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IFRS®

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PROPERTY, PLANT AND EQUIPMENT

(IAS – 16)

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Objective

Prescribe the accounting treatment for property, plant and equipment so that users of the financial statements can discern information about an entity's investment in its property, plant and equipment and the changes in such investment.

Scope

- **This Standard shall be applied in accounting for property, plant and equipment except when another Standard requires or permits a different accounting treatment.**
- This **Standard does not** apply to:

(a) IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations*.

(b) IAS 41 Agriculture (Exclude Bearer Plant)

(c) IFRS 6 *Exploration for and Evaluation of Mineral Resources*.

(d) mineral rights and mineral reserves such as oil, natural gas and similar non-regenerative resources (that cannot be re-used again).

- An entity using the cost model for investment property in accordance with IAS 40 *Investment Property* shall use the cost model in this Standard for owned investment property.

What is an asset?

- a resource;
- controlled by an entity;
- as a result of past events; and
- from which future economic benefits are expected to flow to the entity.

Definitions

- **Bearer Plant is a living plant that:**

(a) is used in the production or supply of agricultural produce;

(b) is expected to bear produce for more than one period; and has a remote likelihood of being sold as agricultural produce, except for incidental scrap sales.

- **Carrying Amount**

Cost	XXX
Accumulated Depreciation	(XXX)
Accumulated Impairment Losses	(XXX)
	XXX

- **Cost** is 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

- **Depreciable amount**

Cost	XXX
Residual Value	XXX
	XXX

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

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Entity-specific value

Present value of the cash flows an entity

- expects to arise from the continuing use of an asset and from its disposal
- at the end of its useful life or expects to incur when settling a liability.

Fair value

Price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

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Impairment loss

Carrying Amount ≥ Recoverable Amount

Carrying Amount	XXX
Recoverable Amount	(XXX)
	XXX

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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.

Recoverable amount

Higher of

Asset's fair value less costs to sell **OR** its value in use.

Residual value

Amount received on asset disposal	XXX
Cost of disposal	(XXX)
	XXX

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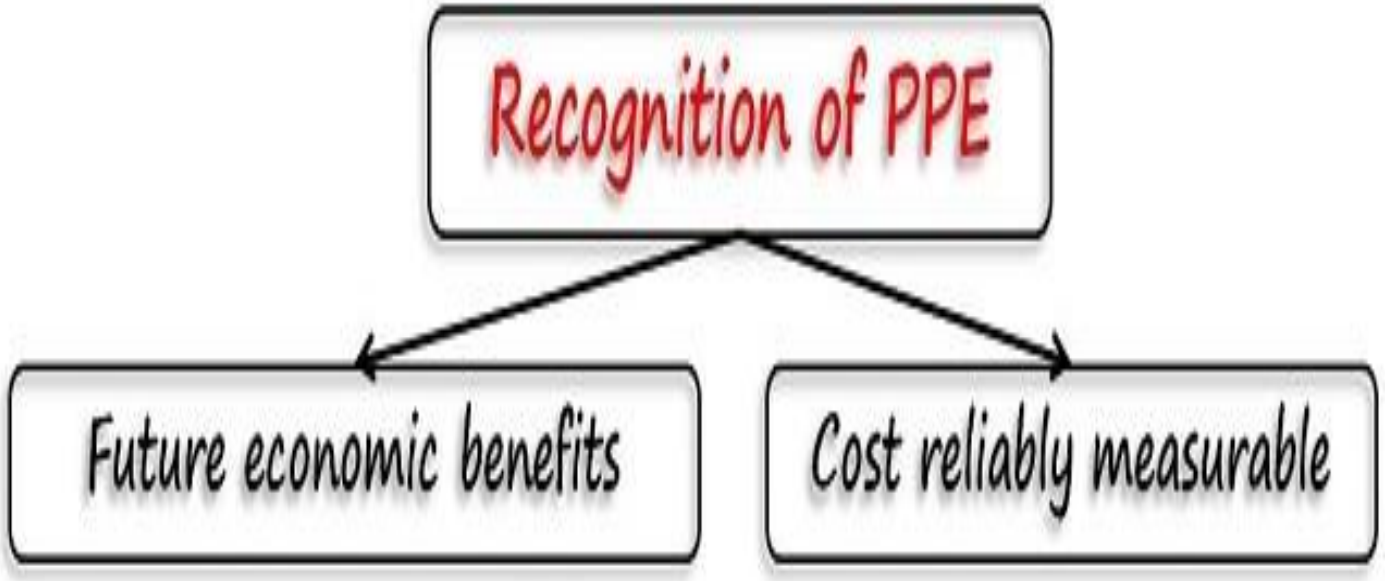
***Useful life* is:**

(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.

Recognition



Component of Cost

A part is considered to be significant if its cost is significant in relation to the total cost of the asset.

Example

ICI Limited bought a train for PKR 1,000,000 on 15 January 20X1, in cash. It is considered to have two significant parts, the costs of which have been estimated as follows:

- Engine: PKR 300, 000
- Carriages: PKR 500, 000

The balance of the train is constituted by various moving parts, non-moving parts and chairs in some of the carriages. These remaining parts are individually insignificant.

Required:

a) Show the journal entry to record the purchase of the train.

Solution

Train engine: cost (asset)	300 000
Train carriages: cost (asset)	500 000
Train other parts: cost (asset)	
(*balancing*)	200 000
Bank	**1 000 000**

(Purchase of train)

Spare Parts, Standby Equipment & Servicing Equipment

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Items such as spare parts, stand-by equipment and servicing equipment (switch, circuit breakers etc) are recognised in accordance with this IFRS when they meet the definition of property, plant and equipment. Otherwise, such items are classified as inventory.

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Spare parts & Servicing Equipment

IAS 2
Inventories

IAS 16
Property, Plant and Equipment

- Held for:
  - resale (merchandise)
  - consumption in the production
  - rendering services
- Less than 1 period

- Held:
  - for operation in connection with an item of PPE
  - as PPE itself
- More than 1 period

Unit of Measure

This Standard does not prescribe the unit of measure for recognition, i.e. what constitutes an item of property, plant and equipment.

Use professional judgement to apply recognition criteria.

PPE for Safety & Environmental Reasons

Recognise as assets since entity derive future economic benefits.

For example, a chemical manufacturer may install new chemical handling processes to comply with environmental requirements for the production and storage of dangerous chemicals; related plant enhancements are recognised as an asset because without them the entity is unable to manufacture and sell chemicals.

Test carrying amount of such an asset for impairment in accordance with IAS 36 *Impairment of Assets*.

Application Example

Company ABC operates in the pharmaceutical industry. To run its plants it must abide by several environmental and chemical safety standards. To do so the company has hired several engineers to develop specific processes that will ensure compliance. It has also acquired specified quality control and monitoring equipment.

This equipment is not necessary for the production of goods and services, yet it is important for ensuring compliance with the environmental and chemical safety standards.

The process development costs, as well as the equipment, are capitalized under IAS 16.

Subsequent Cost

- Replacements and overhauls should be capitalised if they lead to an **enhancement in performance**
- All other subsequent expenditure should be recognised as an expense in the period in which it is incurred
- Day-to-day servicing costs are revenue expenditure

Example

ABC & Co., has acquired a heavy road transporter at a cost of Rs. 100,000 (with no breakdown of component parts). The estimated useful life is 10 years. At the end of the sixth year, the power train requires replacement, as further maintenance is uneconomical due to the off-road time required. The remainder of the vehicle is perfectly road worthy and is expected to last for the next four years. The cost of the new power train is Rs. 45,000.

Can the cost of new power train can be recognized as the asset, and if so, what treatment should be used?

Solution

- The new power train will produce economic benefits to the ABC & Co.; and
- Cost of the power train can be measured reliably. Hence, the item should be recognized as the asset.
- The cost Rs. 45,000 of new power train will be added to the carrying amount.

- The original invoice of the transporter did not specify the cost of the power train. Therefore, the cost of replacement Rs. 45,000 will be used as indicative price and discount to year 1, i.e., (45,000/ 1.05^6) = 33,500. It is assumed that discount rate used is 5%.
- Revised Cost = (100,000 - 33,500 + 45,000) = 111,500

Day to Day running cost

If an aircraft is repainted, how should this expenditure be treated?

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Solution:

The repainting costs should be written off to profit and loss in the period that the expense was incurred.

