Accounting
Level 3

International
Qualifications from EDI

Model Answers
Series 4 2011 (3012)

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Accounting Level 3
Series 4 2011

How to use this booklet

Model Answers have been developed by EDI to offer additional information and guidance to Centres, teachers and candidates as they prepare for LCCI International Qualifications. The contents of this booklet are divided into 3 elements:

(1)	Questions	–	reproduced from the printed examination paper
(2)	Model Answers	–	summary of the main points that the Chief Examiner expected to see in the answers to each question in the examination paper, plus a fully worked example or sample answer (where applicable)
(3)	Helpful Hints	–	where appropriate, additional guidance relating to individual questions or to examination technique

Teachers and candidates should find this booklet an invaluable teaching tool and an aid to success.

EDI provides Model Answers to help candidates gain a general understanding of the standard required. The general standard of model answers is one that would achieve a Distinction grade. EDI accepts that candidates may offer other answers that could be equally valid.

QUESTION 1

Yarra, a sole trader, lost some of his accounting records in respect of the year ended 31 December 2010. The following information is available:

(1) all sales were on credit and made at a mark up of 80%

(2) his business bank statements show:

		£
Receipts	- debtors	275,000

		£
Payments	- creditors	142,500
	plant and machinery	52,000
	rent	51,800
	insurance	8,000
	salaries	60,000
	postage	4,000
	heat and light	12,000
	sundry expenses	1,200
		331,500

	£
Balance in hand at 31 December 2010	14,063

(3) rent is paid annually, in advance, on 1 October each year, and the prepayment at 1 January 2010 was £36,600

(4) insurance is paid annually, in advance, on 1 April each year, and the prepayment at 1 January 2010 was £1,200

(5) Yarra paid himself a salary of £2,000 per month up to 30 June 2010, and £2,500 per month from 1 July to 31 December 2010

(6) the cost of plant and machinery, owned at 1 January 2010, was £370,000. Plant and machinery, sold in 2010, cost £18,000 in 2007 and realised £8,000. The proceeds were paid into Yarra's personal bank account.

the cost of plant and machinery is written off in equal annual amounts over ten years, with a full charge in the year of purchase but no charge in the year of disposal. No depreciation has yet been charged for 2010.

No other fixed assets were owned by the business

(7) sundry year end balances were as follows:

	2009	**2010**
	£	**£**
Debtors	41,200	unknown
Stock	18,700	21,200
Creditors	11,800	13,700
Plant and machinery (net book value)	174,000	unknown

(8) the business does not have any loan capital.

QUESTION 1 CONTINUED

REQUIRED

(a) Calculate the following amounts:

(i) the profit or loss on disposal of plant and machinery

(ii) the balance of accumulated depreciation at 31 December 2010

(iii) Yarra's capital at 31 December 2009.

(8 marks)

(b) Prepare, for Yarra, his Trading and Profit and Loss Account for the year ended 31 December 2010 and his Balance Sheet at that date.

(17 marks)

(Total 25 marks)

MODEL ANSWER TO QUESTION 1
Syllabus Topic 1: Levels 1 and 2 revisited

(a)	(i)	**Profit/loss on disposal of plant and machinery**	**£**	
		Net book value 18,000 - (3 x .10 x 18,000)	12,600	1½
		Disposal value	8,000	½
		Loss	4,600	
	(ii)	**Accumulated depreciation**	**£**	
		Balance at 1 January 2010 (370,000 - 174,000)	196,000	1
		Depreciation of plant and machinery sold (3 x .10 x 18,000)	(5 ,400)	1
		Depreciation for 2010 [.10 (370,000 + 52,000 - 18,000)]	40,400	1
			231,000	
	(iii)	**Capital at 31 December 2009**	**£**	
		Assets:		
		Plant and machinery (NBV)	174,000	
		Stock	18,700	½
		Debtors	41,200	
		Prepayments (36,600 + 1,200)	37,800	1
		Bank (331,500 + 14,063 - 275,000)	70,563	1
			342,263	
		Liabilities: Creditors	11,800	½
			330,463	

(8 marks)

