2 Introduction to Financial Accounting

Question 3

Ernie Buckle's Balance Sheet

	Last	This
Noncurrent assets	60000	80000
Current Assets		
inventories	10000	12000
receivables	18000	9000
cash	19000	4500
	47000	25500
less current liabilities	-16000	-22000
less noncurrent liabilities	-30000	-30000
	61000	53500
Subscribed capital	30500	30500
Retained earnings		
at the beginning of the year	20000	30500
added during the year	10500	-7500
	30500	23000
Owners Equity	61000	53500

Poor Ernie – it would appear he has made a loss of 7500!

Question Answers

Question 4

A quarter' s rent of £2000 paid in advance 2 months ahead means that we expense £1333 to the income statement, and the balance is a prepayment of £667 which would be shown under creditors and prepayments in the balance sheet.

On the assumption that the lease is an annual charge (in practice this would be a point to check) we would charge 2/12 to the income statement and 10/12 to the balance sheet giving another charge of £1333 to the former and £667 to the latter.

3 Building the Accounts

Review Activity 3.1

Here is the extended trial balance

Question Answers

	FA	+	St	+	Db	+	C	=	STL	+	LTL	+	OE	+	R	-	E
Opening balance sheet as at 1 January	26000		1500		5000		107500		29250		35000		75750				
Purchased some land	40000						-40000										
Irrecoverable customer account					-1500												1500
Cash from customers					-3500		3500										
Settled all outstandings							-19250		-19250								
Paid off loan							-20000				-20000						
Recognised deferred revenue									-10000						10000		
Opening stock to production			-1500														1500
Purchased stock			30000						30000								
Stock transferred to production			-28200														28200
Sales on credit					175000										175000		
Cash received from customers					-155500		155500										
Labour cost incurred									28000								28000
Labour cost paid							-25500		-25500								
Office overheads							-20000										20000
Rent paid							-8000										8000
Marketing costs incurred									-28000								28000
Marketing costs paid					2000		-30000		28000								
Interest charge for the year									1500								1500
Interest paid							-1500		-1500								
Depreciation	-11000																11000
															185000		127700
																	57300
															185000		185000
Tax at 25% of pretax profit									14325								14325
Dividend									2000								2000
Profit retained													40975				40975
Capital withdrawal							-25000						-25000				
Balance sheet as at 31 December year 3	55000		1800		21500		77250		48825		15000		91725				57300

Question Answers

Review Activity 3.2

Please see follow on in text.

Question Answers

3 Building the Accounts

Question 1

The answers to the five transactions in this question are laid out below in the accounting equation. Part two presents two possibilities: first that the asset is being written down on a straight line basis, in which case the depreciation is simply 1/10 of the original purchase price given that no residual value is quoted. Second, given the wording, it can be assumed that this question refers to the reducing balance method in which case the current year's depreciation is calculated as 10% of the book value at the beginning of the fourth year:

$$Dep'n = 10\% x (800000 x 0.9^3) = 58320$$

		FA	St	Db	C	=	STL	LTL	OE	R	-E
(i)	Purchase of fixed asset	500000					500000				
	Payment for fixed asset				-500000		-500000				
(ii)	Depreciation (option 1 - assuming straight line)	-80000									80000
	Depreciation (option 2 - reducing balance)	-58320									58320
(iii)	Bad debt written off			-2000							2000
(iv)	Stock write down		-20000								20000
(v)	Purchase of stock		50000				50000				
	Stock return		-50000				-50000				

Question Answers

Question 3

Far Eastern Ltd is a relatively straightforward exercise which follows the procedures laid out in chapter two of the book. Note that in calculating the amount paid to creditors during the year that part of the figure quoted for short term liabilities at the beginning of the year will be the tax payment of £4100. This needs to be taken into account when calculating the operating cash flow. The cash flow analysis has been produced directly from the cash flow column of the accounting equation.

		FA	St	Db	C	=	STL	LTL	OE	R	–E
	Opening Balance Sheet	86000	13000	27600	4200		37600	50000	10000		
		–20000							13200		
(i)	Plant purchase	8000			–8000						
(ii)	Depreciation	–9400									9400
(iii)	Sales			176000						176000	
	Cash received			–187600	187600						
(iv)	Purchases		65000				65000				
	Cash paid				–71400		–71400				
	cost of goods sold		–69210								69210
(v)	Other expenses				–71000						71000
(vi)	Dividend				–1500						1500
(vii)	Tax liability						13516				13516
		64600	8790	16000	39900		44716	5000	23200	176000	164626
									11374		11374
									34574		

Question Answers

Profit and loss account	
Turnover	17600
Cost of goods sold	69210
Gross profit	106790
Other operating costs	80400
Operating profit	26390
less corporation tax	13516
Distributable profit	12874
Dividends paid	1500
Profit retained	11374

Balance Sheet		**Current**	**Previous**
Fixed Assets		94000	86000
Accumulated depreciation		29400	20000
		64600	66000
Current assets			
Stocks	8790		13000
Debtors	16000		27600
Cash	39900		4200
	64690		44800
less current liabilities	44716		37600
		19974	7200
		84574	7320
Less long term liabilities		50000	50000
Net assets		34574	23200
Owners equity		10000	10000
Accumulated profits		24574	13200
Equity capital employed		34574	23200

Question Answers

4 Cash Flow Statements

Review Activity 4.1 - See web spreadsheets

Question 1

Mr Sloppy's cash flow statement is as follows:

Statement of Cash Flow

Operating cash flow	66000
less interest paid	5700
	60300
less taxation	16500
	43800
Acquisition of fixed assets	35000
	8800
less dividend paid	11560
Net cash outflow during the year	2760

Question Answers

Question 2

Cash flow statement (best produced from the cash column of the extended trial balance):

Far Eastern
Statement of cash flow

Cash flow from operations	49300
Less interest payments	0
	49300
Less tax	4100
	45200
Less capital expenditure	8000
	37200
Less dividends paid	1500
Net cash inflow during the year	35700

Question 4

(i) Note: the fixed asset note in the question does not total through the correct answer. The correct fixed asset schedule is as follows:

Notes	2007	2006	2005
	$m	$m	$m
Fixed assets at start of year	220.0	190.0	160.0
additions	40.0	80.0	30.0
less disposals	-172.5	-50.0	0.0
	87.5	220.0	190.0
Depreciation at start of the year	128.0	136.0	114.0
less depreciation on disposals	-86.3	-25.0	0.0
depreciation charge for the year	8.8	17.0	22.0
less accumulated depreciation	50.5	128.0	136.0
Net book value of fixed assets	37.0	92.0	54.0

The accounts generator in excel on the web produces the cash flow statement and a wide selection of ratios automatically.