The costs are deemed to be part of the day to day running or servicing costs, which do not lead to an increase or an enhancement in the performance of the aircraft.

Enhancement in performance

M Limited installs a new production process in its factory at a cost of PKR 50,000. This enables a reduction in operating costs (as assessed when the original plant was installed) of PKR 10,000 per year for at least for the next 15 years.

Requirement

How should the expenditure be treated?

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Solution

It should be capitalised and added to the original cost of the plant as it results in an enhancement of the economic benefits.

Replacement Cost

- An entity recognises in the carrying amount of an item of property, plant and equipment the cost of replacing part of such an item when that cost is incurred if the recognition criteria are met.

- The carrying amount of those parts that are replaced is de-recognised in accordance with the de-recognition provisions of this Standard.

Inspection Cost

- **Major inspection** =

Cost if the recognition criteria are satisfied.

- **Previous inspection** =

De-recognised

Example - 01

A company buys an aircraft for PKR 9,000,000. Under civil aviation rules, the aircraft requires a major inspection every three years at a cost of PKR 200,000. Three years after the purchase of the aircraft it undergoes its first major inspection. The costs in relation to the inspection amounted to PKR 220,000.

Solution - 01

The original carrying value would have been allocated as follows:

	PKR
Aircraft	8,800,000
Costs of inspection	200,000
	9,000,000

The original cost of inspection will be de-recognised and the new inspection costs will be recognised in the carrying amount of the asset.

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New inspection costs = asset addition

Original inspection costs = asset disposal

	PKR
Aircraft	8,800,000
Original costs of inspection	(200,000)
New costs of inspection	220,000
	8,820,000

Example - 02

On 1 June 2009, a company spent PKR 100,000 to replace the wall lining of one of its two furnaces. The furnace had been acquired six years previously and had a carrying value, at 1 June 2009, amounting to PKR 420,000. Of this amount, PKR 20,000 related to the original wall lining.

Solution - 02

Cost of replacement wall lining	=	Asset
Carrying amount of the original lining	=	De-recognised.

The carrying amount of the furnace =

PKR 500,000

(PKR 420,000 + PKR 100,000 – PKR 20,000).

Gain or loss on the disposal of the old lining	=	SOCI

This will be the amount received on disposal less the carrying amount of PKR 20,000.

Measurement at Recognition

An item of property, plant and equipment that qualifies for recognition as an asset shall be measured at its cost.

Example - 01

- PKR 100 cost, 7% sales tax
- PKR 10 to transport to plant, PKR 5 storage cost (plant not ready)
- PKR 3 labor, PKR 2 materials to calibrate machine. PKR 4 recovered from trial run production

- Used at 50% of capacity: costs = PKR 50, sales = PKR 55
- PKR 11 to consultant for services related to choice of machine and calibration
- PKR 1 interest cost during one month storage

Solution

Equipment cost:

Invoice and tax: 100 + 7 =	PKR	107
Transportation		10
Calibration: 3 + 2 – 4 =		1
Professional fees		11
	PKR	129

Example - 02

A manufacturing company commissioned the building of a new factory. The costs associated are as follows:

Site selection	PKR 30,000	Site purchase	PKR 1,000,000
Architect's fees	PKR 50,000	Eng. fees	PKR 150,000
Legal fees	PKR 50,000	Constr. costs	PKR 1,500,000
Testing and checking (*Note 1*)	PKR 250,000	Admin. costs	PKR 500,000

The plant was available for use on 31 March 2012 and reached normal production levels by 31 October 2012.

Note 1: This includes PKR 50,000 in connection with a six-monthly diagnostic check of machinery.

Requirement

Calculate the cost to be recorded as an asset in the statement of financial position.

Solution

Site cost	1,000,000
Construction cost	1,500,000
Architects fees	50,000
Legal fees	50,000
Engineers fees	150,000
Testing costs	200,000
Total cost	**2,950,000**

Note 1: PKR 50,000 re. diagnostic check not included as it is not a direct cost, nor was it a cost relating to the start-up period.

Note 2: Site selection and admin. overheads are not direct costs and are therefore excluded.

Elements of Cost

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.

Directly Attributable Cost

Examples of directly attributable costs are:

(a) costs of employee benefits (as defined in IAS 19 *Employee Benefits*) arising directly from the construction or acquisition of the item of property, plant and equipment;

(b) costs of site preparation;

(c) initial delivery and handling costs;

(d) installation and assembly costs;

(e) costs of testing whether the asset is functioning properly, after deducting the net proceeds from selling any items produced while bringing the asset to that location and condition

(f) professional fees.

Dismantling Cost

The obligations for costs accounted for in accordance with IAS 16 are recognised and measured in accordance with IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*.

Non – PPE Cost

Examples of costs that are not costs of an item of property, plant and equipment are:

(a) costs of opening a new facility;

(b) costs of introducing a new product or service (including costs of advertising and promotional activities);

(c) costs of conducting business in a new location or with a new class of customer (including costs of staff training); and

(d) administration and other general overhead costs.

Example - 01

ABC & Co., is installing a new plant at its production facility. It has incurred these costs:

- Cost of the plant Rs. 250,000.
- Initial delivery and handling cost Rs. 20,000.
- Cost of site preparation Rs. 60,000.
- Consultants used to advice on the acquisition Rs. 70,000.
- Interest charges paid to supplier for deferred credit Rs. 20,000.
- Estimated dismantling cost to be incurred after 7 years Rs. 30,000.
- Operating losses before commercial production Rs. 40,000.

Find out the costs to be capitalized as per IAS-16?

Solution - 01

Cost to be capitalized include:

Cost of the plant	Rs.250,000.
Initial delivery and handling cost	Rs.20,000.
Cost of site preparation	Rs. 60,000.
Consultants used to advice on the acquisition	Rs. 70,000.
Estimated dismantling cost to be incurred after 7 years	Rs. 30,000.
Total Cost = (250,000 + 20,000 + 60,000 + 70,000 + 30,000)	**= 430,000.**

Interest charges can be capitalized as per allowed alternative treatment of IAS-23 Borrowing Cost.

Example - 02

ABC incurs the following costs in relation to the construction of a new factory and the introduction of its products to the local market.

	PKR'000
Site preparation costs	240
Materials used	1,500
Labour costs, including PKR 90,000 incurred during an industrial dispute.	3,190
Testing of various processes in factory	150
Consultancy fees re installation of equipment	220
Relocation of staff to new factory	110
General overheads	500
Costs to dismantle the factory at end of its useful life in 10 years time	100

Question: How much of the costs should be capitalised?

Solution - 02

	PKR'000
Site preparation costs	240
Materials used	1,500
Labour costs (PKR 3,190 – PKR 90)	3,100
Testing of various processes in factory	150
Consultancy fees re installation of equipment	220
Relocation of staff to new factory	–
General overheads	–
Costs to dismantle the factory at end of its useful life in 10 years time	100
	5,310

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Example: Cost

A company has purchased a large item of plant.
The following costs were incurred.

List price of the machine	1,000,000
Trade discount given	50,000
Delivery cost	100,000
Installation cost	125,000
Cost of site preparation	200,000
Architect's fees	15,000
Administration expense	150,000

Local government officials have granted the company a license to operate the asset on condition that the company will remove the asset and return the site to its former condition at the end of the asset's life.

The company has recognised a liability of Rs. 250,000 in respect of the expected clearance cost.

The cost of the asset is as follows:

Purchase price of the machine (1,000,000 – 50,000)	950,000
Delivery cost	100,000
Installation cost	125,000
Cost of site preparation	200,000
Architect's fees	15,000
Decommissioning cost	250,000
	1,640,000

Recognition Criteria Cease

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Recognition of costs in the carrying amount of an item of property, plant and equipment **ceases** when the item is in the location and condition necessary for it to be capable of operating in the manner intended by management.

Therefore, costs incurred in using or redeploying an item are not included in the carrying amount of that item.

Cost NOT included

(a) costs incurred while an item capable of operating in the manner intended by management has yet to be brought into use or is operated at less than full capacity;

(b) initial operating losses

(c) costs of relocating or reorganising part or all of an entity's operations.

Incidental Cost

Income and related expenses of incidental operations are recognised in profit or loss and included in their respective classifications of income and expense.

Self- Constructed Asset

The cost of a self-constructed asset is determined using the same principles as for an acquired asset.

