Pearson LCCI

Certificate in Management Accounting

Level 3

Friday 21 November 2014
Time: 3 hours

Paper Reference
ASE3024

You will need:
An answer book

Instructions

- Do **not** open this examination paper until you are told to do so by the supervisor.
- Use **black/blue** ink or ball-point pen
  – *pencil can only be used for graphs, charts, diagrams, etc.*
- Ensure your answers are written clearly.
- Begin your answer to each question on a new page.
- Write on both sides of the page.
- All answers must be correctly numbered but need not be in numerical order.
- If you need more space, use the additional sheets provided. Write your name, candidate number and question number on each sheet and attach them to the inside of your answer book. State, on the front of your answer book, the number of additional sheets attached.
- Workings must be shown.
- Answer **all** questions.

Information

- The total mark for this paper is 100.
- There are five questions in this question paper
  – *each question carries equal marks.*
- The marks for **each** question are shown in brackets
  – *use this as a guide as to how much time to spend on each question.*
- 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.

Advice

- Read each question carefully before you start to answer it.
- Check your answers carefully if you have time at the end.

Turn over ▶

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Answer ALL questions.

1 Moses Dembele manufactures and sells a single product.

The selling price and unit costs of the product are:

	£ per unit
Selling price	148.00
Production costs:	
Variable	72.00
Fixed	42.00
Non-production costs:	
Variable	10.00
Fixed	16.00

The fixed costs per unit listed above are based on sales and production of 6,400 units per period.

Required

(a) Calculate for the period, based on sales and production of 6,400 units, the:

(i) contribution/sales ratio percentage (to one decimal place)

(2)

(ii) break even in sales revenue (to the nearest £)

(2)

(iii) margin of safety as a percentage of the sales figure (to two decimal places).

(2)

(b) State, giving a reason for your answer, whether the break-even point (in sales units) would increase or decrease if the selling price was raised with no change in the cost structure.

(2)

Sonne-Aluko has budgeted to produce and sell 3,500 units of a product in a period.

The following budgeted information has been prepared for the period:

Selling price	£80 per unit
Direct labour	2 hours per unit @ £6 per hour
Direct materials	2 kg per unit @ £8 per kg
Variable production overheads	£8 per direct labour hour
Variable selling and administration overheads	£12 per unit
Fixed production and selling overheads	£12 per unit

Required

(c) Calculate, for the period, the budgeted:

(i) contribution per unit

(2)

(ii) break-even point (in units)

(2)

(iii) margin of safety (as a percentage of the sales figure).

(2)

(d) Using the graph paper provided, prepare a ***contribution*** **break-even chart**, that shows clearly (based on the budgeted output of 3,500 units):

(i) the break-even point and the margin of safety (in units)

(ii) the total revenue (in units and value), total variable costs, and the total costs (in values).

(6)

(Total for Question 1 = 20 marks)

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2 Odejayi-Monakaka is considering investing in a new machine in order to reduce operating costs over the next **five** years.

Two machines are currently being considered, the details of which are as follows:

	Machine A	**Machine B**
Capital cost	£800,000	£900,000
Residual value	£100,000	£100,000
Annual cost savings	£100,000	£130,000

The above cost savings have been calculated after the deduction of depreciation on a straight-line basis.

The company's cost of capital is 10% per annum.

Discount factors	**10%**	**20%**
Year 1	0.909	0.833
Year 2	0.826	0.694
Year 3	0.751	0.579
Year 4	0.683	0.482
Year 5	0.621	0.404

Required

(a) For the proposed investment in each of the machines, calculate the:

(i) payback period

(4)

(ii) net present value

(6)

(iii) internal rate of return.

(6)

(b) Advise the company, giving **two** reasons, as to which machine to purchase.

(2)

(c) State **two** limitations of the accounting rate of return as a method of evaluating capital investment decisions.

(2)

(Total for Question 2 = 20 marks)

3 Elmohamady manufactures and sells a single product.

The following data relates to the product:

Direct material cost per unit	£73.95
Direct labour cost per unit	£42.30
Production overhead cost per machine hour	£15.75
Machine hours per unit	5 hours

- Non-production overheads are absorbed at the rate of 12% of the total production cost.
- The company's capital invested in manufacturing and selling 2,400 units of the product per period is £372,000.

Required

(a) Calculate a selling price for the product in order to achieve a required rate of return of 15% per period on the capital invested.

