

PREPARE LIKE NEVER BEFORE!

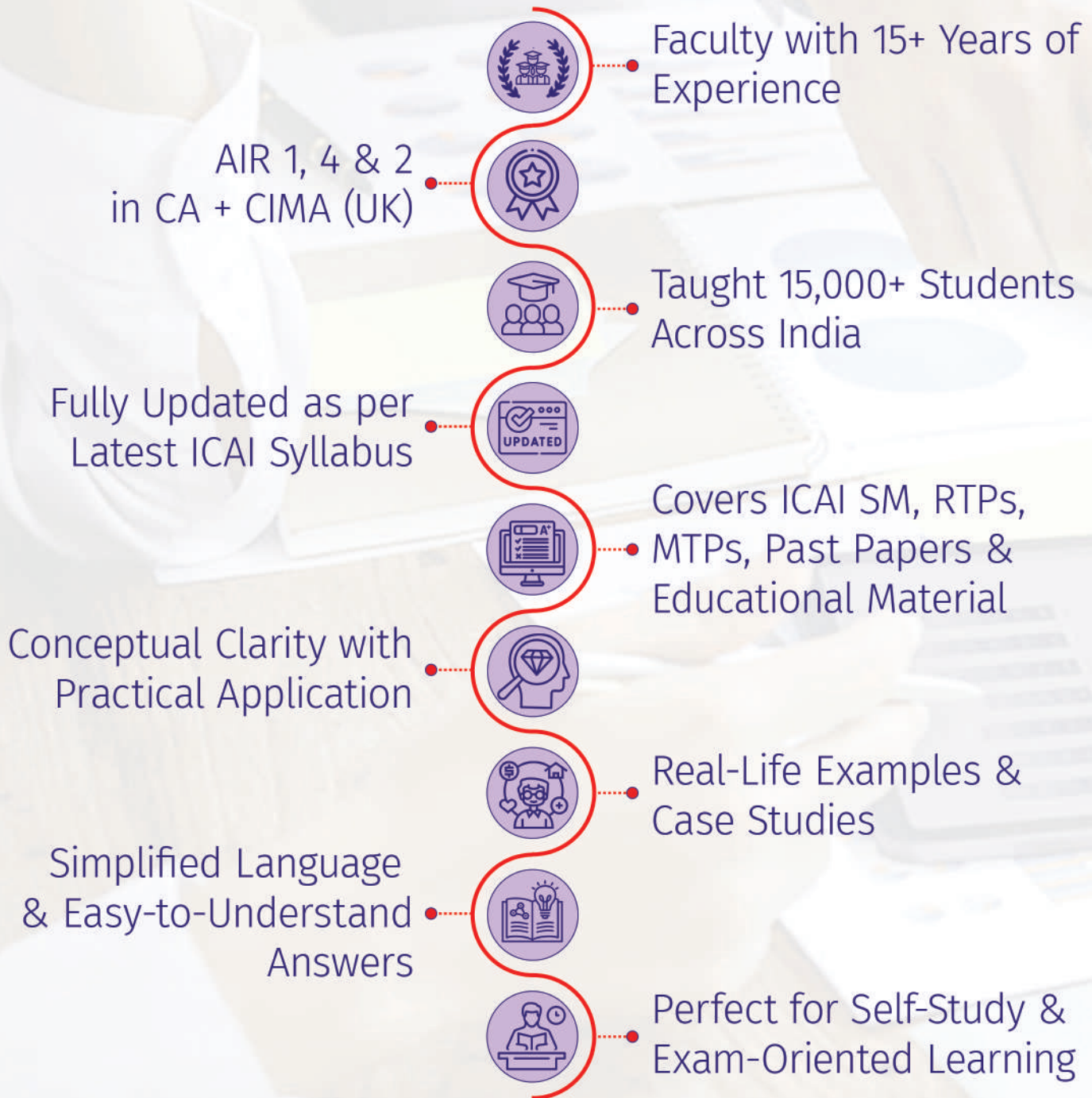
#studentfirst



CA SURAJ LAKHOTIA

(AIR 1,4,2)

1FIN By IndigoLearn



Connect with me



CA SURAJ LAKHOTIA
AIR 1,4 & 2 IN CA

What Our Students have to say....

Sudeepta Benya

I took FR and AFM classes from 1FIN and secured good marks in both. I am deeply grateful to **Sriram Sir** and **Suraj Sir** for making my conceptual clarity very strong and making me fall in love with the subjects. I secured 70 marks in FR and 87 in AFM. Highly recommended.

AIR 27

Kanishka

Thank you so much Sir! I am excited to share that I have successfully cleared the CA Final exams and became A Chartered Accountant

Srinivasan

I really liked the way of teaching and conceptual clarity given by **Suraj Sir**

Bhoomi Makhecha

Suraj Sir's classes were comprehensive & helped me score 76 (Exemption) in FR

Priyanka Udeshi

Thank you **Suraj sir!** Have successfully cleared CA Final with exemption in 5 subjects

Venkata Naresh

Thank You IndigoLearn for the Conceptual Clarity and well illustrated Examples of the faculties, making my concepts very strong and assisted me in clearing my exams

Hannoch Matthew

1FIN is a perfect place for assistance in CA Exams. I had opted for FR and AFM. I found it well understandable and helped me to get through with the concepts. Their MCQ and material is very useful.

Himanshu Somani

Thank you so much to **Suraj** and **Sriram sir** for your support during my entire CA journey, will forever be grateful to you

Arun Kumar

I have watched SFM, FR and IDT classes from indigo learn I was using 1FIN platform from my CA Inter and I feel this platform is the only platform which focuses on concepts rather than focusing on only scoring marks.

Our Rankers

AIR 27



Sudeepta Benya
CA Final Nov-24

AIR 5



Sarthak Aggarwal
CA Inter May-23

AIR 19



Aman Mahajan
CA Inter Dec-21

AIR 33



Sundar B
CA Inter Dec-21

AIR 49



Ria Gupta
CA Inter May-22

Table of Contents

IND AS 2 – INVENTORIES	3
IND AS 16 – PROPERTY, PLANT & EQUIPMENT	3
IND AS 38 – INTANGIBLE ASSETS	5
IND AS 40 – INVESTMENT PROPERTY	6
IND AS 23 – BORROWING COSTS	7
IND AS 20 – GOVERNMENT GRANTS	7
IND AS 36 – IMPAIRMENT	8
IND AS 105 – NON CURRENT ASSETS HELD FOR SALE	10
IND AS 116 – LEASES	11
MANUFACTURER – DEALER LESSOR	16
SUB-LEASES	17
SALE AND LEASEBACK TRANSACTIONS	18
IND AS 37 – PROVISIONS, CONTINGENT LIABILITY & CONTINGENT ASSETS	19
IND AS 19 – EMPLOYEE BENEFITS	21
IND AS 7 – CASH FLOW STATEMENTS	24
IND AS 115 – REVENUE	25
IND AS 8	31
IND AS 10	31
IND AS 102	32
CASH SETTLED – SHARE BASED PAYMENTS	32
SHARE BASED PAYMENT WITH CASH ALTERNATIVE	33

GROUP SHARE BASED PAYMENT PLANS	34
CALCULATION OF FV – ALWAYS USE FV IN EXAM UNLESS FV IS NOT GIVEN.	35
IND AS 12 – INCOME TAXES	36
ACCOUNTING ENTRIES	36
IND AS 21	37
NET INVESTMENT IN A FOREIGN OPERATION	38
IF THE GIVEN LOAN FORMS PART OF NIFO, THEN IT SHOULD BE RECOGNISED IN OCI OF CONSOLIDATED FINANCIAL STATEMENT OF GROUP COMPANIES	39
IND AS 33 – EPS	39
MEASUREMENT OF DILUTED EARNINGS PER SHARE	40
IND AS 34	42
IND AS 108	43
IND AS 101 – FIRST TIME ADOPTION	44
IND AS 113	46

Ind AS 2 – Inventories

Finished Goods	Lower of Cost & Net Realisable value
Net Realisable Value	Estimated Selling Price – Cost of Completion & Cost to Sell
Raw Material	Valued at Cost. If FG is sold at less than cost, RM is valued at lower of Cost & Replacement Cost
Cost to be excluded	- Abnormal amount of wasted material, labour and other production costs - Storage cost (unless it is necessary in the production process e.g. in case of wine) - Administrative overheads that do not contribute to bringing inventories to the current condition and location. - Selling costs
Fixed Overhead	If Actual > Planned Production – recompute overhead recovery rate.
Write down of inventory	Item by Item basis and not global basis
Joint Products	Cost allocated based on net realisable value / net selling price at split off point
By Products	Immaterial – NRV reduced from joint cost Material – Treat as joint products

Cost of Inventory

PARTICULARS	AMOUNT	
Cost of Purchases		
Purchase Price	10,000	
(+) Import duties & other taxes (non refundable)	2,000	
(+) Transport & handling charges	1,000	
(+) Other Costs to bring the inventory to present location & condition	500	
(-) Trade discounts, rebates & other similar items	<u>(400)</u>	
		13,100
Cost of Direct Material		
Cost of Conversion		
(+) Direct labour	5,000	
(+) Other direct costs	1,000	
(+) Overheads (Fixed* as well as variable overheads)	500	
		6,500
Other Costs		
Costs incurred to bring the inventories to their present location & condition	-	
(+) Borrowing Cost under Ind AS 23	300	300
Cost of Inventory		19,900

Ind AS 16 – Property, Plant & Equipment

The cost of an item of PPE would be recognised as an asset, if and only if,

- It is probable that future economic benefits [FEB] associated with the item will flow to the entity

- b. The **cost** of item can be measured reliably.

Important Points

Spare parts, stand-by equipment, and servicing equipment	If recognition criteria met – PPE If recognition criteria not met – Inventory
Individually insignificant items (moulds, tools and dies)	May be aggregated
Assets acquired for safety or environmental reasons (e.g. pollution control equipment)	Recognised as PPE since they give indirect benefit [Other assets cannot be operated if Environmental norms are not fulfilled]

Cost of PPE

The cost of an item of PPE comprises

Purchase Price	xxx
Add:	
Non-refundable taxes and duties (e.g import duty, entry tax)	xxx
Initial delivery and handling charges	xxx
Cost of site preparation	xxx
Installation & Assembly costs	xxx
Professional Fees	xxx
Borrowing costs (If permitted by Ind AS 23)	xxx
Costs of testing – Net Sale Proceeds *If net sale proceeds is greater than cost of testing, the amount is deducted from the cost.	xxx
Present Value of Decommissioning, restoration costs (In accordance with Ind AS 37)	xxx
Any directly attributable cost to bring the asset to the location and condition, necessary to operate for its purpose intended by the management	xxx
Less:	
Government grant received specific to the asset (Ind AS 20)	xxx
Trade discounts and rebates (If included in above costs)	xxx
Cost of PPE to be capitalised	<u>xxxx</u>

Exclusions from Cost of PPE

- Costs of conducting business in **a new location or with a new class of customer** (including costs of staff training)
- Costs incurred in **introducing a new product or service.**
- Cost of **opening a new facility (Inauguration expenses)**
- Administrative and other general overhead costs

Self – Constructed PPE

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

Inclusions:

- Costs of construction that directly relate to the specific assets
- Costs that can be attributable or allocated to the construction activity.
- **Borrowing costs if PPE is a qualifying asset as per Ind AS 23**

Exclusions:

- **Internal profits** (Always take cost of construction and not sale price)
- The cost of **abnormal amounts of wasted material, labour, or other resources incurred in self-constructing an asset.**

Exchange of Non Monetary Assets

Commercial Substance	1 st – fair value of asset given up 2 nd – Fair value of asset acquired Always take more evident fair value
No Commercial substance or No Fair value	Carrying amount

Subsequent Costs	Repairs – P&L Replacement of Parts – Derecognise old and recognise new Major Inspections/Overhauls – Capitalise	
Deferred Credit Period	Capitalise amount at cash price equivalent	
Component Depreciation	If PPE has two or more significant component, each is depreciated separately	
Revaluation Model	First time upward	Credit to Revaluation Reserve / OCI
	First Time downwards	Debit to P&L
	Subsequent Upward	- Credit to P&L upto amount debited earlier - Balance to Revaluation reserve
	Subsequent downward	- Debit to Revaluation reserve upto balance available - Balance to P&L
Revaluation Approach	1. Eliminate depreciation against the carrying amount 2. Restate proportionately the gross carrying amount and accumulated depreciation 3. Periodically transfer revaluation reserve to Retained earnings in ratio of depreciation or transfer at disposal. 4. Never transfer revaluation reserve to P&L	
Decommissioning liability	PV of decommissioning liability is added to cost of PPE. Prepare an interest schedule to determine interest expense each year. Changes in liability Cost model – Added/deducted to carrying amount Revaluation model – Treat it as revaluation	

Ind As 38 – Intangible Assets

An Intangible Asset (under Ind AS 38) should be identifiable to distinguish it from goodwill.
An entity must be able to separate the intangible asset from other assets.

An item to be recognised as Intangible Asset, it should

- meet definition criteria
 - o non-monetary,
 - o non-physical,
 - o identifiable
- meet recognition criteria
 - o future economic benefits to flow into the entity and control on benefits established
 - o costs measured reliably

Initial costs	Capitalised if criteria met
Subsequent costs	Expensed. Capitalise if additional Future economic benefits arise
Cost/Exchanges	Similar principles of Ind As 16

Internally generated IA not recognised	Goodwill, Brands, MastHeads, Publishing titles, customer lists and similar items
Expenditure always expensed	- Research expenditure (except when it is acquired as part of a business combination and meets recognition criteria) - Start up costs - Establishment (legal & secretarial) costs - Incorporation costs - Starting new operations or products - Training costs - Advertising and promotional expenses - Reorganising or relocating expenses
Research	Always expensed
Development	Capitalised if following conditions are met T – Technical feasibility I – Intention to complete P – Probable future economic benefits F – Financial, technical, and other resources available A – Ability to use or sell M – Measurement of expenditure reliably
Amortization	Goodwill – Not amortised but reviewed for impairment Others – Over useful life systematically – SLM or Output
Useful life	Finite – Amortise over useful life Indefinite – No Amortisation. Impairment as per Ind AS 36
Cost of Renewal	Significant – Consider it as new IA Insignificant – Expense
Cost & Revaluation Model	Same as Ind As 16

Ind As 40 – Investment Property

Dual Purpose property – If split not possible, categorise as PPE / IP based on significance.

The following are not Investment Property

Property held for use in the production or supply of goods or for administrative purpose	PPE – Ind AS 16 / ROU Asset – Ind AS 116 (Including future owner occupied properties, property occupied by employees) This is called as owner occupied property.
Property held for sale in ordinary course of business	Inventory under Ind AS 2

Property Given on Rent to Group Companies	In Stand Alone – IP In Group – PPE
Examples of IP	- Land held for long term capital appreciation - Land held for currently undetermined future use - A building owned by the entity and leased out under an operating lease - A building which is vacant and is held for leasing out - Property under construction which would be held as investment property in future.
Measurement	Same as PPE Revaluation Model not applicable.

An entity shall transfer a property (reclassify) when there is a change in use.

Ind AS 40 to Ind AS 16	Commencement of owner occupation or development with view to owner occupation.
Ind AS 40 to Ind AS 2	Commencement of development with a view to sell in ordinary course of business.
Ind AS 16 to Ind AS 40	End of owner occupation
Ind AS 2 to Ind AS 40	Inception of operating lease to another party

Transfer will be done at carrying amount.

Ind AS 23 – Borrowing Costs

Borrowing costs include – Interest expense, Interest on leases and Exchange differences on foreign borrowings.

Exchange differences considered as borrowing cost

When a company borrows in foreign currency to benefit from lower interest rates, exchange differences may arise. Exchange loss can be treated as borrowing cost, but only up to the difference between functional currency and foreign currency borrowing cost.

Not Applicable to	Actual & Imputed cost of equity Qualifying assets measured at FV Inventories manufactured in large quantities on a repetitive basis.
Specific borrowing costs	Total interest – Income from temporary investment of surplus funds
General Borrowings	Computed Weighted Average Capitalisation Rate and apply the rate based on number of months. Capitalisation Rate = $\frac{\text{Total borrowing costs on outstanding general borrowings}}{\text{Total outstanding general borrowings of entity during the period}}$
Capitalisation amount	Shall not exceed amount of borrowing cost incurred
Commencement date when entity	• Incurs expenditure for the asset • Incurs borrowing cost • Undertakes activities to prepare the asset.
Exclusion from period	holding of an asset when no production or development that changes the asset's condition is taking place
Suspension of capitalisation	When active development of a qualifying asset is suspended. (generally due to abnormal reasons)
No suspension	When delay is necessary part of progress
Cessation	When substantially all activities necessary to prepare the QA for its intended use of sale is completed. If minor work is pending, stop capitalisation.
Part Construction	Capitalisation is stopped when a part is ready for its intended use or sale.

Ind AS 20 – Government Grants

Exclusions

- government participation in the ownership of the entity E.g., picking up equity stake in an entity by the government.
- government grants that will be covered by Ind AS 41, Agriculture

- effects of changing prices or in supplementary information of a similar nature. E.g., benefits given due to change in a benchmarked price or minimum selling price given by the government.
- income tax related benefits like income tax holidays, investment tax credits, accelerated depreciation.

Exclusion to Exclusion

Sales tax exemption: Expert Advisory Committee (EAC) have opined that sales tax (now GST) foregone by government will be covered under Ind AS 20

Conditions

Government grants including non-monetary grants should be recognised by an entity when, there is a reasonable assurance that:

- the entity will comply with the conditions attached to the grants &
- the grants will be received.

Grants Related to Assets	Grants related to income / expense	Non Monetary Grant
Reduce from cost of asset & compute depreciation on revised value	Recognise as deferred grant and recognise in P&L systematically (generally in ratio of expenses)	Recognise the asset at fair value and grant at same fair value
Recognise as deferred grant and transfer to P&L in the ratio of depreciation	Grant can be net off against relevant expenses.	Recognise the asset & grant at nominal value

Grant Related to Loans	If loans are received at concessional rate or are interest free, compute the FV of loan using Ind AS 109 principles. Government Grant = Amount received – Fair value of loan
Repayment of Grant	If Grant reduced from cost – Refund is added to cost of Asset If Grant recorded as deferred income – Reduce the balance of Deferred Grant Account and if amount is not sufficient, transfer to P&L Shortfall in depreciation should be computed and charged immediately. Treated as change in estimates

Ind AS 36 – Impairment

Carrying Amount	As per respective Ind AS
Recoverable Amount	Higher of - Fair value less cost to sell/dispose (Costs exclude finance and tax) - Value in use : PV of Cashflows
Impairment Loss	Carrying Amount – Recoverable Amount
Frequency	Check if impairment conditions exist at end of each reporting period. If indications exist – compute the recoverable amount
Annual Testing	Intangible assets with indefinite useful life Intangible Assets not yet available for use Goodwill acquired in Business combination – Ind AS 103
External Source - Impairment Indicators	Significant decline in market value; adverse tech/market/economy changes; rise in discount rates; market cap < net assets

Internal Source - Impairment Indicators	Obsolescence; damage; adverse change in asset use; higher cash outflows; lower profits; ongoing operating losses										
Investment in Subsidiary/JV/Associate Indicators	Investment carrying amount > investee net assets; Dividend > investee total comprehensive income										
Cashflows estimate	☐ Use reasonable, supportable evidence and latest approved budgets without assuming future restructuring (unless committed). ☐ Limit projections to 5 years (unless justified) and use steady/declining growth rates thereafter. ☐ Apply either Traditional Approach (best estimate) or Expected Value Approach (weighted outcomes) <table border="1"> <thead> <tr> <th>Inclusions</th><th>Exclusions</th></tr> </thead> <tbody> <tr> <td>Cash flows from continued use of the asset</td><td>Cash inflows from independent assets (e.g., receivables)</td></tr> <tr> <td>Net cash flows from disposal at end of useful life</td><td>Cash outflows from recognised liabilities (e.g., payables)</td></tr> <tr> <td>Day-to-day servicing and direct/allocated overheads</td><td>Uncommitted restructuring cash flows</td></tr> <tr> <td>Proper share of corporate overheads</td><td>Internal charges, financing cash flows, and income taxes</td></tr> </tbody> </table>	Inclusions	Exclusions	Cash flows from continued use of the asset	Cash inflows from independent assets (e.g., receivables)	Net cash flows from disposal at end of useful life	Cash outflows from recognised liabilities (e.g., payables)	Day-to-day servicing and direct/allocated overheads	Uncommitted restructuring cash flows	Proper share of corporate overheads	Internal charges, financing cash flows, and income taxes
Inclusions	Exclusions										
Cash flows from continued use of the asset	Cash inflows from independent assets (e.g., receivables)										
Net cash flows from disposal at end of useful life	Cash outflows from recognised liabilities (e.g., payables)										
Day-to-day servicing and direct/allocated overheads	Uncommitted restructuring cash flows										
Proper share of corporate overheads	Internal charges, financing cash flows, and income taxes										
Discount Rate	Pre tax										
Inflation	Consider and also ensure that discount rate is nominal and not real.										