(ii) The reconciliation of operating profit to cash flow is due to increased receivables and inventories, additional depreciation, and reduced payables and accrued expenses. None of these would appear to be exceptional for the business.

5 Principles of financial accounting

Review activity 5.1

1. A rise in the value of a firm's holding of land is an example of the market value driver.
2. The sale of finished goods, which cost £10,000 to produce, for £12,000, is an example of the transformational driver of value.
3. The sale of stock purchased for £18,000 sold on for £24,000 is an example of a transactional driver of value.
4. A fall in the value of the balance on a bank account nominated in euros is an example of a monetary driver of value.

Review activity 5.2

1. At the end of the year seven months insurance will be deemed to be prepaid.
2. The £18,000 of local taxes due at the end of the year will be deemed to be accrued expenditure given that the full payment for £24,000 is not paid until the end of March.
3. Subscriptions received in advance are deemed to be deferred revenue.
4. This is an example of accrued revenue where an agreement exists that an amount can be invoiced to the client but has not yet been received.

Question Answers

Review activity 5.3

The three methods of depreciation and give the results as follows:

Depreciation (straight line)	140000
Depreciation (reducing balance)	251357
Depreciation (sum of year)	327273

Question Answers

5 Principles of financial accounting

Question 3

The provision for corporation tax is calculated as follows:

Net profit before interest and tax		450000
Add interest received		12400
		462400
Less interest on loans		-13000
		449400
Add back depreciation		25000
Profit before capital allowances		474400
First year allowance	10000	
Writing down allowance	10000	
		20000
Taxable profit		454400
Provision for tax at 25%		113600

Question Answers

6 Accounting for Companies

Review activity 6.1

This is a challenging activity that questions the independence of auditors. A number of the assertions made are assertions of fact, and others are assertions of opinion.

As one proceeds through the piece it is very difficult to find a single statement which is incontestable. It is very easy to be seduced by this type of article into believing what is stated is fact rather than appreciating that the piece is polemical which means it contains language which is designed to impress. However, it is generally recognised that the position of auditors can be compromised if other parts of the audit firm concerned are also engaged in consultancy activities for the client involved. Given the complexities of auditing very large multinational companies, and the difficulties involved in regulating their activities, it is extremely difficult to see how greater independence could be achieved without some form of international law coming into being to prevent and penalise abuse. It is also worth remembering that auditors are appointed by the directors but owe their primary duty of care to the shareholders and anyone else who has a legitimate use for the accounting information under review. In many instances the shareholders and external users gain considerable benefit from the consultancy and other forms of advice given by the auditors.

To summarise: even though the author makes a cogent point it can be argued that the remedy might be more serious than the illness.

Question Answers

Review activity 6.2

No answer is provided for this review activity given that it requires an up-to-date set of accounts for Cobham plc.

Review activity 6.3

No answer is provided for this review activity given that it requires an up-to-date set of accounts for Cobham plc.

Question 1

A private limited company is the first stage of incorporation for any business. Limited liability protects the owner from claims by the creditors to the limit of the value of his or her shareholding. A private limited company is formed by a process of registration whereby a memorandum and articles of association are prepared and submitted to the Registrar at Companies House. A private limited company means that shareholdings are restricted to the owner and his or her associates and any transfer of shares must be arranged by private treaty. In other words, the shares in a private company cannot be offered to or traded with the public at large.

A public limited company is one which has the power to offer its shares to the public. Plc status is achieved by reregistration in the case of an existing public limited company. Such reregistration requires a vote of the company's shareholders at an extraordinary general meeting.

Once a plc has been formed it can then apply for listing from the UK Listing Agency which is part of the Financial Services Authority. To obtain listing a company must have a minimum capital of £700,000 and be able to demonstrate that it is solvent and independent from the control of others.

Further details on becoming a public limited company are given in the book.

Question 2

A subsidiary company is one where the parent has effective control usually by means of ownership of more than 50% of its share capital. An associate company, is one where the shareholding is greater than 20% but less than that required to obtain control. Where a company has subsidiaries it should produce a group profit and loss account and balance sheet which show the consolidated profits and losses of itself plus its subsidiaries and a combined balance sheet which consolidates together the total asset values and liabilities of each of the companies involved. Where a subsidiary is not wholly owned, the share of the group profit which belongs to the minority shareholders in the subsidiary concerned will be separately disclosed in the profit and loss account. In the balance sheet, the share of the capital employed owned by the minorities will also be separately disclosed. It is possible, where a subsidiary has been wholly acquired through the issue of new shares, that a merger reserve may be created representing the share premium on that issue.

Associated companies are dealt with slightly differently to subsidiaries in that the company holding the investment in the associate should show the proportion of turnover, and profit, attributable to the associate in its profit and loss account. In its balance sheet it should show the proportion of assets less liabilities that are owned.

Question 3

Financial reporting standards began to emerge in the early 1970s in response to a number of well-publicised accounting scandals that had undermined trust in the integrity of financial accounts. Both in the UK and the United States, accounting standards committees were set up to achieve some harmonisation in the way that accounts are prepared. Such accounting standards regulate what (a) should be disclosed, and (b) how the information concerned should be presented. Many of the early accounting standards have been superseded or abandoned as problems with their implementation or interpretation were revealed. During the 1970s and early 1980s there was considerable concern about the problems of inflation and the impact of changing prices on the reported performance and asset values of companies. A number of attempts were made to establish a comprehensive accounting standard to cope with this problem. However, like many of the other areas in which the accounting professions have attempted to regulate disclosure, lack of agreement between accountants themselves and protests from the corporate lobby meant that the attempt to account for changing prices was largely abandoned.

