

2012 Accounting Higher - Solutions Finalised Marking Instructions

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2012 Accounting

Higher – Solutions

Question 1

Profit and Loss and Appropriation Account of Carluke plc for the year ended 31 December Year 3

Add	Gross Profit Dividends due on Long Term Investments	0003		£000 142 15 157	(1) (2)	
Less	Expenses	00	(4)			
	Office Expenses	60	(1)			
	Office Salaries due	2	(1)			
	Discounts	6	(1)			
	Advertising (4 / 5 * 10)	8	(2)			
	Increase in Provision for Bad Debts	2	(1)			
	Debenture Interest (10% * 100)	10	(2)			
	Provision for Depreciation:	4.0	(2)			
	Fixtures and Equipment (20% * (150 – 70))	16	(2)	110	(42)	(45)
✓	Vehicles (10% * 90) Net Profit	9	(2)	113 44	(12)	(15)
•					(4)	
Less	Corporation Tax			11	(1)	
٨٨٨	Net Profit after Tax			33	(4)	
Add	Profit and Loss Balance 1 January Year 3			25 58	(1)	
Less	Preference Dividend:					
	Interim	8	(1)			
	Final	8	(2)			
	Ordinary Dividend:					
	Interim	10	(1)			
	Final (10% * 150)	15	(2)			
	Goodwill written off	10	(1)	51		(9)
✓	Unappropriated Profit 31 December Year 3			7		
						(24)

Balance Sheet of Carluke plc as at 31 December Year 3 **Fixed Assets** Cost **Depr NBV** 000£ £000 £000 Premises 280 15 295 (1) Fixtures and Equipment 150 86 64 (1) Vehicles 90 27 63 (1) 422 Add Long Term Investments 150 (1) (4) Add **Currents Assets** Stock 13 (2) Debtors 22 Provision for Doubtful Debts 3 19 (2) Less 2 (1) **Prepaid Expenses** 14 VAT (1)Dividends due on Long Term Investments 15 **(7)** (1) 63 Less **Current Liabilities** Preference Dividend Proposed 8 (1) Ordinary Dividend Proposed 15 (1)Creditors 21 (1) Accrued Expenses 2 (1) **Debenture Interest Accrued** 10 (1) Corporation Tax 11 (1)Bank Overdraft 118 **(7)** 51 **(1)** Working Capital Deficit -55 517 £000 £000 Financed By: **Issued Share Capital:** 200,000 8% Preference Shares of £1 200 (1) 300,000 Ordinary Shares of 50p each 150 (1) 50,000 Bonus Shares of 50p each 25 (1) 375 Add Reserves Profit and Loss Balance 31/12/Year 3 (1) 7 Share Premium (75 – 25 (1) – 30 (1)) 20 (2) Revaluation Reserve 42 15 **(1)**

(26)

(50)

(8)

1<u>00</u> (1)

517

Long Term Liabilities

10% Debentures

Add

(a) Statement of Accumulated Fund

	Fixed Assets Premises Lighting Equipment (10 – 2)	50 8	(1) 58
Add	Current Assets Stock of Refreshments Subscriptions in Arrears Bank	4 4 15 23	(1) (1) (for Premises, Stock and Bank)
Less	Current Liabilities Subscriptions in Advance Creditors for Refreshments Accumulated Fund	3 (1) 2 (1) <u>5</u>	18 76 (5)

(b) Refreshments Trading Account for year ended 31 December Year 5

		£000		£000		
	Sales			13	(1)	
Less	Cost of Sales					
	Opening Stock	4	(1)			
Add	Purchases (11 – 2 (1) + 4 (1))	13	(2)			
		17				
Less	Closing Stock	2	(1)	15		
	Loss			-2		(5)

(c) Income and Expenditure Account of the Law Amateur Dramatic Society for the Year ended 31 December Year 5 ✓

Income	£000	£000		
Subscriptions $(12 + 3 (1) - 4 (1) - 2 (1) + 1 (1))$		10	(4)	
Ticket Sales		30	(1)	
Raffle Surplus (4 (1) – (2 + 1 (1)))		1	(2)	
Fund Raising (6 (1) – 1 (1))		5	(2)	
		46		(9)