Accounting Treatment

Individual Assets	Cost Model Dr. Impairment Loss – PL Cr. Asset Revaluation Model – Dr. Revaluation surplus to the extent recognise earlier and balance in PL.
CGU	1st – Write off goodwill Balance amount is written off against remaining assets in the ratio of carrying amount. Value of individual asset should not be brought down below their individual recoverable amount.
Impairment loss > Carrying amount	Recognise a liability
Goodwill/Corporate Asset	If allocation to individual CGU possible – Allocate and test for impairment If allocation not possible – First test CGUs for impairment without goodwill and then test group of CGUs with goodwill
Goodwill in case of Subsidiary	If Partial Goodwill (Proportionate Net Asset Method) – Gross up Goodwill and compute Impairment. While booking Impairment losses, take only Parent's share. If Full Goodwill (Fair value method) – No requirement of Grossing up.
Reversal of Impairment	Goodwill – not possible Other Assets – When indications of reversal exists.
Accounting of Reversals – Cost Model	Dr. Asset Cr. Impairment Loss (PL)

	New Carrying amount should not be more than the carrying amount before impairment adjusted for depreciation. Maximum reversal – Total Impairment Loss recognised earlier
Accounting of Reversals – Revaluation Model	Any reversal of an impairment loss of a revalued asset shall be treated as a revaluation increase. Recognised in P&L to the extent debited earlier & balance credit to OCI.

Ind As 105 – Non Current Assets Held for Sale

An entity is required to classify a non-current asset (or disposal group) as held for sale if its carrying amount will be recovered principally through a sale transaction rather than through continuing use.

Conditions for Classification as Held for Sale

- Asset must be available for immediate sale in its present condition.
- Sale must be highly probable.

If the asset needs repair to sell, it cannot be classified as "Held for Sale".

Additional Conditions

- Management must be committed to a plan to sell.
- Active engagement to find a buyer must have started (e.g., advertisement for sale/auction).
- Asset must be actively marketed for sale at a reasonable price.
- Sale expected within one year from the date of classification.
- Significant changes or withdrawal from the sale plan are unlikely.

Events or circumstances may extend the period to complete the sale beyond one year.

Entity can continue to classify such asset as held for sale if

- delay is caused by events or circumstances beyond the entity's control and
- entity is committed to sell – sufficient evidence to exist.

Examples for delay – regulatory approvals

Measurement	FV less cost to sell
Subsequent Measurement	Assets covered by 105 – As per 105 Other assets – As per respective standards
Loss	Treated as Impairment Loss
Subsequent reversals	Upto impairment losses recognised earlier
Depreciation	Not applicable / Stopped
Reclassification	Lower of Carrying amount before classification – depreciation Recoverable Amount
Reversal on reclassification	Treated as reversal of impairment

Discontinued Operation is a component of an entity that either has been disposed of or is classified as held for sale and:

- represents a separate major line of business or geographical area of operations; or
- is part of a single co-ordinated plan to dispose of a separate major line of business or geographical area of operations; or
- is a subsidiary acquired exclusively with a view to resale.

Presentation of Discontinued Operations

- Profits and losses from discontinued operations must be presented separately to help users assess their impact.
- Entity must disclose a single amount in the P&L comprising:
 - (a) Post-tax profit or loss of discontinued operations, and
 - (b) Post-tax gain or loss on measurement to fair value less costs to sell or on disposal of assets/disposal groups.

Ind As 116 – Leases

Identified Asset	Asset explicitly or implicitly specified; available for use by customer.
Substantive Substitution Rights (SSR)	Supplier can substitute asset throughout use period + benefits economically; checked at inception.
When SSR does not exist	If substitution right arises later/event based; or if customer cannot determine supplier, SSR.
Assets not physically distinct	Not physically distinct unless ~90%+ of capacity is controlled (e.g., pipelines, fibre).
Right to Control	Customer must have right to economic benefits + right to direct asset use.
Right to obtain substantially all economic benefits	Economic benefits include primary outputs, by-products, or third-party benefits (e.g., subleasing).
Right to direct the use of the asset	Customer directs how/for what purpose asset is used, operates asset, or designed it specifically.

Inception – For determining whether contract contains lease or not	Earlier of agreement date or commitment to principal T&C
Commencement date – Accounting starts	When lessor makes an underlying asset available for use by the lessee
Lease Term	Rent free period + Non cancellable period + Option to extend (if reasonably certain to exercise) + Option to terminate (If not reasonably certain)

Lessee Accounting

ROU Asset & Lease Liability

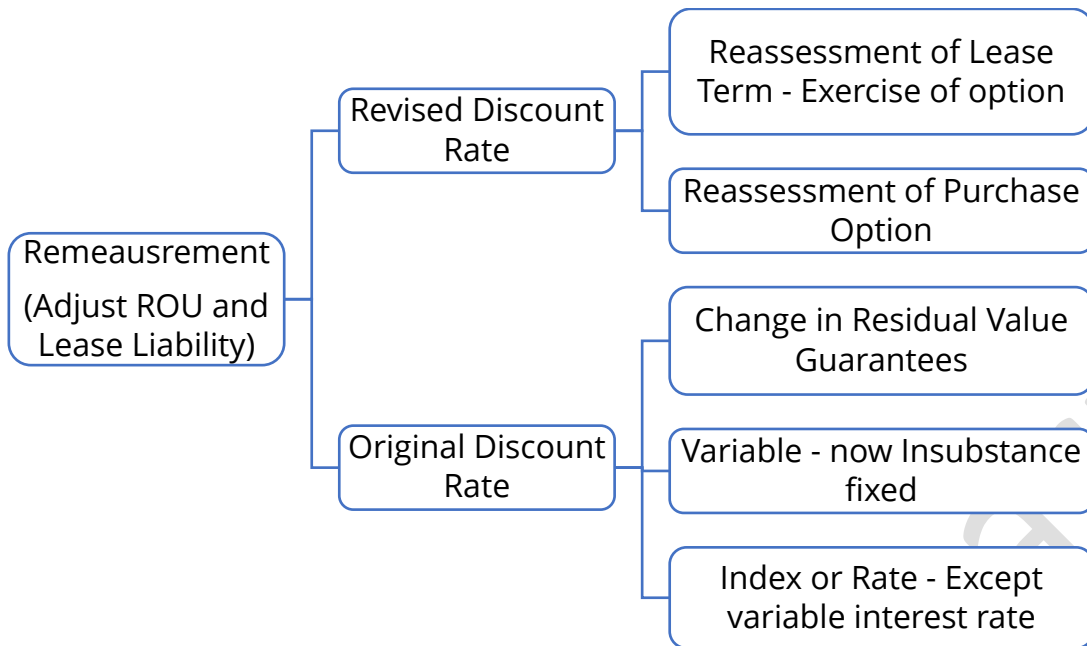
Right of Use Asset =	
Lease Liability	PV of Lease payments to be paid discounted at rate implicit in the lease or incremental borrowing cost (if implicit rate is not known)
+ Lease payment made at / before commencement	Advance lease payments
- Lease incentives received	
+ Initial Direct Cost	Incurred by lessee
+ PV of estimated dismantling, restoration cost	Similar to decommissioning costs under Ind AS 16. Liability accounted as per Ind AS 37

Lease Payments to be paid

Lease Payments =	
Fixed Lease payments	Generally determined in the contract
+ In substance fixed lease payments	Though variable, considered as fixed (like minimum variable payment)
- Lease incentives received	
+ Variable payments dependent on index or rate	Variable based on rates like LIBOR, annual increment etc are considered. Performance based variable payments are excluded.
+ Residual value guaranteed by lessee	
+ Exercise price of purchase option	If the lessee is likely to exercise the purchase option

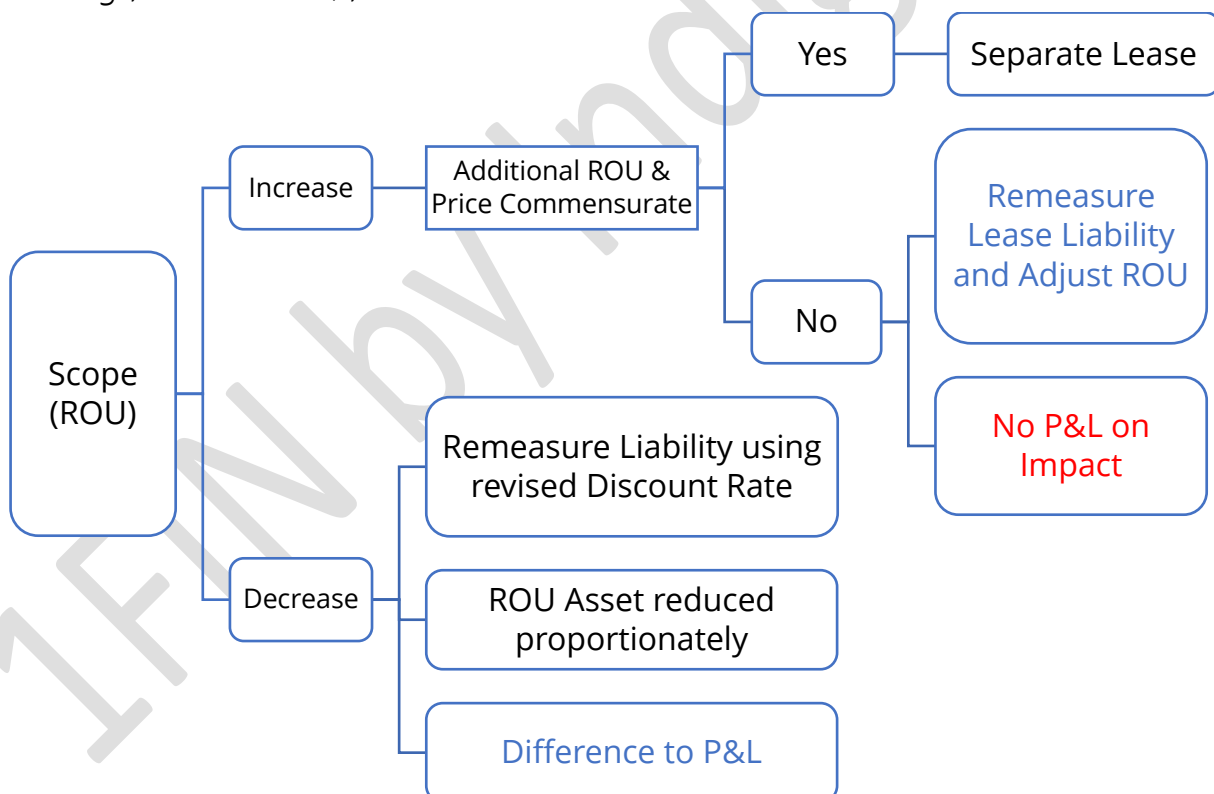
Subsequent measurement	ROU Asset – Amortised over Useful life – if asset is transferred to lessee Lower of lease term/useful life – If asset not transferred
	Lease Liability - Prepare lease liability table. Dr. Interest Expense Dr. Lease Liability Cr. Bank
Variable lease payments	Dr. to P&L

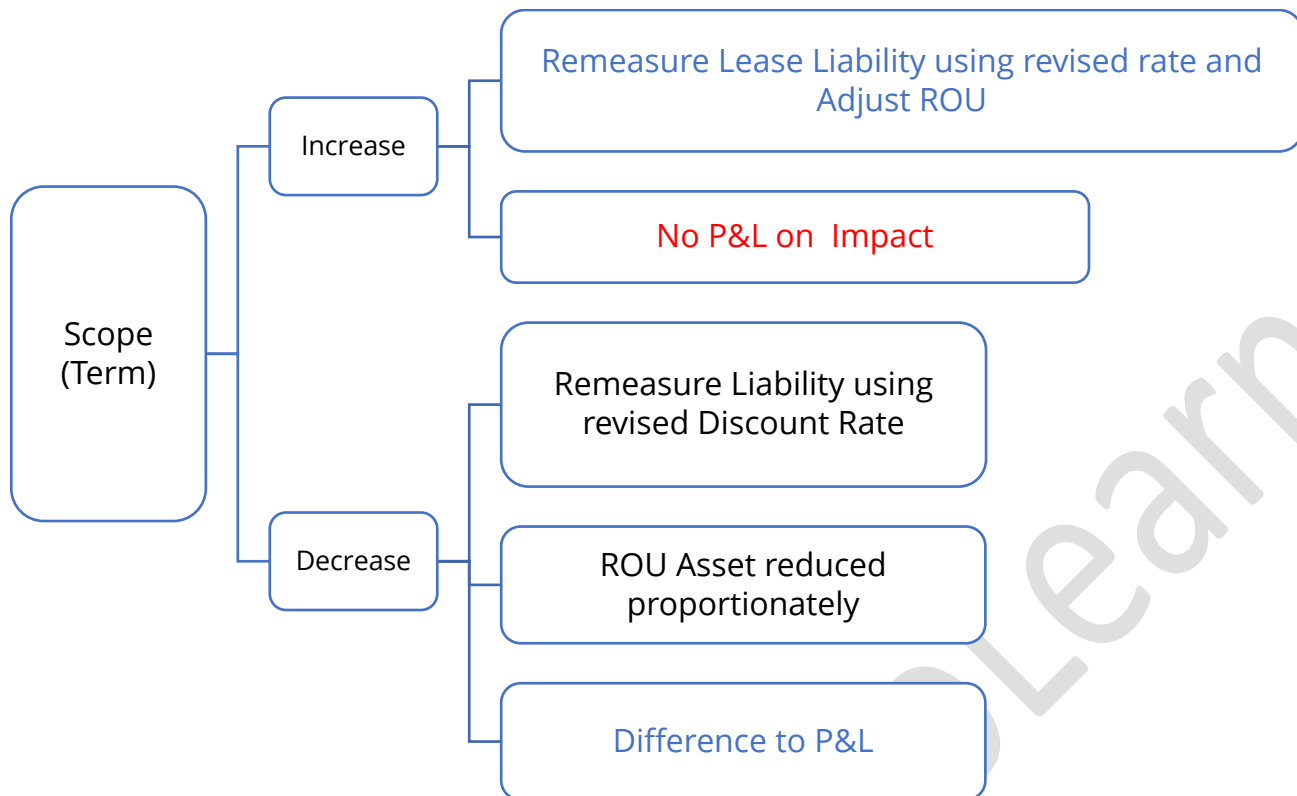
Remeasurement of Lease Liability



- The remeasurement of lease liability is adjusted to ROU Asset (increase or decrease). There is no impact on P&L.
- If ROU asset has 'Nil' carrying amount, reduction in lease liability is recognised in P&L.

Accounting for lease modifications





For any other lease modifications (e.g change in considerations) there is no impact to P&L. All adjustments are made to ROU Asset & Lease Liability Account

Lessor Accounting

- **Finance Lease** → Transfers substantially all risks and rewards of ownership.
- **Operating Lease** → Does not transfer substantially all risks and rewards.

Classification is not reassessed unless there is a lease modification.

Conditions for Finance Lease

- Ownership transfers at lease end.
- Purchase option at lower price likely to be exercised.
- Lease term covers major part of asset's economic life.
- Present value of lease payments ≈ Fair value of asset.
- Specialised asset usable only by lessee.

Key Concepts for lessor accounting

Net investment in the lease is the gross investment in the lease discounted at the interest rate implicit in the lease.

$$\text{Gross Investment in Lease} = \text{Lease Payments} + \text{UGRV}$$

Lease Payments =
Fixed Lease payments
+ In substance fixed lease payments
- Lease incentives paid
+ Variable payments dependent on index or rate
+ Residual value guaranteed by lessee
+ Residual value guaranteed by third party unrelated to lessor (capable of fulfilling the obligation)
+ Exercise price of purchase option

UGRV (Unguaranteed residual value) is that portion of the residual value of the underlying asset, the realisation of which by a lessor is not assured or is guaranteed solely by a party related to the lessor.

Finance Lease

At lease commencement a lessor accounts for a finance lease as follows

Dr. Lease Receivable	Recognises net investment in the lease
Cr. Asset	Derecognises the carrying amount of the underlying asset.
Profit / Loss (Bal figure)	Recognises selling profit or loss in P/L

Net investment in lease

Net Investment in Lease is the PV of Lease payments and UGRV discounted using the interest rate implicit in the lease (discount rate)

Interest Rate Implicit in the lease

The rate of interest which makes the following two equal

PV of	Sum of
• Lease payments • UGRV	• FV of asset • IDC* of lessor

*In case of manufacturer/dealer lessor, IDC is not considered to computed IRR. Since IDC is included in computation of IRR, the interest rate would be less and the finance income recognised would automatically be lesser.

Students are not required to compute IRR in exams and this would be provided.

Finance Lease – Subsequent Measurement

- Recognise finance income over the lease term (the pattern should reflect constant periodic return on the net investment in lease)
- Lease payment are applied to reduce the lease receivable and to recognise finance income.
- **Derecognition and impairment requirements of Ind AS 109 are applied.**
- If there is a reduction in estimated UGRV, the lessor shall revise the income allocation over the lease term.
- Variable lease payments that are not included in net investment in the lease are recognised in P&L.

Operating Lease – Initial & Subsequent

Recognise	Explanation
Cr. Income	Lease payments on SLM basis or any other systematic basis
	Variable lease payments
Dr. Depreciation	On asset as per applicable Ind AS
Dr. Asset	Initial direct cost and recognise the cost as expense in same manner as lease income.

Manufacturer – Dealer Lessor

Finance Lease

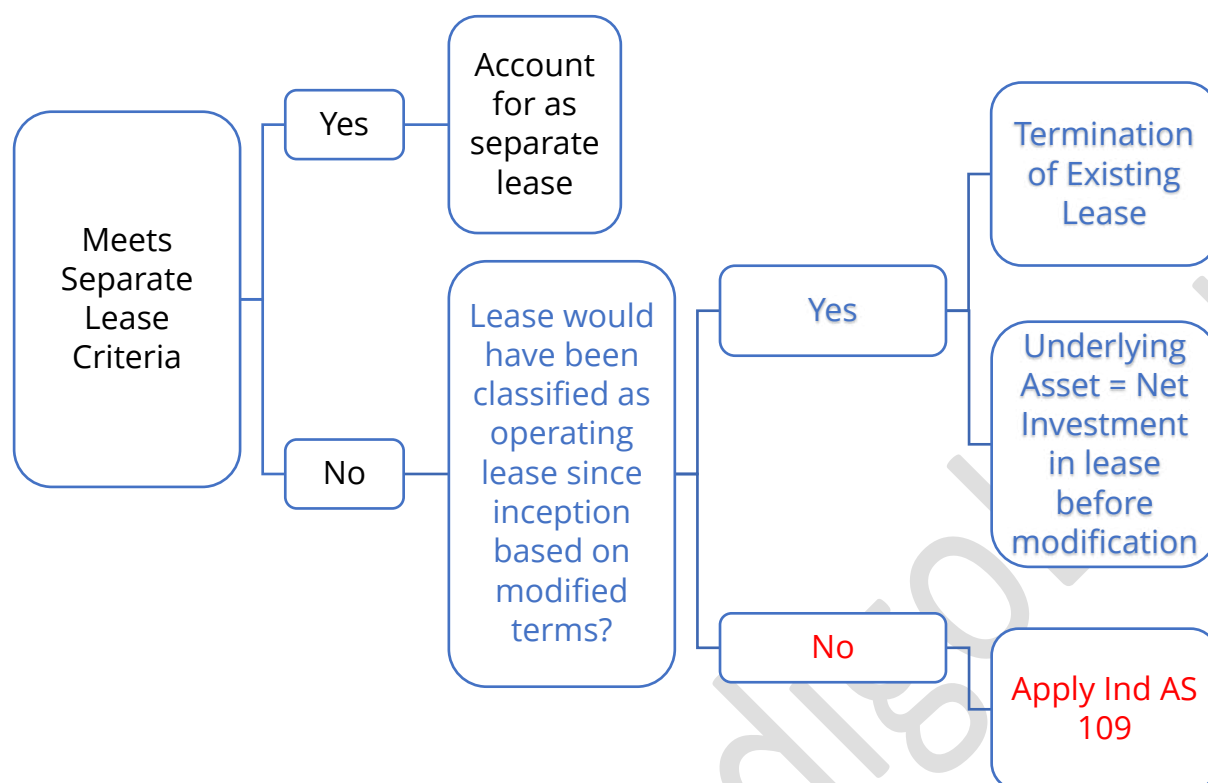
Recognise	Explanation
Revenue	Lower of - Fair value of underlying asset and - PV of lease payments
Cost of sale	Cost / carrying amount less PV of UGRV
Selling Profit or loss	Difference between Revenue and Cost of Sale

- Profit / Loss should represent profit/loss from an outright sale.
- If artificially low interest rates are quoted, Lessor recognises profit considering market rates of interest.
- Cost incurred by lessor are expensed at commencement and are not considered to be a part of Initial Direct Cost.