Clearly, the creation of appropriate accounting standards enhances the reliability and relevance of the information produced and maximises comparability both between firms and over time. Nevertheless, a principal downside in the creation of accounting standards has been (i) increasing complexity in the detail provided and (ii) a number of unintended consequences. For example

FRS 17 which is concerned with the disclosure of liabilities by firms arising from the pension funds held for their employees has led to a number of firms abandoning their final salary schemes often to the detriment of the workforce concerned. Finally, it is not clear that increased disclosure necessarily improves the quality of information available particularly to the shareholder group. Indeed, it may lead to a situation where shareholders place reliance upon the reported information rather than by deriving that information for themselves. For example, the disclosure of a cash flow statement can be argued to be unnecessary as all of the information within such a statement and its associated reconciliation of operating profit and cash flow can be relatively easily derived by the individual investor.

Question 4

Corporate governance is concerned with setting standards of good conduct on the part of directors and other company officials in the way that they run their business. The "combined code of practice" is a consolidation of a number of reports into corporate governance practice prepared during the 1990s. The code established standards for the constitution of the board of directors including such items as the role of the chairman and managing director, and the rights and responsibilities of non-executive directors. The code also laid down good practice for communication between the board of directors and the shareholders, enhanced criteria for the management of audit, the establishment of audit committees, and the creation of appropriate mechanisms of internal control including issues such as the management of risk.

7. The Analysis of Accounting Information

Review activity 7.1

As a retailer, Marks & Spencer has considerable investment in property and in stock for sale both in its warehouses and in its stores. In addition it has a substantial fleet of vehicles for the distribution of its goods to shops. Its intangible assets reside principally within its staff expertise and its computer systems. Apart from its retail staff it also has a substantial back-office function at each store; it also has a central head office and a number of distribution offices staffed by people with the relevant expertise to operate the business. It will also have a number of buyers, designers, and experts in shop fitting and maintenance. Its computer systems maintain records of customers, suppliers, employees and of its financial transactions.

Review activity 7.2

The implications for Marks and Spencer lies within the relatively optimistic forecasts of GDP and the maintenance of interest rates around the government target of 2% per annum. This is tempered by the weakness and volatility of household spending which is expected to improve in the medium term through improving real take home pay. The focus on the private as opposed to the public sector is also potentially good for M&S. Overall the forecasts favour an increase in revenues but with the possibility of pressure on wages and interest rates if the expansion in take home pay feeds through into higher inflation. So, M&S could have to face the problems of expansion in that can they expand sales whilst maintaining effective cost control. This is a difficult challenge for a large retailer that is likely to carry a high fixed cost burden.

Question Answers

Review activity 7.3

The spreadsheets available on the website show annotated balance sheet and cash flow differences. The significant points to note are the use of the available cash resources to reduce the level of debt and to finance the store expansion plan. A significant pension liability is also present which will have to be reduced in due course.

The differences in the cash flow statement again indicate the improvement in the company's operating performance. More detailed analysis will reveal exactly how this has come about. However, note on the spreadsheet the significant themes as the company reinvests and down gears its balance sheet.

Review activity 7.4

There are broadly two strategies for increasing the return on equity capital employed: (a) by increasing profitability either by an increase in revenue or decreasing costs or (b) by reducing its equity base by reducing reserves, repurchasing shares, or increasing gearing. Increasing gearing has, as we shall see later, a detrimental impact upon the risk borne by the equity shareholders. It also relies upon the increased debt capital generating increased profitability.

Review activity 7.5 (note the review activity should read 'cost efficiency ratio')

Given that turnover has increased by 10.14% we would predict that the 2007 and labour costs would be:

Labour cost (predicted) = 1.1014x£1073.2m = £1182.02m

The actual labour cost as a proportion of the predicted is 1174.1/1182.02 = 0.993 suggesting that the firm has become marginally more efficient.

Review activity 7.8

An answer is not provided for this activity.

Review activity 7.9

Please refer to the text for definitions of the various acronyms in exhibit 5.21.

Question 1

Undertaking a thorough pre-evaluation of a company's position before attempting a detailed financial analysis of its accounts establishes a context for the task. By establishing the strategic context in which the firm is operating and the decision requirements of the user undertaking or sponsoring the analysis questions can be asked which can be resolved by an intelligent examination of the financial reports. Such a strategic pre-evaluation goes through a number of steps:

1. The identification of the client of the analysis and their likely decision requirements and information needs.
2. The establishment of the principal mode of value generation in the target company.
3. An analysis of the strategic and competitive environment in which the company is operating.
4. An identification of the principal financial issues which the company faces and their likely implications.

Question 2

The principal ratios for measuring the performance of a business are: return on capital employed, return on equity, return on total assets, return on fixed capital employed and the various margin ratios. For highly capital intensive businesses, return on capital employed is likely to be the most important performance measure. Retailers, although interested in return on their fixed assets will also be keenly interested in their margin ratios. Companies driven by their intangible assets often find it very difficult to produce effective performance measures within the constraints of the conventional accounting and reporting paradigm. Such businesses look to the performance of their staff using profit divided by total labour cost, whilst those heavily dependent upon the success of their marketing may well choose profit divided by marketing spend.

Question 3

It is necessarily true that over the life of a business the sum of its profits less its losses will equal its cash flow. However during any individual period of account there is always likely to be discrepancies between the reported profit figures and the company's cash flow. In the long run, improving performance will usually lead to improvement in cash flow although in the shorter run it is quite possible for a company to make losses yet still be solvent and vice versa. There are several measures of a company's liquidity: including its current asset ratio, its acid test ratio and its cash exhaustion ratio. In addition, the operating efficiency ratios: debtor age, creditor age, and stock turnover can also give important information about its exposure to liquidity risk and overtrading. It is generally true, that a company which is too liquid will be relatively underinvested in return generating assets and therefore its performance is likely to suffer. Conversely, a company which is very short of liquid resources may not be able to take opportunities as they arise for appropriate capital investment, or for the expansion of its business.

Question 4

A company can distort the financial information that it produces by a number of strategies: it can accelerate or decelerate revenue, accelerate or decelerate expenditures, hide unprofitable assets or overstate the value of assets, increase liabilities by the recognition of provisions or by ignoring future liabilities.

