CHAPTER 10
PROPERTY, PLANT AND EQUIPMENT

Quick test

Question 1

(a) Day-to-day repair and maintenance costs of the machine should be written off to profit and loss as they are incurred. This will include the costs of small parts.

Alternatively the cost of an unexpected or one-off replacement of parts can be capitalised if the recognition criteria for property, plant and equipment (PPE) are met, i.e.:
(i) it is probable that future economic benefits associated with the cost will flow to the company; and
(ii) the cost can be measured reliably.
However if the replacement parts are capitalised, the parts they are replacing should be derecognised, and a profit or loss on their derecognition calculated.

The spare parts not used are usually carried in inventory and written off to profit and loss as they are used. Major spare parts may qualify as PPE if the company expects to use them during more than one period.

It is probable that £1,900 of the total repair and parts cost will be accounted for as repairs and maintenance expense. If considered material, or if this is the normal practice of the company, the £100 spare parts not used will be carried forward as inventory, otherwise this cost will also be written off.

(b) This is a type of cost which would be incurred at regular intervals. It is a subsequent cost that would be capitalised as part of the cost of the furnace. The carrying amount of the lining it replaced would be derecognised, and any profit or loss on derecognition recognised in profit or loss at this point.

(c) This is a cost which would be incurred at regular intervals and is necessary to enable the aircraft to continue to fly – in other words, to enable future economic benefits to flow to the company from its use. It is a subsequent cost that would be capitalised as part of the cost of the aircraft. Any remaining carrying amount of the cost of the previous inspection would be derecognised.

(d) The recognition of costs as PPE ceases once the item of PPE is in the location and condition necessary for it to be capable of operating in the manner intended by management. The costs of relocating the production staff to the location where the machine has been installed are not included in the carrying amount of the machine, and so the £3,000 would be written off to profit or loss.

Question 2

Statement of comprehensive income for the year ended 30 June

	20X3 £	20X4 £	20X5 £	20X6 £
Depreciation expense				
100,000/10	10,000	10,000		
150,000/8 [1]			18,750[1]	
Profit on sale				
200,000 – 131,250				68,750
In other comprehensive income				
Surplus on revaluation	-	-	70,000	
Transfer from revaluation reserve to retained earnings				(70,000)

[1] The revalued asset is depreciated over *its remaining useful life*.

Statement of financial position at 30 June

	20X3 £	20X4 £	20X5 £	20X6 £
PPE				
Cost / Revalued amount [2]	100,000	100,000	150,000[2]	
Acc. depreciation	10,000	20,000	18,750[2]	
Net book value	90,000	80,000	131 250	-
Alternative [3]				
PPE				
Revalued amount			187,500	
Acc. depreciation			56,250	
Net book value			131,250	-
Revaluation reserve				
150,000 – 80,000	-	-	70,000	-

[2] On revaluation, the asset cost account is increased to the revalued amount, and the accumulated depreciation account is cleared to zero.

[3] Under the alternative method of accounting, on revaluation both the asset cost and accumulated depreciation accounts are increased proportionately.
(New 'cost' = 150/80 x 100,000 = 187,500
New accumulated depreciation = 150/80 x 20,000 = 37,500)