Operating Lease

No Profit / Loss is recognised in case of an operating lease.

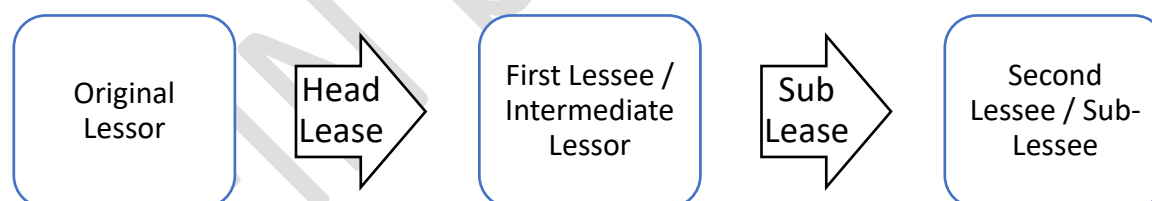
Finance Lease Modification



Operating Lease Modification

- Accounted as a new lease
- Any prepaid or accrual of lease payments – treated as payment for new lease

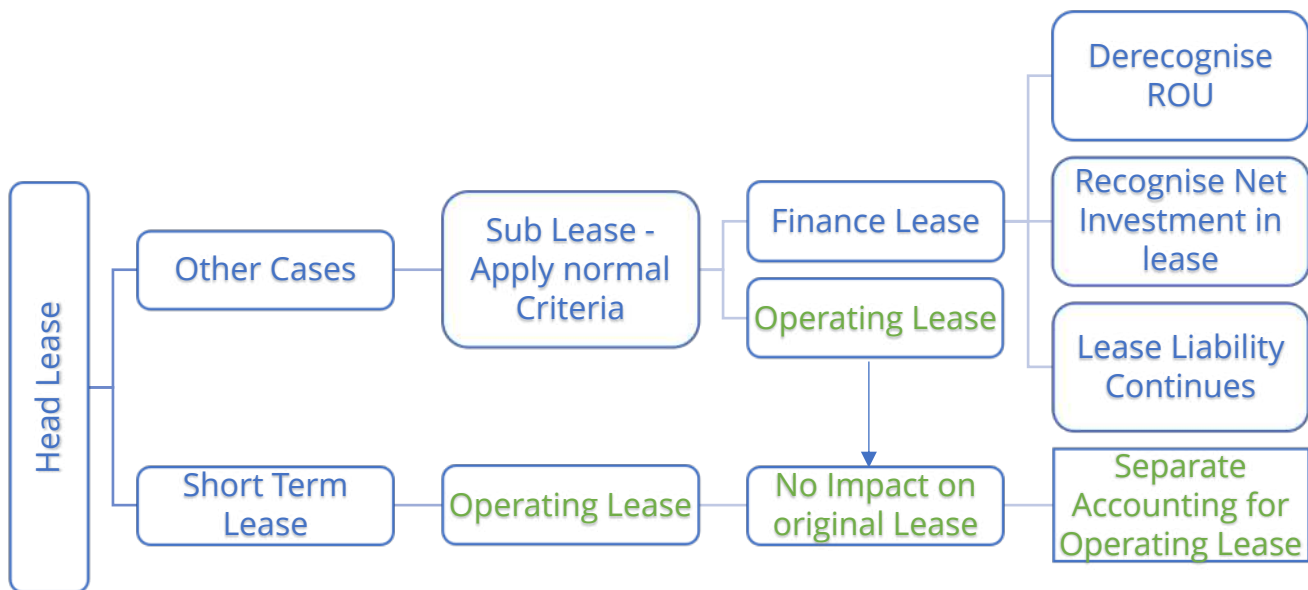
Sub-Leases



A 'Sub-lease' is defined as a transaction for which an underlying asset is re-leased by a lessee ('intermediate lessor') to a third party, and the original lease ('head lease') between the head lessor and lessee remains in effect.

Accounting for Sub-Lease

- Intermediate lessor uses interest rate implicit in lease. If the same cannot be determined, the interest rate in head lease can be used after adjusting for initial direct cost.
- Combination criteria to be checked.
- Exemption under low value lease cannot be applied.



Sale and Leaseback transactions

Fair Value Adjustments

Sale proceeds are adjusted if the transaction is not at fair value i.e.,

- The value of consideration for sale of an asset does not equal to the fair value of asset or
- The payment for lease are not at market rates.

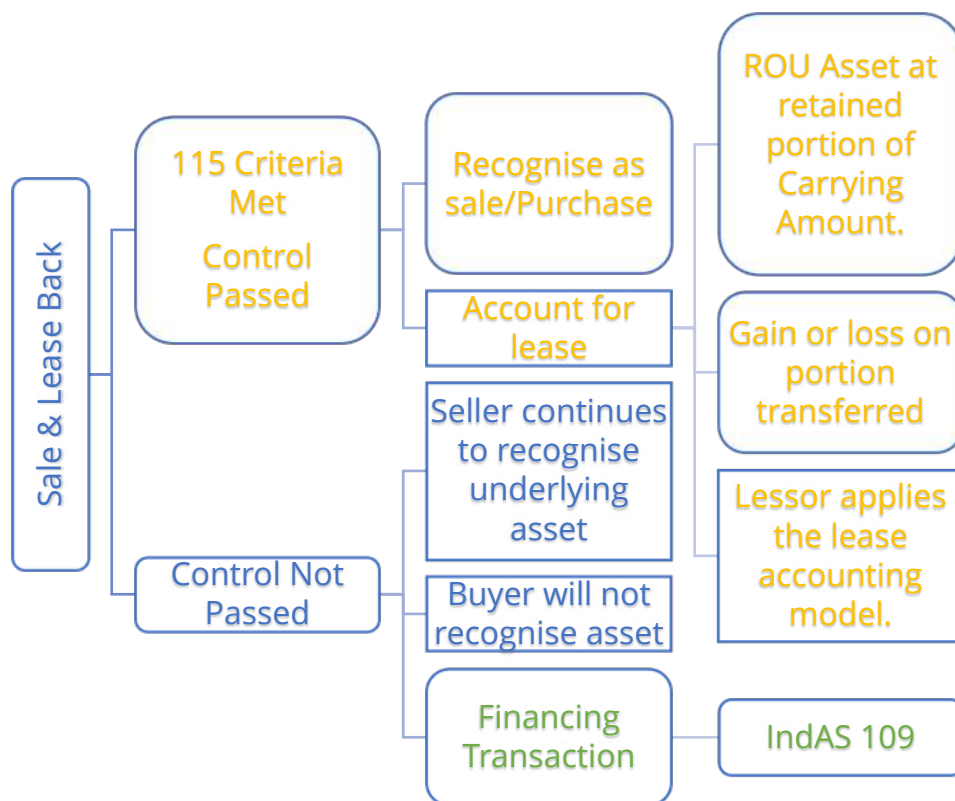
How to adjust for fair value differences?

Step 1 – Check which is more determinable

- Difference between sale consideration and Fair value of Asset
- Difference between PV of lease rentals and PV of market lease rentals

Step 2 – Treatment of difference

- Sale price is less or PV of lease rentals is less
 - Difference added to sale consideration and
 - Considered as prepayment for measurement of ROU asset
- Sale price is greater or PV of lease rentals is greater
 - Difference reduced from sale consideration and
 - Considered as additional financing received.



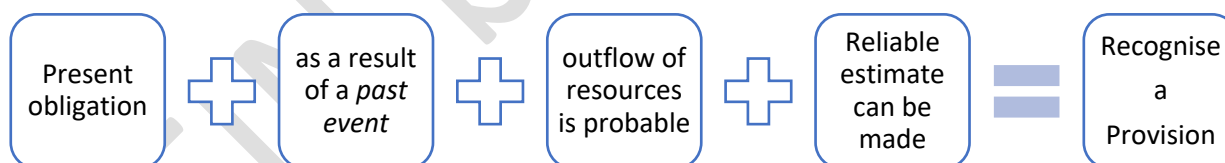
Ind AS 37 – Provisions, Contingent Liability & Contingent Assets

Liability

- is a present obligation of the entity
- arising from past events,
- the settlement of which is expected to result
- in an outflow from the entity of resources embodying economic benefits.

A **provision** is a liability of uncertain timing or amount.

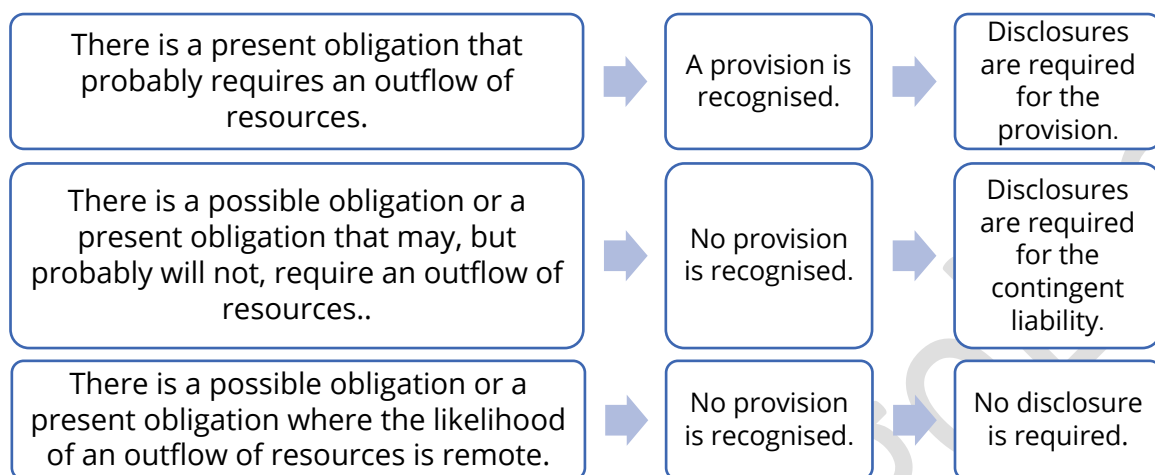
Recognition of Provision



Example / Case	Present Obligation	Conclusion
Refurbishment Costs - No legislative requirement (Furnace lining)	No present obligation (no legal requirement, no obligating event)	No provision recognised
Refurbishment Costs - Legislative requirement (Aircraft overhaul)	No present obligation (legal requirement exists, but can avoid cost by selling asset)	No provision recognised
Legal Requirement - Smoke Filters (at 31 March 20X1)	No present obligation for fitting filters (no obligating event yet)	No provision recognised for fitting filters
Legal Requirement - Smoke Filters (at 31 March 20X2)	No obligation for fitting filters, but obligation for fines/penalties arises if legislation breached	Provision recognised for expected fines and penalties

Contingent Liability - Key Points

- It is a possible obligation from past events, confirmed by future uncertain events not fully under entity's control.
- Or, it is a present obligation but not recognised because either:
 - Outflow is not probable, or
 - Reliable estimate cannot be made.



Contingent Asset

Contingent Asset is

- a **possible asset** that arises from **past events** and
 - whose existence will be confirmed only by the **occurrence or non-occurrence** of one or more uncertain **future events** not wholly within the control of the entity
- An entity should not recognise a contingent asset
- A contingent asset should be disclosed, where an inflow of economic benefits is probable.
- If it has become virtually certain that an inflow of economic benefits will arise, the asset and the related income are recognised in the financial statements of the period in which the change occurs.

Likelihood of outcome	Probability	Contingent liability	Contingent asset
Virtually certain	> 95%	Recognise provision	Recognise asset
Probable	50% - 95%	Recognise Provision	Disclose
Possible but not probable	5% - 50%	Disclose the contingency	No disclosure
Remote	< 5%	Ignore	Ignore

Estimates

Range of outcomes possible (typically in large population)	Use expected value (Probability x Amount)
One Outcome Possible	Use most likely outcome (the one with highest probability)

Discounting	PV should be computed using pre tax rates
Gain on disposal of assets / reimbursements	Gains / reimbursements should be evaluated independently – Recognise only if virtually certain
Future operating losses	Ignore
Onerous contract	Recognise loss on onerous contract at lower of - Penalty payable - Net loss if contract is executed

Restructuring

- is a programme that is planned and controlled by management, and materially changes either
 - a) the scope of a business undertaken by the entity; or
 - b) the manner in which that business is conducted.
- A provision for restructuring costs should be recognised only when the general recognition criteria for provisions set out the standard are met.
- A constructive obligation to restructure arises only when an entity:
 - a) has a detailed formal plan for the restructuring identifying at least:
 - i. business or part of a business concerned;
 - ii. principal locations affected;
 - iii. location, function, and approximate number of employees who will be compensated for terminating their services;
 - iv. expenditures that will be undertaken; and
 - v. when the plan will be implemented; and
 - b) has raised a valid expectation in those affected that it will carry out the restructuring by starting to implement that plan or announcing its main features to those affected by it.
- A restructuring provision should include only include the direct expenditure arising from the restructuring, which are:
 - necessarily entailed by the restructuring; and
 - not associated with the on-going activities of the entity.
- A restructuring provision does not include such cost as:
 - retraining or relocating continuing staff;
 - Marketing; or
 - Investment in new system and distribution networks.

Ind AS 19 – Employee Benefits

Short Term Employee Benefits	Payable within 12 months after end of reporting period. Account for expenses without discounting
Short Term Paid Absences	Non Accumulating – Ignore Accumulating – Create a liability (both vesting and non vesting) Liability = Expected encashment or future leaves x Salary per day

Defined contribution plan	Contribution is defined. There is no further liability on employer. E.g PF. Accounting – Dr. Expenses with amount of contribution
Defined Benefit Plan	Benefit is defined. Actuarial liability is borne by Employer. Accounting – Projected Unit Credit Method

Particulars	Defined Contribution Plans	Defined Benefit Plans
Entity's obligation	Limited to the amount that it agrees to contribute to the fund.	To provide the agreed benefits to current and former employees.
Determination of the amount of post-employment benefit	determined by the amount of contribution paid by an entity and employee + return on it	Pre-determined / as agreed
Risk bearer	Actuarial risk and investment risk fall on the employee	These risks fall on entity

For defined benefit plan, calculated Defined Benefit Obligation and Plan Assets

Computation of DBO

Particulars	Amount (Rs.)	Presented in
Opening Balance- DBO	XXXX	BS
(+) Current Service cost	XXXX	PL
(+) Interest cost (on opening balance)	XXXX	PL
(+/-) Past Service Cost	XXXX	PL
(+) Actuarial Loss	XXXX	OCI
(-) Actuarial Gain	XXXX	OCI
(-) Benefit Payment	XXXX	BS
(-) Gain on Settlement	XXXX	PL
(+) Loss on Settlement	XXXX	PL
Closing balance- DBO	XXXX	BS

The following is recognised in P&L

Current Service Cost	Increase in Present value of DBO due to service in current period
Interest cost	Increase in DBO due to passage of time. (Net interest cost is recognised in PL using opening balance)
Past service cost	Change in PV of DBO for services in prior periods due to plan amendment or curtailment.
Gain or Loss on settlement	The gain or loss on a settlement is the difference between: the present value of the defined benefit obligation on the date of settlement; and the settlement price
Service Cost	Current Service Cost + Past service cost + Gain or loss on settlement

The following are recognised in OCI

Actuarial Gains or losses	Gains or losses due to changes in actuarial assumptions
---------------------------	---

Actual – Expected Return as shown below	
any change in the effect of the asset ceiling, excluding amounts included in net interest on the net defined benefit liability (asset).	

Particulars	Plan Asset
Opening Balance	XXXX
Add/(Less)	
Contributions received	XXXX
Benefits paid / Settlements	(XXXX)
Expected Closing Balance	XXXX
Actual Closing Balance	XXXX
Actual Return [Actual CB – Expected CB]	XXXX

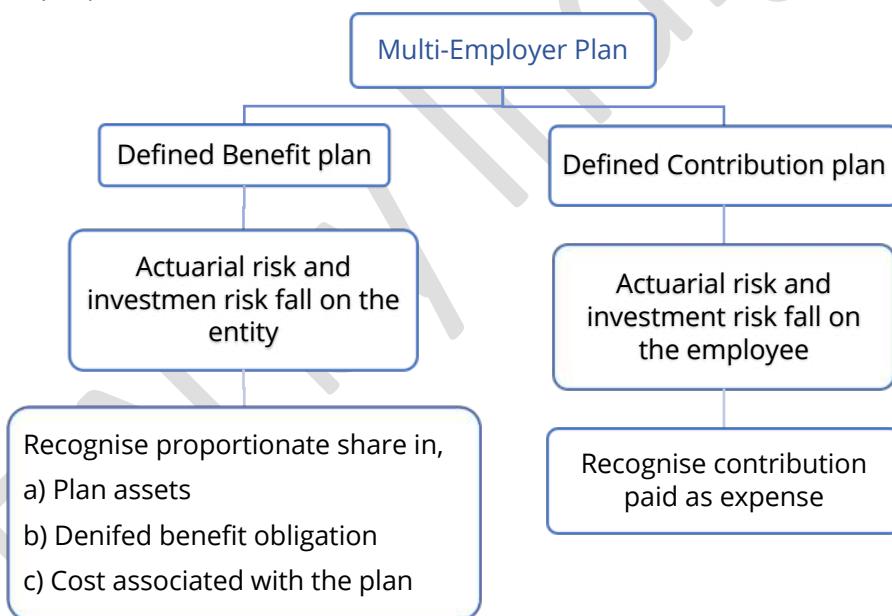
How to compute gain or loss on remeasurement?

Particulars	Net Liability (DBO – PA)
Opening Balance	XXXX
Add:	
Current Service cost	XXXX
Past Service Cost	XXXX
Net Finance Cost	XXXX
Loss on Settlement	XXXX
Less:	
Gain on Settlement Benefits Paid	XXXX
Expected Closing Balance	XXXX
Actual Closing Balance	XXXX
Gain/(Loss) on remeasurement	XXXX

Steps to solve PUCM question in exams

Final Salary	Start with Year 1 salary. & Increase salary each year using compound growth rate			
Determine Total Benefit Payable	Total Benefit = Final Year Salary × amount or % per year × Number of Years			
Allocate Benefit Attributed Each Year	Annual Attributed Benefit = Total Benefit ÷ Number of Years			
Discount Future Benefits to Present Value	Use discounting to find present value of each year's cumulative benefit. Number of year for discounts = Total period – period completed			
Compute Year-on-Year Obligation Movement using the below table				
Year	Opening Obligation	Interest Cost (Opening × Rate)	Service Cost (Benefit attributed)	Closing Obligation
1	0	0	PV of Year 1 benefit	Closing = Opening + Interest + Service Cost
2	Previous Closing	Previous × Rate	PV of Year 2 benefit	Closing = Opening + Interest + Service Cost

Multiple Employer Plan



Ind AS 7 – Cash Flow Statements

Type of Cash Flow	Examples
Operating Activities – Inflows	Sale of goods, services, royalties, premiums from insurance contracts

Operating Activities - Outflows	Payments to suppliers, employees, tax payments (unless linked to investing/financing)
Investing Activities - Inflows	Sale of PPE, intangibles, sale of investments, loan repayments received
Investing Activities - Outflows	Purchase of PPE, intangibles, investments, advances and loans given
Financing Activities - Inflows	Issue of shares, bonds, loans raised
Financing Activities - Outflows	Repayment of borrowings, lease payments, acquisition of own shares
Special Items - Interest and Dividends	Interest received, paid and dividends received by financing company is operating activity.
Special Items - Taxes on Income	Normally Operating; if linked to specific Investing or Financing, classify accordingly
Special Items - Non-Cash Transactions	Excluded from cash flow statement; disclose separately (e.g., debt to equity conversion)
Special Items - Investments and Subsidiaries	Acquisition/loss of control = Investing; changes without loss of control = Financing

For working capital changes under indirect method use

For assets : Opening – Closing Balance (If +ve, inflow / -ve, outflow)

For liabilities: Closing – Opening

For foreign currency cash & cash equivalents : Exchange differences is used for reconciliation

Ind AS 115 – Revenue

Five step Model

Identify the contract with customer	• Approved contract • Identify each party rights • Identify the payment terms • Commercial Substance • Collection of consideration - Probable
Identify Performance obligations	• Performance Obligation - Promise • Each promise to transfer goods or services to the customer
Determine the transaction price	• amount of consideration which an entity expects to be entitled to receive in exchange of the goods or performance of services to a customer.
Allocate the transaction Price	• Allocate the transaction price to each performance obligation.
Recognise Revenue	• When the entity satisfies a performance obligation • by transferring promised goods or services • Customer obtains control of the asset

An entity shall account for a contract with a customer only when all of the following five conditions are met:

1. **Approval and Commitment:**

The parties to the contract have approved the contract (in writing, orally, or in

accordance with customary business practices) and are committed to perform their respective obligations.