Less **Expenditure**

<u> </u>				
Loss on Refreshments	2	(1)		
Hire of Scenery and Costumes	12	(1)		
Secretary's Honorarium	3	(1)		
Advertising (3 + 1)	4	(2)		
Insurance (2 - 1)	1	(2)		
Repairs to Premises	8	(1)		
Depreciation – Sound and Lighting Equipment	3	(2)		
Loss on Sale of Sound and Lighting Equipment	1	(3)	34	
Surplus			12	(13)
-		_		• •

(22)

<u>Working</u>

		£000			
	Subscriptions	12			
Add	In Advance for Year 5	3	(1)		
		15			
Less	In Arrear for Year 4	4	(1)		
		11			
Less	In Advance for Year 6	2	(1)		
		9			
Add	In Arrear for Year 5	1	(1)		
		10		(4)	
	Depreciation – Sound and Lighting Equipmen				
	20% * (10 – 5 + 10)	3		(2)	
	Occurred and Linkting Fundament at Occ	-			Marks to be applied in Income and
	Sound and Lighting Equipment at Cost	5			(
	Depreciation = 20% * 5	1_			Expenditure Account
	NBV	4	(2)		
	Sold for	3	(1)		
	Loss on Sale	1		(3)	

(d)	Surplus from Income and Expenditure Account	12
Add	Credit Note for Damaged Scenery	1_(1)
Less	Invoice for Repairs	13 2 <i>(1)</i>
	invoice for respairs	11
Less	Loss of Stock	2 (1)
Add	Further Ticket Sales	9 4 (1)
		13 (4)

(e) Closing Bank Balance

	Opening Balance		15		
Add	Receipts	68		(1)	
	Refund	1		(1)	
Add	Ticket Sales	4	73	(1)	
			88	. ,	
Less	Payments		53	(1)	
	Closing Bank Balance		35	()	(4)

(40)

(a) (i) Appropriation Account for the Year ended 31 December Year 3 ✓

۸ ما ما	Net Profit	£	£		£ 54,000	
Add	Interest on Drawings: Anne Robert		1,500 500	(2) (2)	2,000 56,000	
Less	Interest on Capital: Anne Robert	6,000 (1) 2,000 (1)	8,000			
Less	Salary - Anne Residual Profit Share of Profit:		15,000	(1)	23,000 33,000	
	Anne		24,750	(1)		
	Robert		8,250	(1)	33,000	(9)
(i	i) Current Account – Anne					

<u>Debit</u> **Credit Balance** Balance 1,200 1,200 Dr Interest on Capital 6,000 *(1)* 4,800 Cr Salary 15,000 (1) 19,800 Cr Share of Profit (1) 44,550 Cr 24,750

Interest on Loan 2,000 **(2)** 46,550 Cr

16,550 Cr **Drawings** 30,000 (1) Interest on Drawings 1,500 *(1)* 15,050 Cr **√(1)**

(b) (i) New profit sharing ratio

	Anne		Robert		Sylvia	
Current Profit Sharing Ratio	3/4		1/4		-	
On Admission	3/4 x 2/3		1/4 x 2/3			
	1/2	(1)	1/6	(1)	1/3	(2)
OR	50%		17%		33%	

(8)

(ii) Calculation of New Capital Balances

	£		£		£		
Original Balances	60,000		20,000		24,000	(2) (fo	or line)
Share of Goodwill	4,500	(1)	1,500	(1)		. ,	
	64,500		21,500		24,000	_'	
Share of Revaluation Surplus	2,700	(1)	900	(1)			
	67,200	-	22,400	-	24,000	="	
Goodwill written down	3,000	(1)	1,000	(1)	2,000	(1)	
New Capital Balances	64,200	_	21,400	_	22,000	_	
		=		=		=	(9)

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(c) (i) Fittings

Depreciation:	£		
Year 2 - ½ * (20% * £20,000)	2,000	(1)	
Year 3 – 20% (£20,000 - £2,000)	3,600	(1)	
Year 4 – 20% * (£20,000 - £5,600)	2,880	(1)	
Total Depreciation	8,480		
(1)			
NBV = £20,000 - £8,480 = £11,520			(4)