Exclude:

- Internal profits are eliminated in arriving at such costs.
- Cost of abnormal amounts of wasted material, labour, or other resources

IAS 23 *Borrowing Costs* establishes criteria for the recognition of interest as a component of the carrying amount of a self-constructed item of property, plant and equipment.

Definition (Self- Constructed Asset)

A ‘Self-Constructed Asset’ is an asset that a firm elects to build on its own rather than purchasing it from another business.

USED in the operation of the business

NOT USED in inventory or stock that would be sold to customers.

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Self-Constructed Assets' = Construction- In-Progress (CIP).

- Fixed asset account
- Do not record depreciation.

Asset ready for used = the value is moved from the CIP account and 'Booked' as a traditional Fixed Asset.

Accounting Entry

DEBIT	-	Fixed Asset – Nature (Equipment)	XXX
CREDIT	-	Construction in progress	XXX

When self constructed asset becomes fixed asset, thereafter we will start depreciating it.

Bearer Plant

- Bearer plants are accounted for in the same way as self-constructed items of property, plant and equipment before they are in the location and condition necessary to be capable of operating in the manner intended by management.

- **References to ‘construction’**

Activities that are necessary to cultivate the bearer plants before they are in the location and condition necessary to be capable of operating in the manner intended by management.

PPE Cost

PPE Cost = cash price equivalent at the recognition date.

Delayed Payment =

The difference between the cash price equivalent and the total payment is recognised as interest over the period of credit unless such interest is capitalised in accordance with IAS 23.

Payment in cash – normal credit terms

A company purchased a machine for PKR 100 000. There were no individually significant parts.

The purchase price is payable within normal credit terms.

Required:

Show the journal entries relating to the purchase and payment of the machine.

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FIRST ENTRY:

Machine: cost (asset)	100 000	
Trade accounts payable (liability)		100 000

Purchase of machine on normal credit terms

SECOND ENTRY:

Trade accounts payable (liability)	100 000	
Bank		100 000

Payment made to supplier of machine

Payment in cash – beyond normal credit terms

A company purchased a machine for PKR 100 000. There were no individually significant parts.

The purchase price is payable after one year. This is considered to be a longer than normal credit term. The present value of this amount, calculated using 10%, being an appropriate rate of interest, is PKR 90 909.

Required:

Show the journal entries relating to the purchase and payment of the machine

Machine: cost (asset)	90 909	
Trade accounts payable (liability)		90 909

Purchase of machine on normal credit terms

Finance costs (expense)	9 091	
Trade accounts payable (liability)		9 091

Finance costs on present value of purchase price: 90 909 x 10%

Trade accounts payable (liability)	100 000	
Bank		100 000

Payment made to supplier of machine

Exchange of Assets

PPE cost = Fair Value unless

(a) the exchange transaction lacks commercial substance or

(b) the fair value of neither the asset received nor the asset given up is reliably measurable.

If the acquired item is not measured at fair value, its cost is measured at the carrying amount of the asset given up.

Commercial Substance - Definition

A business transaction is said to have commercial substance when it is expected that the future cash flows of a business will change as a result of the transaction.

A change in cash flows is considered to be when there is a significant change in any one of the following:

- ***Risk.*** Such as experiencing an increase in the risk that inbound cash flows will not occur as the result of a transaction; for example, a business accepts junior secured status on a debt in exchange for a larger repayment amount.
- ***Timing.*** Such as a change in the timing of cash inflows received as the result of a transaction; for example, a business agrees to a delayed payment in exchange for a larger amount.
- ***Amount.*** Such as a change in the amount paid as the result of a transaction; for example, a business receives cash sooner in exchange for receiving a smaller amount.

Commercial Substance

An exchange transaction has commercial substance if:

(a) the **configuration** (risk, timing and amount) of the cash flows of the asset received differs from the configuration of the cash flows of the asset transferred; or

(b) the **entity-specific value** of the portion of the entity's operations affected by the transaction changes as a result of the exchange; and

(c) the **difference in (a) or (b)** is significant.

FV Steps

Initially = Fair Value

Second (If initial is not available) = Fair Value of asset given up

Third (If both above is not available) = Fair Value of asset received

Exchange of assets where both fair values are known

A company exchanged machine A (given up) for another machine, machine B (acquired):

	PKR
Machine A:	
Carrying amount (cost: PKR 18 000 and accumulated depreciation: PKR 8 000)	10000
Fair value	11 000
Machine B:	
Fair value	12 000

The difference in fair values is considered to be immaterial.

Required:

Discuss how this exchange should be recorded, if at all.

Solution

The old asset must be removed from the books and replaced by the new asset at the fair value of the asset being given up, being PKR 11 000. The journal entry will be as follows:

Machine: cost (B)	11 000	
Machine: cost (A)		18 000
Machine: accumulated depreciation (negative A)	8 000	
Profit on exchange of assets (balancing)		1 000

Exchange of machines: machine B measured at FV of machine A

Exchange of assets where both fair values are known

A company exchanged machine A (given up) for another machine, machine B (acquired):

Machine A:

Carrying amount (cost: PKR 18 000 and accumulated depreciation: PKR 8 000)	10 000
Fair value	11 000

Machine B:

Fair value	15 000

The difference in fair values is considered to be *material* and the fair value of machine B is more clearly evident than the fair value of machine A.

Required:

Discuss how this exchange should be recorded, if at all.

Solution

The old asset must be removed from the books and replaced by the new asset at the fair value of the asset being acquired (since the difference in the fair values is considered to be material, the fair value of the asset acquired is considered to be more clearly evident than the fair value of the asset given up), being PKR 15 000. The journal entry will be as follows:

Machine: cost (B)	15 000	
Machine: cost (A)		18 000
Machine: accumulated depreciation (negative A)	8 000	
Profit on exchange of assets (balancing)		5 000

(Exchange of machines: machine B measured at its fair value)

Exchange of assets where the fair value of the asset given up is unknown

A company exchanges machine A (given up) for another machine, machine B (acquired):

Machine A:

Carrying amount (cost: PKR 18 000 and accumulated depreciation: PKR 8 000)	10 000
Fair value is not reliably determinable	

Machine B:

Fair value	12 000

Required:

Discuss how this exchange should be recorded, if at all.

Solution

The *previous* asset must be removed from the books and be replaced by the fair value of the *newly acquired* asset (since the fair value of the previous asset is not available), being PKR 12 000. The journal entry will be as follows:

Machine: cost (B)	12 000	
Machine: cost (A)		18 000
Machine: accumulated depreciation (negative A)	8 000	
Profit on exchange of assets		2 000

(Exchange of machines: machine B measured at its fair value)

Exchange of assets with no commercial substance

Assume that a machine, with a carrying amount of PKR 45 000 (cost: PKR 50 000 and accumulated depreciation: PKR 5 000), is given in exchange for another similar machine. The exchange is considered to have no impact on future cash flows (or present value thereof) of the business as a whole.

Required:

Discuss how this should be recorded in the general ledger, if at all, assuming that:

A. the fair value of the machine *given up* is PKR 30 000 (the fair value of the newly acquired machine is unavailable);

B. the fair value of the *newly acquired* machine is PKR 30 000 (the fair value of the machine given up is unavailable); and

C. neither the fair value of the machine given up nor the machine acquired is available.

A: Exchange of assets with no commercial substance

If the difference is considered to be material and if the fair value is considered to be an indication of the impairment of the asset, the carrying amount of the asset being given up must first be impaired to its fair value. The journal would be as follows:

Impairment loss (E)	15 000	
Machine: accumulated depreciation and		
impairment loss (-A)		15 000

Adjustment for the impairment loss of machine given up:

PKR *45 000* – PKR *30 000* = PKR *15 000*

B: Exchange of assets with no commercial substance

The material difference between the carrying amount of the asset given up and the fair value of the acquired asset suggests one of two things. Either:

i. the two assets are truly similar but the asset given up is impaired; or

ii. the two assets are not truly similar and therefore the loss on exchange must result from a bad business decision (the entity disposed of the asset for less than its true value).

B (i) The assets are truly similar

The fair value of the two machines should be similar. If the difference is considered to be material and if the fair value is considered to be an indication of the impairment of the asset, the machine given up will first have to be impaired to its fair value as follows:

Impairment loss (E)	15 000	
Vehicles: accumulated depreciation and impairment loss (-A)		15 000

Adjustment for the impairment loss of the machine given up:

PKR *45 000* – PKR *30 000* = PKR *15 000*

No further entry is required since the carrying amount of the previous machine has already been adjusted to the fair value of the newly acquired machine: PKR 30 000.

