LCCI International Qualifications

SERIES 2 EXAMINATION 2006

MANAGEMENT ACCOUNTING

LEVEL 3

(Code No: 3023)

MONDAY 3 APRIL

Instructions to Candidates

(a) *The time allowed for this examination is* ***3*** *hours.*

(b) *Answer* ***5*** *questions.*

(c) *All questions carry equal marks.*

(d) *All answers must be clearly and correctly numbered but need not be in numerical order.*

(e) *Your answers should be written in blue or black ink/ballpoint. Pencil may be used only for graphs, charts, diagrams, etc.*

(f) *Candidates may use calculators provided the calculators give no printout, have no word display facilities, are silent and cordless. The provision of batteries and responsibility for their condition must rest with the candidate.*

(g) *All workings must be shown.*

QUESTION 1

REQUIRED

(a) Briefly discuss human behavioural aspects that may influence both the setting of budget targets and the subsequent task of achieving them.

(7 marks)

(b) Explain how variance analysis, and the study of the relationships between variances, can help to monitor operational performance.

(7 marks)

(c) State a formula for the calculation of each of the following direct material variances:

(i) mix (calculated for each material)

(3 marks)

(ii) yield (calculated in total).

(3 marks)

(Total 20 marks)

QUESTION 2

A company manufactures and sells a single product. Product costs are:

	£ per unit
Direct materials	15.20
Direct labour	9.36
Variable production overhead	2.74
Fixed production overhead	17.60
Variable selling and administration overhead	3.70
Fixed selling and administration overhead	10.40
	59.00

The company wishes to compare the profits reported by absorption and marginal costing respectively. If absorption costing was to be applied, fixed overheads would be absorbed at the above rates per unit which are based on normal production and sales activity of 20,000 units per period.

In the period just ended, 19,700 units of the product were sold at £65.00 per unit and 20,100 units of the product were manufactured.

REQUIRED

(a) Prepare a profit statement for the period using absorption costing.

(10 marks)

(b) Prepare a profit statement for the period using marginal costing.

(8 marks)

(c) Explain why the profits in (a) and (b) differ. NB No calculations are required.

(2 marks)

(Total 20 marks)

QUESTION 3

A company is evaluating an investment project requiring an outlay of £1.4million on new machines (Year 0). The machines would be expected to have a useful working life of six years, with a residual value of £80,000 (Year 6), and would be depreciated on a straight line basis.

Estimates of cost savings (net of depreciation of the new machines) arising from the investment are:

Year	*£'000*
1	20
2	50
3 to 6	80 per annum

REQUIRED

(a) Calculate in relation to the investment project the:

(i) average annual accounting rate of return;

(5 marks)

(ii) payback period;

(6 marks)

(iii) discounted cash flow internal rate of return.

Discount factors:

Year	*5%*	*10%*	*15%*
1	0.952	0.909	0.870
2	0.907	0.826	0.756
3	0.864	0.751	0.658
4	0.823	0.683	0.572
5	0.784	0.621	0.497
6	0.746	0.564	0.432

(6 marks)

(b) State whether the investment project is financially worthwhile if the company's cost of capital is 8% per annum. Explain your reasoning.

(3 marks)

(**Total 20 marks)**

QUESTION 4

(a) Financial information relating to two investment centres in a company includes:

	Investment Centre X	***Investment Centre Y***
	£	***£***
At end of Period 10:		
Fixed assets (NBV)	86,370	78,100
Current assets	73,300	32,220
Current liabilities	38,420	21,650
For Period 10:		
Sales	424,375	372,400
Net profit	13,580	14,896

REQUIRED

Calculate, for **each investment centre** for Period 10, the:

(i) net profit margin (%);

(2 marks)

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

(3 marks)

(iii) return on capital employed (%).

(3 marks)

(b) In **Investment Centre X** during Period 10:

- 80% of sales were on credit with the remaining 20% being cash sales.
- Average debtors were £52,090.
- Stock of finished goods averaged £55,500.
- The production cost of sales totalled £288,600.

REQUIRED

Calculate the following ratios for **Investment Centre X** in Period 10:

(i) debtor days;

(3 marks)

(ii) stock turnover.

(2 marks)

REQUIRED

(c) Demonstrate the relationship between the three ratios calculated in (a) for each investment centre and comment briefly on the financial performance of each centre on the basis of the ratios calculated in (a) and (b).

(7 marks)

(Total 20 marks)

QUESTION 5

A business will commence trading on 1 May with capital of £300,000 being introduced. This will be used to purchase fixed assets and to help fund working capital requirements.

A cash budget is required, initially to cover the first four months of trading. Any cash deficit will be funded by bank overdraft. The following estimates have been made:

Fixed assets:

Equipment costing £137,000 will be purchased and paid for in May. The equipment will be depreciated on a straight-line basis over 8 years commencing in May and assuming a disposal value of £5,000 at the end of its working life.

Sales and purchases:

Sales estimates for the first four months of trading are:

May	£75,000
June	£120,000
July	£147,000
August	£162,000

It is expected that 20% of sales will be for cash with the remainder payable two months following sale. The selling price is established by adding a mark-up of 50% to the cost of goods.

An initial stock of goods for resale, costing £100,000, will be purchased on 1 May payable on delivery. Thereafter, all goods sold will be replaced immediately on one month's credit.

Expenses:

Wages and salaries are estimated at £30,000 in May and £36,000 in each month thereafter. Three-quarters of wages are paid in the month with the balance paid in the month following.

Rent and rates, of £42,000 for the year from 1 May, will be paid in May.

Other overheads (excluding depreciation) are estimated at £11,500 per month, payable on one month's credit.

REQUIRED

Prepare:

(a) A cash budget for each of the four months May to August.

(12 marks)

(b) A budgeted profit statement for the four-month period, May to August, in total.

(4 marks)

(c) A list of the current asset and current liability balances expected at 31 August.

(4 marks)

(Total 20 marks)

QUESTION 6

A company manufactures and sells three products. Selling prices and variable costs are:

	Product X £ per unit	***Product Y £ per unit***	***Product Z £ per unit***
Selling price	13.80	12.00	6.50
Variable costs:			
Direct materials	3.75	3.00	1.75
Direct labour	2.25	2.00	1.00
Production overhead	0.90	0.80	0.40
Non-production overhead	1.40	1.20	0.65

Sales demand per period is:

Product X	9,000 units
Product Y	11,000 units
Product Z	16,000 units

Fixed overheads per period are:

Production	£96,000
Non-production	£32,600

REQUIRED

(a) Based on the above sales mix:

(i) Calculate the overall contribution/sales (C/S) ratio.

(6 marks)

(ii) **Using the graph paper provided**, prepare a profit/volume (P/V) chart for the company with sales up to £400,000 in a period.

(7 marks)

Direct labour, all paid at £8.00 per hour, may be limited to a total of 7,000 hours in the next period.

REQUIRED

(b) Determine the number of units of each product that should be manufactured and sold in the next period, if direct labour is limited to 7,000 hours, in order to maximise profit.

(7 marks)

(Total 20 marks)