MODEL ANSWER TO QUESTION 1 CONTINUED

(b) **Yarra: Trading and Profit & Loss Account**
Year ended 31 December 2010

	£			£
Sales (141,900 x 1.8)			½ OF	255,420
Less: Opening stock	18,700	½		
Purchases (142,500 + 13,700 -11,800)	144,400	1½		
	163,100			
Closing stock	21,200			141,900
Gross profit (141,900 x .8)			½ OF	113,520
Less: Rent [51,800 + 36,600 - (.75 x 51,800)]	49,550	1½		
Insurance [8,000 + 1,200 - (.25 x 8,000)]	7,200	1½		
Postage	4,000	½		
Heat and light	12,000	½		
Sundries	1,200	½		
Salaries (60,000 - 12,000 - 15,000)	33,000	1		
Loss on disposal (a) (i)	4,600	½ OF		
Depreciation (a) (ii)	40,400	½ OF		151,950
Net loss				(38,430)

Yarra: Balance Sheet at 31 December 2010

	£ Cost		£ Acc.dep		£ Net book value	
Fixed assets						
Plant and machinery	404,000	½	231,000	½ OF	173,000	
Current assets						
Stock			21,200	½		
Debtors (255,420 + 41,200 - 275,000)			21,620	1½		
Prepayments (38,850 + 2,000)			40,850	1		
Bank			14,063	½		
			97,733			
Current liabilities						
Creditors			13,700	½		
Net current assets					84,033	
					257,033	
			£		£	
Capital account						
Opening balance (a) (iii)					330,463	½ OF
Less: Loss			38,430	½ OF		
Drawings (12,000 + 15,000 + 8,000)			35,000	1½	73,430	
					257,033	

(17 marks)

(Total 25 marks)

QUESTION 2

The following information has been extracted from the records of Seine Plc, in respect of the year ended 31 December 2010:

(1) the operating profit was £157,800

(2) 5,000,000 £0.10 ordinary shares had been issued at a premium of 20%

(3) £800,000 6% debentures had been redeemed at a premium of 10%

(4) stock at 31 December 2010 was £29,700 higher than at 31 December 2009

(5) debtors at 31 December 2010 were £198,000 (**before** deducting a provision for bad debts of 5%), debtors at 31 December 2009 were £187,000 (**after** deducting a provision for bad debts of 10%)

(6) creditors at 31 December 2010 were £109,460, which was 30% higher than creditors at 31 December 2009

(7) land and buildings were valued at £1,400,000 (cost), of which land cost £900,000, at 31 December 2010. Depreciation is charged on buildings at 2% per year on cost

(8) plant and machinery was valued at £380,000 (cost), at 31 December 2009. On 1 July 2010, machinery which cost £70,000 on 1 October 2007 was traded in, in part exchange for machinery costing £63,000. The trade-in allowance was £40,000. Depreciation on plant and machinery is charged at the rate of 12% per year on cost.

REQUIRED

(a) Calculate the following items which will appear in the Cash Flow Statement of Seine Plc for the year ended 31 December 2010:

(i) net cash inflow from operating activities
(ii) net cash outflow from financing.

(16 marks)

The Marketing Director is critical of the decision to redeem the debentures. He comments that, whilst recognising the need to increase cash flowing into the business, the company should not be buying debentures at a premium of 10% when the current interest rates on debentures are only 2% and these debentures were due to be redeemed in three years' time at par.

REQUIRED

(b) Explain to the Marketing Director why redeeming the debentures was a sensible decision.

(3 marks)

(c) Suggest **three** methods (other than those involving shares or loans) by which a company could improve its cash flow, giving one problem associated with each method.

(6 marks)

(Total 25 marks)

MODEL ANSWER TO QUESTION 2
Syllabus Topic 7: Cash Flow Statements

(a) (i) **Net cash inflow from operating activities**

					£
Operating profit				½	157,800
Increase in stock				1	(29,700)
Increase in debtors	[(198,000 x .95) - 187,000]			1½	(1,100)
Increase in creditors	(109,460 x 30 / 130)			1½	25,260
Depreciation - buildings	[.02 (1,400,000 - 900,000)]			1½	10,000
Depreciation - plant and machinery:			**£**		
	Old [.12 (380,000 - 70,000)]		37,200	1½	
	Sold (.12 x .5 x 70,000)		4,200	1½	
	New (.12 x .5 x 63,000)		3,780	1½	45,180
Loss on disposal:	[70,000 - 40,000 - (.12 x 2.75 x 70,000)			2½	6,900
					214,340

(ii) **Net cash outflow from financing**

			£
Issue of ordinary shares	(5,000,000 x .10 x 1.2)	1½	600,000
Redemption of debentures	(800,000 x 1.1)	1	(880,000)
		½	(280,000)

(16 marks)

(b) **Marketing director's comments**
Future cash flows will be improved through the absence of the interest paid to debenture holders. The 10% premium is necessary in order to persuade debenture holders to forego receiving 3 times the market rate of interest over the next 3 years.