B (ii) The assets are not truly similar

If, although not reliably determinable, the fair value of the machine given up is alleged to roughly equate its carrying amount of PKR 45 000 and the fair value of the acquired machine truly is PKR 30 000, then the newly acquired machine must be measured at its own fair value (since this is more clearly evident or relevant than the fair value of the previous machine).

Machine: cost (newly acquired)	30 000	
Machine: cost (previous)		50 000
Machine: accumulated depreciation (previous)	5 000	
Loss on exchange of machines (45 000 – 30 000)	15 000	

(Exchange of dissimilar machines)

C: Exchange of similar assets where neither fair value is available

No adjustment is needed since the new machine must be assumed to be worth the same as the carrying amount of the machine that was given up.

Exchange of assets involving cash and cash equivalents

A company exchanged a vehicle and cash for a machine:

Vehicle:

Carrying amount (cost: PKR 18 000 and accumulated depreciation: PKR 8 000)	10 000
Fair value	10 000

Cash:	1 000

Machine:

Fair value	unknown

Required:

Show the related journal entry.

Solution

Vehicle: accumulated depreciation and impairment loss		8 000
Vehicle: cost	18 000	
Bank	1 000	
Cost: machine (fair value of old vehicle + cash paid)		11 000

(Vehicle and cash exchanged for a machine)

Exchange of assets involving cash and cash equivalents

A company exchanged a one-of-a-kind vehicle, designed and built by the entity, together with PKR 1 000 in cash for a machine.

Vehicle:

Carrying amount (cost: PKR 18 000 and accumulated depreciation: PKR 8 000)	10 000
Fair value (the vehicle is unique and there is therefore no active market for it)	unknown
Cash:	1 000
Machine:	
Fair value	12 000

Required:

Show the related journal entry.

Solution

Vehicle: accumulated depreciation and impairment loss	8 000	
Vehicle: cost	18 000	
Machine: cost: (fair value of new machine)		12 000
Bank	1 000	
Profit on exchange of assets	1 000	

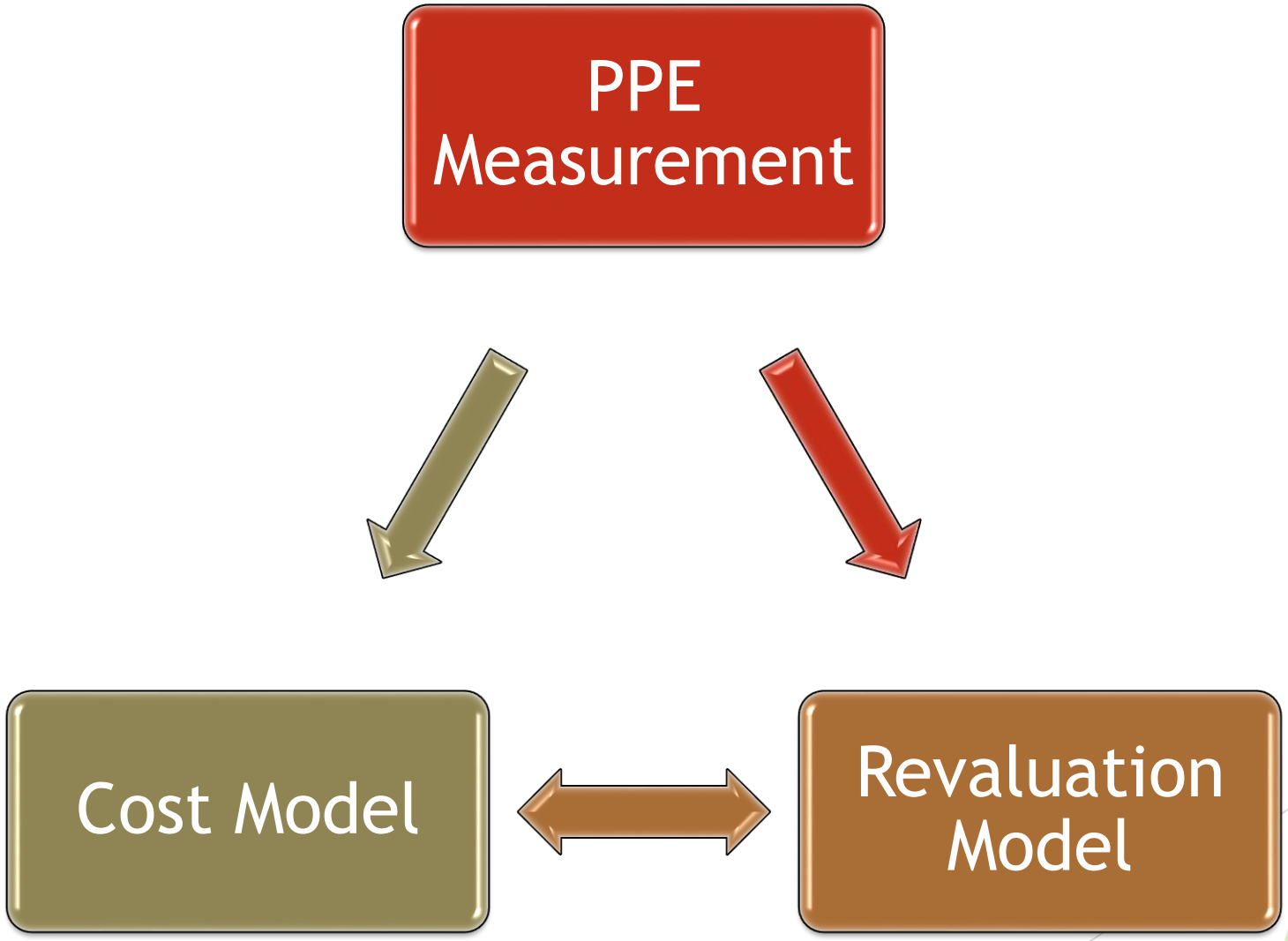
(Machine and cash exchanged for a vehicle)

Since the fair value of the asset given up is not available, the fair value of the acquired asset is used instead.

Government Grant

Cost	XXX
Accumulated Depreciation	(XXX)
Accumulated Impairment Losses	(XXX)
Carrying Amount	XXX
Government Grant	(XXX)
Net value	**XXX**

Measurement - Subsequently



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Cost Model

Cost

- Less – Accumulated Depreciation
- Less – Accumulated Impairment Losses

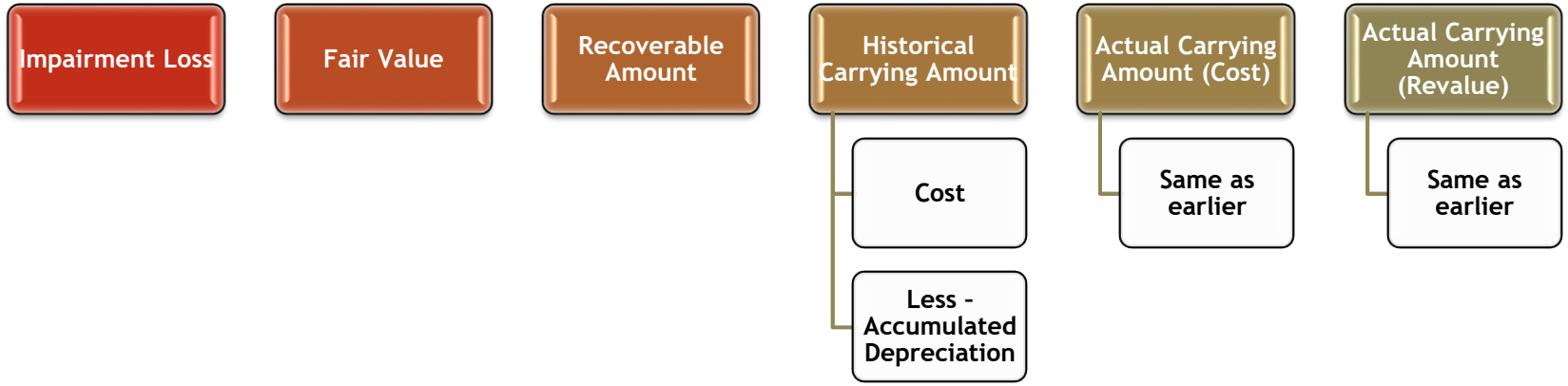
Revaluation Model

Fair Value being revalued amount at date of revaluation

Less – Subsequent Accumulated Depreciation

Less - Subsequent Accumulated Impairment Losses

Concepts


Impairment Loss
Fair Value
Recoverable Amount
Historical Carrying Amount
Cost
Less - Accumulated Depreciation
Actual Carrying Amount (Cost)
Same as earlier
Actual Carrying Amount (Revalue)
Same as earlier

Cost model - impairment loss

Cost of plant at 1/1/20X1: C100 000

Depreciation: 20% straight-line per annum (i.e. over a useful life of 5 years)

Recoverable amount at 31/12/20X1: C60 000

Recoverable amount at 31/12/20X2: C45 000

Required:

Provide the journals for both 20X1 and 20X2.