No single ratio can detect such distortion for certainty although a comparison of the company's operating profit (adjusted for depreciation) with its operating cash flow can provide a useful indicator of changes in the application of the matching principle. However, all ratios can be used in a simple way to detect distortion by carefully examining the changes over time and looking for reasons why those changes have occurred. Changes in the trends of ratios, combined with a critical reading of the accounts within the context of the methodology described in the chapter will help identify aggressive accounting policies designed to mislead.

Question 5

(i)

	2001	2000
ROCE (net)	13.33%	10.61%
Net profit turnover	18.00%	16.67%
CAR	1.67	1.92
Acid test	1.00	1.31
Capital gearing	42.86%	45.45%
Income gearing	25.00%	27.03%

The ratios indicate that the company has improved its return on capital employed and net profit turnover figures by quite significant percentages. The improvement in return on capital employed suggests either that the company has improved its profitability, or that it has reduced its capital base. The improvement in net profit turnover would suggest that the former is the case. It may also be that the reduction in the holding of current assets in the form of cash or debtors has bought the actual return on capital employed into closer alignment with the company's return on fixed capital employed. There appears to have been a modest reduction in the borrowing of the company as revealed by the capital gearing ratio and this has been reflected in the income gearing measure.

(ii)

		2001	2000
1	Creditor age	137	122
2	Debtor age	37	42
3	Stock holding period	91	75
	liquidity gap	9	5

(iii) Ratio analysis is one tool that managers can use to assess the performance of their business. Many large companies in different sectors have relied upon a small set of ratios to control the performance of departments, divisions and subsidiaries. The problem with the use of financial ratios is that they are a blunt instrument prone to measurement errors. Furthermore, ratios are only as good as the underlying data and company accounts only partially reflect the true value of the capital employed within the business and hence the return being generated. Similarly, other ratios measuring risk and liquidity can easily be misinterpreted and are often only weak proxies for the underlying variables being measured.

8. The Principles of Cost and Revenue Measurement

Review activity 8.1

A number of costs can be potentially identified as being incurred in the production of a single copy of this book:

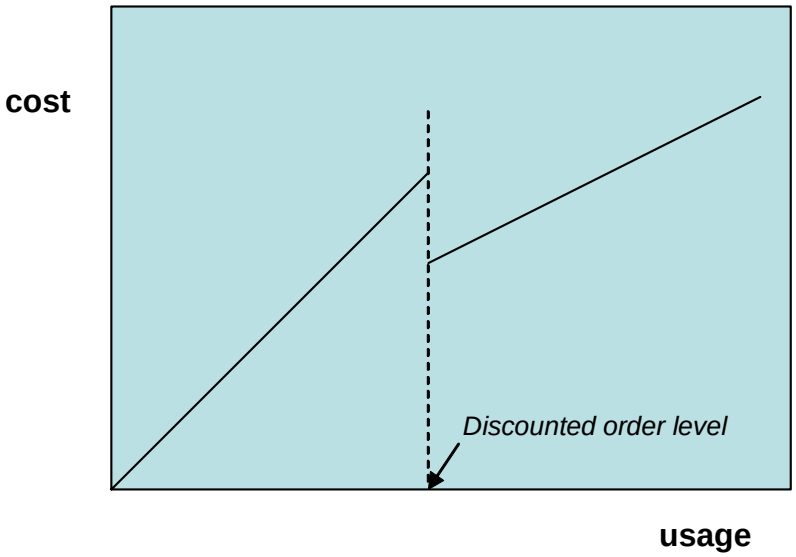
The paper carrying the body of the text (587 pages).
The printed cover which is separately produced.
The adhesives and other materials required to produce the finished book.
The ink!
The energy costs associated with operating the machines required to print the book.

Clearly the costs associated with the above will not have been incurred if the item is not produced. According to this criterion they would all be regarded as direct costs. However, in the context of a print shop, apart from the paper which could be priced separately, none of the above is likely to be practically measurable. Therefore, potentially the only direct cost is the paper required to produce the book. Labour is not a direct cost at this level unless it is employed on a piece rate basis.

Question Answers

Review activity 8.4

If the discount is offered on the whole batch when a certain level of order is exceeded then the following cost/usage graph will result:



Examples where this occurs are as follows

- The purchase of materials in bulk where the order level exceeds a specified quantity. This is commonly found in many businesses such as construction, the chemical industry, and other bulk good suppliers.
- The supply of heating or oil and other energy sources may also carry a discount if an order exceeds a particular size.

Question Answers

Question 1

As discussed in chapter 1 financial accounting and management accounting differ in a number of respects. Financial accounting is concerned with the provision of information to external users and principally employs the temporal matching principle. Financial accountants produce a company's profit and loss account, balance sheet, cash flow statement and other supporting documents for reporting to shareholders and for submission with the company's annual return. Management accountants are concerned with the provision of relevant information for the decision needs of internal users within the firm and will employ a number of different matching principles.

Question 2

Because the warheads are surplus to requirements, their scrap value representing their realisable value is the appropriate relevant cost to use in this new application.

Discounting the possibility of selling the motors on the black market, the relevant cost will be their replacement cost which is equal to their original cost plus ten per cent ($330) plus the cost of their conversion which would be $340 in total.

As the bodies are not in stock then their current purchase price represents their relevant cost being $100 each.