(ii) Delivery Van

Depreciation:	£		
Year 2 - 1/4 * (25% * £50,000)	3,125	(1)	
Year 3 – 25% £50,000	12,500	(1)	
Year 4 – ½ * (25% * £50,000)	6,250	(1)	
Total Depreciation	21,875		
(1)			
NBV = £50,000 - £21,875 =	28,125		
Selling Price	24,000	(2)	
Loss on Sale	4,125		(6)

(iii) Depreciation Year 4

Depreciation:	£
Fittings	2,880 (1)
Delivery Van	6,250 (1)
	9,130 (2)
	(40)

(i) Royalties

A royalty is a fee paid for the right to use an original idea or an asset (1) which has been given a patent or copyright. (1)

The amount of royalty will usually depend on the usage (1) as agreed in advance by the parties concerned. Royalties are charged as a direct cost in the Manufacturing Account (1) thereby increasing the cost price of the product. (1)

Royalties are part of Prime Cost (1) or is a direct cost (1)

(Max 2)

(ii) Manufacturing Profit

This is calculated by finding the difference between the Factory Cost of Production and the Market Value of goods manufactured. (1)

Manufacturing Profit is calculated to see whether it is more profitable for the firm to manufacture the goods themselves or to purchase them from an outside supplier. (1)

The Trading Account shows the transfer of the Factory Cost of Production at Market Value. (1)

The Manufacturing Profit is added to the Gross Profit in the Trading Account. (1)

(Max 2)

(iii) Work-In-Progress

Work-In-Progress represents (the value) of the stock of items which are incomplete (at the end of the financial year). (1) Towards the end of the financial year raw materials will have been started on the production line and some work carried out but these goods will still be in an unfinished condition. (1) A value is placed on the Work-In-Progress by taking into account the materials, labour and overheads to take the production to its current state of completion. (1) The Factory Cost of Production includes adjustments for the opening and closing stocks of Work-In-Progress. (1)

(Max 2)

(iv) Warehouse Expenses

The completed production will be transferred to a warehouse. (1) Warehouse Expenses are shown in after the Trading Account (1) and represent the costs of storing the stock of finished goods before they are sold (1) eg Warehouse Rent (1).

(Max 2 - give max of 1 for examples)

(v) Factory Overheads

Factory Overheads represent those costs incurred in the factory which cannot be directly identified with the product being manufactured (1) eg Factory Supervisor's Salary (1). Factory Overheads are also known as indirect costs (1). The overheads are totalled and added to the Prime Cost in the Manufacturing Account (1). Time based rather than based on output. (1)

(Max 2 - give max of 1 for examples)

(10)

(a) Limitations of Ratio Analysis

- The results must be compared with firms of equal size or the ratios are meaningless.
- The results must be compared with the previous year's ratios the ratios on their own are meaningless.
- If being used for comparison purposes from year to year then the final accounts must be prepared consistently and in accordance with FRSs and the Companies' Acts.
- Not all firms calculate their ratios in the same way.
- Internal changes within the organisation such as changes in the method of production are not taken into account in ratio analysis.
- Factors external to the organisation may change from year to year eg taxes, inflation, exchange rages, PESTEC (once only)
- Based on historical information
- Non-financial information eg staff morale, staff turnover, product life cycle (once only)
- Must be compared to business in the same industry. (1 point each) (Max 6)

(b) (i) Current Ratio

The Current Ratio is a liquidity ratio.

The Current Ratio is calculated by the formula <u>Current Assets</u>

Current Liabilities (1)

The Current Ratio shows the ability of the business to meet its Current Liabilities when they fall due for payment (1). The ideal Current Ratio is 2:1 (1). If the Current Ratio falls eg to 1:1 then it may find it difficult to meet its short term debts (1). If the Current Ratio is too high eg 4:1 then indicates that the business has too much capital tied up in stock (1).

(Max 3)

(Max 3)

(ii) Mark-up Ratio

The Mark-up Ratio is a profitability ratio (1) and is calculated by the formula

Gross Profit x 100 (1)

Cost of Sales

The Mark-up Ratio represents the amount added to the cost price in order to calculate the Selling Price (1). A change in the cost price of the purchases may require a change in the mark-up (1).

