Answers

1 (a) (i) Goodwill in Salva at 1 April 2009

	£'000	£'000
Shares issued (120 million x 80% x 3/5 x £6)		345,600
Less:		
Equity shares	120,000	
Pre-acquisition reserves:		
At 1 October 2008	152,000	
To date of acquisition (see below)	11,500	
Fair value adjustments (5,000 + 20,000)	25,000	
	308,500 x 80% =	246,800
Goodwill arising on acquisition		98,800

The interest on the 8% loan note is £2 million (£50 million x 8% x 6/12). This is included in Salva's profit and loss account in the post-acquisition period. Thus Salva's profit for the year of £21 million has a split of £11·5 million pre-acquisition ((21 million + 2 million interest) x 6/12) and £9·5 million post-acquisition.

(ii) Carrying amount of investment in Ambra at 30 September 2009

	£'000
Net assets other than goodwill ((40,000 + 15,000 – 5,000) x 40%)	20,000
Goodwill (see below)	9,900
Carrying amount at 30 September 2009	29,900

Goodwill		
Cost of investment (40 million x 40% x £2)		32,000
Less:		
Net assets at 1 April 2009:		
Equity at 1 October 2008 (40,000 + 15,000)	55,000	
Losses to date of acquisition (5,000 x 6/12)	(2,500)	
	52,500 x 40%	21,000
Goodwill		11,000
Amortisation (11,000/5 years x 6/12)		(1,100)
Carrying amount at 30 September 2009		9,900

(b) Pandar Group

Consolidated profit and loss account for the year ended 30 September 2009

	£'000	£'000
Revenue (210,000 + (150,000 x 6/12) – 15,000 intra-group sales)		270,000
Cost of sales (w (i))		(162,500)
Gross profit		107,500
Distribution costs (11,200 + (7,000 x 6/12))		(14,700)
Administrative expenses (18,300 + (9,000 x 6/12))		(22,800)
Investment income (w (ii))		1,100
Finance costs (w (iii))		(2,300)
Operating profit		68,800
Share of loss from associate (6,000 x 40% x 6/12)	(1,200)	
Goodwill amortisation (see (a))	(1,100)	(2,300)
Profit before tax		66,500
Tax charge – Group (15,000 + (10,000 x 6/12))	(20,000)	
Tax relief – Associate (1,000 x 6/12 x 40%)	200	(19,800)
Profit after tax		46,700
Minority interest (w (iv))		(1,800)
Profit for the year		44,900

Workings (figures in brackets in £'000)

		£'000	£'000
(i)	Cost of sales		
	Pandar	126,000	
	Salva (100,000 x 6/12)	50,000	
	Intra-group purchases	(15,000)	
	Additional depreciation: plant (5,000/5 years x 6/12)	500	
	Unrealised profit in stock (15,000/3 x 20%)	1,000	
		162,500	

As the registration of the domain name is renewable indefinitely (at only a nominal cost) it will not be amortised.

(ii)	Investment income		
	Per profit and loss account	9,500	
	Intra-group interest (50,000 x 8% x 6/12)	(2,000)	
	Intra-group dividend (8,000 x 80%)	(6,400)	
		1,100	
(iii)	Finance costs		
	Pandar	1,800	
	Salva post-acquisition ((3,000 – 2,000) x 6/12 + 2,000)	2,500	
	Intra-group interest (w (ii))	(2,000)	
		2,300	
(iv)	Minority interest		
	Salva's post-acquisition profit (see (i) above)	9,500	
	Less: post-acquisition additional depreciation (w (i))	(500)	
		9,000	
		x 20%	= 1,800

2 (a) Sandown – Profit and loss account for the year ended 30 September 2009

	£'000
Turnover (380,000 – 4,000 (w (i)))	376,000
Cost of sales (w (ii))	(265,300)
Gross profit	110,700
Distribution costs	(17,400)
Administrative expenses (50,500 – 12,000 (w (iii)))	(38,500)
Investment income	1,300
Profit/gain on sale of available-for-sale investments (w (iv))	4,000
Finance costs (w (v))	(1,475)
Profit before tax	58,625
Taxation (16,200 + 2,100 – 1,500 (w (vi)))	(16,800)
Profit for the year	41,825