Question 3

- The depreciation concept is an application of the matching principle, in the sense that depreciation is an allocation process which ensures that each period in the useful economic life of a non-current asset is assigned a fair share of the asset's cost.
- Most non-current assets have limited life expectancy, which implies that their value is decreasing over time. The depreciation process is intended to reflect this decrease in value (and, in that respect, the depreciation concept is also an application of the prudence principle, which requires that neither profit on the statement of profit or loss nor assets on the statement of financial position are overstated).
- As far as the accounting treatment is concerned, depreciation has a dual impact on the financial statements. First, it reduces profit, since it is charged as an expense in each year's statement of profit or loss. Second, it reduces the value of the non-current asset on the statement of financial position through the accumulated depreciation account, which "adds up" the depreciation charges across years.
- The concept of impairment is also related to the prudence principle, given that the purpose of conducting an impairment test is to ensure that the carrying amount of a non-current asset does not exceed its recoverable amount.
- Unlike the depreciation process which occurs every year, an impairment test is conducted whenever there are indications (external or internal) that an impairment might have taken place (although there are certain non-current assets, e.g. goodwill, for which an impairment test is conducted by default at each statement of financial position date).
- An impairment loss also has a dual impact on the financial statements. First, it reduces the value of the non-current asset on the statement of financial position, either directly or (most commonly) through an increase in the accumulated depreciation account.
- The impact of the impairment loss on the statement of profit or loss, however, will depend on the method that has been used to measure the non-current asset subsequently to its initial recognition (i.e. cost model v. revaluation model). If a non-current asset is measured at cost and an impairment loss is detected, then the whole amount will be charged as an expense in the year's statement of profit or loss. On the contrary, when the revaluation model is adopted, the accounting treatment of an impairment loss is similar to the treatment of a revaluation decrease, i.e. any previously created revaluation surplus must first be eliminated. This means that the amount that will be charged to the year's statement of profit or loss in respect of the impairment loss will be equal to the excess of the impairment loss over any previously created revaluation surplus.

Question 4

(a)

		£
At 1 January 20X2		
Cost		150,000
Accumulated depreciation	3 x (150,000 – 15,000)/10	(40,500)
Carrying amount		109,500
Fair value		60,000
Less: costs of disposal		(3,000)
		57,000

Asset would be revalued to fair value less costs of disposal of £57,000, and an impairment loss recorded in the statement of profit or loss at this date of:
£109,500 - £57,000 = £52,500

		£	£
Dr	Impairment loss	52,500	
Cr	Accumulated depreciation		52,500

At 30 June 20X5
An asset classified as held for sale is not depreciated.

The sale would be accounted for in the usual way:
Profit / loss on sale = Proceeds – Carrying amount
= £57,000 - £57,000
= Nil

(b) At 1 January 20X2
No change to impairment loss

At 30 June 20X5
Profit / loss on sale = Proceeds – Carrying amount
= £48,000 - £57,000
= £(9,000) loss
This loss would be recorded in profit and loss.

(c)

	£
At 1 January 20X2	
Carrying amount (from part (a))	109,500
Fair value	120,000
Less: costs of disposal	(4,500)
	115,500

As fair value less costs of disposal is greater than the carrying amount, there is no

impairment loss at the time of classification. The asset remains in the accounting records at its carrying amount of £109,500. It is not depreciated any further.

At 30 June 20X5
Profit / loss on sale = Proceeds – Carrying amount
= £115,000 - £109,500
= £5,500 profit
This profit would be recorded in profit and loss.

Develop your understanding

Question 5

The initial amount at which the plant would be measured is calculated as follows:

	£	£
Basic list price of plant		240,000
Less: trade discount of 12.5% on list price		(30,000)
		210,000
Ancillary costs:		
Shipping and handling costs	2,750	
Estimated pre-production testing	12,500	
		15,250
Site preparation costs:		
Electrical cable installation (14,000 – 6,000)	8,000	
Concrete reinforcement	4,500	
Own labour costs	7,500	
		20,000
Dismantling and restoration costs $(15,000 + 3,000)/(1.06)^{10}$		10,051
Initial cost of plant		255,301

Notes
1. Costs which may be recognised as PPE include the purchase price, after deducting trade discounts, plus any costs attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management, plus an estimate of any costs of dismantling and restoring the site on which it is located.
2. The early settlement discount (cash discount) is a revenue item (probably deducted from administration costs).
3. The maintenance cost is also a revenue item; although a proportion of it would be a prepayment at the end of the year of acquisition (the amount would be dependent on the date of acquisition).
4. The cost of the specification error must be charged to the statement of profit or loss.

5. The estimates of the dismantling and restoration costs would be accounted for as a provision under IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*, and discounted to their present value if this is considered material.

Question 6

(a)

		£
At 1 January 20X2		
Initial cost		336,000
Accumulated depreciation	2 x 336,000/12	(56,000)
Carrying amount		280,000
Revalued amount		120,000
Revaluation decrease		160,000

This impairment loss is recognised in profit and loss since there is no prior revaluation surplus relating to this asset.

