

Accounting (IAS) Level 3



International
Qualifications from EDI

Model Answers Series 4 2011 (3902)

Accounting (IAS) 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.

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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	- receivables	\$ <u>275,000</u>
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Payments	- payables	\$ 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	<u>1,200</u>
		<u>331,500</u>

Balance in hand at 31 December 2010	\$ <u>14,063</u>
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- (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 non-current assets were owned by the business.

- (7) Sundry year end balances were as follows:

	2009	2010
	\$	\$
Receivables	41,200	unknown
Inventory	18,700	21,200
Payables	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 Income Statement for the year ended 31 December 2010 and his Statement of Financial Position (formerly 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	<u>8,000</u>	½
		Loss	<u>4,600</u>	
	(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)]	<u>40,400</u>	1
			<u>231,000</u>	
	(iii)	Capital at 31 December 2009	\$	
		Assets:		
		Plant and machinery (NBV)	174,000	} ½
		Inventory	18,700	
		Receivables	41,200	
		Prepayments (36,600 + 1,200)	37,800	
		Bank (331,500 + 14,063 - 275,000)	<u>70,563</u>	1
			342,263	
		Liabilities: Payables	<u>11,800</u>	½
			<u>330,463</u>	

(8 marks)

MODEL ANSWER TO QUESTION 1 CONTINUED

(b) **Yarra: Income Statement
Year ended 31 December 2010**

	\$		\$
Revenue (141,900 x 1.8)		½ Of	255,420
Less: Opening inventory	18,700	½	
Purchases (142,500 + 13,700 - 11,800)	<u>144,400</u>	1½	
	163,100		
Closing inventory	<u>21,200</u>		<u>141,900</u>
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)	<u>40,400</u>	½ Of	<u>151,950</u>
Net loss			<u>(38,430)</u>

Yarra: Statement of Financial Position at 31 December 2010

	\$ Cost		\$ Acc.dep.		\$ Net book value
Assets					
Non-current assets					
Plant and machinery	<u>404,000</u> ½		<u>231,000</u> ½ Of		173,000
Current assets					
Inventory		21,200	½		
Receivables (255,420 + 41,200 - 275,000)		21,620	1½		
Prepayments (38,850 + 2,000)		40,850	1		
Bank		<u>14,063</u>	½		
					<u>97,733</u>
Total assets					<u>270,733</u>
Capital					
Opening balance				330,463	½ Of
Less: Loss		38,430	½ Of		
Drawings (12,000 + 15,000 + 8,000)		<u>35,000</u>	1½		<u>73,430</u>
				257,033	
Current liabilities					
Payables				<u>13,700</u>	½
				<u>270,733</u>	

(17 marks)

(Total 25 marks)

QUESTION 2

The following information has been extracted from the records of Seine, a public company, 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) inventory at 31 December 2010 was \$29,700 higher than at 31 December 2009
- (5) receivables at 31 December 2010 were \$198,000 (**before** deducting a provision for bad debts of 5%), receivables at 31 December 2009 were \$187,000 (**after** deducting a provision for bad debts of 10%)
- (6) payables at 31 December 2010 were \$109,460, which was 30% higher than payables 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 for the year ended 31 December 2010:
 - (i) cash generated from operations
 - (ii) net cash outflow from financing activities.

(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) **Cash generated from operations**

	\$		\$
Profit from operations		½	157,800
Adjustments for:			
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)	<u>3,780</u>	1½	45,180
Loss on disposal: [70,000 - 40,000 - (.12 x 2.75 x 70,000)]		2½	<u>6,900</u>
Operating cash flow before movements in working capital	219,880		
Increase in inventory		1	(29,700)
Increase in receivables [(198,000 x .95) - 87,000]		1½	(1,100)
Increase in payables (109,460 x 30 / 130)		1½	<u>25,260</u>
			<u>214,340</u>

(ii) **Net cash financing activities**

			\$
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	<u>(280,000)</u>

(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 inventory – increase in inventory unavailability
- Delay payment to payables – payables may refuse to supply
- Chase receivables more rigorously – may lead to loss of customers
- Sell off under utilised non-current 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 public companies in respect of 2010:

	Tamar	Exe
Year to 31 December	\$000	\$000
Revenue	4,000	10,000
Gross profit	3,000	1,000
Debenture interest	100	NIL
Dividends: ordinary	500	300
preferred	NIL	100
Retained earnings	400	60
At 31 December		
Ordinary share capital (\$0.25 each)	2,500	3,000
Preferred 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 \$2.00, Exe \$0.25.