(b) Sandown – Balance sheet as at 30 September 2009

	£'000	£'000
Fixed assets		
Intangible – brand (15,000 – 2,500 (w (ii)))		12,500
Tangible		
Freehold property (w (vii))		54,000
Plant and equipment (w (vii))		13,500
Available-for-sale investments (at fair value)		29,000
		109,000
Current assets		
Stock	38,000	
Trade debtors	44,500	
Bank	8,000	
	90,500	
Creditors: amounts falling due within one year		
Trade creditors	42,900	
Deferred income (w (i))	2,000	
Taxation	16,200	
	(61,100)	
Net current assets		29,400
Total assets less current liabilities		138,400
Creditors: amounts falling due after more than one year		
Deferred tax (w (vi))	3,900	
Deferred income (w (i))	2,000	
5% convertible loan note (w (v))	18,915	(24,815)
Total equity and liabilities		113,585
Capital and reserves		
Equity shares of 20 pence each		50,000
Equity option		2,000
Other reserves (w (viii))		5,700
Profit and loss account (26,060 + 41,825 – 12,000 dividend (w (iii)))		55,885
		113,585

Workings (figures in brackets in £'000)

(i) Where sales revenue includes an amount for after sales servicing and support costs then a proportion of the revenue should be deferred. The amount deferred should cover the cost and a reasonable profit (in this case a gross profit of 40%) on the services. As the servicing and support is for three years and the date of the sale was 1 October 2008, revenue relating to two years' servicing and support provision must be deferred: (£1·2 million x 2/0·6) = £4 million. This is shown as £2 million in both current and long-term liabilities.

(ii) Cost of sales

	£'000
Per question	246,800
Depreciation – building (50,000/50 years – see below)	1,000
– plant and equipment (42,200 – 19,700) x 40%))	9,000
Amortisation – brand (1,500 + 2,500 – see below)	4,000
Impairment of brand (see below)	4,500
	265,300

The cost of the building of £50 million (63,000 – 13,000 land) has accumulated depreciation of £8 million at 30 September 2008 which is eight years after its acquisition. Thus the life of the building must be 50 years.

The brand is being amortised at £3 million per annum (30,000/10 years). The impairment occurred half way through the year, thus amortisation of £1·5 million should be charged prior to calculation of the impairment loss. At the date of the impairment review the brand had a carrying amount of £19·5 million (30,000 – (9,000 + 1,500)). The recoverable amount of the brand is its fair value of £15 million (as this is higher than its value in use of £12 million) giving an impairment loss of £4·5 million (19,500 – 15,000). Amortisation of £2·5 million (15,000/3 years x 6/12) is required for the second half of the year giving total amortisation of £4 million for the full year.

(iii) A dividend of 4·8 pence per share would amount to £12 million (50 million x 5 (i.e. shares are 20 pence each) x 4·8 pence). This is not an administrative expense but a distribution of profits that should be accounted for through equity.

(iv) The profit reported on the sale of the available-for-sale investment has two parts:

gain in current year (11,000 proceeds – 8,800 carrying amount)	2,200
'reclassified' past revaluation gains (from other equity reserve): (8,800 carrying amount – 7,000 original cost)	1,800
	4,000

The remaining investments of £26·5 million have a fair value of £29 million at 30 September 2009 which gives a fair value increase (credited to other reserve) of £2·5 million.

(v) The finance cost of the convertible loan note is based on its effective rate of 8% applied to £18,440,000 carrying amount at 1 October 2008 = £1,475,000 (rounded). The accrual of £475,000 (1,475 – 1,000 interest paid) is added to the carrying amount of the loan note giving a figure of £18,915,000 (18,440 + 475) in the balance sheet at 30 September 2009.

(vi) Deferred tax

credit balance required at 30 September 2009 (13,000 x 30%)	3,900
balance at 1 October 2008	(5,400)
credit (reduction in balance) to profit and loss account	1,500

(vii) Fixed assets

Freehold property (63,000 – (8,000 + 1,000)) (w (ii))	54,000
Plant and equipment (42,200 – (19,700 + 9,000)) (w (ii))	13,500

(viii) Other reserve (re available-for-sale investments)

at 1 October 2008	5,000
'reclassified' gain (w (iv))	(1,800)
increase in year (w (iv))	2,500
	5,700

3 (a) (i) Fixed assets

Tangible	£'000
Carrying amount b/f	13,100
Mine (5,000 + 3,000 environmental cost)	8,000
Revaluation (2,000/0·8 allowing for effect of deferred tax transfer)	2,500
Fair value of leased plant	10,000
Plant disposal	(500)
Depreciation	(3,000)
Replacement plant (balance)	2,400
Carrying amount c/f	32,500

