LCCI International Qualifications from EDI

Series 2 Examination 2011

CERTIFICATE IN MANAGEMENT ACCOUNTING

Level 3

Tuesday 12 April

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

Company X manufactures three components, P, Q and R, using the same machines for each. Since there are only 35,000 machine hours available in the next period, the company will have to purchase some units of any of the components from outside suppliers. The following budgeted data are available:

	Component P	**Component Q**	**Component R**
	£ per unit	**£ per unit**	**£ per unit**
Direct material cost	60.30	35.00	85.40
Direct labour cost	29.20	36.50	58.40
Production overheads	57.00	30.00	42.00
	146.50	101.50	185.80
Machine hours per unit	4.75 hours	2.5 hours	3.5 hours
Purchase price from supplier per unit	£175.00	£118.00	£204.00
Sales demand	4,500 units	6,400 units	1,200 units

Production overheads are absorbed at the rate of £12.00 per standard machine hour; 30% of the production overheads are fixed costs.

REQUIRED

For the next period, given that there are only 35,000 machine hours available:

(a) Prepare a schedule showing the number of each component to be manufactured and the number to be purchased, in order to minimise total costs.

(15 marks)

Company Y manufactures and sells a single product. The following data relate to the product:

Direct material cost per unit	£49.30
Direct labour cost per unit	£28.20
Production overhead cost per machine hour	£10.50
Machine hours per unit	5 hours

Non-production overheads are absorbed at the rate of 7.5% of total production cost.

The company's capital invested in manufacturing and selling 2,400 units of the product per period is £248,000.

REQUIRED

(b) Calculate a selling price for the product in order to achieve a required rate of return of 12% per period on the capital invested.

(5 marks)

(Total 20 marks)

QUESTION 2

A retail company is preparing budgets for the coming months. Details of profit and loss statement items are as follows:

	Month 7	Month 8	Month 9	Month 10
	£000	**£000**	**£000**	**£000**
Sales (all on credit)	580	720	960	840
Salaries and wages	58	68	75	62
Selling and administrative expenses	80	102	118	105

The following additional budgeted information is available:

1. Gross profit: 30% of sales.

2. Purchases in any month will be sufficient to cover that month's sales, and to provide closing stock to satisfy 25% of the following month's sales demand. Payment for purchases is made in the month of purchase.

3. A cash discount of 5% is granted to customers if they pay their invoices within the month of sale. It is estimated that 25% of customers will pay within the month of sale and the rest of them will pay in the month following sale.

4. Salaries and wages are paid in the month in which they are earned.

5. Selling and administrative expenses, which include £25,000 depreciation charge per month, are paid one month in arrears.

6. The cash balance at the start of Month 8 is expected to be £80,000.

REQUIRED

(a) Prepare, for Month **8** and Month **9**, the following:

(i) a single budgeted profit and loss statement

(6 marks)

(ii) a cash budget for each month.

(12 marks)

(b) Explain, briefly, the differences between the budgeted profit and loss statement and the cash budget prepared in your answer to part (a).

(2 marks)

(Total 20 marks)

QUESTION 3

Solar Limited manufactures and sells a single product. In a recent period, the company budgeted to produce and sell 6,500 units, based on standard costs, as follows:

		£	£
Sales	(6,500 units × £150.00 per unit)		975,000
Less Cost of sales			
Materials	(15,600 kilos × £20.50 per kilo)	319,800	
Labour	(19,500 hours × £12.60 per hour)	245,700	
Fixed production overhead	(19,500 hours × £9.50 per hour)	185,250	
			750,750
Budgeted gross profit			224,250

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

Raw materials and finished goods stocks are valued at standard costs.

6,650 units were actually produced and 15,750 kilos of materials were purchased during the period. The actual sales revenue was £928,080.

The following variances were calculated for the period:

	£
Sales price	16,080 Favourable
Sales volume profit	14,490 Adverse
Direct material price	12,375 Favourable
Direct material usage	10,455 Favourable
Direct labour rate	8,459 Favourable
Direct labour efficiency	11,214 Adverse
Fixed production overhead expenditure	15,950 Adverse
Fixed production overhead volume	4,275 Favourable

REQUIRED

(a) Calculate the following **actual figures** for the period:

(i) sales units

(3 marks)

(ii) quantity of direct material used

(3 marks)

(iii) cost of direct materials purchased

(2 marks)

(iv) direct labour hours worked

(3 marks)

(v) direct labour cost

(2 marks)

(vi) fixed production overhead cost

(2 marks)

(b) Identify the factors that should be considered when setting the standards for direct material cost and direct labour cost.

(5 marks)

(Total 20 marks)

QUESTION 4

A company is considering two alternative investment projects both of which require the purchase of new equipment with a lifespan of four years. The following information relates to the two projects:

	Project M	Project N
	£000	£000
Purchase cost of equipment - Year 0	350	600
Estimated accounting profits:		
Year 1	(20)	50
Year 2	(5)	125
Year 3	210	90
Year 4	60	30
Estimated disposal value of equipment	70	80

The company's depreciation policy is to write off the cost of equipment using the straight-line method.

Cost of capital is 15% per annum.

Discount factors:	*Year*	*10%*	*15%*	*20%*	*25%*
	1	0.909	0.870	0.833	0.800
	2	0.826	0.756	0.694	0.640
	3	0.751	0.658	0.579	0.512
	4	0.683	0.572	0.482	0.410

REQUIRED

(a) Calculate for each of Project **M** and Project **N**, the:

(i) payback period

(7 marks)

(ii) net present value

(5 marks)

(iii) internal rate of return.

(6 marks)

(b) Recommend which project should be undertaken giving reasons for your decision.

(2 marks)

(Total 20 marks)

QUESTION 5

(a) Discuss the use of the balanced scorecard approach to the performance evaluation of divisions in a decentralised organisation.

(6 marks)

A company has two divisions, A and B. The following financial information for a recent period is available:

	Division A	**Division B**
	£000	£000
Sales	3,900	1,950
Cost of sales	2,814	1,436
Operating expenses	488	202
Fixed assets (net book value)	2,565	1,240
Current assets	1,420	610
Current liabilities	735	350

The company's cost of capital is 14% per annum.

REQUIRED

(b) Calculate for each of Division A and Division B for the period, the:

(i) net profit ratio (%)

(3 marks)

(ii) net asset turnover ratio (number of times)

(3 marks)

(iii) return on capital employed ratio (%)

(2 marks)

(iv) residual income (£).

(3 marks)

(c) State, with reasons, which performance measure would be more useful when comparing the performance of the two divisions, based on the calculations of the return on capital employed and residual income in part (b).

(3 marks)

(Total 20 marks)