So although there is an immediate cash outflow it will be more than compensated for by a reduction in future outflows.
(for quality of argument)

(3 marks)

(c) **Methods of improving cash flows**
Reduce stock – increase in stock unavailability
Delay payment to creditors – creditors may refuse to supply
Chase debtors more rigorously – may lead to loss of customers
Sell off under utilised fixed assets – unable to satisfy an increase in demand.

2 each (1 for item 1 for problem) x max 3

(6 marks)

(Total 25 marks)

QUESTION 3

The following information has been extracted from the accounts of two quoted companies in respect of 2010:

	Tamar Plc	Exe Plc
Year to 31 December	**£000**	**£000**
Sales	4,000	10,000
Gross profit	3,000	1,000
Debenture interest	100	NIL
Dividends: ordinary	500	300
preference	NIL	100
Retained profit	400	60
At 31 December		
Ordinary share capital (£0.25 each)	2,500	3,000
Preference share capital (£1.00 each)	NIL	1,000
Share premium	500	2,000
Revaluation reserve	1,000	NIL
Retained earnings	3,800	700
10% Debentures (issued 30 June 2010)	2,000	NIL

Notes

(1) There were no changes in the number of shares in issue for either company during 2010

(2) The market prices per ordinary share at 31 December 2010 were: Tamar Plc £2.00, Exe Plc £0.25.

REQUIRED

(a) Calculate, to two decimal places, for **each** of Tamar Plc and Exe Plc, the following ratios:

(i) gross profit to sales percentage
(ii) net profit to sales percentage
(iii) earnings per ordinary share

(7 marks)

(b) Calculate to **two** decimal places, for **each** of Tamar Plc and Exe Plc, **three additional** investment ratios relating to ordinary shares. You must name each ratio, provide a formula for each ratio, calculate each ratio and state briefly the purpose of each ratio.

(12 marks)

Extracts from two recent newspaper articles about the two companies are as follows:

(A) The company, which operates an airline, has come through a difficult year. It has suffered from strikes and the effects of volcanic ash. However, it has invested heavily in new aeroplanes and is now led by a new Chief Executive, Billy Bolsh. The market rates Bolsh and the company very highly.

(B) The company, which is a rather old fashioned supermarket, has seen its share price slump in recent years. Losses have been recorded in previous years, so any profit however small, must be seen as a cause for cautious optimism. However the company is still not highly regarded by the stock market.

REQUIRED

(c) State which article is likely to relate to which company, giving **two** reasons for your choice for **each** article.

(6 marks)

(Total 25 marks)

MODEL ANSWER TO QUESTION 3
Syllabus Topic 3: Accounting ratios

				Tamar plc	Exe plc
(a)	(i)	**Gross profit to sales**			
		(3,000 / 4,000) x 100	½	75.00%	
		(1,000 / 10,000) x 100	½		10.00%
	(ii)	**Net profit to sales**			
		[(400 + 500) / 4,000] X 100	1½	22.50%	
		[(60 + 300 + 100) / 10,000] x 100	1½		4.60%
	(iii)	**Earnings per ordinary share**			
		(400 + 500) / (4 X 2,500)	1½	£0.09	
		(60 + 300) / (4 X 3,000)	1½		£0.03

(7 marks)

(b) **Additional investment ratios**

Price/earnings: $\frac{\text{Price per ordinary share}}{\text{Earnings per ordinary share}}$ 1

2.00/0.09	22.22 1	
0.25/0.03		8.331

This is an indicator of how highly the stock market rates the company. The higher the ratio the higher the rating.1

Dividend cover: $\frac{\text{Earnings per ordinary share}}{\text{Dividend per ordinary share}}$ 1

0.09 / (500 / 10,000) = 0.09 / 0.05	1.80 times 1	
0.03 / (300 / 12,000) = 0.03 / 0.025		1.20 times 1

Shows how vulnerable dividends might be to a fall in profits. The higher the ratio the safer the dividend and the greater the chance of an increased dividend. 1

Dividend yield: $\frac{\text{Dividend per ordinary share}}{\text{Price per ordinary share}}$ x 100 1

(0.05 / 2.00) x 100	2.50% 1	
(0.025 / 0.25) x 100		10.00% 1

This represents part of the return on investment for the ordinary shareholder, measured at market value. The other part being the increase (or decrease) in share price over the year. 1

Earnings yield: $\frac{\text{Earnings per ordinary share}}{\text{Price per ordinary share}}$ x 100 1