Solution

Impairment Loss = 20,000

Year : 01

Depreciation	20,000	
Accumulated depreciation		20,000

Impairment loss	20,000	
Accumulated impairment loss		20,000

Impairment Loss = 15,000

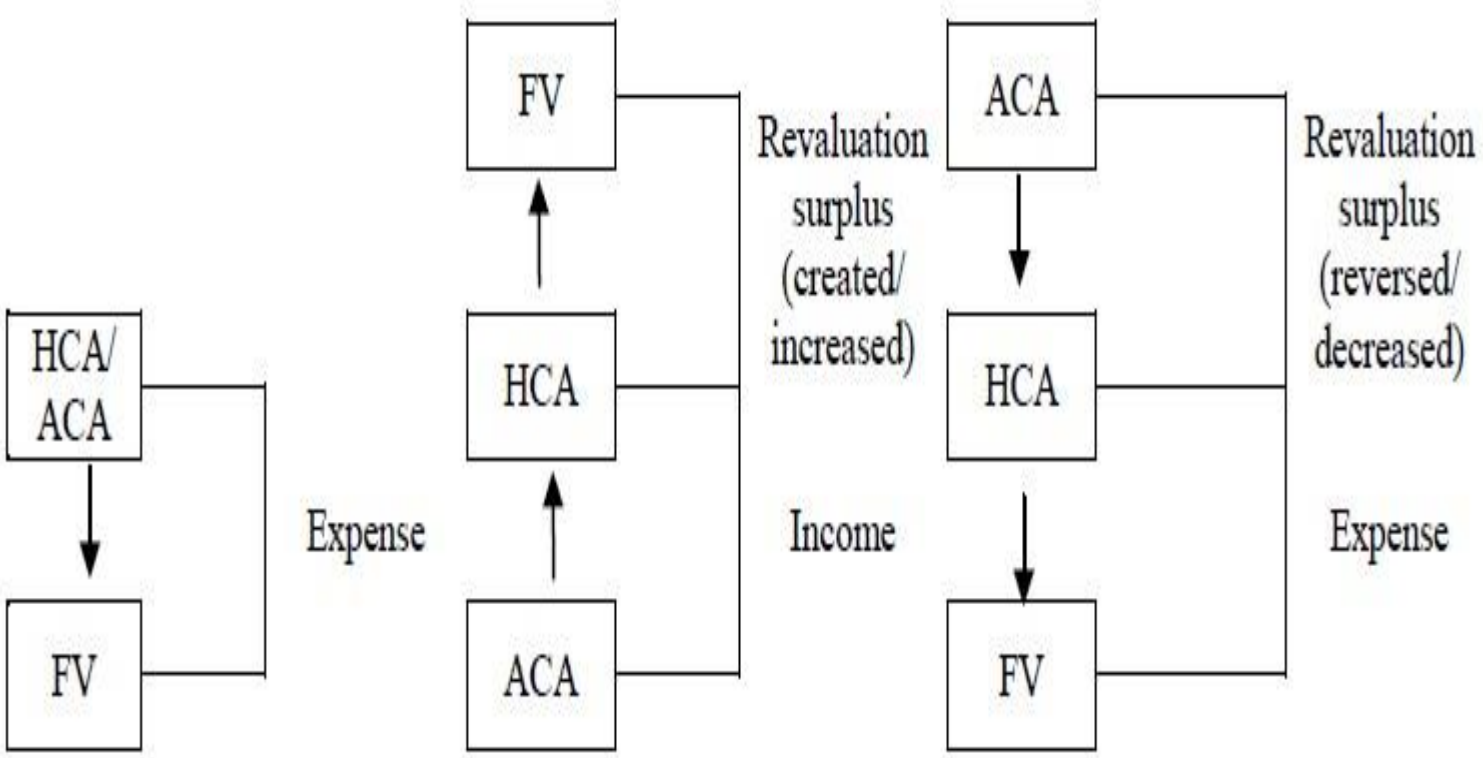
<u>Year : 02</u>

Depreciation	15,000	
Accumulated depreciation		15,000

Impairment loss	NIL	
Accumulated impairment loss		NIL

(60000-15000=45000-45000)

Revaluation model



Question

Cost: 1/1/20X1		120 000
Less accumulated depreciation: 31/12/20X2		(20 000)
Carrying amount (actual and historical): 31/12/20X2		**100 000**
Fair value: 1/1/20X3		90 000
Expected costs to sell: 1/1/20X3		5 000
Value in use: 1/1/20X3	130 000	
Recoverable amount		
(greater of value in use and fair value less costs to sell)		130 000
Value in use *Given*	130 000	
Fair value less costs to sell *90 000 – 5 000*		85 000

Revaluation Model – (the asset is not depreciated)

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Cost of land at 1/1/20X2: 100 000

Depreciation: This piece of land is not depreciated

Fair value

1/1/20X2	120 000
1/1/20X3	90 000
1/1/20X4	70 000
1/1/20X5	110 000

The company's policy is to leave any balance on the revaluation surplus intact until such time as the asset is disposed of.

Required:

Show the statement of financial position and ledger accounts for each of the years ended 31 December 20X2 to 20X5.

Revaluation Frequency

Revaluation Frequency = Changes in fair values.

FV of a revalued asset differs materially from its carrying amount = Further revaluation is required.

Significant & volatile FV changes =

Annual revaluation

In-significant & volatile FV changes =

No annual revaluations (only 03 to 05 years)

Accumulated Dep - Revaluation

When an item of property, plant and equipment is revalued, the carrying amount of that asset is adjusted to the revalued amount. At the date of the revaluation, the asset is treated in one of the following ways:

(a) the gross carrying amount is adjusted in a manner that is consistent with the revaluation of the carrying amount of the asset. For example, the gross carrying amount may be restated by reference to observable market data or it may be restated proportionately to the change in the carrying amount. The accumulated depreciation at the date of the revaluation is adjusted to equal the difference between the gross carrying amount and the carrying amount of the asset after taking into account accumulated impairment losses; **(Gross Replacement Method)**

(b) the accumulated depreciation is eliminated against the gross carrying amount of the asset. The amount of the adjustment of accumulated depreciation forms part of the increase or decrease in carrying amount. **(Net Replacement Method)**

Example

BC & Co., has an item of plant with an initial cost of Rs. 100,000. At the date of revaluation accumulated depreciation amounted to Rs. 55,000. The fair value of asset, by reference to transactions in similar assets, is assessed to be Rs. 65,000.

Find out the entries to be passed?

Method : 02

Carrying amount (100,000 – 55,000) =	45,000
Fair value (revalued amount)	65,000
Surplus	20,000
% of surplus (20,000/ 45,000)	**44.44%**

Entries to be Made:

Asset (100,000 x 44.44%)	Dr	44,440		
Accumulated Depreciation (55,000 x 44.44%)			Cr	24,442
Surplus on Revaluation			Cr	20,000

Revaluation Model – Accumulated Dep

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Plant cost at 1/1/20X1: PKR 100 000

Depreciation: 20% straight-line per annum to a nil residual value

Value at 1/1/20X2: PKR 90 000 calculated as follows:

Gross value	112 500
Accumulated depreciation	22 500
Net value (i.e. fair value)	90 000

The revaluation surplus is transferred to retained earnings over the life of the asset.

Required: Show the journals using the:

A) net replacement value method

B) gross replacement value method

Revaluation

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.

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;

(h) office equipment; and

(i) bearer plants.

- The items within a class of property, plant and equipment are revalued simultaneously to avoid selective revaluation of assets

Rolling Basis:

- Revaluation of the class of assets is completed within a short period
- Revaluations are kept up to date.