Question 3

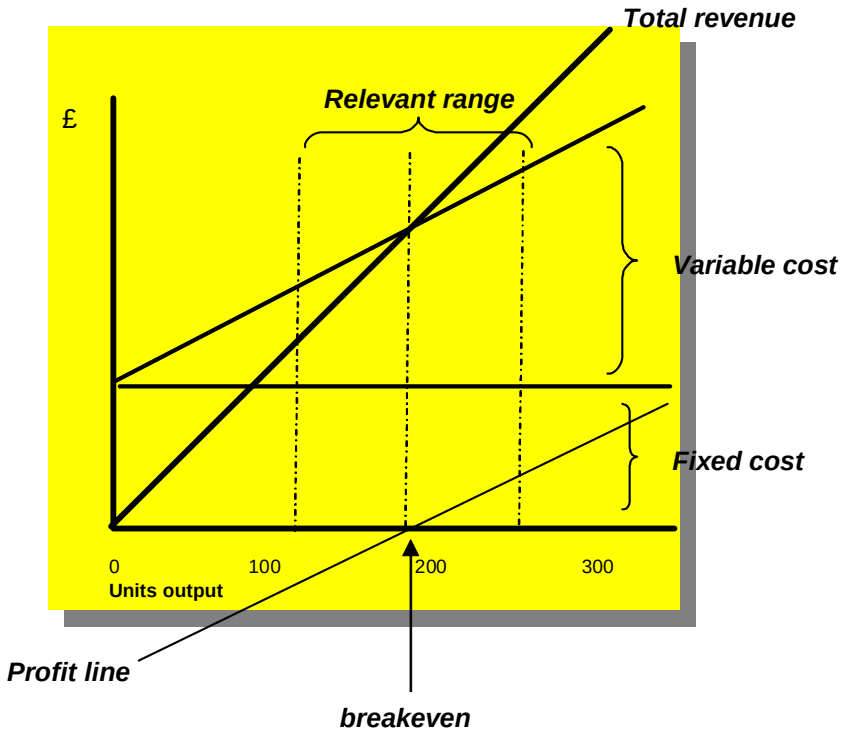
Below is a spreadsheet showing the difference to Alfred Cookers Ltd of accepting as opposed to rejecting the contract:

Alfred Cookers Ltd

	Contract choices		*Net cost of*
	Accept	**Reject**	*acceptance*
Lost business = 50*1200 + 50*2*150	-75000		-75000
Installation costs = 50*2*150	-15000	-15000	0
Person days reviewing the contract = 10*280	-2800	-2800	0
Materials			
original purchase price = 1750*40	-70000	-70000	0
foundry scrap = 40*100		4000	-4000
salvaged parts = 40*(350-50)		12000	-12000
purchase of materials for 10 units	-19500		-19500
Labour costs			
Labour cost of engineer if not on the contract		-12000	12000
Labour cost if engaged on the contract	-24000		-24000
Redundancy	-6000	-6000	0
Firm overheads = 50*1500	-75000	-75000	0
Scrap value of plant	2500	4000	-1500
Decision relevant cost (opportunity cost)			-124000
per unit			-2480
Possible contract price			2800
Cash contribution per unit			320

Question Answers

The annotated graph is as follows:

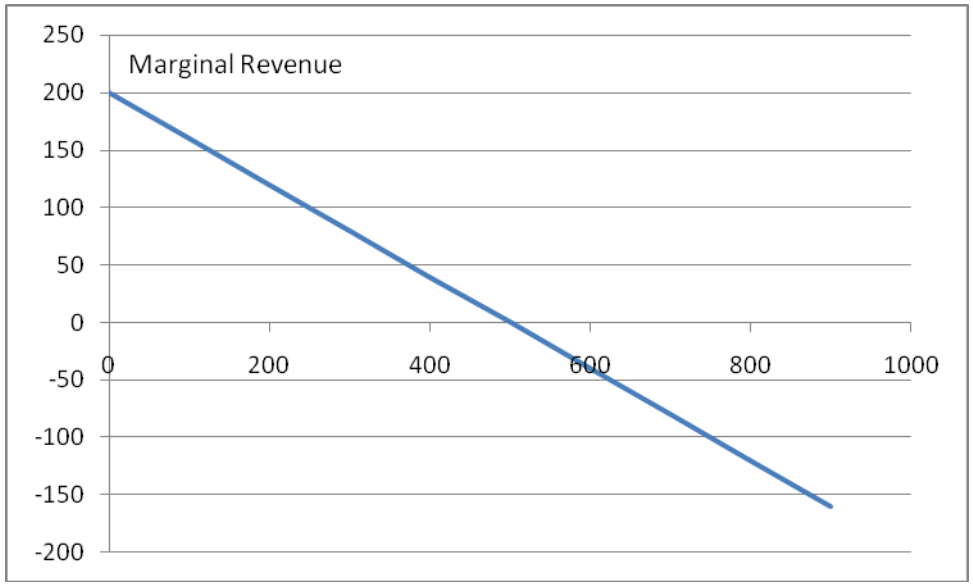


Question Answers

Question 7

(i) The demand curve, marginal revenue curve and total revenue curve for this product is:

$$p = 200 - 20Q$$
$$TR = 200Q - 20Q^2$$
$$MR = 200 - 40Q^2$$



The graph shows marginal revenue as a function of quantity and the optimum when marginal revenue is zero is 500 units.

Question Answers

(ii) The optimum profit level is when marginal revenue is equal to marginal cost, which in this case is where the marginal revenue curve passes through the marginal cost of £20 per unit. This is found to be at 450 units which gives a profit of:

TR – TC = profit

$$\left(200*450-0.2*450^2\right)-\left(30000+20*450\right)=10500$$

9. Cash Forecasting, Business Planning and Management Control

Review activity 9.1 to 9.5

The spreadsheets for these review activities are downloadable separately from the site.

Review activity 9.6

This review activity requires details of your own personal and financial affairs for which, unfortunately, there is no model answer! However, we trust that you found the exercise useful and if you are not already in the habit of careful financial planning at the personal level then maybe this will help you make a start.

Question 3

(i) Below are the working tables (this solution has been worked in columnar format) and the projected balance sheet, profit and loss and cash flow statements.

	cash flow	*outstanding*	*profit and loss*
Sales	503116	133569	636685
less			
Initial stock purchase	-8000	8000	0
Cost of materials	-397790	-47889	-445679
Salary costs	-14400		-14400
Office costs	-3000		-3000
Initial marketing	-10000		-10000
Advertising costs	-18000		-18000
Rent	-6800		-6800
Rates	-6000		-6000
Trading cash flow	39126		132806
Capital equipment	-30000	24600	-5400
Capital input	20000	-20000	0
Capital withdrawals	-6000	6000	0
	23126		
Interest	-2623		-2623
Profit and loss		-124783	124783
Net cash flow	20503	20503	
		0	

Question Answers

(i) **Profit and loss account**

Sales		
less		636685
Cost of goods sold		445679
Gross profit		191006
less		
Salary costs	14400	
Office costs	3000	
Depreciation	5400	
Initial marketing	10000	
Advertising costs	18000	
Rent	6800	
Rates	6000	
		63600
Operating profit		127406
less		
interest		2623
Profit to reserves		124783