2. **Identification of Rights:**

The entity can identify each party's rights regarding the goods or services to be transferred.

3. **Identification of Payment Terms:**

The entity can identify the payment terms for the goods or services to be transferred.

4. **Commercial Substance:**

The contract has commercial substance (i.e., the risk, timing, or amount of the entity's future cash flows is expected to change as a result of the contract).

5. **Probability of Collection:**

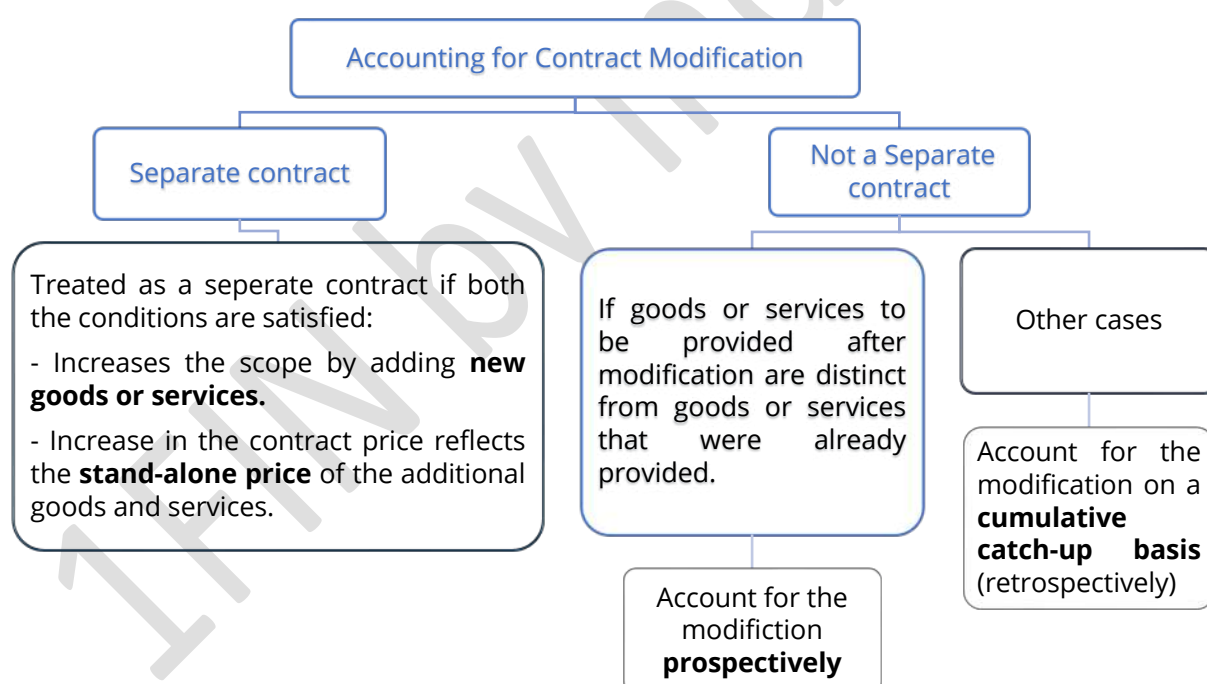
It is probable that the entity will collect the consideration to which it will be entitled in exchange for the goods or services that will be transferred to the customer.

If above conditions are not met, recognise a liability.

If consideration is non-refundable, recognise revenue only if

- Entity has no obligations left and substantially all consideration is received or
- Contract is terminated.

Accounting for Contract Modification



Special aspects of transaction price

Variable consideration (bonus etc)	include in the transaction price some or all of an amount of variable consideration estimated only to the extent that it is highly probable that a significant reversal in the amount of
------------------------------------	--

	cumulative revenue recognised will not occur when the uncertainty associated with the variable consideration is subsequently resolved
Estimates of variable consideration	Range of outcomes – Probability weighted average Single outcome – Most likely value
Refund liabilities	An entity shall recognise a refund liability if the entity receives consideration from a customer and expects to refund some or all of that consideration to the customer
Sale with a right to return	Revenue – Amount for transferred product (which would not be returned) Refund liability – Expected refund Asset – Right to recover the goods
Significant financing component	Recognise revenue at expected cash price. Recognise interest income using EIR
Non Cash Consideration	Measure non cash consideration at fair value to determine transaction price (Pls note here it is non cash consideration received and not given up like in Ind AS 16) If FV cannot be determined, measure revenue at standalone selling price
Customer provided goods	If entity obtains control, add to transaction price.
Consideration payable	If for distinct goods or service - Consideration $\leq$ FV : Recognise a purchase / expense - Consideration $>$ FV : Excess amount is reduced from TP If not for distinct goods or service – Reduce from TP

Allocation of Transaction price

General Rule	Allocate the transaction price to each performance obligation based on relative stand-alone selling prices, except for discounts and variable consideration.
Determining Stand-Alone Selling Price	Use observable price when goods/services sold separately. If not available, estimate using all reasonably available information and maximize observable inputs.
Estimation Methods	- Adjusted market assessment approach - Expected cost plus a margin approach - Residual approach (limited use)
Allocation of a Discount	- If discount relates to all performance obligations → Allocate proportionately. - If discount relates to specific obligations → Allocate only to those obligations (conditions must be satisfied).
Allocation of Variable Consideration	- Allocate entirely to a specific obligation if: (i) Payment terms relate specifically to that obligation, and (ii) Allocation is consistent with the overall allocation objective. - Else, allocate to all obligations in proportion to stand-alone selling prices.
Changes in Transaction Price	- Allocate changes based on original allocation unless it is a contract modification. - Recognize changes relating to satisfied obligations as revenue adjustments in the period of change.

Satisfaction of Performance Obligation over a period of time

Customer simultaneously receives and consumes the benefits of the seller's performance (e.g., security services).

Seller's work creates/enhances an asset that the customer controls as it is created (e.g., construction on customer's land).

Asset has no alternative use + seller has enforceable right to payment for work completed to date (with profit margin).

Revenue recognition for over a period of time

- on the basis of fair value of goods or services transferred to date relative to remaining goods or services.
- based on the entity's efforts or inputs to the satisfaction of a performance obligation.

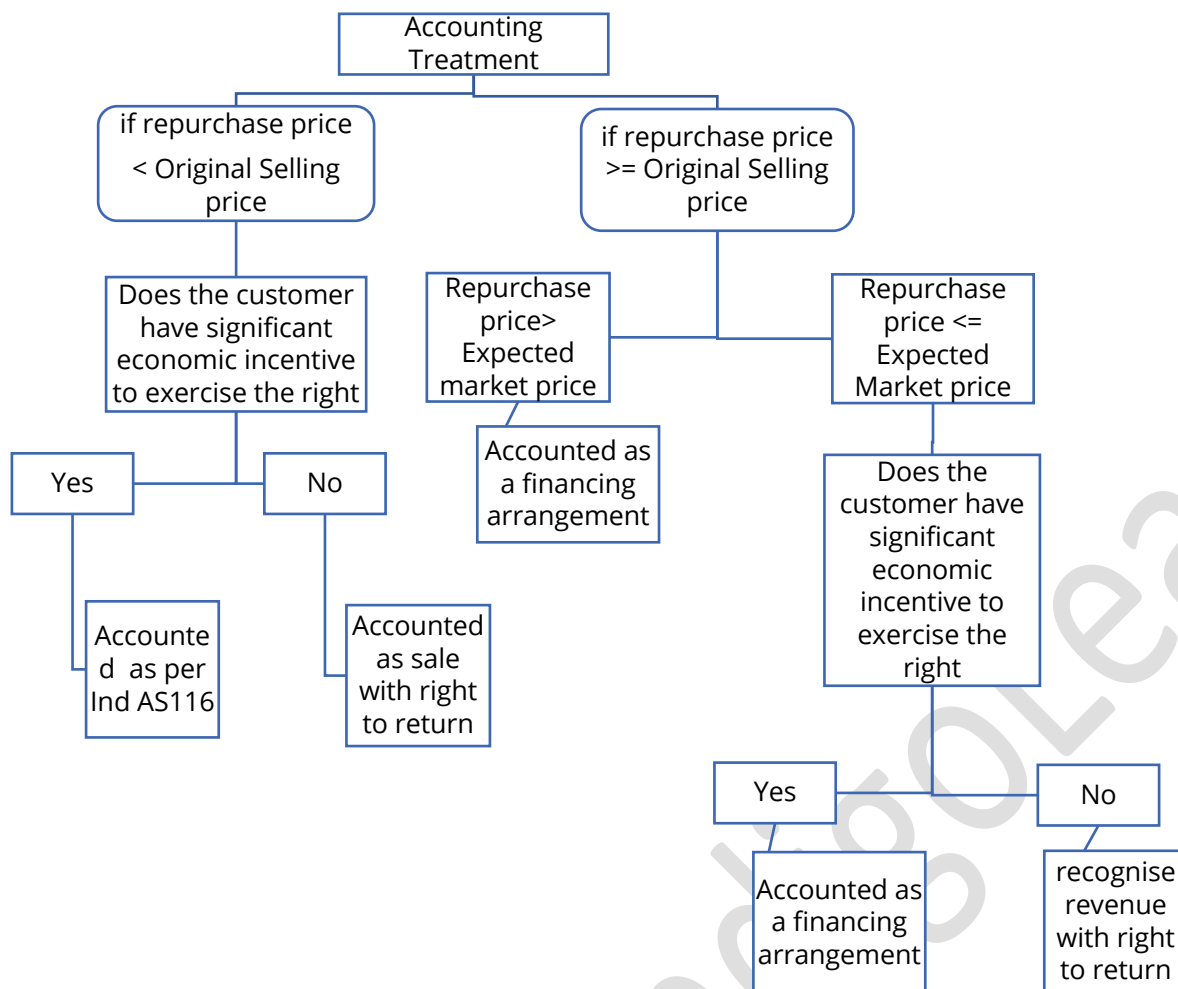
Special point for goods delivered to site without modifications. (Elevator example)

Asset delivered early to customer	Recognize revenue = cost incurred for asset
Other construction work ongoing	Measure progress excluding asset cost delivered
Revenue Recognition	(Progress % × Transaction Price excluding asset value) + Asset cost

Repurchase Agreements

Type of Repurchase Agreement	Accounting Treatment
Forward or Call Option	
Repurchase Price < Original Selling Price	Account as a lease under Ind AS 116 (Difference between original sale price and repurchase price considered).
Repurchase Price ≥ Original Selling Price	Account as a financing arrangement (Entity continues to recognise the asset + records a financial liability).
Option Lapses	Derecognise liability and recognise revenue.

Put Option



Other Points

Bill and Hold	
Revenue Recognition under Bill-and-Hold	Revenue recognised at point when control is transferred to customer.
Criteria for Customer Control under Bill-and-Hold	- Reason must be substantive - Product separately identified - Ready for transfer - No ability to use/redirect the product
Additional Performance Obligations like storage	Assess if additional obligations exist and allocate transaction price accordingly.
Licensing Arrangement	
License of Intellectual Property - Types	Includes software, technology, media, franchises, patents, trademarks, copyrights.
Right to Access IP – over period of time	Entity undertakes activities affecting IP; exposes customer to changes; activities not separate performance obligations.
Right to Use IP – at a point of time	Customer directs use and benefits from static IP without future entity activities.
Warranties	
Customer can purchase separately	Separate performance obligation

Customer cannot purchase separately	Create provision as per Ind AS 37
Customer's material right for additional goods and services	Allocate transaction price between sale of goods and future benefits (like loyalty points) based on standalone selling price.
Consignment	Revenue is recognised by consignor when consignee sells goods to third party. Consignee recognises only the commission income and not value of goods sold.
Principal	Recognises revenue on gross basis
	Indicators that an entity is a principal include the following: - Principal has responsibility to fulfill the contract - Carries inventory risk - Discretion to establish prices
Agent	Recognises revenue on net basis
Non refundable upfront fees	Relates to goods and services provided at inception – recognise immediately Other cases – Recognise over a period of time when PO is satisfied.
Service Concession Agreement	Unconditional Right to receive cash or FA from grantor – Recognise FA as per Ind AS 109. Right to charge users for public usages – Recognise a right to an intangible asset as per Ind AS 38.

Examples and treatment of Contract Costs

Cost	Capitalize or Expense	Reason (Short Summary)
Commission paid only upon successful signing	Capitalize	Incremental cost, incurred only if contract is signed.
Travel expenses for sales persons	Expense	Incurred regardless of contract outcome.
Legal fees for drafting terms	Expense	Costs incurred even if negotiations fail, not incremental.
Salaries for sales people obtaining clients	Expense	Paid regardless of contract success; not incremental.
Bonus based on quarterly sales target	Capitalize	Sales-based bonus is incremental to obtaining contracts.
Commission paid to sales manager for team contracts	Capitalize	Incremental cost; employee function/title is irrelevant under Ind AS 115.

Ind AS 8

Accounting Policies	- Principles, bases, conventions, rules, and practices applied in preparing and presenting financial statements. - Select based on Ind AS hierarchy if no standard directly applies.
Selection of Accounting Policies	- Apply specific Ind AS if available. - If not, management must use judgment to develop a policy that results in reliable and relevant information.
Changes in Accounting Policies	- Permitted only if required by Ind AS or results in more relevant and reliable information. - Apply retrospectively, restate prior periods unless impracticable.
Changes in Accounting Estimates	- Adjustment arising from new information or developments (e.g., change in useful life, bad debts, warranty obligations). - Apply prospectively (only for current and future periods).
Prior Period Errors	- Omissions or misstatements from failure to use reliable information that was available. - Correct retrospectively by restating comparatives unless impracticable.
Impracticability Concept	- If retrospective application or restatement is impracticable, adjust from earliest practicable date.
Disclosure Requirements	- Nature and reasons for changes. - Amounts of adjustments for each financial statement line item. - If retrospective restatement is impracticable, explain why.
Third Balance Sheet	A third balance sheet (also called a statement of financial position as at the beginning of the earliest comparative period) is required if: • There is a retrospective application of an accounting policy change, • Or a retrospective restatement to correct a prior period error, • Or a reclassification of items in the financial statements, AND • The change has a material effect on the information in the balance sheet at the beginning of the earliest comparative period presented.

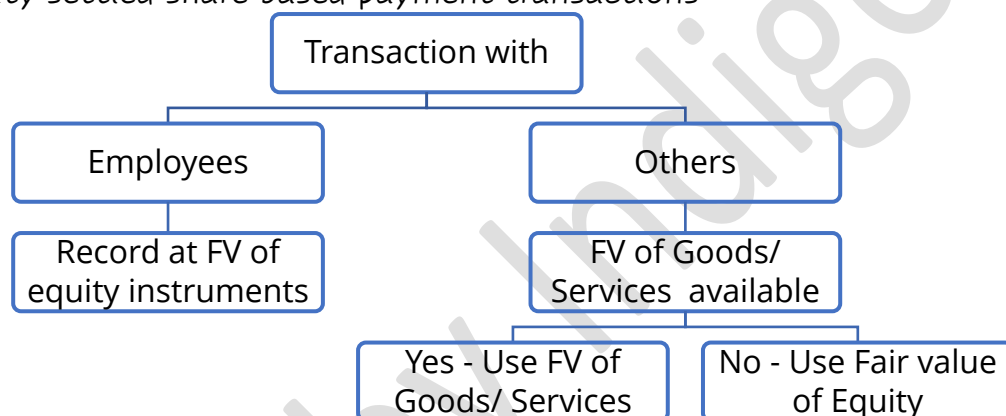
Ind AS 10

Subsequent Events	Events occurring after the reporting period before the approval of Financial Statements for Issue.
Types of Events	1. Adjusting Events: Provide evidence of conditions that existed at the reporting date. 2. Non-Adjusting Events: Indicative of conditions arising after the reporting date.
Adjusting Events	- Settlement of court cases where conditions existed at reporting date. - Bankruptcy of a customer confirming impairment at reporting date.

	- Receipt of information about asset impairment. - Discovery of fraud or errors.
Non-Adjusting Events	- Major business combinations. - Announcing plans to discontinue operations. - Major purchases or disposals. - Destruction of assets due to a fire or flood after reporting date. - Changes in tax rates enacted after reporting date.
Treatment of Adjusting Events	Financial statements are adjusted to reflect the effect of adjusting events.
Treatment of Non-Adjusting Events	No adjustment to financial statements. Disclosure required if the events are material (nature + estimate of financial effect or a statement that such an estimate cannot be made).
Dividends	Dividends declared after the reporting period are not liabilities at reporting date, but must be disclosed.
Going Concern	If events after reporting period indicate entity is no longer a going concern, financial statements should not be prepared on going concern basis.

Ind As 102

Equity settled share based payment transactions



Counterparty	Measurement basis	Measurement date	Recognition date
Employee	Fair value of equity instruments awarded	Grant date	Date goods or services received
Non-employee	Fair value of goods or services received	Date goods or services received	Date goods or services received

Cash settled – Share based payments

For cash-settled share-based payment transactions,

- the entity shall measure the goods or services acquired and
- the liability incurred at the fair value of the liability.
- the entity shall remeasure the fair value of the liability at the end of each reporting period and at the date of settlement,
- any changes in fair value recognized in profit or loss for the period
- It can also take form of share appreciation rights.

[In case of equity settled transactions, there is no remeasurement. This means that the amount recognised under equity is based on FV on the grant date]

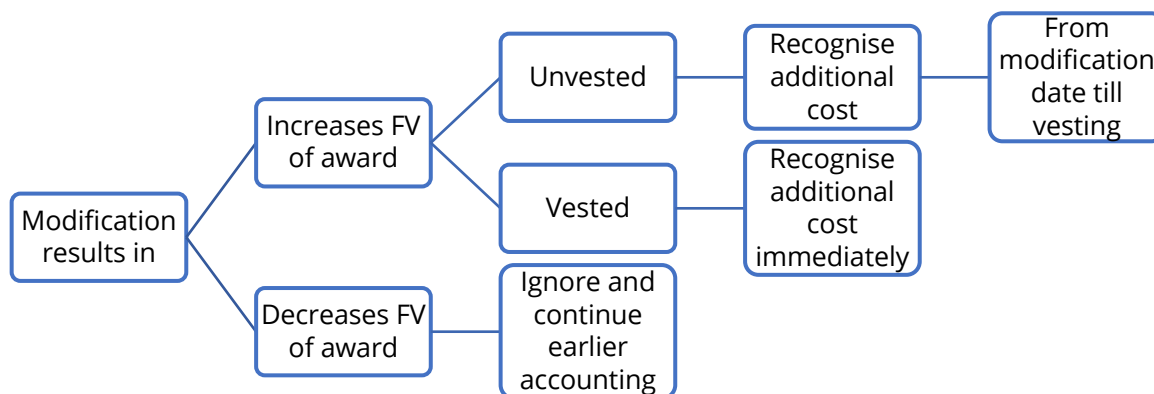
Share based payment with cash alternative

In this case either the entity or the other party has the choice of whether the entity settles the transaction in cash (or other assets) or by issuing equity instruments.

Choice with counter-party
Treated as compound financial instrument [debt + equity] (Refer Ind AS 109)
FV of goods/services measured directly - Difference between FV of goods/services and FV value of debt component is considered as equity component. If FV of Goods/Services not available or in case of employees FV of Compound Financial Instrument is used to measure the value of goods and services. - Measure FV of debt - Measure FV of equity assuming cash alternative is surrendered FV of Compound Financial Instrument = FV of debt + FV of equity.
Liability component is fair valued
On Settlement Cash Paid – Dr. Liability & Cr. Cash. The equity component is not impacted. Equity issued – Dr. Liability & Cr. Equity

Choice is with the entity
Accounted as Cash settled or Equity Settled
Entity checks whether it has present obligation - Intention to settle - Past practice - Ability to settle in equity instruments [If restriction to issue equity, it is considered to be a cash settled]
Settlement - Accounted as equity and settled by issuing shares : Account for issue of shares - Accounted as Equity settled but settled in cash : Treated as buy back of equity interest - Accounted as liability & Settled in cash – Dr. Liability & Cr. Cash - Accounted as liability but settled in equity : Transfer liability to equity - Settled at higher value – Differential portion is treated as additional expense.