Revaluation Surplus

If an asset's carrying amount is increased as a result of a revaluation, the increase shall be recognised in other comprehensive income and accumulated in 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.

Revaluation Decrease

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 recognised in other comprehensive income to the extent of any credit balance existing in the revaluation surplus in respect of that asset. The decrease recognised in other comprehensive income reduces the amount accumulated in equity under the heading of revaluation surplus.

Revaluation Transfer

PPE de-recognised = Transfer revaluation surplus directly to retained earnings

Transfer = Whole of the surplus when the asset is retired or disposed of.

During lifetime of PPE = Surplus may be transferred as the asset is used by an entity.

Depreciation based on revalued carrying amount	=	XXX
Depreciation based on the asset's original cost	=	XXX
		XXX

Transfers from revaluation surplus to retained earnings are not made through profit or loss.

Example

An item of PPE was purchased for PKR 900,000 on 1 January 2007. It is estimated to have a useful life of 10 years and is depreciated on a straight line basis. On 1 January 2009, the asset is revalued to PKR 960,000. The useful life remains unchanged at ten years.

Solution

	PKR
Actual depreciation - revalued amount (960,000/8)	120,000
Depreciation - historical cost (900,000/10)	(90,000)
Difference	**30,000**

In the SCI for 2009, a depreciation expense of PKR 120,000 will be charged.

A reserve transfer, which will be shown in the statement of changes in equity, may be undertaken as follows:

Debit	-	revaluation surplus	30,000
Credit	-	retained earnings	30,000

The closing balance on the revaluation surplus on 31 December 2009 will therefore be as follows:

Balance arising on revaluation (PKR 960,000 – PKR 720,000)	240,000
Transfer to retained earnings	(30,000)
	210,000

Depreciation Entry

Depreciation or Constructed Asset xxx

Asset name: Accumulated depreciation xxx

(Depreciation of an asset)

Cost not significant in relation to total cost = depreciate separately.

Recognition = profit or loss unless it is included in the carrying amount of another asset.

Depreciation included in carrying amount =

Future economic benefits embodied in an asset are absorbed in producing other assets. In this case, the depreciation charge constitutes part of the cost of the other asset and is included in its carrying amount.

For example, the depreciation of manufacturing plant and equipment is included in the costs of conversion of inventories (see IAS 2).

Similarly, depreciation of property, plant and equipment used for development activities may be included in the cost of an intangible asset recognised in accordance with IAS 38 *Intangible Assets*.

Depreciable Amount & Period

The depreciable amount of an asset shall be allocated on a systematic basis over its useful life.

Residual value and the useful life of an asset =

Annual reviewed at least at each financial year-end and, if expectations differ from previous estimates, the change(s) shall be accounted for as a change in an accounting estimate in accordance with IAS 8.

Depreciation Recognised =

Fair Value ≥ Carrying Amount

Depreciation NOT Recognised =

Residual Value ≥ Carrying Amount

Repair and maintenance of an asset do not negate the need to depreciate it.

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Depreciable amount =

Cost - Residual value. In practice, the residual value of an asset is often insignificant and therefore immaterial in the calculation of the depreciable amount.

Residual Value ≥ Carrying Amount

Asset's depreciation charge is zero unless and until its residual value subsequently decreases to an amount below the asset's carrying amount.

Depreciation begins =

When it is available for use, ie when it is in the location and condition necessary for it to be capable of operating in the manner intended by management.

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Depreciation of an asset ceases =

At the earlier of the date that the asset is classified as held for sale (or included in a disposal group that is classified as held for sale) in accordance with IFRS 5 and the date that the asset is de-recognised.

Depreciation not ceased =

Therefore, depreciation does not cease when the asset becomes idle or is retired from active use unless the asset is fully depreciated.

However, under usage methods of depreciation the depreciation charge can be zero while there is no production.

The future economic benefits embodied in an asset are consumed by an entity principally through its use.

(a) **expected usage of the asset.** (for example, the total number of units expected to be manufactured by a plant)

(b) **expected physical wear and tear**. (for instance, this would be less in a company that has a repair and maintenance programme than in another company that does not have such a programme)

(c) **technical or commercial obsolescence** (which may shorten the asset's useful life)

The useful life of an asset must be reviewed at the end of each financial year.

Causes of depreciation

- Physical – wear and tear and erosion
- Economic factors – obsolescence and inadequacy
- Time
- Depletion

Useful Life

The useful life of an asset is defined in terms of the asset's expected utility to the entity.

The useful life of an asset may be shorter than its economic life.

Land and buildings are separable assets even when they are acquired together.

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Useful life of LAND =

Unlimited useful life, hence not depreciated

Useful life of BUILDING =

Limited useful life, hence depreciated

An increase in the value of the land on which a building stands does not affect the determination of the depreciable amount of the building.

Depreciation Methods

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

The depreciation method applied to an asset shall be reviewed at least at each financial year-end and, if there has been a significant change in the expected pattern of consumption of the future economic benefits embodied in the asset, the method shall be changed to reflect the changed pattern. Such a change shall be accounted for as a change in an accounting estimate in accordance with IAS 8.

A depreciation method that is based on revenue that is generated by an activity that includes the use of an asset is not appropriate.

Methods

Straight-line method

Straight-line depreciation results in a constant charge over the useful life if the asset's residual value does not change.

Diminishing balance method

The diminishing balance method results in a decreasing charge over the useful life.

Units of production method

The units of production method results in a charge based on the expected use or output.

The entity selects the method that most closely reflects the expected pattern of consumption of the future economic benefits embodied in the asset.

That method is **applied consistently** from period to period unless there is a **change in the expected pattern of consumption** of those future economic benefits.

Change in pattern of consumption

An item of plant cost PKR 600,000 in March 2010 and was depreciated at 12.5% reducing balance. During the year ended 31 December 2012, the directors changed the method to 20% straight line in order to give a fairer presentation of the consumption of benefits (i.e. an estimated useful life of five years). It is company policy to charge a full years depreciation in the year of acquisition and none in the year of disposal.

Requirement

Explain how this should be reflected in the financial statements.

Solution

Calculate the NBV at the start of the year of change

	PKR
Cost	600,000
Depreciation year ended 31-12-10	(75,000)
Carrying amount as at 31-12-10	525,000
Depreciation year ended 31-12-11	(65,625)
Carrying amount as at 31-12-11	**459,375**

Write off the NBV over the revised UEL

Revised remaining UEL	3 years
Depreciation charge year ended 31-12-12	PKR 153,125
	(PKR 459,375 / 3 years)

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Depreciation Methods

Straight Line Method

Definition: Straight line depreciation

Where the depreciable amount is charged in equal amounts to each reporting period over the expected useful life of the asset.

$$\text{Depreciation charge for the year} = \frac{\text{Cost of asset less expected residual value}}{\text{Expected useful life (years)}}$$

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Example: Straight line depreciation

A machine cost Rs. 250,000. It has an expected economic life of five years and an expected sale value of Rs. 50,000 at the end of that time.

Annual depreciation is:

$$\text{Depreciation charge} = \frac{250{,}000 - 50{,}000}{5 \text{ years}} = \text{Rs. } 40{,}000 \text{ per annum}$$

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Example: Straight line depreciation – mid-year acquisition

A machine cost Rs. 250,000. It has an expected economic life of five years.

It is expected that the machine will have a zero scrap value at the end of its useful life.

The machine was bought on the 1st September and the company has a 31st December year end.

The depreciation charge in the first year of ownership is:

$$\text{Depreciation charge} = \frac{250{,}000}{5 \text{ years}} \times \frac{4}{12} = \text{Rs. } 16{,}667$$

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Example: Depreciation as a percentage of cost

An asset has an expected life of 10 years and zero residual value.

If straight-line depreciation is used, the annual depreciation charge is 10% of the cost of the asset.

An asset has an expected life of six years and a residual value equal to 10% of its cost

If straight-line depreciation is used the annual depreciation charge is 15% of cost each year ((100% – 10%)/6 years).

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Formula: Calculating percentage depreciation

$$\text{Depreciation percentage} = \frac{\text{Cost} - \text{residual value}}{\text{Cost}} \times \frac{1}{\text{Useful life}} \times 100$$

Reducing Balance Method

Reducing Balance Method charges depreciation at a higher rate in the earlier years of an asset.

