**Solutions Manual**

to accompany

Applying International Financial Reporting Standards 3e

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# Chapter 11 - Property, plant and equipment

# Discussion Questions

**1. What assets constitute property, plant and equipment?**

Para 6 of IAS 16 defines PPE as follows:

Property, plant and equipment are tangible items that:

(a) are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes; and

(b) are expected to be used during more than one period.

**2. What are the recognition criteria for property, plant and equipment?**

Para 7 of IAS 16 contains the following recognition criteria:

The cost of an item of property, plant and equipment shall be recognised as an asset if, and only if:

(a) it is probable that future economic benefits associated with the item will flow to the entity; and

(b) the cost of the item can be measured reliably.

**3. How should items of property, plant and equipment be measured at point of initial recognition, and would gifts be treated differently from acquisitions?**

Para 15 of IAS 16 requires the initial measurement to be at cost.

The measurement rule applies regardless of how the entity obtains the asset. A gift has a zero cost.

**4. How is cost determined?**

Para 16 states:

The cost of an item of property, plant and equipment comprises:

(a) its purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates.

(b) any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management.

(c) the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located, the obligation for which an entity incurs either when the item is acquired or as a consequence of having used the item during a particular period for purposes other than to produce inventories during that period.

**5. What choices of measurement model exist subsequent to assets being initially recognised?**

Para 29 of IAS 16 states:

An entity shall choose either the **cost model** in paragraph 30 or the **revaluation model** in paragraph 31 as its accounting policy and shall apply that policy to an entire class of property, plant and equipment.[[1]](#footnote-1)

**6. What factors should entities consider in choosing alternative measurement models?**

*Relevance of information provided*: generally current information is preferred to past information.

*Reliability of the information*: cost measures are generally more reliable than valuation measures.

*Cost of providing the information*: Adoption of the valuation model entails costs of valuation and audit.

**7. What is meant by ‘depreciation expense’?**

Para 6 of IAS 16 defines depreciation as:

Depreciation is the systematic allocation of the depreciable amount of an asset over its useful life

**8. How is useful life determined?**

Para 6 of IAS 16 states:

Useful life is:

(a) the period over which an asset is expected to be available for use by an entity; or

(b) the number of production or similar units expected to be obtained from the asset by an entity

Paras 56-57 state:

56. The future economic benefits embodied in an asset are consumed by an entity principally through its use. However, other factors, such as technical or commercial obsolescence and wear and tear while an asset remains idle, often result in the diminution of the economic benefits that might have been obtained from the asset. Consequently, all the following **factors** are considered in determining the useful life of an asset:

(a) expected **usage** of the asset. Usage is assessed by reference to the asset's expected capacity or physical output.

(b) expected **physical wear and tear**, which depends on operational factors such as the number of shifts for which the asset is to be used and the repair and maintenance program, and the care and maintenance of the asset while idle.

(c) **technical or commercial obsolescence** arising from changes or improvements in production, or from a change in the market demand for the product or service output of the asset.

(d) **legal or similar limits on the use** of the asset, such as the expiry dates of related leases.

57. The useful life of an asset is defined in terms of the asset's expected utility to the entity. The asset management policy of the entity may involve the disposal of assets after a specified time or after consumption of a specified proportion of the future economic benefits embodied in the asset. Therefore, the useful life of an asset may be shorter than its economic life. The estimation of the useful life of the asset is a matter of **judgement based on the experience of the entity with similar assets**.

**9. What is meant by ‘residual value’ of an asset?**

Para 6 of IAS 16 states:

The residual value of an asset is the estimated amount that an entity would currently obtain from disposal of the asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life.

**10. How does an entity choose between depreciation methods, for example, straight-line versus diminishing-balance models?**

Para 60 of IAS 16 states:

The depreciation method used shall reflect the pattern in which the asset's future economic benefits are expected to be consumed by the entity.

Choice is based on which method best reflects the pattern of benefits expected to be consumed by a specific asset given its use in a specific entity.

**11. What is meant by ‘significant parts depreciation’?**

Note paras 43-47 of IAS 16:

43. **Each part** of an item of property, plant and equipment with a cost that is **significant** in relation to the total cost of the item shall be depreciated separately.

44. An entity allocates the amount initially recognised in respect of an item of property, plant and equipment to its significant parts and **depreciates separately each such part**. For example, it may be appropriate to depreciate separately the airframe and engines of an aircraft, whether owned or subject to a finance lease.

45. A significant part of an item of property, plant and equipment may have a useful life and a depreciation method that are the same as the useful life and the depreciation method of another significant part of that same item. Such parts may be **grouped** in determining the depreciation charge.

46. To the extent that an entity depreciates separately some parts of an item of property, plant and equipment, it also depreciates separately the **remainder** of the item. The remainder consists of the parts of the item that are individually not significant. If an entity has varying expectations for these parts, approximation techniques may be necessary to depreciate the remainder in a manner that faithfully represents the consumption pattern and/or useful life of its parts.

47. An entity may **choose** to depreciate separately the parts of an item that do not have a cost that is significant in relation to the total cost of the item.

Components depreciation means breaking an asset down into its component parts for separate depreciation of those parts.

**12. Under the revaluation model, how is a revaluation increase accounted for?**

Para 39 of IAS 16 states:

If an asset's carrying amount is increased as a result of a revaluation, the increase shall be recognized in other comprehensive income and accumulated equity under the heading of revaluation surplus. However, the increase shall be recognised in profit or loss to the extent that it reverses a revaluation decrease of the same asset previously recognised in profit or loss.

**13. Under the revaluation model, how is a revaluation decrease accounted for?**

Para 40 of IAS 16 states:

If an asset's carrying amount is decreased as a result of a revaluation, the decrease shall be recognised in **profit or loss**. However, the decrease shall be recognized in other comprehensive income to the extent of any **credit balance** existing in the revaluation surplus in respect of that asset. The decrease recognized in other comprehensive income reduces the amount accumulated in equity under the heading of revaluation surplus.

**14. When, and why, must tax-effect be considered in accounting for revaluation increases and decreases?**

Para 42 of IAS 16 states:

The effects of taxes on income, if any, resulting from the revaluation of property, plant and equipment are recognised and disclosed in accordance with IAS 12 *Income Taxes.*

Tax-effects are accounted for at the point of revaluation only when there is an effect on the asset revaluation surplus. This is because of the recognition of equity at that point.

Where revaluation decrements occur, any tax-effect is calculated at the end of the period when the balance day adjustment for tax is determined.

**15. Should accounting for revaluation increases and decreases be done on an asset-by-asset basis or on class-of-assets basis?**

Paras 36-38 of IAS 16 state:

36. If an item of property, plant and equipment is revalued, the **entire class** of property, plant and equipment to which that asset belongs shall be revalued.

37. A **class** of property, plant and equipment is a grouping of assets of a similar nature and use in an entity's operations. The following are examples of separate classes:

(a) land;

(b) land and buildings;

(c) machinery;

(d) ships;

(e) aircraft;

(f) motor vehicles;

(g) furniture and fixtures; and

(h) office equipment.

38. The items within a class of property, plant and equipment are revalued simultaneously to avoid selective revaluation of assets and the reporting of amounts in the financial statements that are a mixture of costs and values as at different dates. However, a class of assets may be revalued on a rolling basis provided revaluation of the class of assets is completed within a short period and provided the revaluations are kept up to date.

**16. What differences occur between asset-by-asset or class of asset bases in accounting for revaluation increases and decreases?**

Using an asset-by asset basis means that decrements affect the profit or loss for the period while increments are taken directly to equity.

With a class basis, by netting off increments and decrements within a class, there will be a net effect, affecting either profit or loss or equity depending on whether decrements are greater than or less than increments.

**17. When should property, plant and equipment be derecognised?**

Para 67 of IAS 16 states:

The carrying amount of an item of property, plant and equipment shall be derecognised:

(a) on disposal; or

(b) when no future economic benefits are expected from its use or disposal.

**Exercises**

**Exercise 11.1 FAIR VALUE BASIS FOR MEASUREMENT**

**The management of an entity has decided to use the fair value basis for the measurement of its equipment. Some of this equipment is very hard to obtain and has in fact increased in value over the current period. Management is arguing that, as there has been no decline in fair value, no depreciation should be charged on these pieces of equipment. Discuss.**

Para 50 of IAS 16 notes that depreciation is a process of allocation. Depreciation is not a change in value.

Depreciation is measuring the change in value due to the use of an asset over the period, and not changes in value due to other factors such as changes in customer tastes.

The consumption of benefits is considered to be separate from changes in the fair value of an asset.

Consider the example [in section 11.5.1 of the text] used by the Accounting Standards Board in the UK in its 1996 Discussion Paper concerning the drop in value of a new car during its first year.

**Exercise 11.2 ANNUAL DEPRECIATION CHANGE**

**A company is in the movie rental business. Movies are generally kept for 2 years and then either sold or destroyed. However, management wants to show increased profits, and believes that the annual depreciation charge can be lowered by keeping the movies for 3 years. Discuss.**

Changing the number of years does not necessarily change the annual depreciation charge.

If after 2 years the movies are worth nothing – hence they are normally destroyed at this point – then to keep the movies for another year simply means that there is no depreciation charge in the 3rd year as all the benefits have been received by the end of the 2nd year and there are none received in the third year.