(6)

Pei Loo manufactures and sells a single product with the following selling price and variable costs:

	£ per unit
Selling price	329.00
Variable costs:	
Direct material	121.10
Direct labour (£33.50 per hour)	60.30
Variable overheads (£26.80 per direct labour hour)	48.24

In the next period, the direct labour force will be fully utilised on existing customer orders. No further work can be undertaken without restricting the manufacture of existing orders, which would lead directly to lost sales.

The company has now been approached to supply a special order in the next period. The direct material cost of the special order would be £119,600 and 2,240 direct labour hours would be required. Variable overheads will be absorbed on the basis of direct labour hours.

The customer would be prepared to pay £345,800 for the special order.

Required

(b) On the basis of the information:

(i) calculate whether the special order will be financially worthwhile

(10)

(ii) describe **two** other (non-quantitative) factors that might influence the company's decision as to whether to accept the special order.

(4)

(Total for Question 3 = 20 marks)

4 Zabalatta Limited makes and sells a single product and is in the process of preparing its budgets for the **three** months commencing 1 January 2015.

The details of the product are as follows:

Selling price	£70 per unit
Variable production costs:	
Direct material	£30 per unit
Direct labour	£20 per unit
Variable overhead	£15 per unit

The following budgeted information is also available:

	November 2014	**December 2014**	**January 2015**	**February 2015**	**March 2015**
Sales (units)	2,000	2,100	2,200	2,300	1,900
Production (units)	2,000	2,100	2,300	2,300	1,900

- Fixed overhead costs of £30,000 per month (including depreciation of £4,000) would be paid in the month in which they are incurred.
- 75% of direct labour costs would be paid during the month in which they are incurred and the remaining 25% in the following month.
- 50% of variable production overhead costs would be paid in the month in which they are incurred and the remaining 50% in the following month.
- Direct material would be purchased in the month of production and paid for two months later.
- There is a tax liability of £80,000 to be paid in March 2015.
- The company will purchase a new machine for £60,000 in January, payable in three equal instalments during January, March and May 2015.
- 10% of the monthly sales are for cash. The remainder will be sold on credit. Debtors are expected to pay in the month following the sale.
- The cash balance on 1 January 2015 is expected to be £18,000 overdrawn.

Required

(a) Prepare a cash budget for each of the three months January, February and March 2015.

(12)

(b) Explain why there may be a difference between the budgeted net cash flow for the period 1 January to 31 March 2015, and the budgeted profit or loss for the same period.

(6)

(c) State **two** costs resulting from trading with insufficient cash in the short term.

(2)

(Total for Question 4 = 20 marks)

5 Soo Fong Limited comprises two divisions. Division X manufactures a single product that is sold to Division Y as well as to external customers.

The transfer price of the product between the two divisions is under review.

The following information is available for **Division X** for a period:

	Sales to external customers	**Sales to Division Y**
Units sold	5,400	2,600
Selling price	£27.00 per unit	
Variable costs	£14.40 per unit	£13.70 per unit
Fixed costs	£44,928	£21,632

Division X has capital employed of £250,800.

Fixed costs have been apportioned on the basis of sales units.

Division Y, which sells entirely to external customers, has sales of £312,800 and costs of £219,620 (excluding the cost of units transferred from Division X) for the period.

Required

(a) If the transfer price is set at £25.80 per unit, calculate for the period the net profit for each of Division X and Division Y.

(6)

(b) Calculate the transfer price that is required for Division X to earn a return on capital employed of 15% for the period.

(4)

Yung Fung Limited manufactures and sells a single product.

The company had budgeted to produce and sell 1,250 units at a selling price of £480 per unit in the period just ended.

Details of the standard cost per unit are as follows:		£
Direct material	7.5 kg @ £27.60 per kg	207.00
Direct labour	5 hours @ £21.00 per hour	105.00
Fixed production overhead	5 hours @ £11.20 per hour	56.00

The following is a reconciliation of the budgeted gross profit with the actual gross profit for the period just ended:

	£	£	£
Budgeted gross profit			140,000
	Adverse	Favourable	
Sales price variance	15,700		
Sales volume gross profit variance		10,080	
Direct material price variance	9,660		
Direct material usage variance		12,120	
Direct labour rate variance		7,520	
Direct labour efficiency variance	13,400		
Fixed overhead expenditure variance		4,290	
Fixed overhead volume variance		5,040	
			290 FAV
Actual gross profit			140,290

There were no stocks of raw materials, work in progress or finished units.

Required

(c) Calculate the following **actual figures** for the period just ended:

(i) production and sales units

(2)

(ii) sales revenue

(3)

(iii) direct material cost

(3)

(iv) direct labour cost.

(2)

(Total for Question 5 = 20 marks)

TOTAL FOR PAPER = 100 MARKS

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