Balance Sheet

Fixed assets		24600
Current assets		
Stocks	8000	
Debtors	133569	
Cash	20503	
	162072	
less current liabilities	47889	
		114183
		138783

Question Answers

Owner's Capital	20000
less capital withdrawal	6000
	14000
Profit reserve	124783
	138783

Cash flow statement

Operating cash flow	39126
Cost of financing	-2623
Capital expenditure	-30000
Capital introduced less withdrawals	14000
	20503

(ii)	Gross profit margin	30.0
	Net profit margin	19.6
	Current asset ratio	3.4
	Acid test	3.2

(iii) A comprehensive business plan would need:

- an executive summary
- a strategic review covering the business object and the business model
- a management and organisation plan including current CV's of those leading the project
- financial projections for a minimum of 3 years with short term financial forecast for the start up phase
- schedule of critical dates for cash breakeven, operating profitability and full profitability
- statement of maximum financial needs and, if appropriate, the capital contribution of the promoters.

Question Answers

Question 4

Following the guidance of the stock exchange and its requirements for admission to trading, companies should be able to produce business plans and demonstrate that they have an effective business planning process in place. It is generally regarded as good practice that all companies should operate a rolling process whereby projections are made for perhaps five to seven years into the future and are updated annually to reflect changing circumstances. Once business plans are in place they can then be used to establish the master budget for each of the years of the plan. Once the master budget is derived then a process of internal negotiation can take place to establish budgetary limits for spending departments and anticipated revenue flows. This process of negotiation should broadly encompass the whole business planning process with the strategic agenda being set by senior management but with managers at more operational levels assisting in the development of practical solutions and options. Unfortunately, there is a divorce between the planning activity and the process of budgeting. Bringing the two systems together can assist in achieving overall strategic coherence and also assist in the communication process from senior management to lower levels about what is expected and what should be achieved.

The disadvantage of integration is that unless it is effectively coordinated and has the complete commitment of all levels of management it can be a recipe for procrastination and delay. There is also a risk that the process will become top-heavy with too much intervention from senior management and with possible demotivating effects upon lower levels of management within the firm.

Question Answers

Question 5

Here is the solution to the four variances required:

	actual	budget	difference	actual hrs	flexed hrs	budget hrs	difference	variance	
Labour wage rate	10.5	12	1.5	8400				12600	F
Labour usage		12		8400		8200	200	2400	A
Labour efficiency		12		8400	6560		1840	22080	A
Labour activity		12			6560	8200	1640	19680	F

Question 6

Here is the information extracted for a management report (note that – means adverse):

	Actual		**Budget**							
	Quantity	Price (Cost per unit)	Quantity	Price (Cost per unit)	Flexed budget	Gross variance	price/rate variance	Quantity /volume variance	Efficiency	Activity
Sales and production level	18000	£28.00	17000	£30.00		-6000	-36000	30000		
Material A	27000	£14.00	23000	£13.00	24353	-79000	-27000	-52000	-34412	-17588
Material B	32000	£13.00	28000	£8.00	29647	-192000	-160000	-32000	-18824	-13176
Labour - semiskilled	2000	£12.00	2100	£10.00	2224	-3000	-4000	1000	2235	-1235
Labour - skilled	600	£8.00	550	£8.00	582	-400	0	-400	-141	-259
Overheads (variable)	18000	£2.00	17000	£1.50	18000	-10500	-9000	-1500	0	-1500
Overheads (fixed) (allocated on semi skilled hours)	2000	£16.00 (per hour)	2100	£15.00 (per hour)	2224	-500	-2000	1500	3353	-1853

Question Answers

10. Cost Management and Pricing

Review activity 10.2 – 10.3

With both of these questions many different answers are possible reflecting the wide range of possibilities in cost allocation and choices about the way in which costs are allocated through the structure of the firm. The point to be clear about in both is the allocation mechanism being chosen: whether it should be activity based or resource based and the exact definition of the cost pool and associated cost driver.

Review activity 10.4

Below are the calculations for working out the indirect cost charge using (1) floor space and (2) salary costs as the cost drivers:

Using floor space	
Total building cost	650000
Proportion of cost to marketing (= 400/1200x650000)	216667
Using salary cost	
Proportion of cost to marketing (=210000/2000000x650000)	68250

Question Answers

Review activity 10.5

ordering supplies from customers	procurement	number of orders	
ordering office supplies	firm infrastructure		na
checking deliveries against orders	inbound logistics	number of deliveries	
raising building contracts	marketing and sales	number of contracts	
arranging visits from the building inspectors to construction sites	operations	number of visits	
arranging subcontractors	operations	number of subcontracts	
making supplier and subcontractor payments	operations	number of payments	
invoicing and receiving stage payments	operations	number of invoices raised	
preparing and filing insurance claims	firm infrastructure	number of claims	
preparing and settling value added tax returns	firm infrastructure		na

na - not allocatable within activity based costing

Review activity 10.6

EasyJet would appear to be positioning themselves at or close to the competitive discount price shown in exhibit 8.25. Given that this price is likely to be close to their opportunity or marginal cost of production then the company will need to have a very accurate estimate of the cost of delivering a flight to ensure that it does not go below its minimum viable average price for the number of seats in a given aircraft. It will also need to be keenly aware of the prices being offered by its competitors.

British Airways on the other hand is seeking a quality premium in its pricing and will need to set prices which imply a high level of service and in-flight comfort. On their transatlantic and intercontinental flights they are seeking to attract high-value customers with high expectations. The company will need to find the best price that such customers are prepared to pay for the service offered.

Question Answers

Question 2

Given that this costing exercise is for a contract to produce just 100 components as the trial run for a larger order then there are significant issues about whether this contract can be evaluated except in the context of the larger order which is to follow. It is clear, however, that given the nature of the decision involved, that a full relevant costing exercise should be undertaken in order to discover the minimum viable price for producing the components concerned. It is also clear from the case description that manufacturing the components requires a subassembly which is produced by another division and where there are serious constraints upon production. Diverting those components to this contract will result in a loss of contribution which would need to be carefully measured and that, combined with the external opportunity cost of the skilled labour required to produce those components, will yield the full labour cost that should be charged for this particular item. Given the scarcity of the labour required to produce these components, then the accounting full cost is unlikely to reflect the opportunity cost of their redeployment and should be ignored.