Development costs	
Carrying amount b/f	2,500
Additions during year	500
Amortisation and impairment (balance)	(2,000)
Carrying amount c/f	1,000

(ii) Interest paid (400 + 350) (750)

Capital expenditure	
Purchase of tangible fixed assets (w (i))	(7,400)
Disposal proceeds of plant	1,200
Development costs	(500)
	(6,700)

Financing	
Issue of equity shares (w (ii))	2,000
Redemption of convertible loan notes ((5,000 – 1,000) x 25%)	(1,000)
Lease obligations (w (iii))	(3,200)
	(2,200)

Workings (figures in brackets in £'000)

(i) The cash elements of the increase in tangible fixed asssets are £5 million for the mine (the capitalised environmental provision is not a cash flow) and £2·4 million for the replacement plant making a total of £7·4 million.

(ii) Of the £4 million convertible loan notes (5,000 – 1,000) that were redeemed during the year, 75% (£3 million) of these were exchanged for equity shares on the basis of 20 new shares for each £100 in loan notes. This would create 600,000 (3,000/100 x 20) new shares of £1 each and share premium of £2·4 million (3,000 – 600). As 1 million (5,000 – 4,000) new shares were issued in total, 400,000 must have been for cash. The remaining increase (after the effect of the conversion) in the share premium of £1·6 million (6,000 – 2,000 b/f – 2,400 conversion) must relate to the cash issue of shares, thus cash proceeds from the issue of shares is £2 million (400 nominal value + 1,600 premium).

(iii) The initial lease obligation is £10 million (the fair value of the plant). At 30 September 2009 total lease obligations are £6·8 million (5,040 + 1,760), thus repayments in the year were £3·2 million (10,000 – 6,800).

(b) Taking the definition of ROCE from the question:

Year ended 30 September 2009	**£'000**
Profit before tax and interest on long-term borrowings (4,000 + 1,000 + 400 + 350)	5,750
Equity plus loan notes and finance lease obligations (19,200 + 1,000 + 5,040 + 1,760)	27,000
ROCE	21·3%
Equivalent for year ended 30 September 2008	
(3,000 + 800 + 500)	4,300
(9,700 + 5,000)	14,700
ROCE	29·3%

To help explain the deterioration it is useful to calculate the components of ROCE i.e. operating margin and net asset turnover (utilisation):

	2009		2008
Operating margin (5,750/52,000 x 100)	11·1%	(4,300/42,000)	10·2%
Net asset turnover (52,000/27,000)	1·93 times	(42,000/14,700)	2·86 times

From the above it can be clearly seen that the 2009 operating margin has improved by nearly 1% point, despite the £2 million impairment charge on the write down of the development project. This means the deterioration in the ROCE is due to poorer asset turnover. This implies there has been a decrease in the efficiency in the use of the company's assets this year compared to last year.

Looking at the movement in the fixed assets during the year reveals some mitigating points:

The land revaluation has increased the carrying amount of tangible assets without any physical increase in capacity. This unfavourably distorts the current year's asset turnover and ROCE figures.

The acquisition of the platinum mine appears to be a new area of operation for Crosswire which may have a different (perhaps lower) ROCE to other previous activities or it may be that it will take some time for the mine to come to full production capacity.

The substantial acquisition of the leased plant was half-way through the year and can only have contributed to the year's results for six months at best. In future periods a full year's contribution can be expected from this new investment in plant and this should improve both asset turnover and ROCE.

In summary, the fall in the ROCE may be due largely to the above factors (effectively the replacement and expansion programme), rather than to poor operating performance, and in future periods this may be reversed.

It should also be noted that had the ROCE been calculated on the average capital employed during the year (rather than the year end capital employed), which is arguably more correct, then the deterioration in the ROCE would not have been as pronounced.

4 (a) There are four elements to the assistant's definition of a fixed asset and he is substantially incorrect in respect of all of them.

The term 'fixed assets' will normally include intangible assets and certain investments; the use of the term 'physical asset' would be specific to tangible assets only.

Whilst it is usually the case that fixed assets are of relatively high value this is not a defining aspect. A waste paper bin may exhibit the characteristics of a fixed asset, but on the grounds of materiality it is unlikely to be treated as such. Furthermore the past cost of an asset may be irrelevant; no matter how much an asset has cost, it is the expectation of future economic benefits (normally in the form of future cash inflows) that defines an asset according to the ASB's Statement of Principles for Financial Reporting.