		£
At 1 January 20X7		
Revalued amount		120,000
Accumulated depreciation	5 x 120,000/10	(60,000)
Carrying amount		60,000
Revalued amount		144,000
Surplus on revaluation		84,000

This revaluation surplus is recognised in profit and loss in full since it reverses part of the revaluation decrease recognised in profit and loss at 1 January 20X2.

(b)

	£
At 1 January 20X2	
Carrying amount (from part (a))	280,000
Revalued amount	400,000
Revaluation surplus	120,000

This impairment loss is recognised in other comprehensive income and a revaluation surplus account created in reserves (equity).

		£
At 1 January 20X7		
Revalued amount		400,000
Accumulated depreciation	5 x 400,000/10	(200,000)
Carrying amount		200,000

Revalued amount	144,000
Revaluation decrease	56,000

This revaluation decrease is debited to the revaluation surplus account in full, leaving a balance on this account of £64,000.

Note
The company may have transferred the extra depreciation charged on the revalued asset from 1 January 20X2 from the revaluation surplus to retained earnings. If this were the case, this would amount to:
5 x 400,000/10 – 5 x 336,000/12 = £60,000

		£	£
Dr	Revaluation surplus	60,000	
Cr	Retained earnings		60,000

The balance on the revaluation surplus at 1 January 20X7 will be:
£120,000 - £60,000 = £60,000

This is sufficient to cover the revaluation decrease of £56,000 at 1 January 20X7, which will be debited in full to the revaluation surplus leaving a balance on this account of £4,000.

Question 7

Extracts of notes to the financial statements for the year ended 31 December 20X7

1 Accounting policies
Property, plant and equipment
Freehold land and buildings are stated at a valuation. Other tangible non-current assets are stated at cost, together with any incidental expenses of acquisition.

Depreciation is calculated so as to write off the net cost or valuation of tangible non-current assets over their expected useful lives. Depreciation charges commence when an asset becomes available for use. The rates and bases used are as follows.

Freehold land and buildings	2%	Straight-line
Plant and equipment	10%	Straight-line
Office fixtures and fittings	20%	Straight-line
Motor vehicles	30%	Reducing balance

2 Profit from operations is stated after charging

	£000
Depreciation of property, plant and equipment	562

Property, plant and equipment disclosure note

	Freehold land and buildings	*Plant and equipment*	*Motor vehicles*	*Office fixtures and fittings*	*Total*
Cost or valuation	£000	£000	£000	£000	£000
At 1 January 20X7	2,880	3,936	898	1,776	9,490
Additions	1,000	150	70	44	1,264
Revaluations (W1)	1,520	–	–	–	1,520
At 31 December 20X7	5,400	4,086	968	1,820	12,274
Depreciation					
At 1 January 20X7	288	514	388	1,166	2,356
Revaluation adjustment (W1)	(288)	–	–	–	(288)
Charge for year	120 (W2)	465 (W5)	174 (W3)	364 (W4)	1,123
At 31 December 20X7	120	979	562	1,530	3,191
Carrying amount					
At 31 December 20X7	5,280	3,107	406	290	9,083
At 1 January 20X7	2,592	3,422	510	610	7,134

(i) Freehold land and buildings were valued for the purposes of the 20X7 accounts at open market value, with subsequent additions at cost. Their historical cost is £3,880,000 (W6) and the related accumulated depreciation is £366,000 (W6).

(ii) The company's depreciation policy on motor vehicles has been changed from a rate of 25% per annum on cost to a rate of 30% per annum on reducing balance in order to give a more relevant presentation of the results and of the financial position. The effect of this change has been to reduce the depreciation charge for the year by £68,000 (£242,000 – £174,000).