Depreciation per annum = (Net Book Value - Residual Value) x Rate%

Where:

- Net Book Value = Cost – Accumulated Depreciation
- Residual Value is the estimated scrap value at the end of the useful life of the asset.
- Rate of depreciation is defined according to the estimated pattern of an asset's use over its life term.

Example

An asset has a useful life of 3 years.

Cost of the asset = PKR 2,000.

Residual Value = PKR 500.

Rate of depreciation = 50%.

Depreciation expense for the three years will be as follows:

Solution

	NBV	RV	Rate	Depreciation (NBV - RV) * Rate	Accumulated Depreciation
Year : 01	2000	500	50%	750	750
Year : 02	1250	500	50%	375	1125
Year : 03	875	500	50%	375	1500

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Formula: Calculation of reducing balance percentage

$$x = \sqrt[n]{\frac{\text{Residual value}}{\text{Cost}}} - 1$$

Where:

x = The reducing balance percentage

n = Expected useful life.

Unit of Production Method

In units of production method of depreciation, depreciation is charged according to the actual usage of the asset.

High activity	=	High depreciation
Low activity	=	Low depreciation
Idle Asset	=	Zero

This method is similar to straight-line method except that life of the asset is estimated in terms of number of operations or number of machine hours etc.

Formula Used

Formula: Depreciation by number of units produced

$$\text{Depreciation charge} = \frac{\text{Cost - residual value}}{\text{Total expected production over the life of the asset}} \times \text{Number of units produced in period}$$

Example

A plant costing PKR 110 million was purchased on April 1, 2010. The salvage value was estimated to be PKR 10 million. The expected production was 150 million units. The plant was used to produce 15 million units till the year ended December 31, 2010. Calculate the depreciation on the plant for the year ended December 31, 2011.

Solution

Depreciation

= (15/150) × (PKR 110 million – PKR 10 million)

= PKR 10 million

Review of depreciation method

Marden Fabrics owns a machine which originally cost Rs. 30,000 on 1 January 2010. It has no residual value. It was being depreciated over its useful life of 10 years on a straight-line basis. At the end of 2013, when preparing the financial statements for 2013, Marden Fabrics decided to change the method of depreciation, from straight-line to the reducing balance method, using a rate of 25%.

Required

Calculate the depreciation charge for 2013.

Solution

The change in accounting estimate is made at the end of 2013, but is applied to the financial statements from 1 January 2013. The reducing balance method of depreciation is applied to the 2013 statements.

	Rs.
Cost on 1 January 2010	30,000
Depreciation for 2010 to 2012 (30,000 × 3/10)	(9,000)
Carrying amount at end of 2012	**21,000**

Depreciation for 2013 will therefore be Rs. 21,000 × 25% = Rs. 5,250.

Impairment

To determine whether an item of property, plant and equipment is impaired, an entity applies IAS 36 *Impairment of Assets*.

Compensation

Compensation from third parties for items of property, plant and equipment that were **impaired, lost or given up** shall be included in **profit or loss** when the **compensation becomes receivable**.

(a) impairments of items of PPE = IAS 36;

(b) derecognition of items of PPE retired or disposed = IAS 16

(c) compensation from third parties for items of PPE = profit or loss when it becomes receivable

(d) the cost of items of PPE restored, purchased or constructed as replacements = IAS 16.

De-recognition

The carrying amount of an item of property, plant and equipment shall be de-recognised:

(a) on disposal; or

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

The gain or loss arising from the de-recognition of an item of property, plant and equipment shall be included in profit or loss when the item is de-recognised (unless IFRS 16 *Leases* requires otherwise on a sale and leaseback).

Gains shall not be classified as revenue.

Disposal Ways

- by sale,
- by entering into a finance lease or
- by donation.

The **date of disposal** of an item of property, plant and equipment is the date the recipient obtains control of that item in accordance with the requirements for determining when a performance obligation is satisfied in IFRS 15.

IFRS 16 applies to disposal by a sale and leaseback.

Routinely sells item of PPE held as rental to others

Transfer such assets to inventories at their carrying amount when they cease to be rented and become held for sale.

The proceeds from the sale of such assets shall be recognised as revenue in accordance with IFRS 15 *Revenue from Contracts with Customers*.

IFRS 5 does not apply when assets that are held for sale in the ordinary course of business are transferred to inventories.

Disposal Calculation

Cost	XXX
Accumulated Depreciation	(XXX)
Accumulated Impairment Losses	(XXX)
Carrying Amount	XXX
Sale Proceed	(XXX)
Gain/Loss	**XXX**

Rule

Carrying Amount > Proceeds = Loss on disposal
Carrying Amount < Proceeds = Profit on Disposal

Disposal (No Salvage Value)

Company A purchased a software for PKR 100,000 on 1 January 2009. The software license was valid for four years. At the time of expiry, i.e. 31 December 2012, Company A shall record the derecognition/disposal as follows:

Cost	100,000
Dep	0
WDV	100,000
Sale Proceed	0
Gain/Loss	**100,000**

Gain on Disposal

On 1 January 2006, Company B purchased equipment at a cost of PKR 2 million. The company estimated its salvage value to be PKR 0.2 million at the end of useful life of 5 years.

Cost	2,000,000
Scrap value	(200,000)
	1,800,000
Dep	(360,000)
WDV	1,440,000
Sale proceed	(500,000)
Gain/Loss	**940,000**

Loss on Disposal

Company A purchased a specialized trading terminal for PKR 4 million on 1 January 2006. The company expected the system to last 5 years and generate a residual value of PKR 0.5 million. However, due to rapid changes in technology, the company was forced to abandon the system only after 2 years for PKR 1.5 million and invest in new infrastructure.

Cost	4,000,000
Scrap value	(500,000)
	3,500,000
Dep	(360,000)
WDV	1,440,000
Sale proceed	(1,500,000)
Gain/Loss	**100,000**

Example

FIXIT Limited is preparing its financial statements for the year ended 31 December 2012. A van, which had cost PKR 5,000 and had a carrying amount of PKR 2,813 at 1 January 2012, was traded in on 1 March 2012 as part exchange for the purchase of a new van, which cost PKR 7,800.

A cheque for PKR 5,800 was paid by the company to complete the purchase. Depreciation is charged on vans at 25% per annum on a straight line basis. A full year's depreciation is to be charged in the year of purchase and none in the year of sale.

Requirement

Prepare the journal entries necessary to record the above in the company's financial statements for the year ended 31 December 2012.

Solution

	DR	CR
Vans – Cost Bank	5,800	 5,800
Van – Cost of additions Disposal Account	2,000	 2,000
Accumulated Depreciation – Van Disposal Account Van Cost	2,187 2,813	 5,000
SPLOCI – P/L (Loss on Disposal) Disposal Account	813	 813
Depreciation Charge – Vans Accumulated Depreciation – Vans	1,950	 1,950

Example

JD Limited, a company that prepares its financial statements to 31 December each year, revalues its property every two years. It is company policy to charge a full year's depreciation in the year of acquisition and none in the year of disposal. Before the change on 31 December 2009 (see below), the property was depreciated at 20% p.a. using the reducing balance method.

1 January 2008: property purchased at a cost of PKR 390,000
31 December 2009: property revalued to PKR 275,000, with a remaining useful life revised to 4 years from 1 January 2010 and depreciation method has been changed to straight line
31 December 2011: property revalued to PKR 112,500, with the decline believed to be permanent
30 September 2012: property sold for PKR 125,000

Requirement
How would the property be reflected in the company's financial statements in each of the years ending 31 December 2008 to 2012, assuming that JD Ltd opts to transfer a portion of any revaluation surplus to offset the additional depreciation?

Solution

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2008:		PKR
Cost		390,000
Depreciation @ 20% (RB)	(SPLOCI – P/L)	(78,000)
NBV at 31/12/08		312,000
2009:		
Depreciation @ 20% (RB)	(SPLOCI – P/L)	(62,400)
		249,600
Revalued at 31/12/09	(RR & OCI)	25,400
NBV at 31/12/09	[DR Acc. Depn PKR 140,000 CR Prop. PKR 115,000 CR RR/OCI PKR 25,400]	275,000
2010:		
Depreciation @ 25% (SL)		(68,750)
NBV at 31/12/10	(*W1*) (PKR 6,350 transfer in 2010, therefore RR balance = PKR 19,050)	206,250
2011:		
Depreciation @ 25% (SL)		(68,750)
NBV at 31/12/11	(PKR 6,350 transfer in 2011, therefore RR balance = PKR 12,700)	137,500
Revaluation loss	(PKR 25,000 loss split PKR 12,700 against RR/OCI & PKR 12,300 charged in arriving at profit or loss) (*See Note*)	(25,000)
		112,500
2012:		
30/9/12 proceeds		(125,000)
Profit on disposal		12,500
W1		**PKR**
Depreciation based on HC	(PKR 249,600 / 4)	62,400
Depreciation based on valuation		(68,750)
Transfer from revaluation reserve		6,350
Note: Original gain reported in OCI in 2009, therefore loss must 'follow' the gain.		

