10·4	8·3

Summarised balance sheet as at 31 December

	2003		2004	
	£m	£m	£m	£m
Fixed assets (net)		100·4		120·5
Current assets				
Stock	5·3		5·9	
Debtors	2·1		2·4	
Cash	6·2		3·6	
	13·6		11·9	
Less creditors due within one year	(8·4)		(9·2)	
Net current assets		5·2		2·7
Less amounts payable after more than one year				
8% Debenture 2009		(15·0)		(15·0)
Bank loan		(20·0)		(35·0)
Net assets		70·6		73·2
Ordinary share capital (£1 shares)		25·0		25·0
Reserves		45·6		48·2
		70·6		73·2

Required:

(a) Calculate the following ratios for Heighway Ltd for 2003 and 2004, clearly showing your workings:

- **(i) Return on capital employed (also known as return on investment) based upon closing capital employed;**
- **(ii) Net profit margin;**
- **(iii) Asset turnover;**
- **(iv) Current ratio; and**
- **(v) Capital gearing ratio.** (8 marks)

(b) Briefly comment on the financial performance of Heighway Ltd in 2003 and 2004 as revealed by the above ratios and suggest causes for any changes. (You are not required to calculate any other ratios.) (6 marks)

(c) Suggest THREE non-financial indicators that could be useful in measuring the performance of a passenger railway company and explain why your chosen indicators are important. (6 marks)

(20 marks)

End of Question Paper