Modification



- If the modification results in increase in number of shares, recognise additional cost from date of modification till date of vesting.

Cancellation

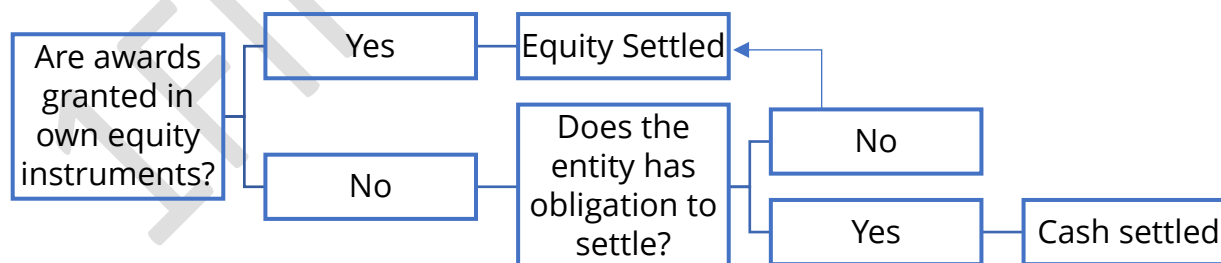
- recognise immediately the amount that otherwise would have been recognised for services received over the remainder of the vesting period [acceleration of vesting]
- any payment made to the employee on the cancellation or settlement of the grant shall be accounted for as the repurchase of an equity interest. If amount paid is in excess of FV of equity instrument, the excess is treated as expense.

Grant of new equity instruments & cancellation of existing instruments

- Treated as replacement for cancelled instruments
- Consider as modification of the original grant and account as per above.

A	FV of the replaced equity instruments		XXXX
B	(-)Net FV of cancelled instruments [C-D]		
C	FV of cancelled instruments	xxxx	
D	(-) Amount paid to the employee on cancellation	xxxx	XXXX
A-B	Incremental FV Granted		xxx

Group Share based payment plans



Scenario	I	II
Who receives goods/ services?	Subsidiary	Parent
Who settles?	Parent	Subsidiary
Settlement by	Issuing shares of parent	Issuing shares of subsidiary

Type	Equity (Since subsidiary does not have obligation to settle)	Equity (Since parent does not have obligation to settle)
Accounting Parent	Dr. Investment in subsidiary Cr. Equity	Dr. Expenses Cr. Dividend Income
Accounting Subsidiary	Dr. Expenses Cr. Equity	Dr. Retained Earnings Cr. Equity

Calculation of FV – always use FV in exam unless FV is not given.

The fair value of options can be determined using models like binomial model, Black Scholes Model etc. All option pricing models take into account the following factors:

- the exercise price of the option;
- the life of the option;
- the current price of the underlying shares;
- the expected volatility of the share price;
- the dividends expected on the shares (if appropriate); and
- the risk-free interest rate for the life of the option

If FV of options is not determinable, intrinsic value can be taken. Intrinsic value = Market Price – Exercise price

Steps to solve SBP question

Compute the total number of options likely to vest	Based on expected exits given in question
Determine the FV of option (not FV of share)	
Total value of options	No of Options x FV
Expense to be booked each year	Total value / No of years
At the end of 2 nd year	
Recompute the above. Do not change FV of equity settled transaction	
Compute total expense to be recognised at end of Year 2	Total value x no of years completed / Total vesting period
Expense for the year	Cumulative Expenses till year 2 – Cumulative Expenses recognised in year1.
Repeat for subsequent years.	

Accounting Entry (Example)

On Date of Grant

Employee Benefit Expense Dr. [FV = 15 x 1,000]	15,000	
To Share based payment reserve		15,000

On subscription by Employees

Share based payment Reserve Dr.	15,000	
Bank Dr. [Rs.50 x 1,000]	50,000	
To Share capital [10 x 1,000]		10,000
To Securities Premium		55,000

Ind AS 12 – Income Taxes

	+Ve	-ve
Asset TB-CA	DTA (TB > CA)	DTL (CA > TB)
Liability CA – TB	DTL (CA > TB)	DTA (TB > CA)
If unrealised gains in books which are not considered for tax (e.g. revaluation) : Always DTL		
If expenses disallowed for tax purpose which will be allowed subsequently (e.g 43B) : Always DTA		

- Accounting profit is profit or loss for a period before deducting tax expense.
- The tax base of an asset is the amount that will be deductible for tax purposes against any taxable economic benefits that will flow to an entity when it recovers the carrying amount of the asset.
- The tax base of a liability is its carrying amount, less any amount that will be deductible for tax purposes in respect of that liability in future periods
- Tax expense (tax income) is the aggregate amount included in the determination of profit or loss for the period in respect of current tax and deferred tax.
- Current tax is the amount of income taxes payable (recoverable) in respect of the taxable profit (tax loss) for a period.
- Deferred tax liabilities are the amounts of income taxes payable in future periods in respect of taxable temporary differences.
- Deferred tax assets are the amounts of income taxes recoverable in future periods in respect of:
 - deductible temporary differences;
 - the carry forward of unused tax losses; and
 - the carry forward of unused tax credits.

Deferred tax assets and liabilities shall be measured:

- at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled;
- based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.
- Enacted – Already in force
- Substantively enacted – Formalities are completed but not yet enacted. Like budget presented and passed but president has not yet assented.
- If different tax rates are applicable for different types/slabs of income, use the appropriate tax rates at which recovery would be done.

Accounting Entries

Current Tax	Dr. Income Tax expense – Current Cr. Income Tax Payable
Deferred Tax Asset	Dr. Deferred Tax Asset Cr. Income tax benefit – Deferred
Deferred Tax Liability	Dr. Income Tax expense – Deferred Cr. Deferred Tax Liability
Tax Expense (PL)	Current Tax + Deferred Tax Expense – Deferred Tax Benefit
Deferred Tax (BS)	Shown at Net Amount

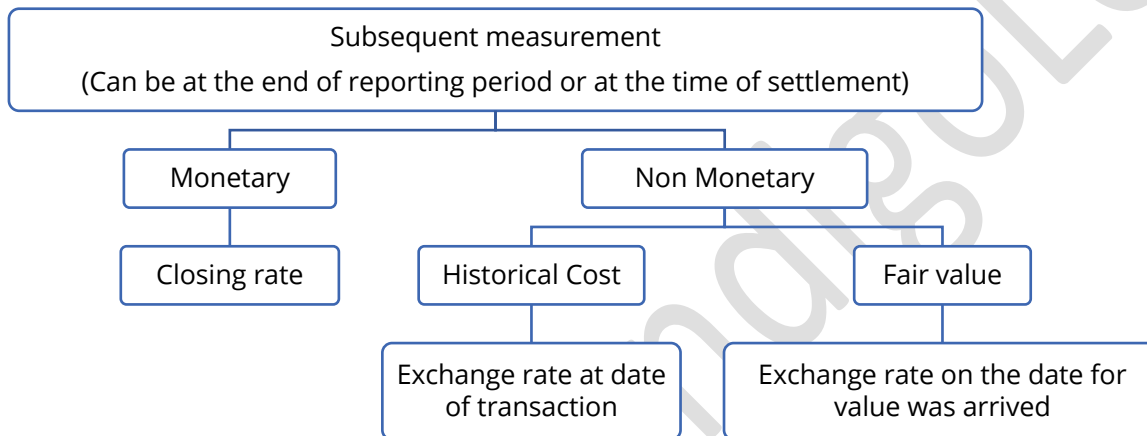
- Deferred Taxes are not discounted.
- Deferred Taxes are always shown as non current
- Deferred Tax expense/benefit are reported in P&L or OCI depending upon the items which have resulted the deferred tax.

Offsetting Deferred Tax Asset & Liabilities

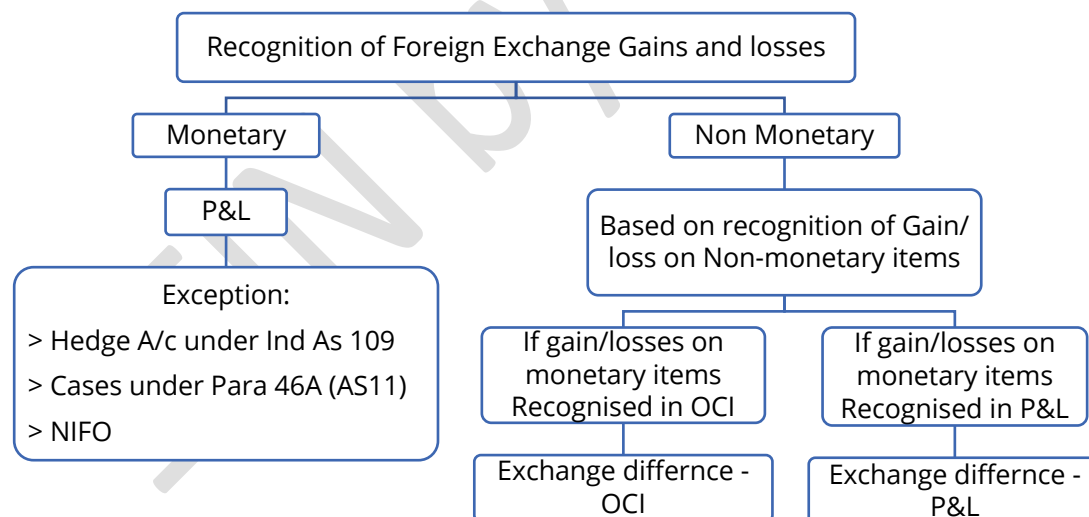
An entity shall offset deferred tax assets and deferred tax liabilities if, and only if:

- the entity has a legally enforceable right to set off current tax assets against current tax liabilities; and
- the deferred tax assets and the deferred tax liabilities relate to income taxes levied by the same taxation authority on either:
 - the same taxable entity; or
 - different taxable entities which intend either to settle current tax liabilities and assets on a net basis, or to realise the assets and settle the liabilities simultaneously.

Ind AS 21



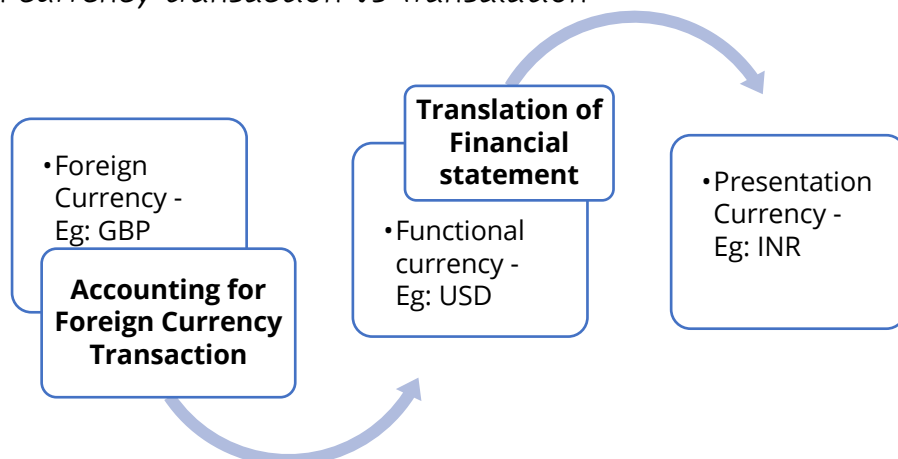
Recognition of Foreign Exchange Gains and losses



IND AS 101 allows an entity to apply Para 46A under AS 11, (Optional)
Exchange difference on Foreign currency of Long term monetary Item

- If it is Depreciable asset → Add/Less from carrying amount
- If it is Non-depreciable asset → Transferred to Foreign Currency Monetary Item Translation Difference Account (FCMITDA - Component of equity) → Amortise over the remaining life

Foreign currency transaction vs Translation



Translation to Presentation currency

Particulars	Exchange rate	Date
Assets & Liabilities	Closing Rate	Balance sheet
Profit & loss items	Individual rate or Average rate (If there exist Insignificant Fluctuation)	Transaction date
Equity	Historical Cost/ Historical Value	

Net Investment in a foreign operation

NIFO is

- The amount of the reporting entity's interest
- in the net assets of that operation
- An item (Long term Monetary item) for which settlement is neither planned nor likely to occur in the foreseeable future is, in substance, a part of the entity's net investment in that foreign operation.

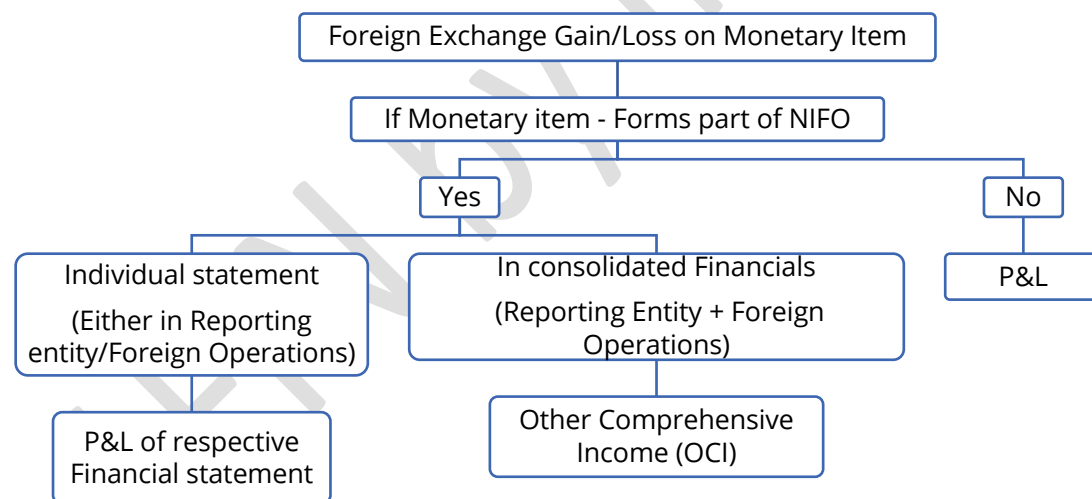


Illustration Summary:

- Gain or loss on monetary item is generally recognised in P&L. If monetary item forms part of NIFO, then in CFS it is recognised in OCI.
- Trade receivables & Trade payable will not be form part of NIFO, While Long term loans, receivables & payables will form part of NIFO.
- If Subsidiary company of reporting entity gives loan to another Subsidiary of reporting entity

If the given loan forms part of NIFO, then it should be recognised in OCI of Consolidated Financial statement of group companies

Ind AS 33 – EPS

1.1 Formula

Computation of Basic earnings per share =

Profit/Loss attributable to Equity share holders

Weighted average number of Equity shares outstanding during the period

1.2 Calculation of Profit attributable to Equity Share Holders

Earnings Before Interest & Taxes	xxx
Less: Finance cost (including dividend on Preference shares classified as Liability) [You will understand this after Ind AS 109]	xxx
Earnings before Taxes	xxx
Less: Taxes	xxx
Profit after tax	xxx
Less: Dividend on Cumulative Preference shares whether or not declared (only for 1 year)	xxx
Less: Dividend on Non-cumulative Preference shares only if declared	xxx
Less: Deemed dividend on increasing rate preference shares	xxx
Less: Redemption/Repurchase of Preference shares at premium	xxx
Less: Early conversion of Preference shares at premium	xxx
Profit attributable to Equity share holders	xxx

Calculation of Weighted Average Number of Shares

Ordinary shares outstanding at the beginning of the period	xxx
Add: Ordinary shares issued during year (weighted)	xxx
Add: Bonus issue (no time weightage factor- since beginning)	xxx
Add: Right issue (time weighted)	xxx
Less: Ordinary shares bought back during the year (weighted)	xxx
Weighted average number of shares	xxx

Bonus shares are assumed to have been issued at the beginning of earliest period reported or date of issue of original shares during the year.

Deciding the date for issue of shares

Shares are usually included in the weighted average number of shares from the date consideration is receivable (which is generally the date of their issue),

When ordinary shares are issued	Timing effective from the date
In exchange for cash	When cash is receivable
On voluntary reinvestment of dividends on ordinary or preference shares	When dividends are reinvested
As a result of conversion of a debt instrument to ordinary shares	When Interest ceases to accrue
In place of interest or principal on other financial instruments	When Interest ceases to accrue
In exchange for the settlement of a liability	On settlement date

As consideration for the acquisition of an asset other than cash	When the acquired asset is recognised
For rendering of services to the entity	When the services are rendered
As a part of the consideration transferred in a business combination	From the date of the acquisition
Upon the conversion of a mandatorily convertible instrument	From the date of entering into the contract

Right issues

- Entities might raise additional capital by issuing shares to existing shareholders, on a pro rata basis to their existing holdings, in the form of a rights issue.
- The right shares can either be offered at the current market price or at a price that is below the current market price.
- A right issue usually includes a bonus element.

EPS Computation in case of Right shares:

Theoretical ex-rights (TERP) fair value per share=

$$\frac{\text{FV of all outstanding shares before rights} + \text{Total amount received from rights}}{\text{No of original shares} + \text{rights shares}}$$

Adjustment factor=

Fair value before rights issue

Theoretical ex-rights price

*Adjusting factor should be applied to adjust the shares outstanding before the right issue, both for the current and previous year.

Example

Rights issue 1:5 (1 shares for 5 issued)

Rights issue price – Rs. 15

Cum Rights Price – Rs. 20 [FV before rights]

$$\text{TERP} = (20 \times 5) + (1 \times 15) / (5 + 1)$$

$$\frac{(20 \times 5) + (1 \times 15)}{5 + 1} = 19.16$$

Measurement of Diluted Earnings Per Share

Formula

Computation of Diluted earnings per share =

Profit/Loss attributable to Equity share holders when dilutive potential shares are converted into ordinary shares

Weighted average number of Equity shares+ Weighted average number of dilutive potential ordinary shares

Calculation

- Dilutive potential ordinary shares shall be deemed to have been converted into ordinary shares at the beginning of the period or the date of issue of the potential ordinary shares, whichever is later.
- Potential ordinary shares that are canceled or lapsed during the period are included in the calculation of diluted earnings per share for the portion of the period during which they are outstanding.

- Potential ordinary shares that are converted into ordinary shares during the period are included in the calculation of diluted earnings per share from the beginning of the period till the date of conversion.

From the date of conversion, the resulting ordinary shares are included in both basic and diluted earnings per share.

- The conversion of the potential ordinary shares into ordinary shares should assume the most advantageous conversion rate or exercise price from the standpoint of the holder.
- Only potential ordinary shares that are dilutive are considered in the calculation of diluted earnings per share.

4.4 Steps for computing Diluted EPS

Step1

Compute Incremental EPS for each potential Ordinary share

- Incremental EPS = $\frac{\text{After tax Effect of potential share on earnings to equity holders}}{\text{Effect of potential share on weighted average number of shares}}$

Step2

Ranking

- Rank the various types of potential ordinary shares based on step1 above. First rank is given for least earning per incremental ordinary share and so on, in ascending order.

Step3

Compute Diluted EPS

- compute Basic EPS
- Add net profit and additional shares for each type of potential ordinary share, in ascending order.
- calculate Diluted EPS at each stage
- Select least Diluted EPS, which to be reported. If Diluted EPS increases at any point it will be considered Anti-Dilutive.