Disclosures

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15. PROPERTY, PLANT AND EQUIPMENT

	Freehold land	Leasehold land	Buildings and structures on freehold land	Buildings and structures on leasehold land	Railway siding	Plant and machinery	Catalysts	Office and electrical equipment	Furniture and fixtures	Vehicles	Maintenance and other equipment	Library books	Capital work in progress (note 15.3)	Total
	Rs '000													
As at January 1, 2015														
Cost	544,247	178,750	3,861,475	1,991,797	26,517	28,800,057	1,807,938	953,141	350,937	553,463	1,966,447	23,530	2,109,900	43,168,199
Accumulated depreciation	–	(134,742)	(2,042,640)	(241,744)	(26,517)	(17,360,701)	(863,620)	(461,290)	(155,792)	(313,817)	(1,452,821)	(20,617)	–	(23,074,301)
Net Book Value	544,247	44,008	1,818,835	1,750,053	–	11,439,356	944,318	491,851	195,145	239,646	513,626	2,913	2,109,900	20,093,898
Year ended December 31, 2015														
Opening net book value	544,247	44,008	1,818,835	1,750,053	–	11,439,356	944,318	491,851	195,145	239,646	513,626	2,913	2,109,900	20,093,898
Additions	225	–	218,707	–	–	2,248,372	95,849	82,332	20,339	87,997	220,527	1,851	1,640,145	4,616,344
Disposals														
Cost	–	–	–	–	–	(41,370)	–	(12,751)	(1,347)	(21,322)	(12,338)	–	–	(89,128)
Depreciation	–	–	–	–	–	27,171	–	12,589	1,324	21,300	12,276	–	–	74,660
	–	–	–	–	–	(14,199)	–	(162)	(23)	(22)	(62)	–	–	(14,468)
Transfers	–	–	–	–	–	–	–	–	–	–	–	–	(1,343,999)	(1,343,999)
Depreciation Charge	–	(14,072)	(150,060)	(97,592)	–	(973,541)	(315,744)	(115,056)	(30,390)	(79,999)	(192,037)	(1,582)	–	(1,970,073)
Balance as at December 31, 2015	544,472	29,936	1,887,482	1,652,461	–	12,699,988	724,423	458,965	185,071	247,622	542,054	3,182	2,406,046	21,381,702
As at January 1, 2016														
Cost	544,472	178,750	4,080,182	1,991,797	26,517	31,007,059	1,903,787	1,022,722	369,929	620,138	2,174,636	25,381	2,406,046	46,351,416
Accumulated depreciation	–	(148,814)	(2,192,700)	(339,336)	(26,517)	(18,307,071)	(1,179,364)	(563,757)	(184,858)	(372,516)	(1,632,582)	(22,199)	–	(24,969,714)
Net Book Value	544,472	29,936	1,887,482	1,652,461	–	12,699,988	724,423	458,965	185,071	247,622	542,054	3,182	2,406,046	21,381,702
Year ended December 31, 2016														
Opening net book value	544,472	29,936	1,887,482	1,652,461	–	12,699,988	724,423	458,965	185,071	247,622	542,054	3,182	2,406,046	21,381,702
Additions	–	–	237,181	3,943	–	2,481,440	253,795	90,057	15,654	58,326	204,712	513	744,946	4,090,567
Disposals														
Cost	–	–	(718)	–	–	(184,187)	–	(28,348)	(2,339)	(22,404)	(49,501)	–	–	(287,497)
Depreciation	–	–	718	–	–	177,629	–	27,567	2,281	22,404	49,327	–	–	279,926
	–	–	–	–	–	(6,558)	–	(781)	(58)	–	(174)	–	–	(7,571)
Transfers	–	–	–	–	–	–	–	–	–	–	–	–	(2,105,199)	(2,105,199)
Adjustments														
Depreciation Charge	–	(14,072)	(187,114)	(73,518)	–	(1,120,339)	(307,405)	(120,788)	(31,274)	(90,495)	(180,204)	(1,558)	–	(2,126,767)
Balance as at December 31, 2016	544,472	15,864	1,937,549	1,582,886	–	14,054,531	670,813	427,453	169,393	215,453	566,388	2,137	1,045,793	21,232,732
As at December 31, 2016														
Cost	544,472	178,750	4,316,645	1,995,740	26,517	33,304,312	2,157,582	1,084,431	383,244	656,060	2,329,847	25,894	1,045,793	48,049,287
Accumulated depreciation	–	(162,886)	(2,379,096)	(412,854)	(26,517)	(19,249,781)	(1,486,769)	(656,978)	(213,851)	(440,607)	(1,763,459)	(23,757)	–	(26,816,555)
Net Book Value	544,472	15,864	1,937,549	1,582,886	-	14,054,531	670,813	427,453	169,393	215,453	566,388	2,137	1,045,793	21,232,732
Rate of depreciation / amortisation in %	–	6 1/4 to 9 1/4	5 to 10	5	5	5	20	15	10	20	15 - 33 1/3	30	–	–

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	Note	2016 Rs '000	2015 Rs '000
15.1 Depreciation charge has been allocated as follows:			
Cost of sales	29	2,035,462	1,876,329
Distribution cost	30	72,805	75,857
Other expenses		1,511	1,175
Charged to FFBL under Inter Company Services Agreement		16,989	16,712
		2,126,767	1,970,073

15.2 Details of property, plant and equipment disposed off:

Description	Mode of disposal	Original cost Rs '000	Book value Rs '000	Sale proceeds Rs '000
Furniture and fixtures, office equipment, maintenance and other equipment				
Ejaz Siddqui	Tender	7,156	2,089	440
Anwar Traders	Tender	15,084	4,469	430
EFU insurance	Insurance claim	123	95	119
Aggregate of other items of property, plant and equipment with individual book values not exceeding Rs 50 thousand		265,134	918	21,052
2016		287,497	7,571	22,041
2015		89,128	14,468	22,079

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		Note	2016	2015
			Rs '000	Rs '000
15.3	**Capital Work in Progress**			
	Civil works		216,701	215,469
	Plant and machinery		829,092	2,190,577
			1,045,793	2,406,046
16.	**INTANGIBLE ASSETS**			
	Computer software	16.1	15,977	7,486
	Goodwill	16.2	1,569,234	1,569,234
			1,585,211	1,576,720
16.1	**Computer software**			
	Balance at the beginning		7,486	41,970
	Additions during the year		15,066	7,116
	Amortisation charge for the year		(6,575)	(41,600)
	Balance at the end		15,977	7,486
	Amortisation rate		33 1/3%	33 1/3%
	Amortisation charge has been allocated as follows:			
	Cost of sales	29	5,220	30,071
	Distribution cost	30	1,355	11,529
			6,575	41,600

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Example

The balance on a business's plant account as at 31 December is as follows.

	Rs.
Cost	1,200,000
Accumulated depreciation	(500,000)
Carrying amount	**700,000**

The company has discovered that a repair which cost Rs. 200,000 was incorrectly capitalised on 31 July. Depreciation is charged at 15% reducing balance.

Solution

Correction of the error:

The amount capitalised would have been depreciated so the amount must be removed from cost and the depreciation incorrectly charged must be removed.

The correcting journals are:	Dr	Cr
Statement of comprehensive income:		
line item to which repairs are charged	200,000	
Plant – cost		200,000
and		
Accumulated depreciation		
(200,000 * 15% * 5/12)	12,500	
Statement of comprehensive income:		
Depreciation expense		12,500

Solution (Contd)

The impact on the carrying amount of the plant is as follows:

	Before (Rs.)	After (Rs.)	
Cost	1,200,000	(200,000)	1,000,000
Accumulated depreciation	(500,000)	12,500	(487,500)
Carrying amount	**700,000**	**512,500**	