(10)

PART A Production Budget

		June	July	August		
	Sales	4300	5800	6500		
Less	Opening Stock	430	580	650	(3) line	
		3870	5220	5850		
Add	Closing Stock	580	650	700	(2) line	
	Production	4450	5870	6550		(5)

PART B Brewing Process Account

	Quantity	£		Value		Quantity	£	Value	
Opening WIP	4,000	2.50	(2)	10,000	Transfer to bottling Closing	46,800	3.20	149,760 9,620	(1)
Materials	50,000	2	(1)	100,000	WIP	6,500	1.48	,	line
Labour	(4,000)	7	(1)	28,000	Normal Loss	540	0.20	(4) 108	(1)
Variable Overheads Fixed		3	(1)	12,000	Abnormal Loss	160 <i>(1)</i>	3.20	512	
Overheads	54,000		(1)	10,000 £160,000	<u>.</u>	54,000	- -	£160,000	

Unit Cost =
$$\frac{£160,000 - £9,728}{46,800 + 160}$$
 (2)= £3.20 per litre 46,800 + 160 **(2)**

Abnormal	Loss Accou	ınt						
	Quantity	£	Value <i>(1</i>)	Quantity	£	Value	
Brewing	160	3.20	512	Cash To Profit/L	160 _{-oss}	0.20	32 480	(1) (1)
			£512	•		=	£512	. ,

ALTERNATIVE SOLUTION – PART B

Brewing Process Account

Opening WIP Materials Labour	Qty 4,000 50,000	£ 2.50 2	Value 10,000 100,000 28,000	(1) (1) (1)	Qty	£	Value	Qty 4,000 54,000	£	Value 10,000 110,000 138,000
Variable										
Overheads Fixed			12,000	(1)						150,000
Overheads			10,000	(1)	,					160,000
Closing WIP					6,500		9,620	47,500		150,380
Normal Loss Transfer to					540 ⁽¹	¹⁾ 0.20	108 ⁽¹⁾	46,960	3.20	150,272
Bottling					46,800	3.20	149,760	160	3.20	512
Abnormal Loss					160	3.20	*) 512 <i>(1)</i>	0	0	0

Unit Cost per litre = $\frac{150,272 (2)}{46,960 (2)}$ = 3.20

Abnormal Loss Account

	Qty	£	Value	Qty	£	Value	Qty	£	Value
From Brewing Bank To Profit/Loss	160	3.20	512 ⁽¹⁾	160	0.20	32 ⁽¹⁾ 480 ⁽¹⁾	16	3.20	512 480 0

(16)

PART C

O/time = 4 hours x 2 days = 8 hours x 4 weeks = 32 hours x 2 servers =
$$64 \text{ hours x } £9 = £576$$
 (4)

£7.00

No of meals: 80 employees x 5 days = 400 meals x 4 weeks - 1600 meals

(a) Cost Statement

Foodstuffs	£6,400	(3)
Labour	£3,536	(10)
O/heads	£560	(2)
Dep. Equip	£624	(4)
Dep. Furn	£60	(2)
Dep. Cut	£20	(2)
Total Cost	£11,200	

(a) Profit Statement for Year 8

	Product A	Product B	Product C	Total	
	£	£	£	£	
Selling Price	49	42	36	(1)) line
- Variable Costs	<u>39</u> (1)	<u>29</u> (1)	<u>20</u> (1)		
Contribution p.u - Fixed Costs £2	10	13	16		
per hour <i>(2)</i>	4 7	4	8 7		
(i) Profit p.u	6 –(1)	9_(1)	8 (1)		
Units Sold	6,000	8,000	5,000		
(ii) Total Profit	36,000	72,000	40,000	148,000 (3)
Working:	Total Labour Hours		Fixed Costs Recov	ery Rate	
	Α	12,000	(1) (1)		

 Working:
 Total Labour Hours
 Fixed Costs Recovery Rate

 A
 12,000
 (1)
 (1)

 B
 16,000
 96,000/48,000 = £2 per hour

 C
 20,000

 48,000

(12)