Options, warrants and their equivalents

- The difference between the number of ordinary shares issued and the number of ordinary shares that would have been issued at the average market price of ordinary shares during the period shall be treated as an issue of ordinary shares for no consideration and should be included in the calculation of diluted earning per share.

$$\text{No of shares} = \text{Total Options} - (\text{exercise price} \times \text{Number of options} / \text{average fair value})$$

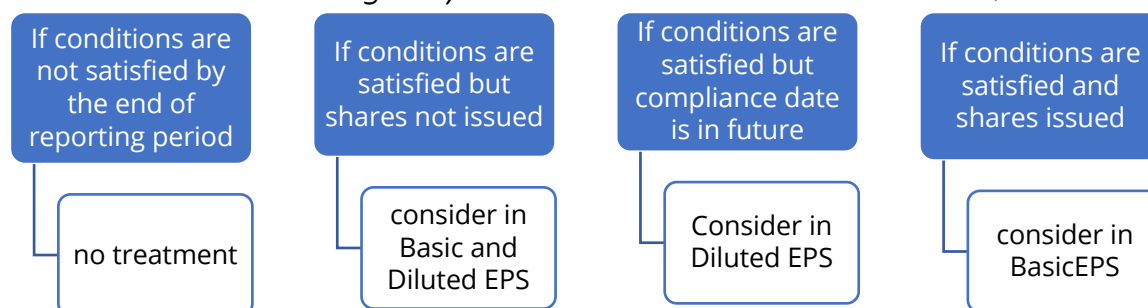
Employee Stock Options

- Employee share options with fixed or determinable terms and non-vested ordinary shares are treated as options in the calculation of diluted earnings per share, even though they may be contingent on vesting. They are treated as outstanding on the grant date.
- Performance-based employee share options are treated as contingently issuable shares because their issue is contingent upon satisfying specified conditions in addition to the passage of time.
- Dilutive effect on ESOP:
 In case of vested ESOPs, potential equity shares will be calculated as:

$$\text{Total ESOP} - (\text{exercise price} \times \text{Number of options} / \text{average fair value})$$

Contingently issuable shares

Contingency involves some amount of uncertainty, it depends on happening or not happening of a particular event. If all the conditions which were uncertain become certain, one can include contingently issued shares in the calculation of Basic and diluted EPS.



Convertible instruments

Convertible preference shares	Convertible debt
- The dilutive effect of convertible preference shares shall be reflected in diluted EPS. - Convertible preference shares are anti-dilutive when the amount of the dividend on such shares obtainable on conversion exceeds basic earnings per share (Incremental EPS > Basic EPS)	- The dilutive effect of convertible debt shall be reflected in diluted EPS. - Convertible debt is anti-dilutive whenever its interest (net of tax) per ordinary share obtainable on conversion exceeds basic earnings per share.

Contracts that may be settled in ordinary shares or cash

- When an entity has issued a contract that may be settled in ordinary shares or cash at the entity's option, the entity shall presume that the contract will be settled in ordinary shares, and the resulting potential ordinary shares shall be included in diluted earnings per share if the effect is dilutive.
- If contracts may be settled in ordinary shares or cash at the holder's option, the more dilutive cash settlement and share settlement shall be used in calculating diluted earnings per share.

Ind AS 34

Period for which Interim Financial statement are required to be presented

Interim Financial Statement		Example: Interim Financial Statement for	
		Q2 ended 30-Sep-X2	Q3 ended 31-Dec-X2
Statement of P&L	For the Interim period	For July to Sep X2 (3Ms)	For Oct to Dec X2 (3Ms)
	On a Year to Date basis	For Apr to Sep X2 (6Ms)	For Apr to Dec X2 (9Ms)
	Comparative Information for both period	Comparative for Interim: For July to Sep X1 (3Ms)	Comparative for Interim: For Oct to Dec X1 (3Ms)
		Comparative for YTD: For Apr to Sep X1 (6Ms)	Comparative for YTD: For Apr to Dec X1 (9Ms)
Balance Sheet	At end of Interim period and comparative end of	As on 30-Sep-X2	As on 31-Dec-X2
		Comparative: As on 31-Mar-X2	Comparative: As on 31-Mar-X2

	Previous Financial Year		
Cash Flow Statement	Cumulative YTD basis till end of Interim period & comparatives	For Apr to Sep-X2 (6Ms)	For Apr to Dec-X2 (9Ms)
		Comparative: For Apr to Sep-X1 (6Ms)	Comparative: For Apr to Dec-X1 (9Ms)
Statement of change in Equity	Cumulative YTD basis till end of Interim period & comparatives	For Apr to Sep-X2 (6Ms)	For Apr to Dec-X2 (9Ms)
		Comparative: For Apr to Sep-X1 (6Ms)	Comparative: For Apr to Dec-X1 (9Ms)

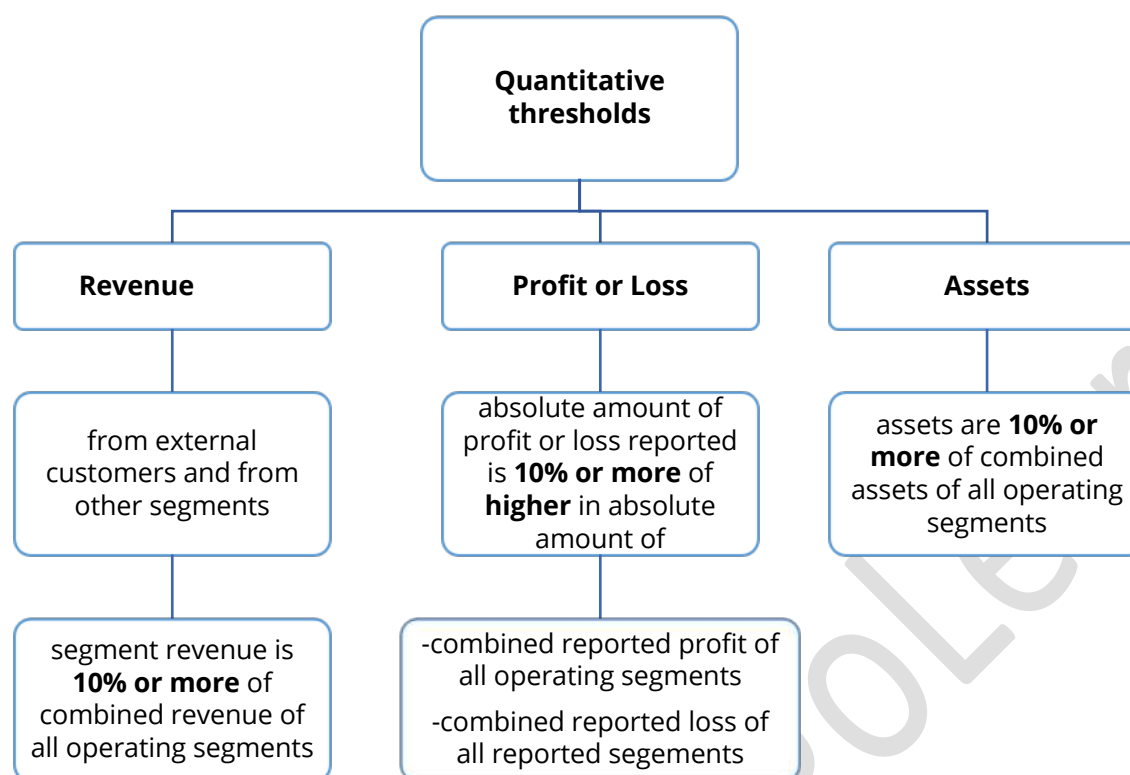
- If any expense would not be deferred at the end of financial year, the same should not be deferred at end of the interim period. E.g advertisement expenses
- Tax expense – compute using effective annual tax rate.

Ind As 108

An operating segment is component of entity

- That engages in business activities
- from which it may earn revenues and incur expenses (including from transactions with other components of the entity)
- may engage in business activities for which it has yet to earn revenues
- Whose operating results are regularly reviewed by the entity's chief operating decision maker (CEO, COO, Group of Directors of operations/production/ geographical area)
- to make decisions about resources to be allocated to the segment and assess its performance
- For which discrete financial information is available

Quantitative threshold to identify Operating Segment



Ind AS 101 – First Time Adoption

Area	Key Requirement/Treatment
Opening Ind AS Balance Sheet	Must be prepared at the date of transition. Recognise only those assets/liabilities permitted under Ind AS. Derecognise others. Reclassify and measure as per Ind AS.
Accounting Policies	Apply consistently across all periods presented. Must comply with Ind AS effective at the end of the first Ind AS reporting period.
Explanation of Transition	Disclose reconciliations of Equity and Total Comprehensive Income from previous GAAP to Ind AS. Also disclose material adjustments and fair value adjustments.
Adjustments at Transition	Recognise adjustments directly in Retained Earnings (or other equity components) at the transition date.
Estimates	Continue previous GAAP estimates unless clear error. No retrospective adjustment using later events unless mandated. New estimates to reflect conditions at transition date.
Mandatory Exceptions (Prospective Application Required)	
De-recognition of financial assets/liabilities	Apply Ind AS 109 prospectively from transition date unless retrospective data available.
Hedge Accounting	Measure derivatives at FV at transition. Remove deferred gains/losses from previous GAAP accounting. Reflect eligible hedge relationships.
Non-Controlling Interests (NCI)	Apply Ind AS 110 prospectively for attribution of total comprehensive income and changes in ownership interests. If first time adopter elects to apply Ind AS 103 retrospectively, it shall apply Ind AS 110 from that date.

Classification and Measurement of Financial Assets	Assess classification based on conditions at transition date rather than initial recognition date.
Impairment of Financial Assets	Use reasonable and supportable information available without undue cost to assess credit risk. If impracticable, assume lifetime expected credit losses.
Embedded Derivatives	Evaluate need for separation based on conditions existing when entity first became party to the contract or at reassessment.
Government Loans	Apply Ind AS 109 and Ind AS 20 prospectively to government loans existing at transition date; no retrospective benefit recognition.
Optional Exemptions (Entity may choose)	
Business Combinations (Ind AS 103)	Option to not restate past business combinations before transition date. If restated, all subsequent combinations must also be restated.
Share-Based Payments (Ind AS 102)	Not mandatory to apply to vested instruments pre-transition; can choose to apply if fair value was disclosed publicly.
Deemed Cost (PPE, Intangibles, ROU Assets)	Can opt to measure at fair value, previous GAAP carrying amount (broadly comparable to FV), or cost. Applied item-by-item.
Cumulative Translation Differences (Ind AS 21)	Option to reset cumulative translation differences to zero at transition date for all foreign operations.
Investments in Subsidiaries, JVs, Associates	Measurement options at transition – cost or deemed cost (fair value/previous GAAP carrying amount).
Compound Financial Instruments	No retrospective split required if liability component no longer exists at transition.
Designation of Financial Instruments	Option to newly designate financial assets/liabilities at FV through P&L or OCI at transition date.
Decommissioning Liabilities	Include decommissioning obligations in PPE retrospectively or by estimating cost at transition date.
Fair Value of Financial Assets/Liabilities	Permit fair value at initial recognition exemptions in limited cases.
Extinguishing Financial Liabilities with Equity Instruments	Apply prospectively to past debt-for-equity swaps.
Joint Arrangements	Classify existing joint arrangements based on facts and circumstances at transition date.
Stripping Costs in Mining Activities	Recognize stripping costs prospectively based on transition date evaluation.
Non-current Assets Held for Sale (Ind AS 105)	Apply prospectively classification and measurement.
Foreign Currency Transactions and Advance Consideration	Exemption for transactions before transition date.
Carve-outs (Major Differences from IFRS 1)	
Definition of Previous GAAP	Must use Indian GAAP (AS) prepared under Companies Act, not any other accounting basis.
PPE Carrying Value Option	Option to continue with previous GAAP carrying value of PPE as deemed cost.

Long-term Foreign Currency Items	Option to continue deferral or capitalization of forex differences under old AS 11 treatment.
Service Concession Arrangements - Toll Roads	Permitted to continue revenue-based amortisation policy adopted under previous GAAP for intangible assets till disposal.
Land and Building Leases	Can use transition date facts to classify leases as finance or operating.

Ind AS 113

Definition of Fair Value	Exit Price: Price to sell an asset or transfer a liability in an orderly transaction between market participants at measurement date.
Principal Market	Market with the greatest volume and level of activity for the asset or liability.
Most Advantageous Market	If no principal market, use the market with the best price for the asset (after considering transaction and transport costs).
Market Participants Assumptions	Fair value based on assumptions that independent, knowledgeable, willing market participants would use.
Highest and Best Use (Assets)	Asset should be valued based on its highest and best use from a market participant's perspective, physically possible, legally permissible, and financially feasible.
Fair Value Hierarchy	- Level 1: Quoted prices in active markets. - Level 2: Observable inputs other than Level 1 prices. - Level 3: Unobservable inputs (entity assumptions).
Valuation Techniques	Use appropriate and consistent methods: - Market Approach (comparable transactions) - Cost Approach (replacement cost) - Income Approach (present value of future cash flows)
Non-Financial Assets	Consider highest and best use when measuring fair value.
Liabilities and Equity Instruments	Fair value assumes the liability is transferred to a market participant, not settled or extinguished.
Fair Value Measurement for Non-Active Markets	Must use valuation techniques maximizing observable inputs and minimizing unobservable inputs.
Transaction vs Transport Costs	Transaction costs & transport costs are considered for determining most advantageous market price. Transaction costs are excluded from fair value but considered when deciding which market to use. Transaction costs are accounted for using other standards.

Ind AS 2 Inventories

1. Illustration (RTP Nov 20) [Fixed Overhead]

A company normally produced 1,00,000 units of a high precision equipment each year over past several years. In the current year, due to lack of demand and competition, it produced only 50,000 units. Further information is as follows:

- Material = Rs. 200 per unit;
- Labour = Rs. 100 per unit;
- Variable manufacturing overhead = Rs. 100 per unit;
- Fixed factory production overhead = Rs. 1,00,00,000;
- Fixed factory selling overhead = Rs. 50,00,000;
- Variable factory selling overhead = Rs. 150 per unit.

Calculate the value of inventory per unit in accordance with Ind AS 2. What will be the treatment of fixed manufacturing overhead?

Solution:

Calculation of Inventory value per unit as per Ind AS 2:

Particulars	Value per unit(₹)
Raw material	200
Labour	100
Variable manufacturing overhead	100
Fixed production overhead (1,00,00,000/1,00,000)*	100
Total	500

Fixed manufacturing overheads are absorbed based on normal capacity i.e. 1,00,000 units. The rate is not revised if actual production is lower than normal capacity.

Fixed manufacturing overhead on 50,000 units (50,000 x 100.= 50,00,000), will be absorbed as inventory value. The remaining fixed manufacturing overhead ₹50,00,000 (1,00,00,000 - 50,00,000) will be charged to P&L.

Note: Selling costs are excluded from the cost of inventories and recognised as expense in the period in which they are incurred.

2. Illustration (ICAI SM, Dec-21,May25) [Joint & By-Product] ****

In a manufacturing process of Mars Ltd, one by-product BP emerges besides two main products MP1 and MP2 apart from scrap. Details of cost of production process are here under:

Item	Unit	Amount	Output	Closing Stock 31-03-X1
Raw material	14,500	1,50,000	MP 1-5,000 units	250
Wages	-	90,000	MP II - 4,000 units	100
Fixed overhead	-	65,000	BP- 2,000 units	
Variable overhead	-	50,000		

Average market price of MP1 and MP2 is Rs. 60 per unit and Rs. 50 per unit respectively, by-product is sold @ Rs. 20 per unit. There is a profit of Rs. 5,000 on sale of by-product after incurring separate processing charges of Rs. 8,000 and packing charges of Rs. 2,000, Rs. 5,000 was realised from sale of scrap.

Required: Calculate the value of closing stock of MP1 and MP2 as on 31-03-20X1.

Solution:



1) Calculation of NRV of By-product BP :

Selling price of by-product	2,000 units x 20 per unit	40,000
(-) Separate processing charges of by- product BP		(8,000)
Packing charges		(2,000)
Net realizable value of by-product BP		30,000

2) Calculation of cost of conversion for allocation between joint products MP1 and MP2:

Raw material		1,50,000
Wages		90,000
Fixed overhead		65,000
Variable overhead		50,000
Less: NRV of by-product BP	30,000	
Less: Sale value of scrap	<u>5,000</u>	(35,000)
Joint cost to be allocated between MP1 and MP2		3,20,000

The net realisable value of by product and scrap is reduced from joint cost.

3) Determination of "basis for allocation" and allocation of joint cost to MP1 and MP2:

Joint costs are allocated on the basis of relative sales value.

	<u>MP 1</u>	<u>MP 2</u>
Output in units (a)	5,000	4,000
Sales price per unit (b)	60	50
Sales value (a x b)	3,00,000	2,00,000
Ratio of allocation (based on sales)	3	2
Joint cost of ₹ 3,20,000 allocated in the ratio of 3:2 (c)	1,92,000	1,28,000
Cost per unit [c/a]	38.4	32

4) Determination of value of closing stock of MP1 and MP2:

Particulars	<u>MP 1</u>	<u>MP 2</u>
Closing stock in units	250 units	100 units
Cost per unit	38.4	32
Value of closing stock	9,600	3,200

3. Illustration (RTP May 2018) [NRV] ❄ ❄ ❄

On 31 March 20X1, the inventory of ABC includes spare parts which it had been supplying to a number of different customers for some years. The cost of the spare parts was Rs. 10 million and based on retail prices at 31 March 20X1, the expected selling price of the spare parts is Rs. 12 million. On 15 April 20X1, due to market fluctuations, expected selling price of the spare parts in stock reduced to Rs. 8 million. The estimated selling expense required to make the sales would be Rs. 0.5 million. Financial statements were authorised by Board of Directors on 20th April 20X1.

As at 31st March 20X2, Directors noted that such inventory is still unsold and lying in the warehouse of the company. Directors believe that inventory is in a saleable condition and active marketing would result in an immediate sale. Since the market conditions have improved, estimated selling price of inventory is Rs. 11 million and estimated selling expenses are same Rs. 0.5 million.

What will be the value inventory at the following dates:

31st March 20X1
31st March 20X2.



Solution:

As per Ind AS 2 'Inventories', inventory is measured at lower of 'cost' or 'net realisable value'. Further, as per Ind AS 10: 'Events after Balance Sheet Date', decline in net realisable value below cost provides additional evidence of events occurring at the balance sheet date and hence shall be considered as 'adjusting events'.

- a) In the given case, for valuation of inventory as on 31 March 20X1, cost of inventory would be ₹10 million and net realisable value would be ₹7.5 million (**i.e. Expected selling price ₹8 million- estimated selling expenses ₹0.5 million**).

Accordingly, inventory shall be measured at ₹7.5 million i.e. lower of cost and net realisable value. Therefore, inventory write down of ₹2.5 million would be recorded in income statement of that year.

It is assumed that the price as on 15th April 20X1 provides additional evidence of conditions existing on balance sheet date.

However, if it is assumed that the price as on 15th April 20X1 does not provide additional evidence of conditions existing on balance sheet date, the value of inventory would be lower of Cost (₹10 million) and NRV (₹12 million - ₹0.5 million = 11.5 Million) i.e at ₹10 million only.

- b) A new assessment is made of net realizable value in each subsequent period. If there is an increase in the net realizable value (NRV) of inventory due to improved economic conditions, any previous write-downs should be reversed. This ensures the inventory is recorded at the lower of cost or the revised NRV.

As of 31 March 20X2, the inventory will be valued at cost or NRV, whichever is lower.

- **Cost:** ₹1 million
- **NRV:** ₹10.5 million (calculated as the expected selling price of ₹11 million minus estimated selling expenses of ₹0.5 million).

Since the NRV (₹10.5 million) is higher than the cost (₹1 million), the inventory will now be recorded at ₹1 million (the cost). The inventory write-down of ₹2.5 million recorded in the previous year will be reversed accordingly.

4. Illustration (RTP May 20) [Overhead] ❄ ❄ ❄

The following is relevant information for an entity:

- Full capacity is 10,000 labour hours in a year.
- Normal capacity is 7,500 labour hours in a year.
- Actual labour hours for current period are 6,500 hours.
- Total fixed production overhead is Rs. 1,500.
- Total variable production overhead is Rs. 2,600.
- Total opening inventory is 2,500 units.
- Total units produced in a year are 6,500 units.
- Total units sold in a year are 6,700 units.
- The cost of inventories is assigned by using FIFO cost formula.

How overhead costs are to be allocated to cost of goods sold and closing inventory?

Solution:

Hours taken to produce 1 unit = 6,500 hours / 6,500 units = 1 hour per unit.



Under Ind AS 2, fixed production overheads must be allocated based on **normal capacity**.

Fixed production overhead absorption rate:

$$= \text{Fixed production overhead} / \text{labour hours for normal capacity}$$

$$= ₹1,500 / 7,500$$

$$= ₹0.2 \text{ per hour}$$

Therefore, fixed production overhead allocated to 6,500 units produced during the year (one unit per hour)

$$= 6,500 \text{ units} \times 1 \text{ hour} \times ₹0.2 = ₹1,300.$$

The remaining fixed overhead incurred during the year of ₹200 (₹1500 – ₹1300) that remains unallocated is recognised as an expense.