If the movies could be still rented in a 3rd period, again there may be no change in the depreciation in the first two years. The depreciation charge is also a function of the residual value of the asset. Consider the following case:

*Scenario 1:* Movie cost $30 and has a residual value at the end of year 2 of $15. Assuming equal benefits over the 2 years [unlikely], the annual depreciation charge is $7.50.

*Scenario 2*: Movie cost $30 and has a residual value at end of year 3 of $5. Assuming equal benefits [very unlikely], the annual depreciation charge is $8.33.

**Exercise 11.3 DECLINE IN VALUE OF ASSETS**

**A new accountant has been appointed to the firm of Gutenberg Ltd, which owns a large number of depreciable assets. Upon analysing the firm’s depreciation policy, the accountant has implemented a new policy based on the principle that the depreciation rate for particular assets should measure the decline in the value of the assets. Discuss this policy change.**

It could be argued that there are 2 concepts of depreciation, namely:

- a process of allocation, and

- a change in the value of an asset.

There are at least 3 variables that cause a change in value of an asset over the period:

- a reduction in value due to the use of the asset over the period,

- an increase/decrease in the value due to a change in the general price level,

- a change in the specific price level for this type of asset

Where depreciation is calculated as an allocation of the cost of the asset, what is being measured is variable (1) above. If depreciation is measured as a change in the value of an asset, the depreciation charge is a mixture of all the above variables.

IAS 16 para. 6 describes depreciation as a systematic allocation, hence adopting the process of allocation approach.

Hence if the accountant wants to adopt accounting policies that are compliant with international accounting standards, then he/she will need to change the depreciation policy to one of allocation rather than change in value.

To discuss the differences in approach, consider the example [in section 11.5.1 of the text] used by the Accounting Standards Board in the UK in its 1996 Discussion Paper concerning the drop in value of a new car during its first year.

**Exercise 11.4 DEPRECIATION CHARGES**

**The management of Carlsberg Ltd has been analysing the financial reports provided by the accountant, who has been with the firm for a number of years. Management has expressed its concern over depreciation charges being made in relation to the company’s equipment. In particular, it believes that the depreciation charges are not high enough in relation to the factory machines because new technology applied in that area is rapidly making the machines obsolete. Management’s concern is that the machines will have to be replaced in the near future and, with the low depreciation charges, the fund will not be sufficient to pay for the replacement machines. Discuss.**

Two key mistakes are being made by management:

(i) the depreciation charge relates to the replacement cost of the asset, and

(ii) charging depreciation results in the creation of a fund for the replacement of assets.

Re (i): depreciation is an allocation of the depreciable amount of an asset. The depreciable amount is the cost or other amount substitute for cost. Under IAS 16, there are two measurement models available namely the cost model and the revaluation model. Under the revaluation model, an asset can be carried at fair value.

Neither of these models result in a depreciation charge that measures the replacement cost of the asset.

However, note para. 33 of IAS 16: where there is no market-based evidence of fair value, an entity may use, as an estimate of fair value, a depreciated replacement cost approach. IAS 16 does not give any information as to how this method works, for example whether it is based on the replacement cost of a similar asset or the replacement cost of a new asset. Given that replacement cost is used as an estimate of fair value, it is more likely that a replacement cost of used assets would be used. Again, the depreciation charge is not related to the cost of new replacement assets.

Re (ii): Depreciation is a book entry. It does not reflect cash flows. There are no monies deposited in a sinking fund to replace the assets being depreciated.

Even if the entity creates an asset replacement reserve as an appropriation of retained earnings, there is no cash fund as this is also a book entry.

**Exercise 11.5 REVALUATION OF ASSETS**

**1. Prepare the journal entries during the period 1 July 2014 to 30 June 2015 in relation to the equipment**

**2. According to accounting standards, on what basis may management change the method of asset measurement, for example from cost to fair value**

**1.**

## Sonner Ltd

## 31 December 2014

Depreciation expense – Machine A Dr 15 000

Accumulated depreciation Cr 15 000

(1/2 x 10% x $300 000)

Depreciation expense – Machine B Dr 10 000

Accumulated depreciation Cr 10 000

(1/2 x 10% x $200 000)

*Machine A Machine B*

*Cost 300 000 Cost 200 000*

*Accum depn 135 000 Accum depn 40 000*

*165 000 160 000*

*Fair value 180 000 Fair value 155 000*

*Increment 15 000 Decrement 5 000*

Accumulated depreciation – Machine A Dr 135 000

Machine A Cr 135000

(Writing the asset down to carrying amount)

Machine A Dr 15 000

Gain on revaluation of machinery (OCI) Cr 15 000

(Revaluation of asset)

Income tax expense – gain on

revaluation of asset (OCI) Dr 4 500

Deferred tax liability Cr 4 500

(Tax-effect of revaluation)

Gain on revaluation of machinery (OCI) Dr 15 000

Income tax expense (OCI) Cr 4 500

Asset revaluation surplus – Machine A Cr 10 500

(Accumulation of net revaluation gain in equity)

Accumulated depreciation – Machine B Dr 40 000

Machine B Cr 40 000

(Writing the asset down to carrying amount)

Loss – revaluation decrement (P/L) Dr 5 000

Machine B Cr 5 000

(Revaluation of machine from $200 000

to $155 000)

## 30 June 2015

Depreciation expense – Machine A Dr 15 000

Accumulated depreciation Cr 15 000

(1/6 x ½ x $180 000)

Depreciation expense – Machine B Dr 15 500

Accumulated depreciation Cr 15 500

(1/5 x ½ x $155 000)

*Machine A $ Machine B $*

*Carrying amount 165 000 Carrying amount 139 500*

*Fair value 163 000 Fair value 136 500*

*Decrement 2 000 Decrement 3 000*

Accumulated depreciation – Machine A Dr 15 000

Machine A Cr 15 000

(Writing down to carrying amount)

Loss on revaluation of machinery (OCI) Dr 2 000

Machine A Cr 2 000

(Revaluation downwards)

Deferred tax liability Dr 600

Income tax expense (OCI) Cr 600

(Tax-effect of revaluation decrement on asset

previously revalued upwards)

Asset revaluation surplus – Machine A Dr 1 400

Income tax expense (OCI) Dr 600

Loss on revaluation of machinery (OCI) Cr 2 000

(Reduction in accumulated equity due

to revaluation decrement)

Accumulated depreciation – Machine B Dr 15 500

Machine B Cr 15 500

(Writing down to carrying amount)

Loss – revaluation decrement Dr 3 000

Machine B Cr 3 000

(Writing down to fair value)

**2: Basis for change in accounting policy**

Refer to IAS 8 paragraph 9.(?? IAS 116 paragraph 31)

Discuss the cost basis method and the fair value method in relation to the relevance and reliability of information.

Current information is generally more relevant than past information. Determination of cost is generally more reliable than determination of fair value.

Discuss the trade-off between relevance and reliability, that is, as information becomes less reliable it also loses its relevance. A fair value measure may, because of its timeliness, be more relevant but if the measure becomes more unreliable, the relevance of the information decreases.

**Exercise 11.6 REVALUATION OF ASSETS**

**1. Prepare any necessary entries to revalue the building and the vehicle as at 30 June 2014**

**2. Assume that the building and the vehicle had remaining useful lives of 25 years and 4 years respectively, with zero residual value. Prepare entries to record depreciation expense for the year ended 30 June 2015 using the straight-line method.**

**Meezen Ltd**

**General Journal**

**A.**

Accumulated depreciation – Building Dr 100 000

Building Cr 100 000

(Writing down to carrying amount)

Loss on revaluation of building (P&L) Dr 20 000

Loss on revaluation of building (OCI) Dr 20 000

Building Cr 40 000

(Revaluation downwards of building)

Deferred tax liability Dr 6 000

Income tax expense (OCI) Cr 6 000

(Tax-effect of revaluation decrement on

previously revalued asset)

Asset revaluation surplus - Building Dr 14 000

Income tax expense (OCI) Dr 6 000

Loss on revaluation of building (OCI) Cr 20 000

(Reduction in accumulated equity due to

revaluation decrement on building)

Accumulated depreciation – Vehicle Dr 40 000

Vehicle Cr 40 000

(Writing down to carrying amount)

Vehicle Dr 10 000

Gain on revaluation of vehicle (OCI) Cr 10 000

(Revaluation to fair value)

Income tax expense (OCI) Dr 3 000

Deferred tax liability Cr 3 000

(Tax-effect of revaluation increment)

Gain on revaluation of vehicle (OCI) Dr 10 000

Income tax expense (OCI) Cr 3 000

Asset revaluation surplus - vehicle Cr 7 000

**B.**

Depreciation expense – Building Dr 6 400

Accumulated depreciation – Building Cr 6 400

($160 000/25)

Depreciation expense – Vehicle Dr 22 500

Accumulated depreciation – Vehicle Cr 22 500

($90 000/ 4)

**Exercise 11.7 STRAIGHT-LINE DEPRECIATION VS DIMINISHING BALANCE**

**Surfers Ltd uses tractors as a part of its operating equipment, and it applies the straight-line depreciation method to depreciate these assets. Surfers Ltd has just taken over Paradise Ltd, which uses similar tractors in its operations. However, Paradise Ltd has been using a diminishing-balance method of depreciation for these tractors. The accountant in Surfers Ltd is arguing that for both entities the same depreciation method should be used for tractors. Provide arguments for and against this proposal.**

The arguments for and against must be based on the pattern in which the assets’ future economic benefits are expected to be consumed by the entities.