(b) Revised Profit Statement - Year 8

Revised FC Recovery Rate

	Product B	Product C		(2)
Contribution p.u	13	16	(1) line	New Fixed Costs = $90,000$
New Fixed Costs p.u	5	10	(1) line	New Hours 36,000 (2)
Revised Profit p.u	8	6	. ,	New rate = £2.50 p. hr
Units Sold	8,000	5,000		
Total Profit	64,000	30,000	=	£94,000

 $(1) \qquad \qquad (1)$

Advice: Do not halt production as Profit would be reduced by £148,000 - £94,000 = £54,000

(c) Identification of Product to be increased

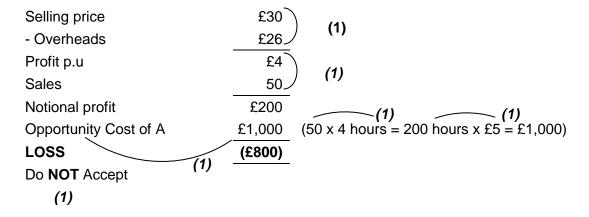
	Α	В	С
Contribution per unit	£10	£13	£16 (1) line
Labour Hours	2 \((1)	2	4
Contribution per hour	$\binom{2}{£5}$ (1)	£6.50)(1)	£4.00)(1)
(1)	(1)		

Increase **Product B** by 2000 hours/2 = **1000 units**

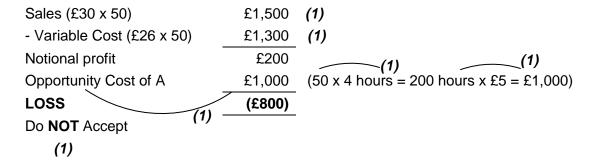
(d) Increase in profit in Year
$$9 = 1000 \times £13 = £13,000$$

Estimated Profit Year $9 = £148,000 + £13,000 = £161,000$

(f) Special Order



Alternative Solution - Special Order



PART A

(iii) Contribution per unit =
$$\pounds 6 - \pounds 2 = \pounds 4$$

(iv) P/V Ratio = £4/£6 x 100 =
$$662/3\%$$
 (2)
(v) M of S = $6,000 - 3,000 = 3,000$ units and £36,000 - £18,000 = £18,000 revenue

(vi) Profit or Loss on sale of 5,000 units =
$$5,000 - 3,000 = 2,000 \times £4$$

= £8,000 Profit (1)

or 1750 units (5) or 750 units (5)

PART B

(a) Overhead Analysis Sheet

	Basis of Apportionment	Total	Machining	Assembly	Maintenance	
Indirect Labour Administration	allocated employees	£8,000 £10,000	£2,080 £5,000	£1,920 £4,000	£4,000 £1,000	(1) line (1) line
Light and Heat Machine insurand Power	area ce value of machinery kw hours	£2,100 £1,250 £4,000	£1,050 £650 £2,000	£700 £500 £1,500	£350 £100 £500	(1) line (1) line (1) line
Rent Supervision	area employees	£12,000 £5,000 £42,350	£6,000 £2,500 £19,280	£4,000 £2,000 £14.620	£2,000 £500 £8,450	(1) line (1) line (7)
(b) Share o	of maintenance per mach hour	£8,450 £42,350	£5,070 (1 £24,350		,	(2)
(c) Overhe	ad Recovery Rate	£24,350 £60,875	X 100	£18,000 4,000	- = £4.50 <i>(</i> 2)	(4)
			= 40% (2)		- 24.30 (2 <i>)</i>	(4)

(d) Overheads Over/Under Absorbed

		MACHINING	ASSEMBLY	
	Overheads Recovered	£64,000 x 40%	3,500 x £4.50	
Less	Actual Overheads	£25,600 (2) £24,000	£15,750 (2) £17,000	(1) line
		£1,600 over (1)	£1,250 under (1)	

*(*7*)*

(a) 3 methods of pricing stores issues:

First-in-First-out Last-in-First-out **Average Cost** (1) line FIFO – stock is charged out to production on the notional basis that issues are made in chronological order of receipt from suppliers. (2) Advs satisfactory if purchases prices are relatively stable easy to understand as it can be viewed as corresponding to actual flow of stock 3. ensures use of stock inventory cards = better stock control (Max 1) 4. provides a closing stock figure for the final accounts which will reflect current prices. Disadvs 1. cost of sales may be compromised if relatively old prices it may be time consuming to operate = increase in staff costs if purchases prices are rising, stock costs will rise with no (Max 1) corresponding rise in stock quantities results of different accounting periods may be difficult to compare LIFO – stock is priced out to production on the notional basis that issues are made from stock most recently acquired. (2) Advs necessitates the use of stock record cards = better stock control prices charged to production are related to current price 2. useful when using 'cost' as the basis for estimating sales (Max 1) price to customer the issue price is a more realistic indicator of the cost of replenishing stocks **Disadvs** 1. the balance on the stock record card assumes that 'older' stock items form significant part of actual stock held - this may not be acceptable to the accountant 2. it is not accepted by the UK Inland Revenue for corporation tax purposes (Max 1) it may be time consuming to operate = increased staff 3. comparisons between accounting periods may be difficult 4. it may inflate stock turnover ratios AVCO – stock is priced to production based on the average price (1) paid for the items currently in stock, allowing for quantities held at each price (1). New averages may be calculated on receipt of each new delivery (1) of stock or calculated weekly or monthly to minimise the work involved. (Max 2) Advs necessitates the use of stock record cards = accurate stock control 2. less clerical work than FIFO/LIFO (Max 1) stock values are usually acceptable to the accountant 4. it tends to smooth out price fluctuations Disadvs calculation of averages can be time consuming if price changes are regular (Max 1) (5) **(b)** 3 methods of paying wages are:

Time rates	Piece Rates	Bonus Scheme	Commission	(1) line				
Time Rates – wages are paid according to the amount of hours worked (1) x the rate per hour (1) or x weekly wage or x an annual salary with records being kept of the hours worked via clock cards (1). Example: 40 hours @ £5 per hour = £200.								
2	2. where the am	of work is important ount of work cannot of work is determine	be measured	(Max 1)				
2	done 2. increased cle	pervision costs – to e rical costs – to recor of work – no incentiv		(Max 1)				
<u>Piece Rates</u> – wages are paid according to the quantity of work being produced (1) x the rate per piece (1). The quantity may be 1 unit, a stated no. of units (batch), or an operation (1). (Max 2)								
2	 faster work-ra work being do 	one cost – fixed costs are	to work harder ally) repetitive nature of e spread over larger no.	(Max 1)				
2	increase their 2. increase in sp	ooilage/wastage – w	vorkers rushing to orkers become careless aintain quality standards	(Max 1)				
Bonus Schemes – these can be based either on time or piece-work (1).								
Time based: – workers are given a bonus according to the amount of time saved in doing a certain job of work for which a fixed time is allowed, eg if 10 hours are allowed and 8 hours taken, the bonus would be calculated at 2 hours x hourly rate of pay. (Max 1)								
Piece-work based: – workers are given a bonus according to the quantity of units produced up to or over a fixed target, eg if target is set at 100 units and 120 units are produced, the bonus would be calculated at 20 units x rate per unit.								
Advs/Disadvs 1. As per time and piece rates above					(5)			
Commission each) (5)								
					(10)			

(a) A Cash Budget is an estimate of the receipts and payments (1) for a given period based on the forecasts for sales and production (1) for the same period and taking into account future capital and revenue expenditure (1). When balanced, the Budget will show when there is a surplus or shortage of funds (1).

(Max 2)

Reasons for preparing a Cash Budget:

aids decision-making, eg capital expenditure anticipates possible shortages, eg cash enables target setting, eg to achieve objectives allows for comparisons, eg actual results with expected results facilitates corrective action, eg when differences occur

(Max 3)

(5)

(b) Advantages of using spreadsheets to prepare a Cash Budget:

use of linked multiple worksheets

calculations with the use of formulae are more accurate production of graphs/charts for presentations are easier a computer based system is more secure with the use of passwords forecasting is easier using the "What if" scenario multiple access use of templates for each period changes can be made easily as the formulae will mean everything changes as a result

(Max 5)

(10)

(5)

[END OF MARKING INSTRUCTIONS]