Variable production overhead absorption rate:

$$= \text{Variable production overhead/actual hours for current period}$$

$$= ₹2,600 / 6,500 \text{ hours} = ₹0.4 \text{ per hour}$$

Management should allocate variable overhead costs to units produced at a rate of ₹0.4 per hour.

Closing inventory = Opening inventory + Units produced during year – Units sold during year =
 $2,500 + 6,500 - 6,700 = 2,300 \text{ units}.$

$$\text{Per unit overhead cost} = ₹0.4 + ₹0.2 = ₹0.6$$

$$\text{Total cost of OH in closing inventory} = 2,300 \text{ units} \times 1 \text{ hour} \times (₹0.2 + ₹0.4) = ₹1,380$$

The remaining ₹2,720 [(₹1,500 + ₹2,600) – ₹1,380] is recognised as an expense in the income statement as follows:

Particulars	₹
Absorbed in cost of goods sold (FIFO basis) (6,500 – 2,300) = 4,200 x ₹0.6	2,520
Unabsorbed fixed overheads, not included in the cost of goods sold	200
Total	2,720

5. Illustration (ICAI SM) [Firm contract] ⚡ ⚡

At the end of its financial year, Company P has 100 units of inventory on hand recorded at a carrying amount of Rs.10 per unit. The current market price is Rs.8 per unit at which these units can be sold.

Company P has a firm sales contract with Company Q to sell 60 units at Rs.11 per unit, which cannot be settled net.

Estimated incremental selling cost is Rs. 1 per unit. Determine the Net Realisable Value (NRV) of the inventory of Company P.

Solution:

If the company has a firm contract to sell, it can consider contract price to determine NRV. While performing NRV test, the NRV of 60 units that will be sold to Company Q is ₹ 10 per unit (i.e. 11-1).

NRV of the remaining 40 units is ₹ 7 per unit (i.e. 8-1).

Therefore, Company P will write down those remaining 40 units by ₹120 (i.e. 40x3).

Total cost of inventory would be:

Goods to be sold to Company Q	60 units x ₹ 10	₹600
Remaining goods	40 unit x ₹ 7	₹280
		₹880



6. Illustration (ICAI SM, Past exam) [Valuation when OS is given] ❄ ❄ ❄

Particulars		Kg	Rs.
Opening Inventory	Finished Goods	1,000	25,000
	Raw Materials	1,100	11,000
Purchases		10,000	1,00,000
Labour			76,500
Overheads (Fixed)			75,000
Sales		10,000	2,80,000
Closing Inventory	Raw Materials	900	
	Finished Goods	1,200	

The expected production for the year was 15,000 kg of finished product.

Due to fall in the market demand the sales price for the finished goods was Rs.20 per kg and the replacement cost for the raw material was Rs.9.50 per kg on the closing day.

You are required to calculate the closing inventory as on that date.

Solution:

As per Ind AS 2 – Inventories, inventories are to be valued at the **lower of cost and net realisable value (NRV)**.

Step 1: Computation of Quantity Produced

Opening finished goods inventory: 1,000 kg

Sales during the year: 10,000 kg

Closing finished goods inventory: 1,200 kg

Hence, total production during the year =

= Sales + Closing FG – Opening FG

= 10,000 + 1,200 – 1,000 = **10,200 kg**

Step 2: Computation of Cost of Production

Particulars	₹
Cost of Raw Materials (10,200 kg × ₹10)	1,02,000
Direct Labour	76,500
Fixed Overheads	
(Allocated based on normal capacity of 15,000 kg):	
₹75,000 × 10,200 / 15,000	51,000
Total Cost of Production	2,29,500
Cost per Unit (229,500/10200)	22.50
NRV	20

Since net realisable value is less than cost, closing inventory will be valued at ₹ 20.

As NRV of the finished goods is less than its cost, raw materials will be valued at replacement cost i.e. ₹ 9.50.

Therefore, value of closing inventory:

Finished Goods (1,200 × 20)	₹ 24,000
Raw Materials (900 × 9.50)	₹ 8,550
	₹ 32,550

7. Illustration (ICAI SM) [Retail Method]

An entity has following details regarding cost and retail price of the goods purchased and unsold at the beginning of the year:

	Cost (Rs.)	Retail Price (Rs.)
Opening inventory	6,250	8,000
Purchases	19,500	34,000
Inventory on hand		(23,000)
Sales for the period		19,000

Applying the retail method, compute the following:

- (a) Percentage of cost price over retail price;
 (b) Cost of closing inventory;
 (c) Value of cost of sales (at cost); and
 (d) Profit earned during the year on sale of inventory
 Ignore the impact of mark-ups or mark-downs on the selling price.

Solution

S. No.	Particulars	Calculation	Amount (₹)
1.	Total cost of goods available for sale	Opening Inventory (₹6,250) + Purchases (₹19,500)	25,750
2.	Total retail value of goods available for sale	Opening (₹8,000) + Purchases (₹34,000)	42,000
(a)	Cost percentage of retail price	$\frac{₹25,750}{₹42,000}$	61.31%
(b)	Retail value of closing inventory	Given	23,000
	Cost of closing inventory	$₹23,000 \times 61.31\%$	14,101
(c)	Cost of goods sold	Total Cost (₹25,750) – Closing Inventory (₹14,101)	11,649
(d)	Sales Revenue (Given)		19,000
	Profit = Sales – Cost of Sales	$₹19,000 - ₹11,649$	7,351

The answer will be different if we round off the cost to 61%

(b)	Closing inventory (at cost)	$23,000 \times 61\%$	14,030
(c)	Cost of sales for the period	$[(6,250 + 19,500) - 14,030]$	11,720
	Sales for the period		19,000
(d)	Profit earned on sale of goods during the year	$19,000 - 11,720$	7,280



Ind AS 16 – Property Plant & Equipment ILLUSTRATIONS

1. Illustration

On 1st April of year 1, XYZ Ltd. acquired a machine under the following terms:

	Amount (in ₹)
List price of machine	80,00,000
Import duty	5,00,000
Delivery fees	1,00,000
Electrical installation costs	10,00,000
Pre-production testing	4,00,000
Purchase of a five-year maintenance contract with vendor	7,00,000

In addition to the above information XYZ Ltd. was granted a trade discount of 10% on the initial list price of the asset and a settlement discount of 5% if payment for the machine was received within one month of purchase. XYZ Ltd. paid for the plant on 20th April of year 1. At what cost the asset will be recognised?

Solution:

According to Ind AS 16, all costs required to bring an asset to *its present location and condition for its intended use should be capitalised.*

The cost of asset to be recognised

	₹
List price	80,00,000
Less: Trade discount (10%)	(8,00,000)
	72,00,000
Import duty (Non refundable)	5,00,000
Delivery fees	1,00,000
Electrical installation costs	10,00,000
Pre-production testing	4,00,000
Total amount to be capitalised at 1st April, 20X1	92,00,000

Maintenance contract is **a separate contract to get service**, therefore, the maintenance contract cost of ₹ 7,00,000 should be taken as a **prepaid expense and charged to the profit or loss over a period of 5 years.**

In addition the settlement discount i.e cash discount received of ₹ 3,60,000 (₹ 72,00,000 x 5%) is to be shown as other income in the profit or loss.

2. Illustration

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

You are required to calculate the amount which can be capitalised as per Ind AS 16

Particulars	₹ (in '000) Cost Incurred
Site preparation costs	150
Direct Material	2,000
Direct labour cost, including ₹10,000 incurred during an industrial strike	1160
Testing of various processes in factory	200
Consultancy fees for installation of equipment	300
Relocation of staff to new factory	450
General overheads	550
Estimated costs to dismantle (at present value)	200



Solution:

Particulars	₹ in 000 (As per Ind AS 16)
Site preparation costs	150
Direct Material	2,000
Direct labour cost (1160-10)	1150
Testing of various processes in factory	200
Consultancy fees for installation of equipment	300
Relocation of staff to new factory	-
General overheads	-
Estimated costs to dismantle (at present value)	200
Total Cost to be Capitalised as per Ind AS 16	4000

6. Illustration

Pluto Ltd owns land and building which are carried in its balance sheet at an aggregate carrying amount of ₹10 million. The fair value of such asset is ₹15 million. It exchanges the land and building for a private jet, which has a fair value of ₹20 million and pays additional ₹3 million in cash.

Show the necessary treatment as per Ind AS 16 and pass journal entry for the transaction.

Solution:

When an item of PPE is acquired in exchange for another non-monetary asset (or a combination of monetary and non-monetary assets), it is measured at the **fair value of the asset given up**, unless:

- The exchange transaction lacks commercial substance, or
- The fair value of the asset given up (or received) cannot be measured reliably.

If the fair value of the asset **received** is more clearly evident, then it is used.

- **Pluto Ltd.** is giving up **land and building** with:
 - Carrying amount = ₹10 million
 - Fair value = ₹15 million
- It receives a **private jet** and pays ₹3 million extra in cash.
- The transaction has **commercial substance**.

Hence, we use the **fair value of the asset given up (₹15 million)** to measure the exchange.

- **Cost of private jet** = FV of asset given up + cash paid = ₹15 million + ₹3 million = ₹18 million
- **Gain on disposal** = FV of asset given up – Carrying amount = ₹15 million – ₹10 million = ₹5 million

Particulars	Amount
Fair value of land & building given up	15,000
Less: Carrying value of land & building	(10,000)
Profit on exchange	5,000
Cash Paid	3,000
Total cost of private jet	18,000

Property, Plant & Equipment – Private Jet A/c	Dr. ₹18,00,000
To Property, Plant & Equipment – Land & Building A/c	₹10,00,000
To Bank A/c	₹3,00,000
To Profit on Exchange of Asset A/c	₹5,00,000

7. Illustration

A shipping company is required by law to bring all ships into dry dock every five years for a major inspection and overhaul. A ship which cost ₹20 million with a 20-year life must have major overhaul every five years. The estimated cost of the overhaul at the five-year point is ₹5 million. However, the actual cost after 5 years turned out to be ₹6 million.



Solution:

Ind AS 16 requires **component accounting** where different components of an asset have different useful lives or consumption patterns. When **major inspections or overhauls** are required at regular intervals (e.g., dry-docking of ships), the **cost of such inspection/overhaul is capitalised as a separate component**, and the carrying amount of the replaced component is derecognised.

The depreciation charge for the first five years of the assets life will be as follows:

	Overhaul component (million)	Ship (other than overhaul component) (million)	Total
Cost	5	15	20
Years	5	20	
Depreciation per year	1	0.75	1.75
Depreciation for 5 years	5	3.75	8.75
Carrying Amount	Nil	11.25	11.25

Total accumulated depreciation for the first five years will be ₹ 8.75, and the carrying amount of the ship at the end of year 5 will be ₹ 11.25 million.

Assume, the actual overhaul costs incurred at the end of year 5 are ₹ 6 million. This amount will now be capitalised into the costs of the ship, to give a carrying amount of ₹ 17.25 million.

The depreciation charge for years 6 to 10 will be as follows:

	Overhaul component	Ship (other than overhaul component)
Cost	6	11.25
Years	5	15
Depreciation per year	1.2	0.75

Annual depreciation for years 6 to 10 will now be ₹ 1.95 million. This process will be continued for years 11 to 15 and years 16 to 20. By the end of year 20, the capital cost of ₹ 20 million will have been depreciated plus the actual overhaul costs incurred at years 5, 10 and 15.

8. Illustration

An entity acquired an asset 3 years ago at a cost of ₹5 million. The depreciation method adopted for the asset was 10 percent reducing balance method.

At the end of Year 3, the entity estimates that the remaining useful life of the asset is 8 years and determines to adopt straight –line method from that date so as to reflect the revised estimated pattern of recovery of economic benefits.

Show the necessary treatment in accordance of Ind AS 16. Calculate the depreciation charge for respective years.

Solution:

Change in Depreciation Method shall be accounted for as a change in an accounting estimate in accordance of Ind AS 8 and hence will have a prospective effect.

Depreciation Charges for year 1 to 11 will be as follows:

Year 1 – 3 based on WDV method @ 10% on opening balance.

Year	Opening balance of asset (a)	Depreciation @ 10% on (a)	Closing balance of asset (c) = (a)- (b)
1	50,00,000	5,00,000	45,00,000
2	45,00,000	4,50,000	40,50,000
3	40,50,000	4,05,000	36,45,000

Year 3 onwards method of depreciation has been changed from reducing balance method to straight line method for which it is assessed that the remaining useful life is 8 year.



Hence revised depreciation would be calculated as follows:

Revised depreciation as per straight line method =

(Carrying amount as at the end of the 3rd year – Residual value) / Remaining useful life.

= 36,45,000/8 years.

= Rs.4,55,625 per annum (for year 4 to year 11).

10. Illustration

MS Ltd. has acquired a heavy machinery at a cost of ₹1,00,00,000 (with no breakdown of the component parts). The estimated useful life is 10 year. At the end of the sixth year, one of the major components, the turbine requires replacement, as further maintenance is uneconomical. The remainder of the machine is perfect and is expected to last for the next four year. The cost of a new turbine is ₹45,00,000. The discount rate assumed is 5%.

Can the cost of the new turbine be recognised as an asset, and, if so, what treatment should be used?

Solution:

As per **Ind AS 16**, when a major component of an asset is replaced and meets the recognition criteria (i.e., future economic benefits are probable and cost can be measured reliably), it should be capitalised. Simultaneously, the **carrying amount of the replaced part** must be **derecognised**, even if the original cost of the component was not separately identified.

The new turbine will produce future economic benefits to MS Ltd., and the cost is measurable. Hence, the item should be recognised as an asset.

The original invoice for the machine did not specify the cost of the turbine; however, the cost of the replacement ₹ 45,00,000 can be used as an indication (usually by discounting) of the likely cost, six years previously.

If an appropriate discount rate is 5% per annum, ₹ 45,00,000 discounted back six years amounts to ₹ 33,57,900 [$₹ 45,00,000 / (1.05)^6$], i.e., the approximate cost of turbine before 6 year.

The estimated cost of turbine at acquisition date is ₹ 33,57,900 which would have been originally depreciated over 10 year.

Depreciation per year = ₹ 3,35,790

Particulars	Turbine	Total
Cost	₹ 33,57,900	₹ 1,00,00,000
Depreciation per year	₹ 3,35,790	₹ 10,00,000
Depreciation for 6 years	₹ 20,14,740	₹ 60,00,000
Carrying amount	₹ 13,43,160	₹ 40,00,000
(-) Amount derecognised	₹ (13,43,160)	₹ (13,43,160)
Cost of new turbine	₹ 45,00,000	₹ 45,00,000
New Carrying Amount	₹ 45,00,000	₹ 71,56,840

The current carrying amount of the turbine which is required to be replaced of ₹ 13,43,160 would be derecognised from the books of account

Profit & Loss Dr. ₹ 13,43,160

To PPE ₹ 13,43,160

The new turbine is capitalised as under

Property, Plant & Equipment (Turbine) A/c Dr. ₹45,00,000

To Bank / Creditors A/c ₹45,00,000



11. Illustration

On 1st April, 20X1, Sun Ltd purchased some land for ₹10 million (including legal costs of ₹1 million) in order to construct a new factory. Construction work commenced on 1st May, 20X1. Sun Ltd incurred the following costs in relation with its construction

- Preparation and levelling of the land – ₹3,00,000.
- Purchase of materials for the construction ₹6.08 million in total.
- Employment costs of the construction workers – ₹2,00,000 per month.
- Overhead costs incurred directly on the construction of the factory – ₹1,00,000 per month.
- Ongoing overhead costs allocated to the construction project using the company's normal overhead allocation model – ₹50,000 per month.
- Income received during the temporary use of the factory premises as a car park during the construction period – ₹50,000.
- Costs of relocating employees to work at the new factory – ₹3,00,000
- Costs of the opening ceremony on 31st January, 20X2 – ₹1,50,000.

The factory was completed on 30th November, 20X1 (which is considered as substantial period of time as per Ind AS 23) and production began on 1st February, 20X2. The overall useful life of the factory building was estimated at 40 years from the date of completion. However, it is estimated that the roof will need to be replaced 20 years after the date of completion and that the cost of replacing the roof at current prices would be 30% of the total cost of the building.

At the end of the 40-year period, Sun Ltd has a legally enforceable obligation to demolish the factory and restore the site to its original condition. The directors estimate that the cost of demolition in 40 years' time (based on prices prevailing at that time) will be ₹20 million. An annual risk adjusted discount rate which is appropriate to this project is 8%. The present value of ₹1 payable in 40 years' time at an annual discount rate of 8% is ₹ 0.046.

The construction of the factory was partly financed by a loan of ₹17.5 million taken out on 1st April, 20X1. The loan was at an annual rate of interest of 6%. Sun Ltd received investment income of ₹100,000 on the temporary investment of the proceeds.

Required:

Compute the carrying amount of the factory in the Balance Sheet of Sun Ltd at 31st March, 20X2. You should explain your treatment of all the amounts referred to in this part in your answer.

Solution:

Under **Ind AS 16**, the cost of an item of PPE includes:

- Purchase price (including legal duties),
- Costs directly attributable to bringing the asset to the location and condition necessary for its intended use,
- Initial estimates of dismantling/restoration costs if there's a present obligation.

Under **Ind AS 23**, borrowing costs directly attributable to the acquisition/construction of a **qualifying asset** must be capitalised. Any income earned on temporary investment of funds shall be deducted from such costs.

Cost of Factory

Description	Amount	Included in PPE	Explanation
Land (incl. legal costs)	10,000	✓ Yes	Directly attributable
Preparation and levelling	300	✓ Yes	Site prep is necessary
Materials	6,080	✓ Yes	Direct cost
Construction workers (₹2,00,000 × 7 months)	1,400	✓ Yes	Construction period: May–Nov
Direct overheads (₹1,00,000 × 7 months)	700	✓ Yes	Direct to construction



Allocated overheads (₹50,000 x 7 months)	—	✗ No	Not directly attributable
Temporary car park income	—	✗ No	Income to be credited to P&L
Relocation costs	—	✗ No	Not directly attributable
Opening ceremony	—	✗ No	Post-ready-for-use cost
Borrowing costs (₹17.5m x 6% x 8*/12 or 7*/12)	612.5	✓ Yes	Capitalised as per Ind AS 23
Less: Investment income	(100.0)	✓ Adjusted	Offset as per Ind AS 23
Restoration (₹20m x 0.046)	920.0	✓ Yes	Present value of legal obligation
Total	₹19,912.5		
Less: Depreciation	₹107.38		
Carrying Amount	₹19,805.12		

Depreciation calculation (4 months: Dec–Mar)

Component	Amount
Land	10,000
Depreciable Component (Excluding Land)	9,912.5
Roof (30%)	$₹9,912.5 \times 30\% \div 20 \times 4/12 = 49.56$
Remainder (70%)	$₹9,912.5 \times 70\% \div 40 \times 4/12 = 57.82$
Total Depreciation	107.38

Note – As per IFRS interpretations committee agenda decisions, if land is acquired for the purpose of construction of a building, the land would not be capable of being used for its intended purpose and evaluation should be done for both land and buildings together for capitalisation of borrowing cost.

12. Illustration

Original Cost	₹ 1,00,000
Useful Life	10 Years
Depreciation	Straight Line
Model	Cost

At the end of 4 years, entity applies revaluation model. After 4 years, the fair value of the machinery is ₹ 80,000. Show accounting treatment.

