# **Answers**

1	(a)	(i)	Goodwill in Salva at 1 April 2009: Controlling interest	\$'000	\$'000
			Shares issued (120 million x 80% x 3/5 x \$6) Non-controlling interest (120 million x 20% x \$3·20)		345,600 76,800
					422,400
			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
			Goodwill arising on acquisition		113,900

The interest on the 8% loan note is \$2 million (\$50 million x 8% x 6/12). This is included in Salva's income statement 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
	Cost (40 million x 40% x \$2)	32,000
	Share of post-acquisition losses (5,000 x 40% x 6/12)	(1,000)
	Impairment charge	(3,000)
		28,000

## (b) Pandar Group

Consolidated income statement for the year ended 30 September 2009 Revenue (210,000 + (150,000 x 6/12) – 15,000 intra-group sales) Cost of sales (w (i))	\$'000	<b>\$'000</b> 270,000 (162,500)
Gross profit Distribution costs (11,200 + (7,000 x 6/12)) Administrative expenses (18,300 + (9,000 x 6/12)) Investment income (w (ii)) Finance costs (w (iii)) Share of loss from associate (5,000 x 40% x 6/12) Impairment of investment in associate	(1,000) (3,000)	107,500 (14,700) (22,800) 1,100 (2,300) (4,000)
Profit before tax Income tax expense (15,000 + (10,000 x 6/12))		64,800 (20,000)
Profit for the year		44,800
Attributable to: Owners of the parent Non-controlling interest (w (iv))		43,000 1,800 44.800
		,

Workings (figures in brackets in \$'000)

(i)	Cost of sales	\$'000
	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 inventories (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 income statement	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 Salva post-acquisition ((3,000 – 2,000) x 6/12 + 2,000) Intra-group interest (w (ii))	\$'000 1,800 2,500 (2,000) 2,300	\$'000
(iv)	Non-controlling interest Salva's post-acquisition profit (see (i) above) Less: post-acquisition additional depreciation (w (i))	9,500 (500) 9,000 x 20%	= 1,800

## 2 (a) Sandown – Statement of comprehensive income for the year ended 30 September 2009

Revenue (380,000 – 4,000 (w (i))) Cost of sales (w (ii))	<b>\$'000</b> 376,000 (265,300)
Gross profit Distribution costs Administrative expenses (50,500 – 12,000 (w (iii))) Investment income Profit/gain on sale of available-for-sale investments (w (iv)) Finance costs (w (v))	110,700 (17,400) (38,500) 1,300 4,000 (1,475)
Profit before tax Income tax expense $(16,200 + 2,100 - 1,500 (w (vi)))$	58,625 (16,800)
Profit for the year	41,825
Other comprehensive income Gain on available-for-sale investments (w (iv)) Realised profit reclassified (recycled) to income on available-for-sale investment Total other comprehensive income	2,500 (1,800) 700
Total comprehensive income	42,525

#### (b) Sandown - Statement of financial position as at 30 September 2009

Assets	\$'000	\$'000
Non-current assets		
Property, plant and equipment (w (vii))		67,500
Intangible – brand (15,000 – 2,500 (w (ii))) Available-for-sale investments (at fair value)		12,500 29,000
/ Wallable for Sale investments (at fall value)		
Current assets		109,000
Inventory	38,000	
Trade receivables	44,500	
Bank	8,000	90,500
Total assets		199,500
Equity and liabilities Equity		
Equity shares of 20 cents each		50,000
Equity option		2,000
Other reserve (w (viii))		5,700
Retained earnings (26,060 + 41,825 – 12,000 dividend (w (iii)))		55,885
		113,585
Non-current liabilities  Deferred tax (w (vi))	2 000	
Deferred income (w (i))	3,900 2,000	
5% convertible loan note (w (v))	18,915	24,815
Current liabilities		
Trade payables	42,900	
Deferred income (w (i))	2,000	
Current tax payable	16,200	61,100
Total equity and liabilities		199,500

Workings (figures in brackets in \$'000)

(i) IAS 18 Revenue requires that 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 non-current liabilities.

### (ii) Cost of sales

0000 01 00100	
Per question	246,800
Depreciation – building (50,000/50 years – see below)	1,000
<ul><li>– plant and equipment (42,200 – 19,700) x 40%))</li></ul>	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 cents per share would amount to \$12 million (50 million x 5 (i.e. shares are 20 cents each) x 4·8 cents). This is not an administrative expense but a distribution of profits that should be accounted for through equity.

		4,000
	(8,800 carrying amount – 7,000 original cost)	1,800
	reclassified past revaluation gains (from other equity reserve):	
	gain in current year (11,000 proceeds – 8,800 carrying amount)	2,200
(iv)	The profit reported on the sale of the available-for-sale investment has two parts:	

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 statement of financial position at 30 September 2009.