(0.09 / 2.00) x 100	4.50% 1	
(0.03 / 0.25) x 100		12.00% 1

Shows the earnings as a percentage of the share price, which is an indicator of the expected total return an investor can expect per year on an investment today. 1

MODEL ANSWER TO QUESTION 3 CONTINUED

Return on ordinary shareholders' funds: $\frac{\text{Earnings available to ordinary shareholders}}{\text{Ordinary share capital and reserves}} \times 100$ 1

(400 + 500) / (2,500 + 500 + 1,000 + 3,800) x 100 11.54% 1
(60 + 300) / (3,000 + 2,000 + 700) x 100 6.32% 1

This measures performance from the viewpoint of ordinary shareholders, based on net assets measured at book value. 1

maximum 3 ratios x 4 (12 marks)

(c) **Article (A)**

Relates to Tamar Plc 1

- High price earnings ratio showing highly regarded by stock market
- Increase in debentures might be to fund purchase of aircraft
- Fewer direct costs likely in a service industry such as an airline; would give a high gross profit percentage

1 each x maximum 2

Article (B)

Relates to Exe Plc 1

- Supermarkets operate with low prices and high turnover therefore have low gross profit percentage
- Share price is only equal to nominal value suggesting doubts about future profitability
- Low price/earnings ratio indicates lower rating by stock market

1 each x maximum 2

(6 marks)

(Total 25 marks)

QUESTION 4

Tay Plc uses three criteria for assessing whether to accept proposed new capital investment projects, as follows:

(1) Payback period: must be four years or less
(2) Accounting rate of return: must exceed 15%
(3) Net present value: must be positive at a discount rate of 10%.

The manager of each division of Tay Plc is awarded a bonus of 1% of his annual salary for every 1% by which his accounting rate of return (based on the division's fixed assets) exceeds a target of 15% for the year.

The manager of the Clyde division was awarded a bonus of £2,500 for the year ended 31 December 2010, due to achieving an accounting rate of return of 20%. This ratio was based on the book value of the Clyde division's fixed assets, which were £800,000 on 1 January 2010.

REQUIRED

(a) Calculate the following amounts in respect of the Clyde division for the year ended 31 December 2010:

(i) net profit
(ii) manager's salary excluding his bonus
(iii) manager's salary plus bonus.

(5 Marks)

The Clyde division's management is considering a new project which will last for five years. This is expected to generate additional profits (before deducting depreciation) of £70,000 in each year. The project will require machinery, costing £200,000, which will be sold for £20,000 after the five years.

Additional working capital of £50,000 will be required, but this will be recovered in five years' time.

All cash flows can be assumed to occur at the end of each year, except the initial investment in machinery and working capital, which occurs at the beginning of the project. Discount factors at an interest rate of 10%, are as follows:

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

REQUIRED

(b) Calculate whether or not the new project is acceptable using Tay Plc's assessment criteria.

Note: the accounting rate of return is assumed to exclude working capital from the initial investment.

(13 marks)

(c) Discuss giving reasons, whether or not the manager of the Clyde division would wish the project to be accepted.

(4 marks)

(d) Identify which of the three assessment criteria used by Tay Plc is the best for assessing new projects giving **two** reasons why.

(3 marks)

(Total 25 marks)

MODEL ANSWER TO QUESTION 4
Syllabus Topic 10: Introduction to decision making

(a) (i) **Net profit**

(Profit / 800,000) x 100 = 20 = £160,000 2

(ii) **Manager's salary**

Extra return achieved (20 – 15) = 5%
.05 x salary = 2,500 = £50,000 2

(iii) **Manager's salary and bonus**

50,000 + 2,500 = £52,500 1

(5 marks)

(b) **Whether or not project is acceptable**

Payback period:
Outlay (200,000 + 50,000) £250,000 1
Inflow 70,000 per year ½

70,000, 140,000, 210,000 so 4 x 70,000 £280,000 1

Payback period is less than 4 years, criterion (1) is satisfied. ½

Accounting rate of return:

Annual depreciation: (200,000 – 20,000) / 5 = 36,000 1

Accounting return: [(70,000 – 36,000) / 200,000] x 100 = 17 % 2

As 17% exceeds 15%, criterion (2) is satisfied. ½

Net present value:

Year	Inflow (Outflow) £	Discount factor	Present value £	
0	(250,000)	1.000	(250,000)	1
1	70,000	0.909	63,630	½
2	70,000	0.826	57,820	½
3	70,000	0.751	52,570	½
4	70,000	0.683	47,810	½
5	140,000 *	0.621	86,940	2
			58,770	