Using relevant costing, the sunk costs associated with developing the contract are necessarily ignored. Likewise the policy of adding a 20% markup in order to establish the price should also be ignored. Finally, in terms of costing, the company needs to estimate the costs of producing sufficient components in order to be able to deliver under the contract. This will increase the minimum viable price per unit and indeed the company may well be able to reduce this component of cost in the future as it gains expertise in the production of this particular item. This does however raise the question as to whether the company should be looking at the short run cost of producing these items but rather the long run cost if it wins the follow-on contract. In making this

decision, the company would need to assess the relevant cost of production not only at the beginning when it is likely to have a high number of rejects but also when the production systems have matured and the production yield is closer to 100%.

The use of conventional costing systems may well in this case understate the true economic cost of production at least in the short run. In the longer run, when the firm has acquired the necessary expertise for defect free production and has solved the problem of its labour shortage in the subassembly division, the opposite may well be the case. An activity based costing approach suffers from the same criticisms as conventional costing in that any allocation system is unlikely to approximate the contribution foregone in production. On the assumption that the company is costing this product in order to determine its minimum viable price, then a costing system which targets the economic cost of production should be used.

Question 4

The first stage of implementing an activity based costing approach is to identify the different activities which the firm undertakes during production. For complex products going through many different stages and with a large number of support activities within the firm itself such an exercise can be time-consuming. Once the activities have been successfully identified the next stage is to define the cost pools and establish the procedures for distributing indirect costs by their associated activities. A unique cost driver should then be defined for each cost pool in order to draw down the activity related costs into production.

The theoretical inspiration for activity based costing is that activities are the primary driver of corporate value creation. However, activities imply human agency and in many manufacturing and commercial systems value is created through the employment of

information technology and individual activities are very difficult to measure. If we accept that the true cost of production is its full opportunity cost then a problem arises in linking the concept of an activity to the concept of alternative foregone. Furthermore, although activity based costing can focus attention upon those areas which appear to be consuming costs and can be made more efficient, this does rely upon the correct definition of the activity concerned and the idea that individual activities can be isolated from the context in which they are undertaken.

Finally, activity based costing can be an expensive system to introduce in terms of time and effort and although it focuses attention on where economies can be secured in production it loses the rationing effects which can be achieved through traditional costing systems.

Question Answers

Question 5

Company level costs (inc maintenance)				
	garage and parking	255000		
	Head office	650000		
Total		905000		
	charge per cab per annum		16455	
Vehicle level costs				
	Annual road tax	800		
	Annual depreciation	5460		
	Driver base cost per car	11957		
	Driver bonus	2400		
	Fuel cost	10710		
Vehicle cost per annum			31327	
Total cost per car			**47781**	
	revenue recovery that gives 15% margin		56213	divide by 0.85
	revenue recovered through standard charge		10560	
	revenue to be recovered through mileage		45653	
(i)	***metered charge per mile***		***0.95***	
	Capital cost (average capital employed)	632500		take mid point between buying and selling prices
	return required	94875		
	per vehicle		1725	
	cost plus capital charge		49506	
	revenue recovered through standard charge		10560	
	revenue to be recovered through mileage		38946	
(ii)	***metered charge per mile***		***0.81***	
	Mileage rate of 80p recovers		38400	
	Standard charges		10560	
	Revenue recovered		48960	
(iii)	***Target cost***		***42574***	divide revenue recovered by 1.15

Question Answers

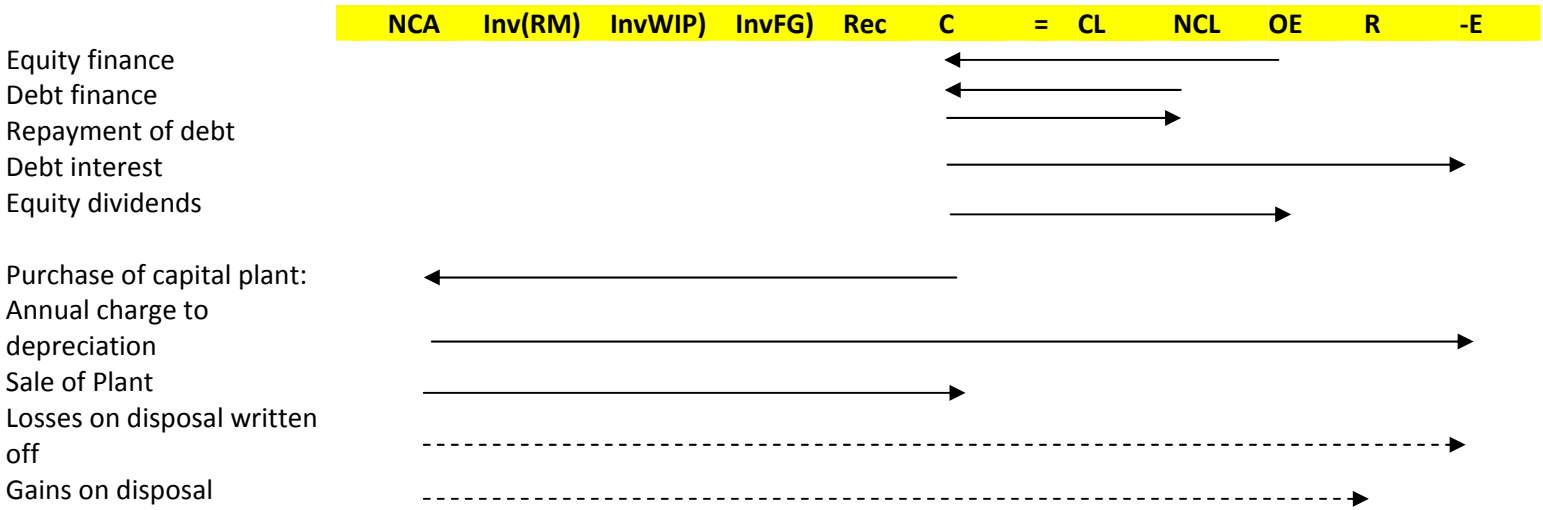
The assumptions implicit in this type of analysis are many. Here are just a few:

1. The use of average values.
2. That the pattern of costs in previous years will be realised in the future.
3. That the rate agreements with drivers will hold during the next 12 months.
4. That 150 000 miles per vehicle is a fair representation of its economic life in use.