If both entities use the assets such that the pattern of consumption of benefits is the same, then the same depreciation method should be used.

If the entities use the tractors in ways such that the pattern of consumption of benefits is different then different methods of depreciation can be used.

The method chosen must be applied consistently from period to period unless there is a change in the expected pattern of consumption of those future economic benefits.

**Exercise 11.8 DEPRECIATION CHARGES**

**A new accountant has been appointed to Dettum Ltd and has implemented major changes in the calculation of depreciation. As a result, some parts of the factory have much larger depreciation charges. This has incensed some operations managers who believe that, as they take particular care with the maintenance of their machines, their machines should not attract large depreciation charges that reduce the profitability of their operations and reflect badly on their management skills. The operations managers plan to meet the accountant and ask for change. How should the new accountant respond?**

The determination of the depreciation charge relies on the consideration of a large number of factors such as useful life, residual value, and consumption of benefits.

Some parts of the factory may have:

- assets with high initial costs

- low residual values

- high patterns of use on initial acquisition

These parts of the factory will attract high depreciation charges.

However, careful maintenance may lead to:

- higher residual values

- longer useful lives

The depreciation charge per annum can then be reduced.

Good management will not judge performance on factors outside the control of the employees. Cost savings might be a better measure of performance than profitability.

**Exercise 11.9 BUILDING COSTS**

**Trabitz Ltd has acquired a new building. Which of the following items should be included in the cost of the building?**

**(a) Stamp duty**

**(b) Real estate agent’s fees**

**(c) Architect’s fees for drawings for internal adjustments to the building to be made before use**

**(d) Interest on the bank loan to acquire the building, and an application fee to the bank to get the loan, which is secured on the building**

**(e) Cost of changing the name on the building**

**(f) Cost of changing the parking bays**

**(g) Cost of refurbishing the lobby to the building to attract customers and make it more user friendly**

See paragraph 16 of IAS 16

Include:

(a) stamp duty

(b) real estate agent’s fees

(c) architect’s fees

(d) interest [ may be expensed or capitalised – see IAS 123 *Borrowing Costs*]

(e) costs of changing name on building

(g) costs of refurbishing lobby

Exclude:

(f) these may be considered as a separate asset, depends for example whether the parking bays are an integral part of the building or external to the building

**Exercise 11.10 CAPITALISATION**

**Rennau Ltd has acquired a new machine, which it has had installed in its factory. Which of the following items should be capitalised into the cost of the building?**

**(a) Labour and travel costs for managers to inspect possible new machines and for negotiating for a new machine**

**(b) Freight costs and insurance to get the new machine to the factory**

**(c) Costs for renovating a section of the factory, in anticipation of the new machine’s arrival, to ensure that all the other parts of the factory will have easy access to the new machine**

**(d) Cost of cooling equipment to assist in the efficient operation of the new machine**

**(e) Costs of repairing the factory door, which was damaged by the installation of the new machine**

**(f) Training costs of workers who will use the machine**

See paragraph 16 of IAS 16.

Include:

(a) labour and travel costs

(b) freight costs

(c) costs of renovating

(d) cost of cooling equipment

Exclude:

(e) costs of repair – these are not directly attributable to bringing the asset to its location & condition for operation. These costs should be expensed.

(f) training costs – these benefits cannot be controlled

**Exercise 11.11 EXPENSING OF COSTS**

**Mehna Ltd has acquired a new building for $500 000. It has incurred incidental costs of**

**$10 000 in the acquisition process for legal fees, real estate agent’s fees and stamp duties. Management believes that these costs should be expensed because they have not increased the value of the building and, if the building was immediately resold, these amounts would not be recouped. In other words, the fair value of the building is considered to still be**

**$500 000. Discuss how these costs should be accounted for.**

According to para 16 of IAS 16, the cost of an asset includes any directly attributable costs. The $10 000 incidental costs should therefore be include in the cost of the asset. The cost is then

$510 000.

Paragraph 15 of IAS 16 requires an asset to be recognised initially at cost – in this case $510 000.

*If the asset is subsequently measured under the cost model:* Whether or not the asset should be written down depends on whether the asset is impaired. Paragraph 63 of IAS 16 requires an entity to apply IAS 36 *Impairment of Assets*. If the asset is a part of a cash generating unit, and the recoverable amount of the CGU is greater than the carrying amount of the assets of the CGU then the building will not be written down.

*If the asset is subsequently measured under the revaluation model*: As the fair value is only

$500 000, a revaluation decrement would be determined and an expense recognised.

**Exercise 11.12 DEPRECIATION**

**Prepare the journal entries for the recording of the vehicles and the depreciation of the vehicles for each of the 3 years. The financial year ends on 30 June**

**Plaaz Ltd**

**2012**

1/7 Vehicles Dr 50 000

Cash Cr 50 000

(Acquisition of delivery truck)

Insurance expense Dr 1 200

Cash Cr 1 200

(Truck insurance)

**2013**

30/6 Depreciation expense - Vehicles Dr 5 280

Accumulated depreciation Cr 5 280

(Annual depreciation:

1/5 x $50 000 - $23 600)

1/7 Vehicles Dr 30 000

Cash Cr 30 000

(Acquisition of flat-top truck)

Vehicles Dr 2 920

Cash Cr 2 920

(Amounts paid on flat-top truck:

$2 300 + $620)

Servicing expense Dr 480

Cash Cr 480

(Service of flat-top truck)

Vehicles Dr 600

Cash Cr 600

(Installation of radios to trucks)

Insurance expense Dr 2 100

Cash Cr 2 100

(Insurance on trucks)

**2014**

30/6 Depreciation expense - Vehicles Dr 14 665

Accumulated depreciation Cr 14 665

(Depreciation of vehicles:

1/5 ($50 000 - $23 600) + ¼ x $300= $5 355

½ ($32 920 + $300 – $14 600 = $9 310

1/7 Insurance expense Dr 2 100

Cash Cr 2 100

(Insurance on trucks)

1/8 Depreciation expense – Vehicles Dr 776

Accumulated depreciation Cr 776

(Depreciation on flat-top:

1/12 x ½ ($32 920 + $300 - $14 600)

Accumulated depreciation – Vehicles Dr 10 086

Vehicles Cr 10 086

(Write-down of flat-top truck to carrying

amount: $9 310 + $776)

Vehicles Dr 6 500

Cash Cr 6 500

(Overhaul of flat-top truck)

**2015**

30/6 Depreciation expense – Vehicles Dr 10 835

Accumulated depreciation Cr 10 835

(Depreciation on vehicles:

delivery truck: $5 355 as per previous year

flat-top truck:

11/12[1/3 ($32 920 + $300 - $9 310 - $776 +$ 6 500 – ($12 000 - $300)] = $5 480)

## Exercise 11.13 DEPRECIATION

**Discuss how you would account for the depreciation of the building and how the replacement of the roof would affect the depreciation calculations.**

If the roof were treated as a separate component of the building:

Roof: depreciation p.a. = $140 000 x 1/20 = $7 000

Rest of building: depreciation p.a. = $700 000 x 1/20 = $35 000

At 1 July 2014, the roof would have been depreciated to $91 000 (being $140,000 less 7 x $7000). This would then be written off on replacement of the roof. The new roof would be depreciated at $12 222, being 1/18 x $220 000 p.a.

Further, the rest of the building would have a carrying amount of $455 000, being

$700 000 less 7 x $35 000. Depreciation p.a. for the next 18 years would be $25 278.

Total depreciation is then $37 500.

($91 000 {written off at 1 July 2014 }+ 18 x $37 500 = $766 000)

If the roof were not treated as a separate component:

Depreciation p.a. = 1/20 x $840 000 = $42 000

At 1 July 2014, the building would have been depreciated to a carrying amount of

$546 000, being $840 000 – 7 x $42 000. On replacement of the roof, the total depreciable cost is $766 000, being $546 000 + $220 000. Depreciation p.a. for the next 18 years is $42 556.

(18 x $42 556 = $766 000)

**Exercise 11.14 DEPRECIATION CALCULATION**

**1. Discuss how the costs relating to the aircraft should be accounted for**

**2. Determine the expenses recognised for the 2014-2015 financial year.**

1.Discuss:

- the advantages of a components approach versus a simple depreciation of the $10 million dollars over the 10-year period.

- the treatment of the upgrades of cockpit equipment

- accounting for inspections

2.