Workings

W1 Freehold land and buildings revaluation

		£000	£000
Dr	Freehold land and buildings (ß)	1,520	
Dr	Accumulated depreciation	288	
Cr	Revaluation surplus (4,400 – 2,592)		1,808

W2 Freehold land and buildings depreciation charge

Valuation / cost at 1 January 20X7	£5,400,000
Remaining useful life	45 years
Annual depreciation charge = 5,400,000 / 45 years	£120,000

W3 Motor vehicles depreciation charge

	£000
Carrying amount at 1 January 20X7	510
Additions	70
	580
Depreciation – reducing balance method @ 30%	174

W4 Fixtures and fittings depreciation charge

	£000
Cost at 31 December 20X7	1,820
Depreciation – straight-line method @ 20%	364

W5 Plant and equipment depreciation charge

	£000
Cost at 1 January 20X7	3,936
Less: Grinding machine	(596)
Add: Purchases for factory extension	150
	3,490
Depreciation – straight-line method @ 10%	349

Grinding machine – cost less residual value (596 – 16)	580
Accumulated depreciation at 1 January 20X7	(116)
Carrying amount	464

The carrying amount must be written off over the machine's remaining useful life of four years.

	£000
Depreciation charge $\frac{464{,}000}{4 \text{ years}}$	116

Total depreciation charge for plant	£000
Grinding machine	116
Other plant	349
	465

W6 Historical cost depreciation on freehold land and buildings

	£000
Cost at 1 January 20X7	2,880
Addition – extension	1,000
Cost at 31 December 20X7	3,880

Accumulated depreciation at 1 January 20X7	288
Depreciation charge at 2%	78
Accumulated depreciation at 31 December 20X7	366

Take it further

Question 8

(a) Statement of financial position at 31 January 20X9

Non-current assets **Property, plant and equipment**	**Land and buildings** £	**Plant and machinery** £	**Office equipment** £
Cost or valuation			
At 1 February 20X8	1,800,000	1,531,800	427,680
Classified as held for sale (W2)		(60,000)	
At 31 January 20X9	1,800,000	1,471,800	427,680
Accumulated depreciation			
At 1 February 20X8	378,000	1,055,160	242,480
Impaired workshop (W1)	122,250		
Classified as held for sale (W2)		(37,500)	
Depreciation for year (W3)	15,810	380,450	85,536
At 31 January 20X9	516,060	1,398,110	328,016
NBV at 31 January 20X9	1,283,940	73,690	99,664

Workings

1. Impaired workshop

Value at 31 Jan 20X6		252,000
Accumulated depreciation to 31 Jan 20X9	(252,000/48 x 3)	(15,750)
Carrying amount at 31 Jan 20X9		236,250
Recoverable amount		
Higher of:Fair value less costs of disposal	(120,000 – 6,000)	114,000
Value in use		108,000
Impairment loss	(236,250 – 114,000)	122,250

Treat as revaluation deficit to the extent a revaluation reserve exists.

Original cost at 1 Feb 20X4		180,000
Accumulated depreciation to date of revaluation 31 Jan 20X6	(2 x 180,000/50)	(7,200)
NBV at revaluation		172,800
Revaluation		252,000
Transfer to revaluation reserve*		79,200
Treatment of impairment loss:		
Written off against revaluation reserve*		79,200
Expensed through statement of profit or loss		43,050

		122,250

* It has been assumed that Sacramento does not transfer the excess depreciation arising from the revaluation from the revaluation reserve to retained earnings.

2. Machinery classified as held for sale at year-end

Cost on 1 June 20X6		60,000
Accumulated depreciation to 31 Jan 20X8	($1\ ^{8}/_{12}$ x 25% x 60,000)	(25,000)
Depreciation for 10 months 1 Feb – 1 December 20X8	($^{10}/_{12}$ x 25% x 60,000)	(12,500)
Carrying amount at 1 December 20X8		22,500
Fair value less costs of disposal	(13,200 – 1,800)	11,400
Impairment loss on reclassification		11,100