Question Answers

11 The Management of Working Capital

Review activity 11.1



Question Answers

Review activity 11.2

BP Plc: neutral

Cobham PLC: defensive

easyJet PLC: defensive

Marks and Spencer PLC: defensive

Sainsbury's Plc: aggressive

Tesco PLC: very aggressive

Review activity 11.4

The benefits of the inventory visualisation system to Metaldyne are as follows:

1. Allowing its suppliers a secure real-time view of its inventory so that they can replenish stock automatically.
2. Better synchronisation of deliveries from suppliers and to customers.
3. The minimisation of inventory holdings.
4. Assisting Metaldyne in achieving lean manufacturing standards
5. The reduction of inventory carrying costs
6. Improving the kanban visualisation systems.

Question Answers

The potential disadvantages of such a system are as follows:

1. Very significant software and installation costs.
2. Arranging operating systems to ensure compatibility with the software system.
3. Open access of manufacturing systems to suppliers with attendant loss of corporate security.
4. Heightened reliance upon suppliers to deliver to the appropriate quality and on time.

Review activity 11.6

Sid should take the following steps to try to secure better payment:

1. Asking for a meeting with the new headteacher and the bursar to review the operation of the contract and discuss terms of payment.

2. Sid may wish to consider offering a discount for prompt payment, although offering alternative payment procedures perhaps through BACS or through online banking systems may be more useful.

3. Sid must ensure that invoices when they are sent are correct and can be justified, perhaps requesting on the invoice that if there is any disagreement about the value it should be notified within (say) 14 days.

Question Answers

4. Prompt reminders are necessary as soon as the credit period has elapsed and contact by telephone should be made to urge payment.

5. If the late payment continues, Sid must consider whether the business is worth pursuing given the alternatives open to him, and the risk that other competitors may come into the area capitalising on this business.

Review activity 11.7

No answer is given for this activity.

Question Answers

Question 2

The economic order quantity is as follows:

$$EOQ = \sqrt{\frac{2\text{x}2500000\text{x}300000}{.1\text{x}40}}$$
$$EOQ = 612372.4 \text{ barrels}$$

The reorder quantity must cover 23 days supply that is:

$$ROL = \frac{2500000}{365}\text{x}23$$
$$ROL = 157534 \text{ barrels}$$

Question 3

The following are some other points which a report would contain:

It would appear that the nonpayment has arisen from the smaller owner managed shops rather than from the large retail chains although the first thing to be investigated is the degree to which the bad debts are due to disputed invoices rather than customer default. In the case of default the wholesaler has a number of options open to him for controlling the level of bad debt:

- Orders from completely new customers should be fulfilled on a cash on delivery basis and should not be made on credit terms.

- If a customer becomes more regular in their orders and there have not been any problems with payment then the wholesaler could look towards establishing the business on a credit basis. However, before doing so a range of credit checks should be undertaken and references sought. When credit facilities are offered, the terms of payment should be strictly controlled and credit withdrawn as soon as there is any material slippage.

- The wholesaler should also review its principal retail clients to see if more favourable credit terms can be arranged possibly in exchange for guaranteed delivery or some other terms.

Question 6

The optimum cash withdrawal is given by the Baumol model:

$$ECH = \sqrt{\frac{2x15000x35}{.12}}$$
$$ECH = £2958$$

This model assumes that cash is used continuously throughout the year, and that the company's future demand for cash is fairly represented by its usage of cash in the past. The model also assumes that the reorder cost of £35 per transaction applies across withdrawals of any size and that the opportunity cost of capital of 12% is appropriate for this level of funding.

12 Investment Appraisal

Review activity 12.3

Here are the calculations for this activity:

	0	1	2	3	4
cash flow	-145000	10000	50000	60000	80000
discount factor	1.0000	0.9091	0.8264	0.7513	0.6830
discounted cash flow	-145000	9091	41322	45079	54641
net present value	5133				
deflator	1	1.04	1.0816	1.124864	1.1698586
real cash flow	-145000	9615.3846	46227.811	53339.782	68384.335
real discount rate	0.0576923				
real discount factor	1	0.9454545	0.8938843	0.845127	0.7990291
discounted cash flow	-145000	9091	41322	45079	54641
net present value	5133				

Question Answers

Question 1

Using the annuity formula:

$$NPV = \left(\frac{1 - \frac{1}{1.15^3}}{0.15} \right) x60000 - 130000 = £6993.5$$

Question 7

(i)	0	1	2	3	4	5
Cash flows	-1250000	400000	400000	400000	400000	400000
Tax allowance		-250000	-250000	-250000	-250000	-250000
Taxable profit		150000	150000	150000	150000	150000
Additional tax burden		-67500	-67500	-67500	-67500	-67500
Post tax cash flow	-1250000	332500	332500	332500	332500	332500
Discounted cash flow	-1250000	302272.73	274793.39	249812.17	227101.97	206456.34
Net present value	10436.601					
Using the net present value rule the investment is worthwhile						
(ii)						
Post tax cash flow	-1250000	332500	332500	332500	332500	332500
Cum cash flow	-1250000	-917500	-585000	-252500	80000	412500
Payback =	3 years 9 months					
Discounted cash flow	-1250000	302272.73	274793.39	249812.17	227101.97	206456.34
Cum discounted cash flow	-1250000	-947727.27	-672933.88	-423121.71	-196019.74	10436.601
Payback =	4 years 11.4 months					

Question Answers

(iii) The principal difficulty here is making predictions about an uncertain future. Burcolene does appear to be past his best and is likely to be prone to injury especially in the rigours of the English First Division. The manager must gauge whether the player has the capacity for five further playing years at this level – it may be that he can get more and that will be a bonus, if he gets less then all that he will be able to recover is the balancing charge on the premature write off of the capital allowances. In practice, given the length of the payback, the manager should have a few sleepless nights but then Burcolene may come good and help them win promotion to the Premier League…..