LCCI International Qualifications from EDI

Series 3 Examination 2012

CERTIFICATE IN MANAGEMENT ACCOUNTING

Level 3

Monday 11 June

Subject Code: 3024

Time allowed: **3 hours**

INSTRUCTIONS FOR CANDIDATES

- Answer all **5** questions.
- All questions carry equal marks.
- Write your answers in blue or black ink/ballpoint. Pencil may be used only for graphs, charts, diagrams, etc.
- Begin your answer to each question on a new page.
- All workings must be shown.
- All answers must be correctly numbered but need not be in numerical order.
- You may use a calculator provided the calculator gives no printout, has no word display facilities, is silent and cordless. The provision of batteries and their condition is your responsibility.

QUESTION 1

Barmby Ltd recently launched a new product (Product Aye). The variable cost of the product was estimated, prior to the launch, at £43.00 per unit along with total fixed costs of £348,000 per period.

The initial selling price of Product Aye was set so as to achieve a net profit margin of 10% based on a sales volume of 12,000 units per period.

REQUIRED

(a) Calculate the initial selling price of Product Aye.

(4 marks)

Stewart Brady has estimated the sales demand for one of its products, Product Bee, at three different selling prices. The company is seeking to determine which of the three prices would generate the most profit.

The estimates of the selling price/demand relationships are:

Selling price	**Sales demand**
£38.00 per unit	16,500 units
£42.00 per unit	14,300 units
£46.00 per unit	11,000 units

The variable costs of Product Bee are:

Production	£18.40 per unit
Administration and selling	£4.60 per unit

Fixed costs of £203,500 would not change over the relevant output range.

REQUIRED

(b) Determine the selling price for Product Bee that would generate the most profit.

(4 marks)

Koren Evans is considering undertaking a new job that would require the use of 140 units of Component C127. This component is used regularly on other jobs carried out by the company.

The company currently has 180 units of Component R127 in stock: the components were purchased for £64.00 per unit. The current purchase price of the component is £67.00 per unit. The existing stock of Component R127, if sold, would generate net revenue of £58.00 per unit.

REQUIRED

(c) State and explain:

(i) The relevant cost per unit of Component R127 that should be used by the company in deciding whether to undertake the new job

(ii) An example of a sunk cost from the information about Component R127 above.

(6 marks)

(d) Discuss briefly the usefulness for decision-making of:

(i) Absorption costing

(ii) Marginal costing.

(6 marks)

(Total 20 marks)

QUESTION 2

Fryalt McLean is preparing financial budgets for the first three months of Year 4. The company's summarised balance sheet at the end of Year 3 is as follows:

	£000	£000
Fixed assets (at cost)	350	
Less: Accumulated depreciation	210	140
Current assets		
Stock	320	
Trade debtors	300	
Cash at bank	30	650
		790
Less: **Current liabilities**		
Trade creditors	220	
Taxation	50	270
		520
Capital and reserves		
Share capital		310
Reserves		210
		520

The following information on the company's budgeted activities for the first three months of year 4 is available:

1. Sales and purchases:

	Month 1	**Month 2**	**Month 3**
	£000	£000	£000
Cash sales	120	140	100
Credit sales	360	480	400
Credit purchases	280	360	300

2. Gross profit: 37.5% of sales.

3. All trade debtors are expected to pay, one month following sale.

4. Payment for credit purchases is to be made in the month following purchase.

5. The following expenses are to be paid per month:

Salaries and wages	£80,000
Selling and administrative expenses	£60,000

6. Fixed assets costing £250,000 are to be purchased for cash in Month 1. It is company policy to charge for depreciation at the rate of 20% on the cost of fixed assets (including those purchased during the year).

7. The taxation liability is payable in Month 3.

REQUIRED

(a) Prepare, for the first three months of year 4:

(i) a combined budgeted profit statement (before tax)

(4 marks)

(ii) a cash budget for each month.

(11 marks)

(b) Prepare a statement that reconciles budgeted net profit and budgeted cashflow for the three-month period.

