Property, Plant and Equipment – Part 3 – Solutions to Examples

Solution to Example 1:

In accordance with IAS 16® Property, plant and equipment, all costs required to bring an asset to its present location and condition for its intended use should be capitalised. Therefore, the initial purchase price of the asset should be:

	$
List price	82,000
Less: trade discount (10%)	(8,200)
	73,800
Import duty	1,500
Delivery fees	2,050
Installation costs	9,500
Pre-production testing	4,900
Total amount to be capitalised at 1 March 20X0	**91,750**

The maintenance contract of $7,000 is an expense and therefore should be spread over a five-year period in accordance with the accruals concept and taken to the statement of profit or loss. If the $7,000 has been paid in full, then some of this cost will represent a prepayment.

In addition, the settlement discount received of $3,690 ($73,800 x 5%) should be credited to the statement of profit or loss.

The asset would be depreciated from the date it was ready for its intended use, even if not brought into use at that date.

Solution to Example 2:

PPE

This is an example of a self-constructed asset. All costs to get the store to its present location and condition for its intended use should be capitalised. All of the expenditure listed in the question, with the exception of general overheads, would qualify for capitalisation. The interest on the loan should also be capitalised from 1 April 20X1 as, in accordance with IAS 23 Borrowing Costs, it meets the definition of a qualifying asset. The definition of a qualifying asset is one that necessarily takes a substantial period of time to get ready for its intended use or sale.

The recognition criteria for capitalisation appears to be met i.e. activities to prepare the asset for its intended use are in progress, expenditure for the asset is being incurred and borrowing costs are being incurred. Capitalisation of the interest on the loan must cease when the asset is ready for use (i.e. 1 January 20X2), even though the asset was not brought into use until 1 April 20X2. From 1 January 20X2, any remaining interest for the period should be charged as a finance cost in the statement of profit or loss.

	$'000
Cost of land	4,500
Architect fees	620
Site preparation costs	1,650
Materials	7,800
Direct labour costs	11,200
Legal fees	2,400
Borrowing costs:	
(25,000 x 8% x 9 /12 months)	1,500
Total to be capitalised	**29,670**

Statement of profit or loss

The following costs should be charged to the statement of profit or loss for the year ended 31 March 20X2:

	$'000
General overheads	940
Remaining interest for Jan-Mar (25,000 x 8% x 3/12 months)	500

In addition, even though the asset has not been brought into use, IAS 16 states that depreciation of an asset begins when it is available for use (i.e. when it is in the location and condition necessary for it to be capable of operating in the manner intended by management). Therefore, depreciation should begin on 1 January 20X2.

Note: depreciation cannot be calculated in this question as information surrounding the useful life of the asset has not been provided – this is for illustrative purposes only.

Solution to Example 3:

The $18,000 should be capitalised as part of the cost of the asset rather than being expensed to the statement of profit or loss. The cost can be measured reliably and the reduction in the production time means that the revenue earning capacity of the machine has increased, which will in turn lead to additional economic benefits.

Solution to Example 4:

Extract of statement of profit or loss for the year ended 31 March 20X2:

	$
Depreciation expense	37,500

Extract of statement of financial position as at 31 March 20X2:

	$
Non-current assets	
Plant	112,500

Workings:

	$
Year ended 31 March 20X1	
Carrying amount at 1 April 20X1 (i.e. cost)	200,000
Depreciation at 25%	(50,000)
Carrying amount at year end	**150,000**
Year ended 31 March 20X2	
Carrying amount brought forward	150,000
Depreciation at 25%	(37,500)
Carrying amount at year end	**112,500**

Solution to Example 5:

31 March 20X1

At the date of acquisition, the cost of the machine of $120,000 would be capitalised. The asset should then be depreciated for the years to 31 March 20X1 and 31 March 20X2 as:

$$\frac{\text{Cost - residual value}}{\text{Useful life}} = \frac{120{,}000 - 20{,}000}{10 \text{ years}} = \$10{,}000 \text{ per year}$$

Extract of statement of profit or loss for the year ended 31 March 20X1:

	$'000
Depreciation expense	10

Extract of statement of financial position as at 31 March 20X1:

	$'000
Non-current assets	
Machinery (120 - 10)	110

31 March 20X2

Extract of statement of profit or loss for the year ended 31 March 20X2:

	$'000
Depreciation expense	10

Extract of statement of financial position as at 31 March 20X2:

	$'000
Non-current assets	
Machinery (120 - 20 (2 years x 10))	100

31 March 20X3

As the residual value and useful life estimates have changed at the start of the year, the depreciation charge will need to be recalculated and applied from 1 April 20X2:

$$\frac{\text{Carrying amount - residual value}}{\text{Useful life}} = \frac{100{,}000 - 15{,}000}{5 \text{ years}} = \$17{,}000 \text{ per year}$$

Extract of statement of profit or loss for the year ended 31 March 20X2:

	$'000
Depreciation expense	17

Extract of statement of financial position as at 31 March 20X2:

	$'000
Non-current assets	
Machinery (100 - 17)	83

Solution to Example 6:

	$'000
Land and buildings (65,000 – 20,000) / 50 years)	900
Fixtures and fittings (24,000 / 10 years)	2,400
Lifts (11,000 / 20 years)	550
Total property depreciation	**3,850**

Solution to Example 7

	$'000	
Carrying amount of non-current asset at revaluation date (100 – (100 x 2/40 years)	95	
Fair value	120	
Gain on revaluation	**25**	
	$'000	**$'000**
Dr Buildings – cost (120 – 100)	20	
Dr Buildings – accumulated depreciation (100 x 2/40 years)	5	
Cr Revaluation surplus		25

Note that the $25,000 revaluation gain which has been credited to the revaluation surplus would be recognised as a gain in other comprehensive income as well as being presented as a movement in the revaluation surplus in the statement of changes in equity.

Solution to Example 8

	$'000	
Carrying amount of non-current asset at revaluation date	108	
Fair value	95	
Loss on revaluation	**13**	
	$'000	**$'000**
Dr Revaluation surplus	10	
Dr Statement of profit or loss	3	
Dr Accumulated depreciation	17	
Cr Property – Value/cost		30

Note that the $10,000 portion of the revaluation decrease which has been debited to the revaluation surplus would be recognised as loss in other comprehensive income as well as being presented as a movement in the revaluation surplus in the statement of changes in equity.

Solution to Example 9

(a) Journal entries:

	$'000	**$'000**
Gain on revaluation:		
Dr Property - cost (20,000 – 10,000)	10,000	
Dr Property - accumulated depreciation ((10,000 – 2,000) x 10/40 years)	2,000	
Cr Revaluation surplus (W1)		12,000
Depreciation charge for year ended 31 March 20X2:		
Dr Depreciation expense ((20,000 – 8,000)/30 years remaining)	400	
Cr Property - accumulated depreciation		400
Reserves transfer (W2):		
Dr Revaluation surplus	200	
Cr Retained earnings		200

Workings:

(W1) Gain on revaluation	**$'000**
Carrying amount of property at revaluation date (10,000 – ((10,000 – 2,000) x 10/40 years))	8,000
Fair value	20,000
Gain on revaluation	**12,000**
(W2) Reserves transfer	
Historical cost depreciation charge ((10,000 – 2,000)/40 years)	200
Depreciation charge on revalued amount	400
Excess depreciation to be transferred	**200**

(b) Financial statements extracts:

Extract of statement of profit or loss and other comprehensive income for the year ended 31 March 20X2:

	$'000
Depreciation expense	400
Other comprehensive income:	
Gains on property revaluation	12,000

Extract of statement of financial position as at 31 March 20X2:

	$'000
Non-current assets	
Property (20,000 - 400)	19,600
Equity	
Revaluation surplus (12,000 - 200)	11,800

Extract of statement of changes in equity for the year ended 31 March 20X2:

	Revaluation surplus	**Retained earnings**
	$'000	**$'000**
Gains on property revaluation	12,000	-
Reserves transfer	(200)	200

Solution to Example 10

(a) Journal entries:

	$'000	**$'000**
Gain on revaluation:		
Dr Building - accumulated depreciation (100,000 x 5/40 years)	12,500	
Cr Building - cost (100,000 – 98,000)		2,000
Cr Revaluation surplus (W1)		10,500
Depreciation charge for year ended 31 March 20X2:		
Dr Depreciation expense (100,000 / 40 years)	2,500	
Cr Building - accumulated depreciation		2,500

Workings:

(W1) Gain on revaluation	**$'000**
Carrying amount of building at revaluation date (100,000 – (100,000 x 5/40 years)	87,500
Fair value	98,000
Gain on revaluation	10,500

Note: There is a gain on revaluation as the fair value of the building is greater than the carrying amount. However, the valuation of the building is still below the original cost and therefore requires a credit to the Buildings – cost account, despite there being an overall gain.

Also, as the revaluation has taken place at the end of the year, a full year of depreciation was charged before the revaluation. This means that there is no transfer of the revaluation surplus required as there was no excess depreciation in the year.

(b) Financial statements extracts:

Extract of statement of profit or loss and other comprehensive income for the year ended 31 March 20X6:

	$'000
Depreciation expense	2,500
Other comprehensive income:	
Gains on building revaluation	10,500

Extract of statement of financial position as at 31 March 20X6:

	$'000
Non-current assets	
Building	98,000
Equity	
Revaluation surplus	10,500

Extract of statement of changes in equity for the year ended 31 March 20X6:

	Revaluation surplus
	$'000
Gains on property revaluation	10,500

Solution to Example 11

(a) Journal entries:

	$'000	**$'000**
Depreciation charge (1 April 20X2 – 30 September 20X1) (W1):		
Dr Depreciation expense	20	
Cr Property - accumulated depreciation		20
Gain on revaluation:		
Dr Building - cost (2,200 – 2,000)	200	
Dr Building - accumulated depreciation (400 + 20)	420	
Cr Revaluation surplus (W2)		620
Depreciation charge (1 October 20X1 – 31 March 20X2) (W3):		
Dr Depreciation expense	28	
Cr Property - accumulated depreciation		28
Reserves transfer (W4):		
Dr Revaluation surplus	8	
Cr Retained earnings		8

Workings:

(W1) Depreciation: 1 April 20X1 – 30 September 20X1	**$'000**
2,000 / 50 years x 6/12 months	20
(W2) Gain on revaluation	
Carrying amount of property at revaluation date (2,000 - (400 + 20 (W1))	1,580
Fair value	2,200
Gain on revaluation	620
(W3) Depreciation: 1 October 20X1 – 31 March 20X2	
2,200 / 40 years x 6/12 months	28*
(W4) Reserves transfer	
Historical cost depreciation charge (W1)	20
Depreciation charge on revalued amount (W3)	28
Excess depreciation to be transferred	8

Note: As the revaluation has taken place six months into the year, this means that there is six months of excess depreciation to be transferred from the revaluation surplus to retained earnings in line with the company's policy.

*Rounded to nearest $'000.

(b) Financial statements extracts:

Extract of statement of profit or loss and other comprehensive income for the year ended 31 March 20X2:

	$'000
Depreciation expense (20 (W1) + 28 (W3))	48
Other comprehensive income:	
Gains on building revaluation	620

Extract of statement of financial position as at 31 March 20X2:

	$'000
Non-current assets	
Property (2,200 FV – 28 (W3))	2,172
Equity	
Revaluation surplus (620 - 8)	612

Extract of statement of changes in equity for the year ended 31 March 20X2:

	Revaluation surplus	**Retained earnings**
	$'000	**$'000**
Gains on property revaluation	620	-
Reserves transfer	(8)	8

Solution to Example 12:

The asset and its associated accumulated depreciation should be removed from the statement of financial position and a loss of $3,000 should be recorded in the statement of profit or loss.

Workings:

	$'000
Disposal proceeds	5,000
Carrying amount at disposal (16,000 – 8,000)	(8,000)
Loss on disposal	(3,000)

Written by a member of the Financial Reporting examining team