		(vi)	Deferred tax credit balance required at 30 September 2009 (13,000 x 30%) balance at 1 October 2008	3,900 (5,400)
			credit (reduction in balance) to income statement	1,500
		(vii)	Non-current assets Freehold property (63,000 $-$ (8,000 $+$ 1,000)) (w (ii)) Plant and equipment (42,200 $-$ (19,700 $+$ 9,000)) (w (ii))	54,000 13,500
			Property, plant and equipment	67,500
		(viii)	Other reserve (re available-for-sale investments) at 1 October 2008 'reclassified' gain (w (iv)) increase in year ((w (iv))	5,000 (1,800) 2,500 5,700
3	(a)	(i)	Non-current assets Property, plant and equipment Carrying amount b/f Mine (5,000 + 3,000 environmental cost) Revaluation (2,000/0·8 allowing for effect of deferred tax transfer) Fair value of leased plant Plant disposal Depreciation Replacement plant (balance) Carrying amount c/f  Development costs Carrying amount b/f Additions during year Amortisation and impairment (balance)	\$'000 13,100 8,000 2,500 10,000 (500) (3,000) 2,400 32,500 2,500 500 (2,000)
			Carrying amount c/f	1,000
		(ii)	Cash flows from investing activities Purchase of property, plant and equipment (w (i)) Disposal proceeds of plant Development costs	(7,400) 1,200 (500)
			Net cash used in investing activities	(6,700)
			Cash flows from financing activities: Issue of equity shares (w (ii)) Redemption of convertible loan notes ((5,000 – 1,000) x 25%) Lease obligations (w (iii)) Interest paid (400 + 350)	2,000 (1,000) (3,200) (750)
			Net cash used in financing activities	(2,950)

Workings (figures in brackets in \$'000)

- (i) The cash elements of the increase in property, plant and equipment 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 ( $3,000/100 \times 20$ ) 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 non-current assets during the year reveals some mitigating points:

The land revaluation has increased the carrying amount of property, plant and equipment 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 non-current asset and he is substantially incorrect in respect of all of them.

The term non-current 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 non-current assets are of relatively high value this is not a defining aspect. A waste paper bin may exhibit the characteristics of a non-current 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 flowing from a resource (normally in the form of future cash inflows) that defines an asset according to the IASB's *Framework for the preparation and presentation of financial statements*.

The concept of ownership is no longer a critical aspect of the definition of an asset. It is probably the case that most non-current assets in an entity's statement of financial position 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 non-current assets will be used by an entity for more than one year and a part of the definition of property, plant and equipment in IAS 16 *Property, plant and equipment* refers to an expectation of use in more than one period, but this is not necessarily always the case. It may be that a non-current 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 non-currents during the time they were in use. A non-current asset may be within a year of the end of its useful life but (unless a sale agreement has been reached under IFRS 5 *Non-current assets held for sale and discontinued operations*) would still be reported as a non-current asset if it was still giving economic benefits. Another defining aspect of non-current assets is their intended use i.e. held for continuing use in the production, supply of goods or services, for rental to others or for administrative purposes.

- (b) (i) The expenditure on the training courses may exhibit the characteristics of an asset in that they have and will continue to bring future economic benefits by way of increased efficiency and cost savings to Darby. However, the expenditure cannot be recognised as an asset on the statement of financial position 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. Also the capitalisation of staff training costs is specifically prohibited under International Financial Reporting Standards (specifically IAS 38 Intangible assets).
  - (ii) The question specifically states that the costs incurred to date on the development of the new processor chip are research costs. IAS 38 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 non-current 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/reporting period 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 non-current 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.