3. Depreciation for year

Buildings value at 1 Feb 20X8	(1,800,000 – 1,020,000)	780,000
Less: Impaired workshop		252,000)
		528,000
Annual depreciation	(528,000/50)	10,560
Depreciation on impaired workshop	(252,000/48)	5,250
		15,810
Plant & machinery cost at 1 Feb 20X8		1,531,800
Less: Machinery classified as held for sale		(60,000)
Cost of P&M to be depreciated for whole year		1,471,800
Annual depreciation on assets above	(25% x 1,471,800)	367,950
Depreciation on asset reclassified as held for sale (see W2)		12,500
		380,450
Office equipment cost at 1 Feb 20X8		427,680
Annual depreciation on these assets	(20% x 427,680)	85,536
Total depreciation expense	(15,810 + 380,450 + 85,536)	481,796

(b) Relevance

The choice of the revaluation model, which uses fair value, allows companies to give up-to-date values rather than old historical values. This gives a better approximation of what assets are worth, and may be considered to provide better decision-relevant information. On the other hand a revaluation accounting policy does not alter cash flow which is the basis of the decision-relevance objective of financial reporting. The separate depreciation of each component of an item of PPE, required by IAS 16, is also considered to provide more relevant information.

Separate disclosures of assets which are held for sale and not used in the business ensures that users can discern which assets are underpin the operating returns, and which will be available in the future to do so, information that is relevant to their assessment of the financial performance and position of the business.

Faithful representation

The disclosures of different classes of assets, together with their separate cost or revaluations and accumulated depreciation and any other changes to these figures, including impairment, provide information that is faithfully representative of the PPE that a business has.

The choice of depreciation method and the estimates in determining this should be done in a neutral way to faithfully represent how a particular asset is to be used and for how long. This should not be influenced by the desire to achieve a particular profit or loss.

Impairment ensures that non-current assets are not included at a value in excess of what they are worth to a business, and thus give misleading information.

Comparability

Disclosure of accounting policies in respect of measurement bases and depreciation methods allows comparison between different companies.

Disclosure of opening and closing figures of both cost and/or revalued amounts allows comparison of assets from one year to the next.

Cost and revaluation models can be compared since historic cost information must also be disclosed even if a company adopts the revaluation model.

If companies change estimates relating to depreciation, disclosures must be made of the effect of this.

Recognition criteria in terms of what may be recognised as part of the cost of an item aids comparability of businesses.

Verifiability

Although the revaluation model may be considered to provide more relevant information, this is seen as less reliable than the cost model. Revaluations are based on fair value which may require judgement and opinion, whereas historic cost is based on fact.

Much judgement is required though in estimations of useful life, expected residual value and pattern of usage for depreciation purposes. Although businesses will base these estimates on their experiences, these estimates are still based on judgement, and are less verifiable.

Understandability

IAS 16 requires disclosures to be given by each class of property, plant and equipment. The format of the information in the note to financial statements, showing a reconciliation of the opening and closing balances with all the changes for each class of asset is a clear and understandable method of disclosing the transactions in PPE during a reporting period. For example, information about asset purchases and disposals, and reclassifications as assets held for sale during the year are required to be provided. These transactions may involve significant amounts.

The disclosure of depreciation policies aids understanding about asset lives.

Comparability
Disclosure of accounting policies in respect of measurement bases and depreciation methods allows comparison between different companies.
Disclosure of opening and closing figures allows comparison from one year to the next.
Cost and revaluation models can be compared since if a company adopts the revaluation model, historic cost information must also be disclosed.
If companies change estimates relating to depreciation, disclosures must be made of the effect of this.

Question 9

The question requires a schedule of non-current assets for the year ended 31 December 20X7 (similar to the disclosures companies make in their financial statements). This requires opening balances on Cost and Accumulated depreciation accounts for each class of asset, i.e. at 1 January 20X7 (31 December 20X6), all movements in the year 20X7, and the resulting closing balances.

Vehicles

Cost summary	£	£
Cost at 1/1/X3 and **1/1/X6**		990,000
Addition in year **20X6** (1/7/X6)		
Cash price (allowed)	30,000	
Repairs to eliminate rust (allowed)	2,300	
Major engine servicing (allowed)	480	
Replacement of tyres (allowed W1)	550	
Marketing campaign costs (not allowed W2)	-	33,330
Cost at **31/12/X6** (i.e. 1/1/X7)		1,023,330
No addition / disposal in year 20X7		-
Cost at **31/12/X7**		1,023,330

W1 £690 - £140 = £550.
The £140 related to the cost of correcting the error of the mis-specified tyres is an "abnormal cost", and will therefore be expensed (i.e. not included in the cost of the assets in question).