(5 marks)

(Total 20 marks)

QUESTION 3

Folan Ltd operates a standard marginal costing system for the single product it manufactures.

The standard selling price of this product is £132 per unit

Production and sales of 6000 units are budgeted for period 10.

The variable manufacturing cost standards set for period 10 are as follows:

		£ per unit
Direct material	(2.5 kilos × £16.90 per kilo)	42.25
Direct labour	(1.25 hours × £18.80 per hour)	23.50
Variable production overhead	(1.25 direct labour hours × £13.40 per hour)	16.75

The variable production overheads are absorbed on the basis of direct labour hours.

Actual results for Period 10 were as follows:

Production	6,380 units
Sales (5,640 units)	£810,750
Direct material, purchased and used (14,730 kilos)	£279,870
Direct labour (8,535 hours)	£153,630
Variable production overhead	£89,740

Opening and closing stocks of finished goods are valued at the standard variable manufacturing cost per unit for period 10

REQUIRED

(a) Calculate the actual contribution for Period 10.

(3 marks)

(b) Calculate the following variances for Period 10:

(i) sales price

(2 marks)

(ii) sales volume contribution

(3 marks)

(iii) direct material price

(2 marks)

(iv) direct material usage

(2 marks)

(v) direct labour rate

(2 marks)

(vi) direct labour efficiency

(2 marks)

(c) Suggest **four** possible causes of the direct material variances calculated in part (b).

(4 marks)

(Total 20 marks)

QUESTION 4

Dawson Chester is considering introducing a new product to add to its present range. Manufacture of the product would require equipment costing £2,100,000 with a residual value of £120,000 after five years when the product is discontinued. A recent study carried out suggests that the product should be sold for £320 per unit with demand expected to be 10,000 units per annum.

The product is expected to have a constant contribution/sales ratio of 32.5% and annual fixed costs of £360,000 (excluding straight-line depreciation of new equipment).

Assume that net cash flows occur at the end of the years to which they relate.

The company's cost of capital is 15% per annum.

Discount factors:	**Year**	**15%**	**20%**
	1	0.870	0.833
	2	0.756	0.694
	3	0.658	0.579
	4	0.572	0.482
	5	0.497	0.402
		3.353	2.990

REQUIRED

(a) Calculate, in relation to the new product, the:

(i) net present value

(5 marks)

(ii) internal rate of return.

(3 marks)

(b) Advise the company on whether the introduction of the new product is worthwhile, on the basis of the net present value and internal rate of return in part (a).

(2 marks)

(c) Calculate (stating whether this is an increase or decrease) by how much the estimates for each of the following must change before the new product is no longer financially viable:

(i) sales units

(4 marks)

(ii) net operating cash flows

(3 marks)

(iii) fixed costs.

(3 marks)

Your calculations should be made in percentages to 1 decimal place.

(Total 20 marks)

QUESTION 5

Rosenoir McKenna is comprised of two divisions, R and T. Division R manufactures a single product which has the following standard production cost per unit, based on a budgeted output of 12,000 units in a given period:

	£ per unit
Direct materials	16
Direct labour	12
Production overheads:	
Variable	10
Fixed	22
	60

In a typical period, Division R incurs additional non-production costs of £20,000 for selling 2,500 units to the external market for £72 per unit. The remainder of Division R's output is internally transferred to Division T as an intermediate product. Division T's unit standard cost of converting the intermediate product into its final product is as follows:

	£ per unit
Direct labour	9
Production overheads:	
Variable	5
Fixed	8
	22

Division T incurs additional non-production costs of £57,000 per period for selling its final product to the external market for £118 per unit.

REQUIRED

(a) Calculate the profits for each of Division R and Division T for a period, using the following **transfer prices**:

(i) market price

(6 marks)

(ii) standard variable production costs

(4 marks)

(iii) 110 percent of full standard production costs

(4 marks)

(b) State **three** objectives of a system of transfer pricing between divisions, in a centralised organisation.

(6 marks)

(Total 20 marks)