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 profits 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) Comparative (basic) EPS (35 x $3\cdot60/3\cdot80$ )		cents cents
	Effect of rights issue (at below market price) 100 shares at \$3.80 25 shares at \$2.80	380 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 45 million x 9/12	9·50 33·75 43·25	million million million
	Diluted EPS for the year ended 30 September 2009 (\$15.6 million/45.75 million x 100) Adjusted earnings	34.1	cents
	15 million + (10 million x 8% x 75%) Adjusted number of shares	\$15.6	million
	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		2
			net assets acquired calculated as:		
			equity shares pre acquisition reserves		1 2
			fair value adjustments		1
		<i>(</i> )			6
		(11)	Carrying value of Ambra cost		1
			share of post-acquisition losses		1
			impairment charge		1 <b>3</b>
	(b)	(b) Income statement:			
			enue		2
			of sales ribution costs and administrative expenses		4 1
		inve	estment income		$2^{1}/_{2}$
			nce costs re of associate's losses and impairment charge		$\frac{1^{1}}{2}$
		inco	ome tax		1
			-controlling interests nain name not amortised		2
				Total for question	16 <b>25</b>
2	(a)		ement of comprehensive income		-1.
			enue Lof sales		1 <sup>1</sup> / <sub>2</sub> 3 <sup>1</sup> / <sub>2</sub> 1
		dist	ribution costs		1/2
			ninistrative expenses estment income		1
					1/ <sub>2</sub> 2
			it on sale of investments		
			nce costs		1
		inco			1 1 <sup>1</sup> / <sub>2</sub> 2
		inco	nce costs ome tax expense		$\frac{1}{1^{1}/_{2}}$
	(b)	othe State	nce costs ome tax expense or comprehensive income ement of financial position		1 1 <sup>1</sup> / <sub>2</sub> 2 13
	(b)	othe State	nce costs ome tax expense er comprehensive income ement of financial position perty, plant and equipment		1 1 <sup>1</sup> / <sub>2</sub> 2
	(b)	State properties of the state o	nce costs ome tax expense er comprehensive income  ement of financial position perty, plant and equipment and estments		1 1 <sup>1</sup> / <sub>2</sub> 2 13 2 1
	(b)	State properties of the state	ement of financial position perty, plant and equipment and estments entory/trade receivables		1 1 <sup>1</sup> / <sub>2</sub> 2 13 2 1 1 1 1/ <sub>2</sub> 1/ <sub>2</sub>
	(b)	State proper investing ban equi	ement of financial position perty, plant and equipment of estments entory/trade receivables k ity shares/equity option		1 1 <sup>1</sup> / <sub>2</sub> 2 13 2 1 1 1 1/ <sub>2</sub> 1/ <sub>2</sub>
	(b)	State properties of the state o	ement of financial position perty, plant and equipment and estments entory/trade receivables		1 1 <sup>1</sup> / <sub>2</sub> 2 13 2 1 1 1 1/ <sub>2</sub> 1/ <sub>2</sub> 1/ <sub>2</sub> 1/ <sub>2</sub> 1
	(b)	State properties of the control of t	ement of financial position perty, plant and equipment destments entory/trade receivables k ity shares/equity option er equity reserve ined earnings (1 for dividend) erred tax		1 1 <sup>1</sup> / <sub>2</sub> 2 13 2 1 1 1 1/ <sub>2</sub> 1/ <sub>2</sub> 1/ <sub>2</sub> 1 1 2 1
	(b)	State proper branch investigation of the state of the sta	ement of financial position perty, plant and equipment and estments entory/trade receivables k ity shares/equity option er equity reserve ined earnings (1 for dividend) erred tax -current deferred income loan note		$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
	(b)	State proper branch investinves ban equilibrium equilibrium equilibrium equilibrium equilibrium eta defenon 5% curr	ement of financial position perty, plant and equipment and estments entory/trade receivables k eity shares/equity option er equity reserve ined earnings (1 for dividend) erred tax -current deferred income loan note ent deferred income		1 1 <sup>1</sup> / <sub>2</sub> 2 13 2 1 1 1/ <sub>2</sub> 1/ <sub>2</sub> 1 1 2 1 1/ <sub>2</sub> 1 1/ <sub>2</sub>
	(b)	State proper branch investinves ban equilibrium equilibrium equilibrium equilibrium equilibrium eta defenon 5% curr	ement of financial position perty, plant and equipment and estments entory/trade receivables k ity shares/equity option er equity reserve ined earnings (1 for dividend) erred tax -current deferred income loan note ent deferred income e payables/current tax payable	Total for question	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$

					Marks
3	(a)	(i)	property, plant and equipment mine land revaluation leased plant plant disposal depreciation replacement plant		$ \begin{array}{cccc} 1^{1}/_{2} \\ 1^{1}/_{2} \\ 1 \\ 1 \\ 1 \\ \hline 7 \\ 2 \\ 9 \end{array} $
		(ii)	Investing activities purchase of property, plant and equipment disposal proceeds of plant development expenditure financing activities issue of equity shares redemption of convertible loan notes lease obligations		2 1/2 1 11/2 1 11/2 1
			loan interest		1 8
	(b)	supp	ulation of ROCE porting components ratios anatory comments – up to	Total for question	2 2 4 <b>8</b> <b>25</b>
		1		1	
4	(a) (b)		ark per valid point  o (iii)— 1 mark per valid point as indicated	Total for question	4 11 <b>15</b>
5	(a)	1 m	ark per valid point		4
	(b)	resta	c EPS for 2009 ated EPS for 2008 red EPS for 2009		3 1 2 <b>6</b>
				Total for question	10