W2 The £15,000 advertising costs will also be expensed, since they cannot be treated as "costs directly attributable" to the assets in question.

Accumulated depreciation summary
Annual depreciation on original vehicles = 990,000/15 = £66,000 p.a.

		£	£
Accumulated depreciation at **1/1/X6**	(3 x 66,000)		198,000
Depreciation expense for **20X6**			
On existing vehicles		66,000	
On new vehicles	(33,330 /15 x ½ yr)	1,111	67,111
Accumulated depreciation at **31/12/X6**			265,111

Depreciation expense for **20X7**	
1,023,330 / 15	68,222
Accumulated depreciation at **31/12/X7**	333,333

Buildings
(Alternative method of accounting for the revaluation shown at the end of this solution **)

Cost / revaluation summary	£
Cost at **1/1/X6**	600,000
Less: Accumulated depreciation (600,000/10 x 1 year)	60,000
Carrying amount immediately before revaluation	540,000
Revaluation on 1/1/X6	
Revaluation surplus (W1)	90,000
Fair value at 1/1/X6 (W1)	630,000
No disposal / addition / further revaluation in **20X6** or **20X7**	-
Revaluation at **31/12/X7**	630,000

Accumulated depreciation summary
Prior to first revaluation, depreciation charge = 600,000/10 = £60,000 p.a.

	£
At **1/1/X6**	60,000
On 1/1/X6 balance transferred to cost account	(60,000)
	-
Depreciation expense for **20X6** (700,000 / 10)	70,000
Accumulated depreciation at **31/12/X6**	70,000
Depreciation expense for **20X7** (700,000 / 10)	70,000
	140,000
Impairment loss (W2)	80,000
Accumulated depreciation at **31/12/X7**	220,000

NBV at 31/12 X7 = 630,000 – 220,000 = £410,000 (recoverable amount)

W1

Gross replacement cost (600,000 x 7/6)	700,000
Accumulated depreciation based on gross replacement cost for 1 year (60,000 x 7/6)	70,000
Fair value at 1/1/X6	630,000
Less: carrying amount immediately before revaluation	540,000
Revaluation surplus	90,000

W2 Impairment

Carrying amount at 31/12/X7 prior to impairment	
Revalued amount	630,000
Less: Accumulated depreciation (70,000 x 2 years)	140,000
	490,000

Value in use £410,000 > Net selling price £380,000
Recoverable amount = £410,000
The buildings are clearly impaired as the carrying amount immediately prior to the revaluation is more than the recoverable amount.
Impairment loss = 490,000 – 410,000 = £80,000

Software

Cost summary		£
Cost at **1/07/X5** (date acquired) and **1/1/X6**		250,000
No addition / disposal in 20X6 or 20X7		-
Cost at **31/12/X6** and **31/12/X7**		250,000

Accumulated amortisation summary	£	£
Amortisation expense for **20X5** (250,000 / 5 x ½ year)		25,000
Accumulated amortisation at **31/12/X5**		25,000
NBV at 1/1/X6 (prior to impairment) (250,000 – 25,000)	225,000	
Estimated recoverable amount (market value)	75,000	
Impairment loss at **1/1/X6**		150,000
Amortisation expense for **20X6** (75,000 / 3)		25,000
Accumulated amortisation at **31/12/X6**		200,000
Amortisation expense for **20X7** (75,000 / 3)		25,000
Accumulated amortisation at **31/12/X7**		225,000