The concept of ownership is no longer a critical aspect of the definition of an asset. It is probably the case that most fixed assets in an entity's balance sheet are owned by the entity; however, it is the ability to 'control' assets (including preventing others from having access to them) that is now a defining feature. For example: this is an important characteristic in treating a finance lease as an asset of the lessee rather than the lessor.

It is also true that most fixed assets will be used by an entity for more than one year and a part of the definition of tangible fixed assets in FRS 15 *Tangible fixed assets* refers to 'held… on a continuing use basis…', but this is not necessarily the case. It may be that a fixed asset is acquired which proves unsuitable for the entity's intended use or is damaged in an accident.

In these circumstances assets may not have been used for longer than a year, but nevertheless they were reported as fixed assets during the time they were in use. A fixed asset may be within a year of the end of its useful life, but would still be reported as a fixed asset if it was still giving economic benefits.

(b) **(i)** The expenditure on the training courses may exhibit the characteristics of an asset in that it has and will continue to bring future economic benefits by way of increased efficiency and cost savings. However the expenditure cannot be recognised as an asset on the balance sheet and must be charged as an expense as the cost is incurred. The main reason for this lies with the issue of 'control'; it is Darby's employees that have the 'skills' provided by the courses, but the employees can leave the company and take their skills with them or, through accident or injury, may be deprived of those skills.

(ii) The question specifically states that the costs incurred to date on the development of the new processor chip are research costs. SSAP 13 *Accounting for research and development* states that research costs must be expensed. This is mainly because research is the relatively early stage of a new project and any future benefits are so far in the future that they cannot be considered to meet the definition of an asset (probable future economic benefits), despite the good record of success in the past with similar projects.

Although the work on the automatic vehicle braking system is still at the research stage, this is different in nature from the previous example as the work has been commissioned by a customer. As such, from the perspective of Darby, it is work in progress (a current asset) and should not be written off as an expense. A note of caution should be added here in that the question says that the success of the project is uncertain which presumably means it may not be completed. This does not mean that Darby will not receive payment for the work it has carried out, but it should be checked to the contract to ensure that the amount it has spent to date (£2·4 million) will be recoverable. In the event that say, for example, the contract stated that only £2 million would be allowed for research costs, this would place a limit on how much Darby could treat as work in progress. If this were the case then, for this example, Darby would have to expense £400,000 and treat only £2 million as work in progress.

(iii) The question suggests the correct treatment for this kind of contract is to treat the costs of the installation as a fixed asset and (presumably) depreciate it over its expected life of (at least) three years from when it becomes available for use. In this case the asset will not come into use until the next financial year and no depreciation needs to be provided at 30 September 2009.

The capitalised costs to date of £58,000 should only be written down if there is evidence that the asset has become impaired. Impairment occurs where the recoverable amount of an asset is less than its carrying amount. The assistant appears to believe that the recoverable amount is the future profit, whereas (in this case) it is the future (net) cash inflows. Thus any impairment test at 30 September 2009 should compare the carrying amount of £58,000 with the expected net cash flow from the system of £98,000 (£50,000 per annum for three years less future cash outflows to completion the installation of £52,000 (see note below)). As the future net cash flows are in excess of the carrying amount, the asset is not impaired and it should not be written down but shown as a tangible fixed asset (under construction) at cost of £58,000.

Note: as the contract is expected to make a profit of £40,000 on income of £150,000, the total costs must be £110,000; with costs to date at £58,000 this leaves completion costs of £52,000.

5 **(a)** Whilst profit after tax (and its growth) is a useful measure, it may not give a fair representation of the true underlying earnings performance. In this example, users could interpret the large annual increase in profit after tax of 80% as being indicative of an underlying improvement in profitability (rather than what it really is: an increase in absolute profit). It is possible, even probable, that (some of) the profit growth has been achieved through the acquisition of other companies (acquisitive growth). Where companies are acquired from the proceeds of a new issue of shares, or where they have been acquired through share exchanges, this will result in a greater number of equity shares of the acquiring company being in issue. This is what appears to have happened in the case of Barstead as the improvement indicated by its earnings per share (EPS) is only 5% per annum. This explains why the EPS (and the trend of EPS) is considered a more reliable indicator of performance because the additional profit which could be expected from the greater resources (proceeds from the shares issued) is matched with the increase in the number of shares. Simply looking at the growth in a company's profit after tax does not take into account any increases in the resources used to earn them. Any increase in growth financed by borrowings (debt) would not have the same impact on profit (as being financed by equity shares) because the finance costs of the debt would act to reduce profit.