*Aircraft body*:

Annual expense of $5000 for inspection for cracks

Depreciation expense = 1/10 (3 000 000 – 3/7 x $2 100 000) = $210 000

*Engines*:

Depreciation expense = 4 000 000/4 = $1 000 000

Maintenance expense = $300 000

*Fittings*

Seats: Depreciation = 1/3 x $1 000 000 = $333 333

Annual expense = $100 000

Carpets: Depreciation = 1/5 x 50 000 = $10 000

Cleaning = $10 000

Electrical: Passenger

Annual expense = $15 000

Depreciation = 1/6 x $200 000 = $33 333

Electrical: Cockpit

Annual expense = $250 000

Depreciation = 1/10 x $1 500 000 = $150 000

*Food preparation equipment:*

Annual expense = $20 000

Depreciation = 250 000/6 = $41 667

For the 2014-15 year:

Total other expenses = $700 000

Annual depreciation = $778 333

**Exercise 11.15 REVALUATION OF ASSETS AND TAX-EFFECT ACCOUNTING**

**1. Provide the journal entries used to account for this machine over the period 2012 to 2015**

**2. For each of the 3 years ended 30 June 2013, 2014 and 2015, calculate the carrying amount and the tax base of the asset, and determine the appropriate tax- effect entry in relation to the machine. Explain your answer.**

**1.**

**Almdorf Ltd**

**Year ended 2013**

**Carrying Tax Base Temporary**

## Amount Difference

Asset cost $100 000 $100 000

Depreciation 20 000 12 500

80 000 87 500

Revaluation 5 000 \_\_\_\_\_

$85 000 $87 500 $2 500

When the asset is revalued upwards the entity will pass the entries:

Accumulated depreciation Dr 20 000

Machine Cr 20 000

(Writing down to carrying amount)

Machine Dr 5 000

Gain on revaluation of machine (OCI) Cr 5 000

(Revaluation of machine)

Income tax expense (OCI) Dr 1 500

Deferred tax liability Cr 1 500

(Tax-effect of revaluation)

Gain on revaluation of machine (OCI) Dr 5 000

Income tax expense (OCI) Cr 1 500

Asset revaluation surplus Cr 3 500

(Accumulation of net revaluation gain in equity)

**Year ended 2014**

**Carrying Tax Base Temporary**

## Amount Difference

Asset 1/7/13 $85 000 $87 500

Depreciation 21 250 12 500

63 750 75 000

Revaluation down 3 750 \_\_\_\_\_

$60 000 $75 000 $15 000

When the asset is revalued downwards the entity will pass the entries:

Accumulated depreciation Dr 21 250

Machinery Cr 21 250

(Writing down to carrying amount)

Loss on revaluation of machine (OCI) Dr 3 750

Machine Cr 3 750

(Revaluation downwards of asset)

Deferred tax liability Dr 1 125

Income tax expense (OCI) Cr 1 125

(Tax effect of revaluation decrement subsequent

to upwards revaluation)

Asset revaluation surplus Dr 2 625

Income tax expense (OCI) Dr 1 125

Loss on revaluation of machine (OCI) Cr 3 750

(Reduction in equity due to downwards

revaluation of asset)

**Year ended 2015**

**Carrying Tax Base Temporary**

## Amount Difference

Asset 1/7/14 $60 000 $75 000

Depreciation 20 000 12 500

40 000 62 500

Revaluation 5 000 \_\_\_\_\_

$45 000 $62 500 $17 500

When the asset is revalued upwards the entity will pass the entry:

Accumulated depreciation Dr 20 000

Machine Cr 20 000

(Writing down to carrying amount)

Machine Dr 5 000

Gain on revaluation of machine (OCI) Cr 5 000

(Revaluation of machine)

Income tax expense (OCI) Dr 1 500

Deferred tax liability Cr 1 500

(Tax-effect of revaluation)

Gain on revaluation of machine (OCI) Dr 5 000

Income tax expense (OCI) Cr 1 500

Asset revaluation surplus Cr 3 500

(Accumulation of net revaluation gain in equity)

**2.**

**For 2013:**

In the tax effect worksheet, the temporary difference which is a deductible difference will give rise to a deferred tax asset of 30% of $2500 = $750.

However the movement during the year of a credit to the deferred tax liability will mean that the adjustment required at the end of 2013 will be a debit to the deferred tax asset of $2250 ie. $750 – ($1500):

$ $

Deferred tax asset Dr 2 250

Income tax income Cr 2 250

The net effect is a debit balance in the deferred tax account of $750.

**For 2014:**

In the tax effect worksheet, the temporary difference which is a deductible difference will give rise to a deferred tax asset of 30% of $15 000 = $4500.

However, with the opening balance of $750, and the movement during the year of a debit to the deferred tax account, the adjustment required at the end of 2012 will be a debit to the deferred tax asset of $2625 ie. $4500 – ($750 + $1125).

Deferred tax asset Dr 2 625

Income tax income Cr 2 625

The net effect is a debit balance in the deferred tax account of $4500.

**For 2015:**

In the tax effect worksheet, the temporary difference which is a deductible difference will give rise to a deferred tax asset of 30% of $17 500 = $5250.

However, with the opening balance of $4 500, and the movement during the year of a credit to the deferred tax liability will mean that the adjustment required at the end of 2015 will be a debit to the deferred tax asset of $2250 ie. $5250 – ($4500 - $1500):

Deferred tax asset Dr 2 250

Income tax income Cr 2 250

The net effect is a debit balance in the deferred tax account of $5250.

On sale of the asset for $45 000, the entity will recognise a zero gain/loss on sale. For tax purposes, there is a tax loss of $17 500 i.e. $45 000 - $62 500. The difference is $17 500. The journal entry for tax to reverse the balance in the deferred tax account is:

Income tax income Dr 5 250

Deferred tax asset Cr 5 250

**Exercise 11.16 ACQUISITION AND SALE OF ASSETS, DEPRECIATION**

**(Show all workings to the nearest dollar)**

**Prepare journal entries to record the transactions and events for the reporting period ended 30 June 2015 (narrations are not required).**

**Thader’s Turf Farm**

Part 1 – General Journal Entries

|  |  |  |  |
| --- | --- | --- | --- |
| **DATE** | **DETAILS** | **Dr** | **Cr** |
| 10/08/14 | Irrigation equipment  Cash | 37 000 | 37 000 |
| 16/08/14 | Irrigation equipment  Cash | 500 | 500 |
| 03/09/14 | Repairs and maintenance expense  Cash | 800 | 8 00 |
| 19/09/14 | Irrigation equipment  Cash | 9 600 | 9 600 |
| 01/12/14 | Depreciation – Turf cutter  Accumulated depreciation – Turf cutter  *([$65 000 – $3 200]/5 x 5/12 = $5150)* | 5 150 | 5 150 |
| 01/12/14 | Carrying amount – Turf cutter *($65 000 – $47 517)*  Accumulated depreciation – Turf cutter *($42 367 + $5150)*  Turf Cutter | 17 483  47 517 | 65 000 |
| 01/12/14 | Turf cutter  Cash  Proceeds on sale – Turf cutter | 80 000 | 61 000  19 000 |
| 28/03/15 | Depreciation - Building  Accumulated depreciation - Building  *($150 000 – $40 000)/20 x 9/12 = $4125* | 4 125 | 4 125 |
| 28/03/15 | Accumulated depreciation – Building *($23 375 + $4125)*  Office building | 27 500 | 27 500 |
| 28/03/15 | Office building  Cash | 49 000 | 49 000 |
| 30/06/15 | Depreciation expense – Turf cutter  Accumulated depreciation – Turf cutter  *($80 000 – $5 000)/6 x 7/12 = $7292* | 7 292 | 7 292 |
| 30/06/15 | Depreciation expense – Water desalinator  Accumulated depreciation – Water desalinator  *($189 000 – $18 000)/9 = $19 000* | 19 000 | 19 000 |
| 30/06/15 | Depreciation expense – Irrigation equipment  Accumulated depreciation – Irrigation equipment  *($47 100 – 0)/4 x 9/12 = $8831* | 8 831 | 8 831 |
| 30/06/15 | Depreciation expense – Building  Accumulated depreciation - Building  *$150 000 – $27 500 + $49 000 = $171 500*  *($171 500 – $40 000 + $5 000)/(20 -5 + 4) = $6658 p.a.*  *$6658 x 3/12 = $1665* | 1 665 | 1 665 |
| 30/06/15 | Accumulated depreciation – Water desalinator  Water desalinator  (Writing down to carrying amount)  Loss on revaluation of desalinator (OCI)  Water desalinator  (Revaluation downwards from carrying amount of $170 000 (being $189 000 - $19 000) to fair value of $165 000)  Deferred tax liability  Income tax expense (OCI)  (Tax-effect of revaluation decrement subsequent to previous increment)  Asset revaluation surplus  Income tax expense (OCI)  Loss on revaluation of desalinator (OCI)  (Reduction in accumulated equity due to revaluation decrement on land) | 19 000  5000  1500  3500  1 500 | 19 000  5 000  1500  5000 |
|  |  |  |  |

**Exercise 11.17 ACQUISITIONS, DISPOSALS, DEPRECIATION**

**(show all workings and round amounts to the nearest dollar)**

**Prepare journal entries to record the transactions and events for the period 1 July 2013 to 30 September 2016 (Narrations are not required.)**