Non-current assets schedule for year-ended 31 December 20X7

Tangible Assets	***Vehicles***	***Buildings***	**Intangible Assets**	***Software***
Cost			**Cost**	
At 01.01.X7	1,023.330	630,000	At 01.01.X7	250,000
Additions	--	--	Additions	--
Disposals	--	--	Disposals	--
Revaluation	--	--	Revaluation	--
At 31.12.X7	1,023,330	630,000	At 31.12.X7	250,000
Accumulated depreciation			**Accumulated amortisation**	
At 01.01.X7	265,111	70,000	At 01.01.X7	200,000
Provided during the year	68,222	70,000	Provided during the year	25,000
Disposals	--	--	Disposals	--
Impairment	--	80,000	Impairment	--
At 31.12.X7	333,333	220,000	At 31.12.X7	225,000
NBV 01.01.X7	758,219	560,000	NBV 01.01.X7	50,000
NBV 31.12.X7	689,997	410,000	NBV 31.12.X7	25,000

**** Buildings - alternative method**

Cost / revaluation summary	£
Cost at **1/1/X6**	600,000
Revaluation on 1/1/X6	
Gross up cost (W1)	100,000
	700,000
No disposal / addition / further revaluation in **20X6** or **20X7**	-
Revaluation at **31/12/X7**	700,000

Accumulated depreciation summary

Prior to first revaluation, depreciation charge = 600,000/10 = £60,000 p.a.

	£
At **1/1/X6**	60,000
Revaluation on 1/1/X6	
Gross up accumulated depreciation (W1)	10,000
	70,000
Depreciation expense for **20X6** (700,000 / 10)	70,000
Accumulated depreciation at **31/12/X6**	140,000
Depreciation expense for **20X7** (700,000 / 10)	70,000
	210,000
Impairment loss (W2)	80,000
Accumulated depreciation at **31/12/X7**	290,000

NBV at 31/12 X7 = 700,000 – 290,000 = £410,000 (recoverable amount)

W1

Gross replacement cost (600,000 x 7/6)	700,000
Accumulated depreciation based on gross replacement cost for 1 year (60,000 x 7/6)	70,000
Fair value at 1/1/X6	630,000
Less: carrying amount immediately before revaluation	540,000
Revaluation surplus	90,000

Non-current assets schedule for year-ended 31 December 20X7 will show buildings as:

Tangible Assets

	Buildings
Cost	
At 01.01.X7	700,000
Additions	--
Disposals	--
Revaluation	--
At 31.12.X7	700,000

Accumulated depreciation	
At 01.01.X7	140,000
Provided during the year	70,000
Disposals	--
Impairment	80,000
At 31.12.X7	290,000
NBV 01.01.X7	560,000
NBV 31.12.X7	410,000

Question 10

A plc
Statements of comprehensive income for the year ended 30 June

	20X3 £	20X4 £	20X5 £	20X6 £
Depreciation expense				
120,000/40	3,000	3,000[1]		
160,000/50			3,200[1]	
Loss on revaluation				
376,800 - 290,000 - 86,000			800[2]	
Profit on sale				
320,000 - 290,000				30,000
In other comprehensive income				
Surplus on revaluation				
380,000 - 294,000		86,000		
Loss on revaluation[2]			(86,000)	

[1] Since the revaluation has occurred on the last day of the year, depreciation has been based on the value and life at the beginning of the year.
[2] See below

Statements of financial position at 30 June

	20X3 £	20X4 £	20X5 £	20X6 £
PPE - Freehold land and buildings				
Cost – Land	180,000			
- Buildings	120,000			
Acc. depreciation				
Net book value	(3,000)			-
	297,000			
PPE – Freehold land and				

buildings at valuation				
Land		220,000	190,000	
Buildings		160,000	100,000	
		380,000	290,000	-
Revaluation reserve				
Revaluation amount		380,000		
NBV at revaluation		294,000		
(after 2 years of depreciation)	-	86,000	- [2]	-

[2] Revaluation deficit at 30/6/X5:

Revaluation amount	290,000
NBV at revaluation (380,000 - 3,200)	376,800
	(86,800)

This deficit can be offset against the revaluation reserve to the extent that it exists £(86,000), and the remainder £(800) must be charged to the statement of comprehensive income.