The calculation of a diluted EPS takes into account any potential equity shares in issue. Potential ordinary shares arise from financial instruments (e.g. convertible loan notes and options) that may entitle their holders to equity shares in the future. The diluted EPS is useful as it alerts existing shareholders to the fact that future EPS may be reduced as a result of share capital changes; in a sense it is a warning sign. In this case the lower increase in the diluted EPS is evidence that the (higher) increase in the basic EPS has, in part, been achieved through the increased use of diluting financial instruments. The finance cost of these instruments is less than the earnings their proceeds have generated leading to an increase in current profits (and basic EPS); however, in the future they will cause more shares to be issued. This causes a dilution where the finance cost per potential new share is less than the basic EPS.

(b)	(Basic) EPS for the year ended 30 September 2009 (£15 million/43·25 million x 100)	34·7	pence
	Comparative (basic) EPS (35 x 3·60/3·80)	33·2	pence
	Effect of rights issue (at below market price)		
	100 shares at £3·80	380	
	25 shares at £2·80	70	
	125 shares at £3·60 (calculated theoretical ex-rights value)	450	
	Weighted average number of shares		
	36 million x 3/12 x £3·80/£3·60	9·50	million
	45 million x 9/12	33·75	million
		43·25	million
	Diluted EPS for the year ended 30 September 2009 (£15·6 million/45·75 million x 100)	34·1	pence
	Adjusted earnings		
	15 million + (10 million x 8% x 75%)	£15·6	million
	Adjusted number of shares		
	43·25 million + (10 million x 25/100)	45·75	million

This marking scheme is given as a guide in the context of the suggested answers. Scope is given to markers to award marks for alternative approaches to a question, including relevant comment, and where well-reasoned conclusions are provided. This is particularly the case for written answers where there may be more than one acceptable solution.

				Marks
1	**(a)**	**(i)**	Goodwill of Salva:	
			consideration	1
			net assets acquired calculated as:	
			equity shares	1
			pre-acquisition reserves	2
			fair value adjustments	1
				5
		(ii)	Carrying value of Ambra	
			net assets other than goodwill	2
			goodwill	2
				4
	(b)		Profit and loss account:	
			revenue	2
			cost of sales	4
			distribution costs and administrative expenses	1
			investment income	$2\frac{1}{2}$
			finance costs	$1\frac{1}{2}$
			share of associate's losses and goodwill amortisation	1
			tax charge and relief ($\frac{1}{2}$ each)	1
			minority interest	2
			domain name not amortised	1
				16
			Total for question	**25**

2	**(a)**		Profit and loss account	
			turnover	$1\frac{1}{2}$
			cost of sales	3
			distribution costs	$\frac{1}{2}$
			administrative expenses	1
			investment income	$\frac{1}{2}$
			profit on sale of investments	2
			finance costs	1
			tax	$1\frac{1}{2}$
				11
	(b)		Balance sheet	
			tangible fixed assets	2
			intangible fixed asset – brand	1
			investments	1
			stock/trade debtors	$\frac{1}{2}$
			bank	$\frac{1}{2}$
			equity shares	$\frac{1}{2}$
			equity option	$\frac{1}{2}$
			other equity reserve	2
			profit and loss account (1 for dividend)	2
			deferred tax	1
			long-term deferred income	$\frac{1}{2}$
			5% loan note	$1\frac{1}{2}$
			current deferred income	$\frac{1}{2}$
			tax liability/trade creditors	$\frac{1}{2}$
				14
			Total for question	**25**

					Marks
3	**(a)**	**(i)**	Fixed assets		
			mine		$1\frac{1}{2}$
			land revaluation		$1\frac{1}{2}$
			leased plant		1
			plant disposal		1
			depreciation		1
			replacement plant		1
					7
			development costs		2
					9
		(ii)	Finance costs paid		1
			capital expenditure:		
			purchase of tangible fixed assets		$1\frac{1}{2}$
			disposal proceeds of plant		$\frac{1}{2}$
			development costs		1
			financing:		
			issue of equity shares		2
			redemption of convertible loan notes		1
			lease obligations		1
					8
	(b)		Calculation of ROCE		2
			supporting components ratios		2
			explanatory comments – up to		4
					8
				Total for question	**25**
4	**(a)**		1 mark per valid point		4
	(b)		**(i)** to **(iii)** – 1 mark per valid point as indicated		11
				Total for question	**15**
5	**(a)**		1 mark per valid point		4
	(b)		basic EPS for 2009		3
			restated EPS for 2008		1
			diluted EPS for 2009		2
					6
				Total for question	**10**