LCCI International Qualifications from EDI

Sample Paper 2008

MANAGEMENT ACCOUNTING

Level 3

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

A company manufactures two products A and B. The budget for the next year has been prepared from which the following figures have been extracted:

	Product	
	A	**B**
Sales price per unit	£35	£38
Sales units	25,000	15,000
Variable cost per unit	£27.8	£33.5
Fixed overhead (excluding advertising)	£100,000	£30,000
Advertising cost	£30,000	£15,000
Fixed Assets employed	£162,500	£86,300

In addition to the above there is a working capital requirement of 10% of total sales value for Product A and 20% of total sales value for Product B.

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

The directors are worried about Product B and believe that Product A can be further developed. To achieve this, the following strategy has been put forward:

1 Sales of Product A could be increased by 20%, by increasing annual advertising by £19,500. The extra output of Product A would be made on machinery currently used on Product B, The machinery has a book value of £40,000, with associated fixed overhead of £10,000. This fixed overhead would then be assigned to Product A

2 Production and sales of Product B would fall by one-third. Product B can then be marketed by increasing the selling price by £0.5 per unit and reducing annual advertising by £7,500.

REQUIRED

(a) Calculate both the Return on Capital Employed and Residual Income of each product for:

(i) the current budget (9 marks)

(ii) the proposed strategy (7 marks)

(b) Comment on the proposed strategy using the figures calculate in (a) (4 marks)

(Total 20 marks)

QUESTION 2

A company is considering investing in a machine to produce Product A.
There are two alternatives under consideration, Machines X and Y.

The following information is available

	Machine X	**Machine Y**
Initial outlay	£1,500,000	£1,800,000
Resale value end of year 5	£100,000	£400,000
Production and sales		
Year 1	10,000 units	6,000 units
Year 2	10,000 units	8,000 units
Year 3	10,000 units	12,000 units
Year 4	10,000 units	12,000 units
Year 5	10,000 units	12,000 units

Standard data per unit of product A

	£
Selling price	100
Variable cost	50
Fixed overhead	40

The variable cost and revenue per unit are expected to remain constant over the five-year period.
The fixed overhead cost per unit includes depreciation of £28 and general fixed overhead apportioned at 24% of variable cost. There are no fixed costs specific to Product A other than depreciation.

The company's cost of capital is 10% per annum. The appropriate discount factors are:

Year 1	0.909
Year 2	0.826
Year 3	0.751
Year 4	0.683
Year 5	0.621

REQUIRED

(a) Calculate for each machine

(i) the Accounting Rate of Return using the average capital employed (6 marks)

(ii) the Net Present Value (8 marks)

(b) State, giving reasons, which machine should be purchased (2 marks)

(c) State the relative merits of the Accounting Rate of Return and Net Present Value methods of capital investment appraisal. (4 marks)

(Total 20 marks)

QUESTION 3

A company is preparing budgets for the four month period beginning 1 February 2008. The company produces and sells one product, the standard variable costs of which are as follows:

	£ per unit
Material	10
Labour	3
Overhead	3

The budgeted production in units is:

February	March	April	May
5,000	4,500	3,500	4,000

The budgeted sales in units are:

February	March	April	May
4,000	4,500	5,000	4,000

In January 2008 production is expected to be 4,000 units and sales are expected to be 3,500 units.

The following information is also available:

1 The standard selling price per unit is £20

2 Material purchases are on credit and are paid for one month after usage. Each unit of finished product uses one unit of material. Material is delivered on a Just in Time basis and a buffer stock of 800 units is carried

3 Labour is paid in the month incurred on production

4 Variable overhead is paid for in the month after incurred on production

5 Total fixed overheads for the four months are £100,000 of which £20,000 relates to depreciation. The remainder accrue evenly over the period and are paid for in the month after they are incurred. These amounts are unchanged from the previous period

6 10% of the sales are for cash, the remainder are received in the month after the sales are made

7 Finished stocks are valued in the budgeted balance sheet at standard variable cost per unit

8 The company is expected to have an opening stock of 1,000 finished units on 1 February

9 The cash balance on 1 February is expected to be £25,500 in credit

(a) Prepare a cash budget for each of the four months February to May 2008. (10 marks)

(b) Calculate the company's working capital at 31 May 2008. (6 marks)

(c) Based on the budgeted figures at 31 May 2008 calculate (to 2 decimal places).

(i) Current Ratio (2 marks)

(ii) Acid Test (Quick) Ratio (2 marks)

(Total 20 marks)

QUESTION 4

A Ltd has an opportunity to undertake a one-year contract for B Ltd, for which the production department of A Ltd has prepared the following cost statement.

		£
Materials:		
A	In stock	20,000
B	On order	15,000
C	To be specifically ordered	35,000
Labour:		
Machine operator	50 weeks at £600 per week	30,000
Labourer	50 weeks at £300 per week	15,000
Supervisor		35,000
Other costs:		
Depreciation of machine		10,000
Variable overheads		2,000
General overheads		15,000
		£177,000

B Ltd has offered A Ltd £125,000 and the production manager is inclined to reject the contract, but has sought a second opinion from the accounting department.

The following information has now become available;

- There is sufficient spare machine capacity, in the department concerned, to undertake the contract. The machinery is not currently in use. The company has recently received an offer of £8,000 for it. Its resale value in one years time will be £2,000
- Material A is obsolete and could not be sold. It could be used as a substitute for Material W, which would cost £10,000 to purchase a similar quantity, but would need processing at a cost of £3,000 to make it useable.
- Material B has not yet been delivered. It was ordered for another job which has now been cancelled and is of no further use to A Ltd. If it has to be sold the current price is £20,000, owing to a problem in the producing country.
- The machine operator will be transferred from another department with spare machine capacity where he currently earns a guaranteed wage of £500 per week. The supervisor would transfer from the same department where he is currently a deputy supervisor at a salary of £33,000 per year. He would not be replaced.
- The labourer would be hired for the duration of the contract.
- The general overhead is a charge of 33.3% on direct labour. The company applies this rate to all jobs to recover its fixed overhead.

REQUIRED

(a) State, on the basis of incremental costs and revenues, whether or not the company should accept the contract. Prepare figures to support your conclusion.

(15 marks)

(b) State the principles that you have applied to reach the conclusion in (a) above.

(5 marks)

(Total 20 marks)

QUESTION 5

A company produces and sells a single product. The direct cost standards per unit of product are:

Direct Material	30 kilos at £1.5 per kilo
Direct Labour	10 hours at £6 per hour

Production overhead is all fixed and budgeted at £600,000 for 60,000 labour hours to produce 6,000 units in a year. Fixed overhead is absorbed on a per unit of product basis.

The following actual figures are available for the year:

Production	5,800 units	
Direct material	185,000 kilos at a cost of	£259,000
Direct labour	57,000 hours at a cost of	£319,000
Production overhead		£590,000

REQUIRED

(a) Calculate the appropriate variances for material, labour and overhead.

(9 marks)

(b) Prepare a statement reconciling the total standard cost with the actual cost of production for the year.

(5 marks)

(c) Calculate the:

(i) Capacity Ratio
(ii) Efficiency Ratio
(iii) Activity (Production Volume) Ratio

(6 marks)

(Total 20 marks)