B plc

Statements of comprehensive income for the year ended 30 June

	20X3 £	20X4 £	20X5 £	20X6 £
Depreciation expense				
120,000/40	3,000	3,000		
114,000/50			2,280	
Impairment loss			11,720[3]	
Profit on sale				
320,000 – 280,000				40,000

Statements of financial position at 30 June

	20X3 £	20X4 £	20X5 £	20X6 £
PPE - Freehold land and buildings				
Cost – Land	180,000	180,000	180,000	
- Buildings	120,000	120,000	120,000	
Acc. Depreciation	(3,000)	(6,000)	(8,280)	
Impairment[3]	-	-	(11,720)	
Net book value	297,000	294,000	280,000	-

[3] Even though B includes properties at depreciated cost, the company has to account for the impairment loss on the buildings at 30/6/X5.

Impairment loss:

Cost	120,000

Accumulated depreciation (3,000 + 3,000 + 2,280)	8,280
NBV	111,720
Buildings recoverable amount following impairment review	100,000
Impairment loss	11,720

Note – the land remains at cost (since the impairment review gives a higher recoverable amount).

C plc

Statements of comprehensive income for the year ended 30 June

	20X4	20X5	20X6
	£	£	£
Increase in fair value	80,000		
Decrease in fair value		(90,000)	
Profit on sale 320,000 - 290,000			30,000

Statements of financial position at 30 June

	20X3	20X4	20X5	20X6
	£	£	£	£
Investment property at valuation	300,000	380,000	290,000	-

Note

Compare the total impact on the statements of comprehensive income over the four years (losses in brackets):

	A	B	C
	£	£	£
20X3	(3,000)	(3,000)	
20X4	(3,000)	(3,000)	80,000
20X5	(4,000)	(14,000)	(90,000)
20X6	30,000	40,000	30,000
	20,000	20,000	20,000

It should not be surprising that over the four years the total net effect is the same in each company. However the impact on reported profits each year is different, and clearly there are significant differences on the statement of financial position asset values and reserves.

Question 11

(a)
Carrying amount:

	Division X	***Division Y***
	£000	£000
Goodwill	8,000	1,000
Property, plant and equipment	36,000	10,000
Inventories and receivables	9,000	8,000
	53,000	19,000

Value-in-use:

	Division X			***Division Y***		
	Cash flow	*Discount factor*	*Discounted cash flow*	*Cash flow*	*Discount factor*	*Discounted cash flow*
	£000		£000	£000		£000
20X2	8,000	1/1.12	7,143	3,200	1/1.1	2,909
20X3	9,000	$1/1.12^2$	7,175	2,400	$1/1.1^2$	1,983
20X4	7,200	$1/1.12^3$	5,125	3,600	$1/1.1^3$	2,705
20X5	9,600	$1/1.12^4$	6,101	4,000	$1/1.1^4$	2,732
20X6	6,000	$1/1.12^5$	3,405	4,500	$1/1.1^5$	2,794
20X7	12,000	$1/1.12^6$	6,080	4,800	$1/1.1^6$	2,709
			35,029			15,832

Fair value less costs to sell:	28,000	20,000

Recoverable amount:
Higher of value-in-use and fair value less costs of disposal

	35,029	20,000

Division X is impaired because its recoverable amount is less than its carrying amount.

Division Y is not impaired since its carrying amount is less than its recoverable amount.

(b)
Division X
An impairment loss of £53m – £35.029m = £17.971 million is recognised in profit and loss. This is allocated to the assets of the CGU firstly to goodwill (£8m), and the remainder (£9.971m) to the other assets. This is done in proportion to their carrying amounts; however no asset should be reduced to below its own recoverable amount. So no loss should be allocated to inventories (already measured at the lower of cost and net realisable value) or trade receivables (already reduced by any allowance for uncollectability). Hence the remainder of the impairment loss is allocated against property, plant and equipment.

	Carrying amount	*Impairment loss*	*Revised balance*
	£000	£000	£000
Goodwill	8,000	(8,000)	-
Property, plant and equipment	36,000	(9,971)	26,029
Inventories and receivables	9,000	-	9,000
	53,000	(17,971)	35,029