**Meerbeck Ltd**

**General journal entries**

|  |  |  |  |
| --- | --- | --- | --- |
| **DATE** | DETAILS | **Dr** | **Cr** |
| **2013** |  |  |  |
| 1 July | Equipment | 39 800 |  |
|  | Cash |  | 39 800 |
|  |  |  |  |
| 5 July | Equipment | 4 200 |  |
|  | Cash |  | 4 200 |
|  |  |  |  |
| **2014** |  |  |  |
| 30 June | Depreciation – Equipment | 4 220 |  |
|  | Accumulated depreciation - Equipment |  | 4 220 |
|  | *($44 000 – $1 800)/10 = $4220* |  |  |
|  |  |  |  |
| **2015** |  |  |  |
| 30 June | Depreciation – Equipment | 12 900 |  |
|  | Accumulated depreciation - Equipment |  | 12 900 |
|  | *{($44 000 – $1200)/4 = $8560 + prospective adjustment for change in estimates [$8560 – 4220] = $4340}* |  |  |
|  |  |  |  |
| 30 June | Accumulated depreciation – Equipment | 17 120 |  |
|  | Equipment  (Write down to carrying amount) |  | 17 120 |
|  | Equipment | 3 120 |  |
|  | Gain on revaluation of equipment (OCI) |  | 3 120 |
|  | *(Fair value $30 000; Carrying amount $26 880; Revaluation increase $3120)* |  |  |
|  | Income tax expense (OCI) | 936 |  |
| **2016** | Deferred tax liability  (Tax-effect of revaluation increment)  Gain on revaluation of equipment (OCI)  Income tax expense (OCI)  Asset revaluation surplus  (Transfer to accumulated equity subsequent to revaluation of asset) | 3 120 | 936  936  2184 |
| 30 June | Depreciation – Equipment | 9 600 |  |
|  | Accumulated depreciation – Equipment |  | 9 600 |
|  | *($30 000 – $1200)/3 = $9600* |  |  |
| **2016** |  |  |  |
| 30 June | Accumulated depreciation – Equipment | 9 600 |  |
|  | Equipment |  | 9 600 |
|  | (Write down to carrying amount)  Loss on revaluation of plant (OCI)  Loss on revaluation of plant (P&L)  Plant  (Fair value $16 000; Carrying amount $20 400; Revaluation decrease $4400)  Deferred tax liability  Income tax expense (OCI)  (Tax effect on decrement relating to prior increment)  Asset revaluation surplus | 3120  1280  936  2 184 | 4 400  936 |
|  | Income tax expense (OCI) | 936 |  |
|  | Loss on revaluation of plant (OCI)  (Reduction in accumulated equity due to devaluation of plant) |  | 3 120 |
|  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **2016** |  |  |  |
| 30 Sept | Depreciation expense – Equipment | 1 850 |  |
|  | Accumulated depreciation - Equipment |  | 1 850 |
|  | *3/12 x [$16 000 – $1200]/2* |  |  |
|  |  |  |  |
|  | Accumulated depreciation – Equipment | 1 850 |  |
|  | Carrying amount of Equipment | 14 150 |  |
|  | Equipment |  | 16 000 |
|  |  |  |  |
|  | Cash | 8 400 |  |
|  | Proceeds on sale – Equipment |  | 8 400 |
|  |  |  |  |

### Exercise 11.18 REVALUATION OF ASSETS

**Prepare the journal entries in the records of Themar Ltd to record the described events over the period 1 July 2012 to 30 June 2014, assuming the ends of the reporting periods are 30 June 2013 and 30 June 2014.**

**Themar Ltd**

### 1 July 2012

Machine A Dr 100 000

Machine B Dr 60 000

Cash Cr 160 000

### 30 June 2013

Depreciation expense – Machine A Dr 20 000

Accumulated depreciation Cr 20 000

(1/5 x $100 000)

Depreciation expense – Machine B Dr 20 000

Accumulated depreciation Cr 20 000

(1/3 x $60 000)

Accumulated depreciation- Machine A Dr 20 000

Machine A Cr 20 000

(Writing down to carrying amount)

Machine A Dr 4 000

Gain on revaluation of Machine A (OCI) Cr 4 000

(Revaluation increment: $80 000 to $84 000)

Income tax expense (OCI) Dr 1 200

Deferred tax liability Cr 1 200

(Tax effect of revaluation increment)

Gain on revaluation of Machine A (OCI) Dr 4 000

Income tax expense (OCI) Cr 1 200

Asset revaluation surplus – Machine A Cr 2 800

(Accumulation of net revaluation gain in equity))

Accumulated depreciation – Machine B Dr 20 000

Machine B Cr 20 000

(Writing down to carrying amount)

Expense – revaluation decrement (P&L) Dr 2 000

Machine B Cr 2 000

(Revaluation to fair value at 30/6/13)

**1 January 2014**

Machine C Dr 80 000

Cash Cr 80 000

(Acquisition of machine C)

Depreciation expense – Machine B Dr 9 500

Accumulated depreciation Cr 9 500

(1/2 x /1/2 x $38 000)

Cash Dr 29 000

Proceeds on sale of Machine B Cr 29 000

(Sale of Machine B)

Carrying amount of Machine B Sold Dr 28 500

Accumulated depreciation Dr 9 500

Machine B Cr 38 000

(Carrying amount of machine sold)

General reserve Dr 8 000

Asset revaluation surplus – Machine A Dr 2 000

Share Capital Cr 10 000

**30 June 2014**

Depreciation expense – Machine A Dr 21 000

Accumulated depreciation Cr 21 000

(1/4 x $84 000)

Depreciation expense – Machine C Dr 10 000

Accumulated depreciation Cr 10 000

(1/4 x ½ x $80 000)

Accumulated depreciation – Machine A Dr 21 000

Machine A Cr 21 000

(Writing down to carrying amount)

Loss on revaluation of Machine A (OCI) Dr 2 000

Machine A Cr 2 000

(Write down of plant from $63000 to $61000)

Deferred tax liability Dr 600

Income tax expense (OCI) Cr 600

(Tax-effect on downward revaluation

subsequent to upward revaluation)

Asset revaluation surplus – Machine A Dr 800

Income tax expense (OCI) Dr 600

Loss on revaluation of plant (P&L) Dr 600

Loss on revaluation of plant (OCI) Cr 2 000

(Accumulation of revaluation loss to equity)

Accumulated depreciation – Machine C Dr 10 000

Machine C Cr 10 000

(Writing down to carrying amount)

Loss on revaluation (P&L) Dr 1 500

Machine C Cr 1 500

(Revaluation to fair value at 30/6/14)

**Exercise 11.19 DETERMINING THE COSTS OF ASSETS**

**Determine the amount at which each of these machines should be recorded in the records of Nassau Ltd. For items not included in the cost of the machines, note how they should be accounted for.**

### Nassau Ltd

**Machine A**

Cost of machine $88 000

(8 000) GST

3 000 Transport

5 000 Installation

4 000 Testing

6 000 Safety rails

8 000 Coolers

7 500 Adjustments

$113 500

Expense the insurance costs of $1500 and training $2500.

**Machine B**

Cost of machine $77 000

(7 000) GST

43 000 labour

22 000 overheads

10 000 interest \*

12 000 installation

4 000 safety

$161 000

\* Under IAS 23 *Borrowing Costs* interest must be capitalised.

Expense the insurance cost of $2000. Disregard the profit saved by self-construction.

### Exercise 11.20 CLASSIFICATION OF ACQUISITION COSTS

**Using the information provided, determine what assets Alsbach Ltd should recognise and the amounts at which they would be recorded.**

### Alsabach Ltd

Land: Option cost $100

Settlement agent 10 000

Rates 5 000

Land 100 000

Demolition of old building 12 000

Proceeds on sale of material (5 500)

$121 600

Building Architects $23 000

Council 12 000

Fence 3 400

Building 240 000

Safety inspection 3 000

Removal of safety fence 2 000

$283 400

Improvements: Driveway et al $54 000

New fence 8 000

$62 000

Equipment: Cost $64 000

Freight & Insurance 5 600

Installation 12 000

Safety equipment 11 000

Adjustments 3 300

$95 900

Options on land not acquired: expense $200

Interest: $40 000 must be capitalised if relates to a qualifying asset; otherwise it is expensed. The only possible qualifying asset is the factory. In this example, it may be necessary to apportion the interest, depending on what loan was used for – see IAS 23 *Borrowing Costs.*

Advertising: expense $500

Opening ceremony: expense $6000

**Exercise 11.21** **ACQUISITIONS, DISPOSALS, TRADE-INS, OVERHAULS, DEPRECIATION**

**Part A required:**

**Prepare journal entries (narrations are required) to record the transactions and events for the year ended 30 June 2013**

**Part B required:**

**If Axel Schultz accepts the exchange offer, what amount would the business use to record the acquisition of the fish-finding equipment? Why? Justify your answer by reference to the requirements of IAS 16 relating to the initial recognition of a property, plant and equipment item.**

**Part A.**

**Kalbarri Fishing Charters**

**General journal entries**

|  |  |  |  |
| --- | --- | --- | --- |
| **DATE** | **DETAILS** | **Dr** | **Cr** |
| 26/07/12 | Depreciation – boats  Accumulated depreciation – boats  *(*Depreciation of boat 1 to date of sale:  1/12 x 1/5 [$62 000 – 3000]) | 983 | 983 |
|  | Accumulated depreciation - boats  Carrying amount of boat sold  Boats  (Derecognition of boat 1 on sale:  $11 800 x 53/12 = $52 117*)* | 52 117  9 883 | 62 000 |
|  | Boats  Proceeds on sale of boat  Cash  (Purchase of boat 5 and trade in of boat 1) | 85 600 | 8 900  76 700 |
| 04/12/12 | Depreciation – processing plant  Accumulated depreciation – processing plant  (Depreciation to date of overhaul:  [$148 650 – 81 274] x 30% x 5/12) | 8 422 | 8 422 |
|  | Accumulated depreciation – processing plant  Processing plant  (Write down to carrying amount prior to overhaul) | 89 696 | 89 696 |
|  | Processing plant  Cash  (Overhaul of plant)  *(New depreciable amount :*  *= $148 650 + $62 660 – $89 696*  *= $121 614)* | 62 660 | 62 660 |
| 06/02/13 | Depreciation - boats  Accumulated depreciation – boats  (Depreciation to date of scrapping:  [$78 600 – $3 600]/4 x 7/12 = $10 937) | 10 937 | 10 937 |
|  | Accumulated depreciation – boats  Carrying amount of boat scrapped  Boats  (Derecognition of boat 3 at the end of its useful life:  [$78 600 -$3 600]/4 x 48/12*)* | 75 000  3 600 | 78 600 |