REQUIRED

- (a) Calculate, to two decimal places, for **each** of Tamar and Exe, 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 and Exe, **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

(a) (i) Gross profit to sales	Tamar	Exe
$(3,000 / 4,000) \times 100$	$\frac{1}{2}$ 75.00%	
$(1,000 / 10,000) \times 100$	$\frac{1}{2}$	10.00%
(ii) Net profit to sales		
$[(400 + 500) / 4,000] \times 100$	$1\frac{1}{2}$ 22.50%	
$[(60 + 300 + 100) / 10,000] \times 100$	$1\frac{1}{2}$	4.60%
(iii) Earnings per ordinary share		
$(400 + 500) / (4 \times 2,500)$	$1\frac{1}{2}$ \$0.09	
$(60 + 300) / (4 \times 3,000)$	$1\frac{1}{2}$	\$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 8.33 **1**

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: $\frac{\text{Dividend per ordinary share} \times 100}{\text{Price per ordinary share}}$ **1**

$(0.05 / 2.00) \times 100$ 2.50% **1**

$(0.025 / 0.25) \times 100$ 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: $\frac{\text{Earnings per ordinary share} \times 100}{\text{Price per ordinary share}}$ **1**

$(0.09 / 2.00) \times 100$ 4.50% **1**

$(0.03 / 0.25) \times 100$ 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**

$$\frac{(400 + 500)}{(2,500 + 500 + 1,000 + 3,800)} \times 100 \quad 11.54\% \quad \mathbf{1}$$
$$\frac{(60 + 300)}{(3,000 + 2,000 + 700)} \times 100 \quad 6.32\% \quad \mathbf{1}$$

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 **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 **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, a public company, 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 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 non-current 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 non-current 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'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 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**
 $(\text{Profit} / 800,000) \times 100 = 20 =$ \$160,000 2
- (ii) **Manager's salary**
 Extra return achieved $(20 - 15) = 5\%$
 $.05 \times \text{salary} = 2,500 =$ \$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 1/2

70,000, 140,000, 210,000 so $4 \times 70,000$ \$280,000 1

Payback period is less than 4 years, criterion (1) is satisfied. 1/2

Accounting rate of return:

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

Accounting return: $[(70,000 - 36,000) / 200,000] \times 100 = 17\%$ 2

As 17% exceeds 15%, criterion (2) is satisfied. 1/2

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	1/2
2	70,000	0.826	57,820	1/2
3	70,000	0.751	52,570	1/2
4	70,000	0.683	47,810	1/2
5	140,000 *	0.621	<u>86,940</u>	2
			<u>58,770</u>	

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

As the result is positive at a discount rate of 10%, criterion (3) is satisfied. 1/2

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 Income Statements of Oder, a public company and Main, a public company, for the year ended 31 December 2010 are as follows:

	Oder \$000	Main \$000
Revenue	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	<u>5,600</u>	<u>400</u>

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

REQUIRED

(a) Prepare the Consolidated Income Statement of the Oder Group for the year ended 31 December 2010, assuming **alternatively** that:

- (i) Oder acquired 75% of the ordinary shares in Main 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 acquired 80% of the ordinary shares in Main 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:

- (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 down 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 group
Consolidated Income Statement
Year ended 31 December 2010

		\$000	
Revenue	[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)]	<u>13,834</u>	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)]	<u>(1,525)</u>	1½
Net profit		5,486	
Minority interest	(.75 x 400 x .25)	<u>(75)</u>	2
Retained profit		<u>5,411</u>	

(ii)

Oder group
Consolidated Income Statement
Year ended 31 December 2010

		\$000	
Revenue	[18,000 + (.25 x 12,000) - 280]	20,720	1
Cost of goods sold	[9,000 + (.25 x 6,800) - 280 + 14]	<u>10,434</u>	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)]	<u>(1,175)</u>	1
Net profit		5,486	
Minority interest	(.25 x 400 x .20)	<u>(20)</u>	2
Retained profit		<u>5,466</u>	

(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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