* 70,000 + 50,000 + 20,000

As the result is positive at a discount rate of 10%, criterion (3) is satisfied. ½

With all three criteria complied with, the project can be accepted. 1

(13 marks)

MODEL ANSWER TO QUESTION 4 CONTINUED

(c) **Manager's wishes in relation to project**

The Clyde division earned an accounting return of 20% in 2010. If this rate can be maintained without further investment then the new project (earning only 17%) would push the average return below 20%. 2

So from the manager's point of view, as his bonus would be reduced, the project should not be accepted. 2

(4 marks)

(d) **Best criterion**

This is net present value because: 1

it uses cash flows
it takes the time value of money into account
it is not affected by accounting conventions/methods
the discount rate can be adjusted for risk.

and 2 x 1 mark each 2

(3 marks)

(Total 25 marks)

QUESTION 5

The summarised Profit and Loss Accounts of Oder Plc and Main Plc for the year ended 31 December 2010 are as follows:

	Oder Plc	**Main Plc**
	£000	**£000**
Sales	18,000	12,000
Cost of goods sold	(9,000)	(6,800)
Gross profit	9,000	5,200
Operating expenses	(2,400)	(4,100)
Interest expense	(1,000)	(700)
Net profit	5, 600	400

On 30 November 2010 Oder Plc had sold goods to Main Plc for £280,000. These goods had cost Oder Plc £224,000. Only three quarters (in value) of these goods had been sold by Main Plc by 31 December 2010.

REQUIRED

(a) Prepare the Consolidated Profit and Loss Account of the Oder Plc Group for the year ended 31 December 2010, assuming **alternatively** that:

(i) Oder Plc acquired 75% of the ordinary shares in Main Plc on 31 March 2010. Goodwill arising on acquisition was £4,000,000 and its value was estimated to have fallen to £3,600,000 at 31 December 2010.

(ii) Oder Plc acquired 80% of the ordinary shares in Main Plc on 30 September 2010. Goodwill arising on acquisition was £4,500,000 and its value was estimated to have fallen to £4,300,000 at 31 December 2010.

(19 marks)

(b) Explain the following matters in relation to the goodwill on the acquisition of Main Plc:

(i) Why goodwill may have been higher in respect of the 30 September 2010 acquisition than in respect of the 31 March 2010 acquisition.

(ii) Why goodwill may have fallen less in value in respect of the 30 September 2010 acquisition than in respect of the 31 March 2010 acquisition.

(6 marks)

(Total 25 marks)

MODEL ANSWER TO QUESTION 5
Syllabus Topic 6: Accounting for groups of companies

(a)

(i)

Oder plc group
Consolidated Profit and Loss Account
Year ended 31 December 2010

		£000	
Sales	[18,000 + (.75 x 12,000) - 280]	26,720	2½
Cost of goods sold	[9,000 + (.75 x 6,800) - 280 + .25 x (280 - 224)]	13,834	3½
Gross profit		12,886	
Operating expenses	[2,400 + (.75 x 4,100) + (4,000 - 3,600)]	(5,875)	2½
Interest expense	[1,000 + (.75 x 700)	(1,525)	1½
Net profit		5,486	
Minority interest	(.75 x 400 x .25)	(75)	2
Retained profit		5,411	

(ii)

Oder plc group
Consolidated Profit and Loss Account
Year ended 31 December 2010

		£000	
Sales	[18,000 + (.25 x 12,000) - 280]	20,720	1
Cost of goods sold	[9,000 + (.25 x 6,800) - 280 + 14]	10,434	1
Gross profit		10,286	
Operating expenses	[2,400 + (.25 x 4,100) + (4,500 - 4,300)]	(3,625)	2
Interest expense	[1,000 + (.25 x 700)]	(1,175)	1
Net profit		5,486	
Minority interest	(.25 x 400 x .20)	(20)	2
Retained profit		5,466	

(19 marks)

(b)

(i) **Why goodwill was higher for 30 September 2010 acquisition**
As 80% of the ordinary shares were acquired (as against 75%) the stream of future benefits to the group would be bigger.

After a further six months of trading profitability the stream of future benefits might have been predicted to be larger

(ii) **Why goodwill fell less in value for 30 September 2010 acquisition**
As the investment had been held for only three months (as opposed to nine months) less of the future stream of benefits would have been already received.

Any three valid comments, at least one in each section x 2 marks each

(6 marks)

(Total 25 marks)

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