**Part A. GENERAL JOURNAL ENTRIES**

|  |  |  |  |
| --- | --- | --- | --- |
| **DATE** | DETAILS | **Dr** | **Cr** |
| 30/06/13 | Depreciation – boats  Accumulated depreciation – boats  (Depreciation charge for the year:  Boat 2: ($66 400 – $3 400)/5 = $12 600  Boat 4: ($84 200 – $3 800)/6 = $13 400  Boat 5: ($85 600 – $4 120)/6 x 11/12 = $12 448 | 38 448 | 38 448 |
|  | Depreciation – processing plant  Accumulated depreciation – processing plant  (Depreciation charge for the year:  $121 614 x 25% x 7/12*)* | 17 735 | 17 735 |

**Part B**

IAS 16 requires property, plant and equipment items to be initially recognised at cost. Cost is further defined as the ‘amount of cash or cash equivalents paid or the fair value of the other consideration given to acquire an asset at the time of its acquisition or construction’. In this situation, the fish finder is acquired by exchange – no cash is paid – hence, the ‘cost’ of the asset will be measured by reference to the fair value of the consideration given in exchange, that is, boat 2. Thus, the fish finder would be recognised at a cost of $9100 this being the fair value of boat 2.

**Exercise 11.22 ACQUISITIONS, REVALUATIONS, REPLACEMENTS, DEPRECIATION**

**Prepare general journal entries to record the above transactions and the depreciation journal entries required at the end of each reporting period up to 30 June 2013. (Narrations are not required but show all workings.)**

**Hamburg Trading**

**1. GENERAL JOURNAL ENTRIES**

|  |  |  |  |
| --- | --- | --- | --- |
| **DATE** | DETAILS | **Dr** | **Cr** |
| **2013** |  |  |  |
| Jan 1 | Machine A | 40 000 |  |
|  | Machine B | 100 000 |  |
|  | Cash |  | 140 000 |
|  |  |  |  |
| June 30 | Depreciation – Machinery | 6 650 |  |
|  | Accumulated Depreciation – Machinery |  | 6 650 |
|  | *(A:[ $40 000 – $2000]/10 x 6/12 = $1900 +*  *B: [$100 000 – $5000]/10 x 6/12 = $4750)* |  |  |
| **2014** |  |  |  |
| June 30 | Depreciation – Machinery | 13 300 |  |
|  | Accumulated Depreciation – Machinery |  | 13 300 |
|  | *(A: $40 000 – $2000/10 = $3800 +*  *B: $100 000 – $5000/10 = $9500)* |  |  |
|  |  |  |  |
|  | Accumulated Depreciation – Machinery  Machine A  (Writing down to carrying amount) | 5 700 | 5 700 |
|  |  |  |  |
|  | Loss on revaluation - Machinery (P&L) | 2 300 |  |
|  | Machine A |  | 2 300 |
|  | *(Machine A: Carrying amount $34 300 =40 000 – 5700*  *Fair value $32 000*  *Revaluation decrease $2300)* |  |  |
|  |  |  |  |
|  | Accumulated Depreciation – Machinery  Machine B  (Writing down to carrying amount)  Machine B | 14 250  4 250 | 14 250 |
|  | Gain on revaluation of Machine B (OCI)  *(Machine B: Carrying amount $85 750 =$100000 – $14 250*  *Fair value $90 000*  *Revaluation increase $4250)*  Income tax expense (OCI)  Deferred tax liability  (Tax effect of gain on revaluation) | 1 275 | 4 250  1 275 |
|  | Gain on revaluation of Machine B (OCI) | 4 250 |  |
|  | Income tax expense (OCI) |  | 1 275 |
|  | Asset revaluation surplus – Machine B |  | 2 975 |
|  | *(Accumulation of net revaluation gain in equity)* |  |  |
| **2015** |  |  |  |
| Jan 2 | Depreciation – Machine B | 5 375 |  |
|  | Accumulated depreciation – Machine B |  | 5 375 |
|  | (Depreciation to date of overhaul:  *[$90 000 – $4000]/8 x 6/12 = $5375)* |  |  |
|  |  |  |  |
|  | Accumulated depreciation - Machine B | 5 375 |  |
|  | Machine B |  | 5 375 |
|  |  |  |  |
|  | Machine B | 66 000 |  |
|  | Cash |  | 66 000 |

|  |  |  |  |
| --- | --- | --- | --- |
| Mar 31 | Depreciation – Machine A | 2 859 |  |
|  | Accumulated depreciation – Machine A |  | 2 859 |
|  | (Depreciation to date of sale:  [$32 000 – $1500]/8 x 9/12 = $2859*)* |  |  |
|  | Accumulated depreciation – Machine A | 2 859 |  |
| 3 | Machine A |  | 32 000 |
|  | Machine C | 64 000 |  |
|  | Cash |  | 36 000 |
|  | Loss on sale of Machine A | 1141 |  |
|  | (Trade-in of Machine A as part cost of Machine C) |  |  |
|  | Machine C | 950 |  |
|  | Cash |  | 950 |
|  | (Installation costs on Machine C) |  |  |
| June 30 | Depreciation – Machine B | 6 417 |  |
|  | Accumulated depreciation – Machine B  (Depreciation of machine B: |  | 6 417 |
|  | ($90 000 – $5375 + $66 000 – $9450 = $141 175  $141 175/[8 – 0.5 + 3.5] x 6/12 = $6417) |  |  |
|  |  |  |  |
|  | Depreciation – Machine C | 1 780 |  |
|  | Accumulated depreciation – Machine C  (Depreciation of Machine C: |  | 1 780 |
|  | [$64 950 – 8000]/8 x 3/12 = $1780) |  |  |
|  | Accumulated depreciation – Machine B  Machine B  (Writing down to carrying amount) | 6 417 | 6 417 |
|  | Loss on revaluation of Machine B (OCI) | 4 208 |  |
|  | Machine B |  | 4 208 |
|  | *(Machine B:*  *Carrying amount $144 208= $150 625 - $6417*  *Fair value $140 000*  *Revaluation decrease $4208)* |  |  |
|  | Deferred tax liability  Income tax expense (OCI)  (Tax effect on devaluation of asset previously revalued upwards)  Asset revaluation surplus – Machine B  Income tax expense (OCI)  Loss on revaluation of Machine B  (Accumulation of net loss to equity) | 1 262  2 946  1 262 | 1 262  4 208 |
|  | Accumulated depreciation – Machine C  Machine C  (Writing down to carrying amount)  Machine C  Gain on revaluation of Machine C (OCI)  (Machine C: Carrying amount $63 170 [64 950 – 1780]  Fair value $65 000  Revaluation increase $1830) | 1 780  1 830 | 1 780  1 830 |
|  | Income tax expense (OCI)  Deferred tax liability  (Tax effect of revaluation increment)  Gain on revaluation of Machine C (OCI)  Income tax expense (OCI) | 549  1 830 | 549  549 |
|  | Asset revaluation surplus – Machine C |  | 1 281 |
|  |  |  |  |

**Exercise 11.23** **DEPRECIATION CALCULATION**

**1. Record each of the transactions. The end of the reporting period is 30 June.**

**2. Determine the depreciation expense for Elben Ltd for 2013–14.**

### Elben Ltd

**1.**

2013

1/9 Depreciation expense Dr 123

Accumulated depreciation Cr 123

(Depreciation on machine to be sold:

1/6 x 10%[$8200 – $820])

Machine Dr 15 000

Cash Cr 8 800

Gain on sale Cr 337

Accumulated depreciation Dr 2 337

Machine Cr 8 200

(Trade-in of machine)

*Carrying amount of machine sold:*

*$8200 less 38/12 x 10% [$8200 – $820] = $5863)*

Depreciation expense Dr 135

Accumulated depreciation Cr 135

(Depreciation on machine sold:

1/6 x 10%[$9000 – $900])

Cash Dr 7 300

Gain on sale of machine Cr 258

Accumulated depreciation \* Cr 1 958

Machine Cr 9 000

(Sale of machine)

*\* 29/12 x 10% [$9000 – $900] = $1958)*

2014

1/1

Depreciation expense Dr 180

Accumulated depreciation Cr 180

(Depreciation on machine sold:

½ x 10% [$4000 –$ 400])

Cash Dr 500

Loss on sale of machine Dr 80

Accumulated depreciation \* Cr 3 420

Machine Cr 4 000

(Machine sold)

*\*9.5 x 10% [$4000 – $400] = $3420*

2014

1/1 *Working:*

*Cost $7 000*

*Depreciation (3 x 10% x 6 300) 1 890*

*5 110*

*New motor 4 800*

*Carrying amount $9 910*

*New depreciation per annum = 1/9 [$9910 – $991] = $991*

Depreciation expense Dr 315

Accumulated depreciation Cr 315

(Depreciation on machine overhauled:

½ x 10% [$7000 – $700])

Machine Dr 2 910

Accumulated depreciation Dr 1 890

Cash Cr 4 800

(Adjustment due to overhaul of machine)

2014

1/4 Arm Dr 1 200

Cash Cr 1 200

(Acquisition of equipment)

**2.**

*Working:*

*Machinery on hand at 1 July 2013 and still on hand at 30 June 2014:*

*= $420 000 – $8200 – $9000 – $4000 – $7000*

*= $391 800*

*Depreciation = 10%[$391 800 – $39 180] = $35 262*

*Depreciation on new or replaced machines:*

*10% x 10/12 [$15 000 – $1500] = $1125*

*½ x 1/9 [$9910 – $991] = $496*

*Depreciation on arm:*

*1/15 x 3/12 x $1200 = $20*

**Total depreciation for 2013-14 = $35 262 + $1125 + $496 + $20 = $36 903**

**Exercise 11.24** **REVALUATION OF ASSETS AND TAX-EFFECT ACCOUNTING**

**1. Calculate, by using worksheets, the amounts of income tax expense and current and deferred income tax assets/liabilities for the reporting period ended 30 June 2013.**

**2. Prepare the deferred tax asset and deferred tax liability accounts.**

**Bornholt Ltd**

**1.**

### Determination of Taxable Income (for year ended 30 June 2013)

|  |  |  |
| --- | --- | --- |
|  | $ | $ |
| Accounting profit before income tax |  | 375 000 |
| ***Add:*** |  |  |
| Write-down of furniture | 5 000 |  |
| Goodwill impairment | 13 000 |  |
| Depreciation of plant | 50 000 |  |
| Depreciation of furniture | 5 000 |  |
| Entertainment costs | 12 000 |  |
| Doubtful debts expense | 55 000 |  |
| Holiday pay expense | 30 000 |  |
| Long service leave expense | 40 000 | 210 000 |
| ***Deduct:*** |  |  |
| Bad debts written off | 35 000 |  |
| Holiday pay paid | 20 000 |  |
| Long service leave paid | 20 000 |  |
| Depreciation of furniture for tax | 7 500 |  |
| Depreciation of plant for tax | 75 000 | (157 500) |
| Taxable income |  | 427 500 |
| Current tax liability @ 30% |  | $128 250 |

**CALCULATION OF DEFERRED TAX**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Carrying Amount** | **Taxable Amount** | **Deductible Amount** | **Tax Base** | **Taxable Temporary Differences** | **Deductible Temporary Differences** |
|  | $ | $ | $ | $ | $ | $ |
| **Assets** |  |  |  |  |  |  |
| Cash | 82 000 | 0 | 0 | 82 000 | - | - |
| Receivables | 545 000 | 0 | 40 000 | 585 000 |  | 40 000 |
| Inventory | 158 000 | 158 000 | 158 000 | 158 000 | - | - |
| Plant | 320 000 | (320 000) | 250 000 | 250 000 | 70 000 |  |
| Furniture | 65 000 | (65 000) | 55 000 | 55 000 | 10 000 |  |
| Goodwill | 50 000 | (50 000) | 0 | 0 | 50 000 |  |
| **Liabilities** |  |  |  |  |  |  |
| Payables | 265 000 | 0 | 0 | 265 000 | - | - |
| Holiday pay | 30 000 | 0 | (30 000) | 0 |  | 30 000 |
| Long service leave | 50 000 |  | (50 000) | 0 |  | 50 000 |
| Temporary differences |  |  |  |  | 130 000 | 120 000 |
| Exempt differences |  |  |  |  | 50 000 | - |
| **Net temporary differences** |  |  |  |  | 80 000 | 120 000 |
| Deferred tax liability |  |  |  |  | 24 000 |  |
| Deferred tax asset |  |  |  |  |  | 36 000 |
| Beginning balances |  |  |  |  | 11 250 | 21 000 |
| Movement during year \* |  |  |  |  | 6 000 |  |
| **Adjustment** |  |  |  |  | 6 750 | 15 000 |

\* Furniture was revalued downwards by $5000; however, as the furniture had not previously been revalued upwards, there is no effect on the deferred tax liability. Plant was revalued upwards by $20 000 giving rise to credit to the deferred tax liability of

$6000. Net movement is $6000.

The entries for income tax, current and deferred, are:

Income tax expense (current) Dr 128 250

Current tax liability Cr 128 250

Deferred tax asset Dr 15 000

Deferred tax liability Cr 6 750

Income tax income (deferred) Cr 8 250

**2.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Deferred Tax Asset | | | | | |
|  |  | $ |  |  | $ |
| 1/07/12 | Balance b/d | 21 000 | 30/06/13 | Balance c/d | 36 000 |
| 30/06/13 | Income tax expense | 15 000 |  |  |  |
|  |  | 36 000 |  |  | 36 000 |
| 1/07/13 | Balance b/d | 36 000 |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Deferred Tax Liability | | | | | |
|  |  | $ |  |  | $ |
|  |  |  | 1/07/12 | Balance b/d | 11 250 |
|  |  |  | 30/06/13 | Revaluation | 6 000 |
|  | Balance c/d | 24 000 | 30/06/13 | Income tax expense | 6 750 |
|  |  | 24 000 |  |  | 24 000 |
|  |  |  | 1/7/13 | Balance b/d | 24 000 |

**Exercise 11.25 COST OF ACQUISITION**

**1. Prepare a schedule with the following column headings. Analyse each transaction, enter the payment or receipt in the appropriate column, and total each column.**



**2. Prepare the journal entry to close the $1 009 700 balance of the Property ledger account.**

**Borod Ltd**

**1.**

Item Land Land Building Manufacturing Other

Improvements Equipment

a). 170 000

b). 23 000

c). 28 000

d). 1 700

e). 15 000

f). 250 000

g). 148 000

h). (6 800)

i). 350 000

j). 22 000

k). 1 900

l). 4 200

m). 2 700

TOTAL 192 900 - 660 000 154 100 2 700

**2. Journal entry:**

# Land Dr 192 900

Buildings Dr 660 000

Manufacturing equipment Dr 154 100

Repairs expense Dr 2 700

Property Cr 1 009 700

(Cost of acquisition reallocated)

### Exercise 11.26 DEPRECIATION

**Prepare general journal entries to record the above transactions.**

**ALICE LTD**

**JOURNAL ENTRIES**

**2014**

03/01 Machine 3 Dr 59 200

Cash Cr 59 200

(Machine 3 acquired:

$57 000 + $442 + $1758*)*

22/06 Vehicles Dr 16 200

Cash Cr 16 200

(Vehicle acquired:

$15 200 + $655 + $345*)*

28/08 Depreciation expense – Machine 1 Dr 5 400

Accumulated depreciation – Machine 1 Cr 5 400

(Machine 1 depreciation:

*($43 000 – $2 500)*/5 x 8/12*)*

Office furniture Dr 11 500

Accumulated depreciation – Machine 1\* Dr 31 725

Gain on sale \*\* Cr 225

Machine 1 Cr 43 000

(Disposal of Machine 1 and acquisition of office furniture)

*\* 1/5($43 000 – $2 500) x 47/12*

*\*\* Proceeds: $11 500*

*Carrying amount: $43 000 – $31 725 = $11 275)*

31/12 Depreciation expense – Buildings Dr 9 036

Depreciation expense – Machinery Dr 18 540

Depreciation expense – Vehicles Dr 14 098

Depreciation expense – Office furniture Dr 457

Accumulated depreciation – Buildings Cr 9 036

Accumulated depreciation – Machinery Cr 18 540

Accumulated depreciation - Vehicles Cr 14 098

Accumulated depreciation – Office furniture Cr 457

(Depreciation of assets)

*Buildings*: ($185 720 – $5000)/20 years

*Machinery*: [Machine 2: ($48 000 – $3000)/6yrs = $7500]

+ [Machine 3: ($59 200 – $4000)/5yrs = $11 040])

*Vehicles*: [($46 800 – $19 656) x 40% = $10 858] +

[$16 200 x 40% x 6/12 = $3240]

*Office furniture*: [($11 500 – $540)/8 x 4/12 = $457)

*Note: CA of old vehicles is now = $27 144 – $10 858 = $16 286*

*CA of new vehicle is now = $16 200 – $3240 = $12 960)*

**2015**

30/04 Repairs and maintenance expense Dr 928

Cash Cr 928

(Repairs and maintenance on machinery)

25/05 Depreciation expense – Vehicles Dr 1 357

Accumulated depreciation – Vehicles Cr 1 357

(One old vehicle depreciation:

$16 286/2 x 40% x 5/12)

Accumulated depreciation – Vehicles \* Dr 16 614

Cash Dr 6 600

Loss on vehicle sold \*\* Dr 186

Vehicles Cr 23 400

(Disposal of 1 old vehicle)

*\* ($19 656 + $10 858)/2 + $1357*

*\*\* Proceeds of sale $6600*

*Carrying amount $6786*

26/06 Land improvements Dr 5 500

Cash Cr 5 500

(Installation of fence)

31/12 Depreciation expense – Buildings Dr 9 036

Depreciation expense – Machinery Dr 18 540

Depreciation expense – Vehicles Dr 8 441

Depreciation expense – Office furniture Dr 1 370

Depreciation expense – Land improvements Dr 275

Accumulated depreciation - Buildings Cr 9 036

Accumulated depreciation - Machinery Cr 18 540

Accumulated depreciation - Vehicles Cr 8 441

Accum. depreciation – Office furniture Cr 1 370

Accum. depreciation – Land improvements Cr 275

(Depreciation of assets)

*Buildings:* ($185 720 - $5000)/20 yrs = $9036

*Machinery*: [Machine 2: ($48 000 – $3 000)/6yrs = $7 500]

+ [Machine 3: ($59 200 – $4 000)/5yrs = $11 040])

*Vehicle*: [$8 143 + $12 960] x 40% = $8 441)

(*Office furniture*: ($11 500 -$540)/8yrs = $1 370)

(*Land improvements*: [($5 500 – 0)/10 x 6/12 = $275)

*CA of old vehicle is now = $8 143 – [$8 143 x 40%] = $4 886)*

*CA of new vehicle is now = $12 960 – [$12 960 x 40%] = $7 776)*

**2016**

05/01 Accumulated depreciation – Machine 2 Dr 36 875

Machine 2 Cr 36 875

(Machine 2 written down to CA:

$7 500 x 59/12)

Machine 2 Dr 12 000

Cash Cr 12 000

(Machine 2 overhauled)

*Machine 2’s total cost ($48 000 + $12 000) $60 000*

*Accum. depreciation to 31/12/12 - ($7 500 x 59/12) (36 875)*

*Carrying amount at 05/01/13 23 125*

*Revised estimated residual value (5 000)*

*Revised depreciable amount $18 125*

*M2’s remaining useful life = 6 years – 4 years 11 months + 1 year*

*= 2 years 1 month*

*= 25 months*

*M2’s depreciation expense p.a. = $18 125/25 x 12*

*= $8 700*

20/06 Depreciation expense – Vehicles Dr 977

Accumulated depreciation – Vehicles Cr 977

(1 old vehicle depreciation:

$4886 x 40% x 6/12)

20/06 Vehicles \* Dr 27 000

Accumulated depreciation – Vehicles \*\* Dr 19 491

Loss on sale of vehicle \*\*\* Dr 209

Cash \*\*\*\* Cr 23 300

Vehicles Cr 23 400

(Trade-in of old vehicle for new vehicle)

*\* $3 700 + $22 000 + $500 + $800*

*\*\*$15 257 at 31/12/11 + $3 257 + $977 = $19 491*

*\*\*\* Carrying amount = $3 909 = $23 400 - $19 491*

*Proceeds = $3 700)*

*\*\*\*\* $22 000 + $500 + $800*

04/10 Depreciation expense – Vehicles Dr 2 333

Accumulated depreciation – Vehicles Cr 2 333

(Depreciation of vehicles:

$7776 x 40% x 9/12)

Accumulated depreciation – Vehicles \* Dr 10 757

Loss on scrapping of vehicles \*\* Dr 5 443

Vehicles Cr 16 200

(Vehicle scrapped)

*\* $3240 + $5184 + $2333*

*\*\* $16 200 – $10 757*

31/12 Depreciation expense - Buildings Dr 9 036

Depreciation expense – Machinery Dr 19 740

Depreciation expense – Vehicles Dr 5 400

Depreciation expense – Office furniture Dr 1 370

Depreciation expense – Land improvements Dr 550

Accumulated depreciation – Buildings Cr 9 036

Accumulated depreciation – Machinery Cr 19 740

Accumulated depreciation - Vehicles Cr 5 400

Accumulated depreciation – Office furniture Cr 1 370

Accum. Depreciation – Land improvements Cr 550

(Depreciation expense)

*Buildings:* ($185 720 - $5 000)/20yrs

*Machinery*: [Machine 2 = $8700] + [Machine 3 = $55 200/5y = $11 040]

*Vehicles*: [$27 000 x 40% x 6/12 ]

*Office furniture*: $10 960/8 years

*Land improvements*: $5 500/10 years)

*Note: CA of vehicles is now = $27 000 – $5 400 = $21 600)*

### Exercise 11.27 DEPRECIATION

**Prepare general journal entries to record the above transactions.**

**Chorin Ltd**

**GENERAL JOURNAL ENTRIES**

03/08/13 Machine 4 Dr 37 800

Cash Cr 37 800

(Purchase of Machine 4)

15/11/13 Repairs expense Dr 600

Cash Cr 600

(Payment of vehicle repairs)

30/12/13 Depreciation – Vehicles Dr 2 646

Accumulated depreciation – Vehicles Cr 2 646

(Depreciation of vehicles:

($160 000 – $89 440)/4 x 30% x 6/12)

Fixtures Dr 16 000

Accumulated depreciation – Vehicles \* Dr 25 006

Gain on sale of vehicles \*\* Cr 1 006

Vehicles Cr 40 000

(Disposal of vehicle for fixtures)

*\* $89 440/4 + $2 646*

*\*\* Carrying amount: $14 994 = $40 000 – $25 006*

*Proceeds: $16 000 exchange*

10/03/14 Depreciation – Machinery Dr 3 750

Accumulated depreciation – Machinery Cr 3 750

(Depreciation of Machine 1: $22 500/4 x 8/12*)*

Cash Dr 5 000

Accumulated depreciation – Machinery\* Dr 19 219

Loss on sale of Machine 1 \*\* Dr 781

Machine 1 Cr 25 000

(Sale of Machine 1)

*\* $5 625 x 41/12*

*\*\* Carrying amount – Mach 1: $5 781 = $25 000 – $19 219*

*Proceeds $5000*

30/06/14 Depreciation – Machinery Dr 20 888

Accumulated depreciation– Machinery Cr 20 888

(Depreciation expense)

*M2: $38 000/5 = $7600*

*M3: $28 000/4 = $7000*

*M4: $34 300/5 x 11/12 = $6288*

Depreciation – Vehicles Dr 15 876

Accumulated depreciation – Vehicles Cr 15 876

(Depreciation expense:

30% x ([$160 000 x ¾] – [$89 440 x ¾]))

Depreciation expense – Building Dr 13 680

Accumulated depreciation – Building Cr 13 680

(Depreciation expense: $273 600/20*)*

Depreciation expense – Land improvements Dr 1 200

Accum. Depreciation – Land improvements Cr 1 200

(Depreciation expense*:* $18 000/15)

Depreciation expense – Fixtures Dr 1 350

Accumulated depreciation – Fixtures Cr 1 350

(Depreciation expense: $13 500/5 x 6/12)

20/09/14 Depreciation – Machinery Dr 1 750

Accumulated depreciation– Machinery Cr 1 750

(Machine 3 depreciation expense: $7000 x 3/12*)*

Machinery (M5) Dr 44 000

Accumulated depreciation – Machinery \* Dr 22 167

Gain on sale of machinery (M3) \*\* Cr 1 167

Machinery (M3) Cr 31 000

Cash Cr 34 000

(Trade-in of Machine 3 for machine 5)

*\* $7000 x 38/12*

*\*\* Carrying amount of Mach 3: $8 833 = $31 000 – $22 167*

*Proceeds $10 000*

30/12/14 Depreciation expense – Machinery Dr 3 800

Accumulated depreciation – Machinery Cr 3 800

(Depreciation expense - Machine 2:

$7600 x 6/12*)*

Accumulated depreciation – Machinery \* Dr 30 400

Loss on scrapping of Machine 2 Dr 11 600

Machinery Cr 42 000

(Scrapping of Machine 2)

*\* $7600 x 48/12)*

08/02/15 Depreciation expense – Machinery \* Dr 4 002

Accumulated depreciation – Machinery Cr 4 002

(Depreciation expense – Machine 4:

$6860 x 7/12*)*

Accumulated depreciation – Machinery Dr 10 290

Machinery Cr 10 290

(Write-back of accumulated depreciation – Machine 4:

$6860 x 18/12*)*

Machinery Dr 8 000

Cash Cr 8 000

(Overhaul of Machine 4)

*M4: CA at 08/02/15 - (37 800 – 10 290) $27 510*

*Add: Overhaul cost 8 000*

*Revised CA 35 510*

*Less: Revised RV (5 000)*

*Revised depreciable amount $30 510*

*Revised depreciation = $30 510/2 = $15 255 p.a.*

30/06/15 Depreciation expense – Machinery Dr 11 231

Accumulated depreciation – Machinery Cr 11 231

(Depreciation expense for Machines 4 and 5:

M4: $15 255 x 5/12 = $6356

M5: $39 000/6 x 9/12 = $4875)

Depreciation expense – Vehicles Dr 11 113

Accumulated depreciation – Vehicles Cr 11 113

(Depreciation expense for vehicles:

[$120 000 – $67 080 – $15 876] x 30%)

Depreciation expense – Building Dr 13 680

Accumulated depreciation – Building Cr 13 680

(Depreciation expense for building:

$273 600/20*)*

Depreciation expense – Land improvements Dr 1 200

Accum. depreciation – Land improvements Cr 1 200

(Depreciation expense for land improvements:

$18 000/15*)*

Depreciation expense – Fixtures Dr 2 700

Accumulated depreciation – Fixtures Cr 2 700

(Depreciation expense for fixtures:

$13 500/5)

1. [↑](#footnote-ref-1)