Solution:

Gross Approach

Particulars	Amount (₹)
Original Cost	1,00,000
Useful Life	10 years
Depreciation Method	Straight Line
Depreciation (4 years)	40,000 (10,000 x 4)
Carrying Amount (before revaluation)	60,000
Fair Value (Revalued Amount)	80,000
Increase in Carrying Amount	20,000
% Increase over Carrying Amount	33.33%

Revaluation Model – Gross Approach

Particulars	Original (₹)	% Increase	Adjusted (₹)
Gross PPE	1,00,000	+33.33%	1,33,333.33
Accumulated Depreciation	(40,000)	+33.33%	(53,333.33)



Net Book Value (Post Revaluation)	—	—	80,000
--	---	---	---------------

Balance Sheet Presentation

Equity & Liabilities	Before	After	Assets	Before	After
Equity	60,000	60,000	PPE		
OCI	0	20,000	Gross	1,00,000	133,333.33
			Depreciation	(40,000)	(53,333.33)
Total	60,000	80,000		60,000	80,000

PPE A/c Dr. ₹33,333.33
 To Accumulated Depreciation A/c ₹13,333.33
 To Revaluation Surplus (OCI) ₹20,000.00

PPE A/c			
Year 1 - To Bank	₹1,00,000.00		
Year 4 End		By bal c/d	1,33,333
To Revaluation Surplus	₹20,000.00		
To Acc. Dep	₹13,333.33		
Accumulated Depreciation			
End of Year 4		Year 1 to Year 4	
To bal c/d	53,333	By Depreciation	40,000
		By PPE A/c	13,333

Net Approach
 PPE A/c Dr. ₹20,000
 To Revaluation Surplus (OCI) ₹20,000.00

Balance Sheet Presentation

Equity & Liabilities	Before	After	Assets	Before	After
Equity	60,000	60,000	PPE		
OCI	0	20,000	Gross	1,00,000	1,20,000
			Depreciation	(40,000)	(40,000)
Total	60,000	80,000		60,000	80,000

13. Illustration

Show accounting treatment under revaluation model

Case 1 -

Particulars	Year 1	Year 2
Carrying Amount	₹ 1,00,000	₹ 90,000
Fair Value	₹ 1,20,000	₹ 1,00,000

Case 2 -

Particulars	Year 1	Year 2
Carrying Amount	₹ 1,00,000	₹ 90,000
Fair Value	₹ 1,20,000	₹ 80,000

Case 3 -

Particulars	Year 1	Year 2
Carrying Amount	₹ 1,00,000	₹ 90,000
Fair Value	₹ 1,20,000	₹ 65,000



Case 4:

Particulars	Year 1	Year 2
Carrying Amount	₹ 1,00,000	₹ 80,000
Fair Value	₹ 90,000	₹ 85,000

Case 5:

Particulars	Year 1	Year 2
Carrying Amount	₹ 1,00,000	₹ 80,000
Fair Value	₹ 90,000	₹ 95,000

Solution

Revaluation Model		
Particulars	Year 1	Year 2
Case 1		
Carrying amount	₹1,00,000.00	₹90,000.00
Fair Value	₹1,20,000.00	₹1,00,000.00
Increase/(decrease)	₹20,000.00	₹10,000.00
Dr PPE A/c	₹20,000.00	₹10,000.00
Cr To Revaluation Surplus	₹20,000.00	₹10,000.00
Case - 2		
Carrying amount	₹1,00,000.00	₹90,000.00
Fair Value	₹1,20,000.00	₹80,000.00
Increase/(decrease)	₹20,000.00	(₹10,000.00)
Dr PPE A/c	₹20,000.00	
Cr To Revaluation Surplus	₹20,000.00	
Dr Revaluation Surplus		₹10,000.00
Cr To PPE A/c		₹10,000.00
Case - 3		
Carrying amount	₹1,00,000.00	₹90,000.00
Fair Value	₹1,20,000.00	₹65,000.00
Increase/(decrease)	₹20,000.00	(₹25,000.00)
Dr PPE A/c	₹20,000.00	
Cr To Revaluation Surplus	₹20,000.00	
Dr Revaluation Surplus		₹20,000.00
Dr. Profit/Loss A/c		₹5,000.00
Cr To PPE A/c		₹25,000.00
Case - 4		
Carrying amount	₹1,00,000.00	₹80,000.00
Fair Value	₹90,000.00	₹85,000.00



Increase/(decrease)	(₹10,000.00)	₹5,000.00
Dr Profit/Loss A/c	₹10,000.00	
Cr To PPE A/cc	₹10,000.00	
Dr. PPE A/c		₹5,000.00
Cr. Profit/Loss		₹5,000.00
Case - 5		
Carrying amount	₹1,00,000.00	₹80,000.00
Fair Value	₹90,000.00	₹95,000.00
Increase/(decrease)	(₹10,000.00)	₹15,000.00
Dr Profit/Loss A/c	₹10,000.00	
Cr To PPE A/cc	₹10,000.00	
Dr. PPE A/c		₹15,000.00
Cr. Profit/Loss		₹10,000.00
Cr. To Revaluation Surplus		₹5,000.00

14. Illustration

Treatment of Revaluation Surplus & Excess depreciation

Particulars	Amount
Original Cost	₹ 1,00,000
Useful Life	10 Years
Depreciation	Straight line
Model	Cost

At the end of 4 years, entity applies revaluation model. After 4 years, the fair value of the machinery is ₹ 80,000.

Solution:

Particulars		
Original Cost	₹1,00,000.00	
Useful life - years	10	
Depreciation per year	₹10,000.00	1,00,000/10
Depreciation for 4 years	₹40,000.00	10,000 x 4
Carrying amount	₹60,000.00	1,00,000-40,000
Fair value	₹80,000.00	
Increase (80,000 – 60,000)	₹20,000.00	Revaluation surplus
Remaining useful life	6 years	
Revised depreciation	₹13,333.33	80,000 / 6
Depreciation on cost	₹10,000.00	
Extra depreciation (to be trf to retained earnings)	₹3,333.33	
PPE A/c Dr.	₹20,000.00	
To Revaluation Surplus		₹20,000.00



Depreciation A/c Dr	₹13,333.33	
To Acc. Dep		₹13,333.33
Revaluation Surplus A/c Dr	₹3,333.33	
To Retained earnings		₹3,333.33

15. Illustration

H Limited purchased an item of PPE costing ₹ 100 million which has useful life of 10 year. The entity has a contractual decommissioning and site restoration obligation, estimated at ₹ 5 million to be incurred at the end of 10th year. The current market-based discount rate is 8%. The company follows SLM method of depreciation. H Limited follows the Cost Model for accounting of PPE.

Determine the carrying value of an item of PPE and decommissioning liability at each year end when:

- (a) There is no change in the expected decommissioning expenses, expected timing of incurring the decommissioning expense and / or the discount rate
- (b) At the end of Year 4, the entity expects that the estimated cash outflow on account of decommissioning and site restoration to be incurred at the end of the useful life of the asset will be ₹ 8 million (in place of ₹ 5 million, estimated in the past). Determine in case (b), how H Limited need to account for the changes in the decommissioning liability?

Solution:

The present value of such decommissioning and site restoration obligation at the end of 10th year is ₹2.3106 million [being $5 / (1.08)^{10}$].

H Limited will recognise the **present value of decommissioning liability of ₹ 2.3106 million as an addition to cost of PPE and will also recognize a corresponding decommissioning liability**. Further, the entity will recognise the unwinding of discount as finance charge.

- (a) PPE is recognised at ₹102.3106

The following table shows the relevant computations, if there is no change in the expected decommissioning expenses, expected timing of incurring the decommissioning expense and / or the discount rate: (₹ in million):

Year	Opening Amount of PPE (₹ lakh)	Depreciation Charge (SLM - 10 yrs) (₹ lakh)	Carrying Amount of PPE at year-end (₹ lakh)	Opening Decommissioning Liability (₹ lakh)	Unwinding of discount @ 8 % (₹ lakh)	Closing Decommissioning Liability (Op + Int) (₹ lakh)
1	102.3160	10.2316	92.0844	2.3160	0.1853	2.5012
2	92.0844	10.2316	81.8528	2.5012	0.2001	2.7013
3	81.8528	10.2316	71.6212	2.7013	0.2161	2.9175
4	71.6212	10.2316	61.3896	2.9175	0.2334	3.1508
5	61.3896	10.2316	51.1580	3.1508	0.2521	3.4029
6	51.1580	10.2316	40.9264	3.4029	0.2722	3.6751
7	40.9264	10.2316	30.6948	3.6751	0.2940	3.9692
8	30.6948	10.2316	20.4632	3.9692	0.3175	4.2867
9	20.4632	10.2316	10.2316	4.2867	0.3429	4.6296
10	10.2316	10.2316	0.0000	4.6296	0.3704	5.0000
Total	102.316	102.316			2.6840	

ICAI has rounded off the PV of decommissioning liability to 2 digits.

- (b) The changes to the estimate of expected decommissioning obligation:



- **Ind AS 16** requires any change in the **present value of a decommissioning (ARC) liability** to be added to, or deducted from, the *carrying amount of the related PPE* and depreciated **prospectively** over the asset's remaining useful life.
- **Ind AS 37** states that the provision is re-measured at the **current best estimate**;

Particulars	Amount (₹ million)
Present value of revised obligation at end of Year 4 (₹ 8 million payable after 6 years, discounted @ 8 %)	5.0414
Carrying amount of liability already recognised (closing Year 4 schedule)	3.1508
Increase in liability / cost of PPE	1.8905
New Carrying Amount of PPE at end of Y4 [61.3896 + 1.89]	63.2801
Depreciation per year considering 6 years balance life	10.5466

The journal entry will be:

PPE	Dr	₹1.8905 million	
To Provision for decommissioning liability			₹1.8905 million

- The following table shows the calculations for years 5 - 10:

Year	Opening Amount of PPE	Depreciation Charge (on SLM) for 10Years	Carrying Amount of PPE at the end of the year	Opening Decommissioning Liability	Unwinding of Interest @ 8%	Closing Decommissioning Liability
5	63.2801	10.5467	52.7334	5.0414	0.4033	5.4447
6	52.7334	10.5467	42.1867	5.4447	0.4356	5.8802
7	42.1867	10.5467	31.6400	5.8802	0.4704	6.3507
8	31.6400	10.5467	21.0934	6.3507	0.5081	6.8587
9	21.0934	10.5467	10.5467	6.8587	0.5487	7.4074
10	10.5467	10.5467	0.0000	7.4074	0.5926	8.0000
Total		63.2801				

- The asset should be tested for impairment as per Ind AS 36.

19. Illustration

An entity has a nuclear power plant and a related decommissioning liability. The nuclear power plant started operating on 1st April, 20X1. The plant has a useful life of 40 years. Its initial cost was ₹ 1,20,000. This included an amount for decommissioning costs of ₹ 10,000, which represented ₹ 70,400 in estimated cash flows payable in 40 years discounted at a risk-adjusted rate of 5 per cent. The entity's financial year ends on 31st March. Assume that a market-based discounted cash flow valuation of ₹ 1,15,000 is obtained at 31st March, 20X4. This valuation is after deduction of an allowance of ₹ 11,600 for decommissioning costs, which represents no change to the original estimate, after the unwinding of three years' discount. On 31st March, 20X5, the entity estimates that, as a result of technological advances, the present value of the decommissioning liability has decreased by ₹ 5,000. The entity decides that a full valuation of the asset is needed at 31st March, 20X5, in order to ensure that the carrying amount does not differ materially from fair value. The asset is now valued at ₹ 1,07,000, which is net of an allowance for the reduced decommissioning obligation.

How the entity will account for the above changes in decommissioning liability if it adopts revaluation model?

Solution:

Particulars	Amount	
PPE		



Cost of PPE	1,20,000.00	
Less: Depreciation for 3 years [120000 x 3/40]	9,000.00	
Carrying amount as on 31st Mar 20X4 [1]	1,11,000.00	
Revalued amount (net of decomm. Liab)	1,15,000.00	
Add: Decomm. Liab	11,600.00*	
Revalued amount [2]	1,26,600.00	
Revaluation surplus [2-1]	15,600.00	
Depreciation per year after revaluation	3,420	$1,26,600/37 = 3,421$
Carrying amount as on 31 st March X5 [3]	1,23,180	$1,26,600 - 3,420$
Revalued Amount (net of obligation)	1,07,000	
Decommissioning liability	12,200	$11,600 \times 1.05 = 12,180$
Reduction in Decommissioning Liability	(5,000)	
Revised Decommissioning liability	7,200	
Gross revalued amount of PPE [4]	114,200	$107000 + 7200$
Downward Revaluation [4-3]	(8,980)	$123,180 - 114,200$

31-Mar – x4**Accounting for Revaluation –**

PPE A/c Dr. 15,600
 To Revaluation Surplus 15,600

31-Mar-X5

Depreciation A/c Dr. 3,420
 To Accumulated Depreciation 3,420

Accumulated Depreciation 3,420

To PPE 3,420
 (Transfer of accumulated depreciation balance to PPE Account)

Interest Exp Dr. 600
 To Prov. For decommissioning 600
 (Unwinding of discount)

Prov for decommissioning Dr. 5,000
 To Revaluation surplus 5,000
 (Reduction in liability accounted as revaluation gain)

Revaluation surplus A/c Dr. 8,980
 To PPE 8,980
 (Downward revaluation of PPE)

Reconciliation

	PPE	Decommissioning Liab	Revaluation Surplus
Balance on 31-Mar-X5	1,23,180	12,200	15,600
Reduction in Liab		(5,000)	5,000
Revaluation loss	(8,980)		(8,980)
Carrying amount	1,14,800	7,200	11,620

**The actual decommissioning liability works out to 11,576 which has been rounded off in the question to 11,600*

27 Illustration

Company X built a new plant that was brought into use on 1st April, 20X1. The cost to construct the plant was ₹ 1.5 crore. The estimated useful life of the plant is 20 years and Company X accounts for the plant using the cost model.

The initial carrying amount of the plant included an amount of ₹ 10 lakh for decommissioning, which was determined using a discount rate of 10%. On 31st March, 20X2, Company X remeasures the provision for decommissioning to ₹ 13 lakh.

Provide necessary journal entries at the end of the year i.e. 31st March, 20X2 for recording of depreciation and decommissioning provision.

Solution:

		₹ in lakh	₹ in lakh
Depreciation (profit or loss) Dr.		7.5	
To Accumulated depreciation (plant)			7.5
(Being depreciation on plant recognised under straight-line method $(1,50,00,000 \times 1/20)$)			
Interest expense (profit or loss) Dr.		1.0	
To Provision for decommissioning			1.0
(Being unwinding of decommissioning provision @ 10% recognised in the books)			
Plant Dr.		2.0	
To Provision for decommissioning			2.0
(Being increase in decommissioning provision recognised $[13,00,000 - (10,00,000 + 1,00,000)]$ at the end of the year)			



Ind AS 38 Illustrations

1. Illustrations

A Company is preparing its accounts for the year ended 31st March, 20X2 and is unsure how to treat the following items.

- Company has completed a big marketing and advertising campaign costing Rs. 2,40,000. The finance director had authorised this campaign on the basis that it would create Rs. 5,00,000 of additional profits over the next three years.
- A new product was developed during the year. The expenditure aggregated Rs. 1,50,000 of which Rs. 1,00,000 was incurred prior to 30th September, 20X1, the date on which it became clear that the product was technically viable. The new product will be launched in the next four months and its recoverable amount is estimated at Rs. 70,000.
- Staff participated in a training programme which cost the company Rs. 300,000. The training organisation had made a presentation to the directors of Baxter outlining that the incremental profits to the business over the next twelve months would be Rs. 500,000. What amounts should appear as assets in Venus Ltd. Balance sheet as at 31st March, 20X2?

Solution:

1. Marketing and Advertising Campaign – ₹2,40,000

- Although it may generate future profits, **no identifiable asset is created**.
- Future benefits cannot be linked exclusively to the campaign.
- **Treatment:** Expense entire amount in P&L.

2. Development of New Product – ₹1,50,000

- ₹1,00,000 incurred before 30th Sept 20X1: Before establishing technical feasibility ⇒ **treated as research** ⇒ Expense in P&L.
- ₹50,000 incurred after technical feasibility (post 30th Sept): Meets recognition criteria ⇒ **Capitalised as intangible asset**.
- However, **recoverable amount is ₹70,000** (No impairment yet since carrying value is lower).

3. Training Programme – ₹3,00,000

- Even if profits are expected, **company cannot control the skills gained** by staff.
- **No identifiability or control** over future benefit ⇒ Expense entire amount in P&L.

2. Illustrations

X Ltd. acquired a patent right of manufacturing drug from Y Ltd. In exchange X Ltd. gives its intellectual property right to Y Ltd. Current market value of the patent and intellectual property rights are Rs. 20,00,000 and Rs. 18,00,000 respectively.

At what value patent right should be initially recognised in the books of X Ltd. in following two situations?

- X Ltd. did not pay any cash to Y Ltd.
- X Ltd. pays Rs. 2,00,000 to Y Ltd.

Solution:

When an intangible asset is acquired in exchange of another non-monetary asset and the exchange has commercial substance, the cost of acquired asset is measured as below

- If FV of **asset given up is available** – Consider FV of asset given up i.e Rs. 18,00,000.
- If FV of **asset given up is not evident but FV of asset received is available** – Consider FV of asset received i.e Rs. 20,00,000.
- Adjust the FV chosen for any cash received or paid.



Particulars	Scenario (a)	Scenario (b)
Fair Value of Asset Given Up (IPR)	₹18,00,000	₹18,00,000
Fair Value of Asset Acquired (Patent)	₹20,00,000	₹20,00,000
Cash Paid	Nil	₹2,00,000
Measurement Basis	FV of asset given up (available)	FV of asset given up + cash paid
Initial Recognition of Patent	₹18,00,000	₹20,00,000 (₹18L + ₹2L)

3. Illustrations

An entity is developing a new production process.

During 20X1-20X2, expenditure incurred was Rs. 1,000, of which

- Rs. 900 was incurred before 1st March, 20X2 and
- Rs. 100 was incurred between 1st March, 20X2 and 31st March, 20X2.

The entity is able to demonstrate that at 1st March, 20X2, the production process met the criteria for recognition as an intangible asset.

The recoverable amount of the know-how embodied in the process (including future cash outflows to complete the process before it is available for use) is estimated to be Rs. 500.

During 20X2-20X3, expenditure incurred is Rs. 2,000. At the end of 20X3, the recoverable amount of the know-how embodied in the process (including future cash outflows to complete the process before it is available for use) is estimated to be Rs. 1,900.

Explain the accounting treatment of expenditure incurred in 20X1-20X2 and 20X2-20X3 as per relevant Ind AS.

Solution:

Under Ind AS 38:

- **Research phase expenditure** is always expensed.
- **Development phase expenditure** is capitalised **only from the date** when **all six recognition criteria** are demonstrably met.
- The carrying amount of capitalised intangible assets is tested for **impairment** as per Ind AS 36.

Year	Total Expenditure	Before Criteria Met	After Criteria Met (from 1st Mar 20X2)	Capitalised	Expensed
20X1-20X2	₹1,000	₹900	₹100	₹100	₹900
20X2-20X3	₹2,000	–	Entire amount	₹2,000	Nil
			Total	₹2,100	
			Recoverable Amount	₹1,900	
			Impairment Loss	₹200	

4. Illustrations

X Limited engaged in the business of manufacturing fertilisers entered into a technical collaboration agreement with a foreign company Y Limited.

As a result, Y Limited would provide the technical know-how enabling X Limited to manufacture fertiliser in a more efficient way. X Limited paid Rs. 10,00,00,000 for the use of know-how for a period of 5 years.

X Limited estimates the production of fertiliser as follows:

Year	(In metric tons)
1	50,000
2	70,000
3	1,00,000
4	1,20,000
5	1,10,000



At the end of the 1st year, it achieved its targeted production. At the end of 2nd year, 65,000 metric tons of fertiliser was being manufactured, and X Limited considered to revise the estimates for the next 3 years.

The revised figures are 85,000, 1,05,000 and 1,15,000 metric tons for year 3, 4 & 5 respectively.

How will X Limited amortise the technical know-how fees as per Ind AS 38?

Solution:

As per Ind AS 38, the **cost of an intangible asset with a finite useful life** is amortised over its **useful life** on a **systematic basis**. The amortisation method should reflect the pattern in which the asset's future economic benefits are expected to be consumed. If that pattern cannot be determined reliably, the **straight-line method** is used.

One such acceptable method is the **units of production method**, where amortisation is based on the **actual usage/output** of the intangible asset relative to the **total expected output**.

The entity can amortise technical knowhow based on the estimated output over life. In year 1, the total estimated output over 5 years is 4,50,000 which is considered for amortisation.

In year 2, the output over Years 2-5 is revised to 3,70,000 (65,000 + 85,000 + 105,000 + 115,000).

Y	Cost / Opening WDV (₹)	Revised Total Estimated Output (MT)	Actual Output (MT)	Amortisation (₹)	Closing Carrying Amount (₹)
1	10,00,00,000	4,50,000	50,000	$\text{₹}10,00,00,000 \times 50,000 / 4,50,000 = \text{1,11,11,111}$	8,88,88,889
2	8,88,88,889	3,70,000	65,000	$\text{₹}8,88,88,889 \times 65,000 / 3,70,000 = \text{1,56,15,616}$	7,32,73,273
3	7,32,73,273	3,70,000	85,000	$\text{₹}8,88,88,889 \times 85,000 / 3,70,000 = \text{2,04,20,420}$	5,28,52,853
4	5,28,52,853	3,70,000	1,05,000	$\text{₹}8,88,88,889 \times 1,05,000 / 3,70,000 = \text{2,52,25,225}$	2,76,27,628
5	2,76,27,628	3,70,000	1,15,000	$\text{₹}8,88,88,889 \times 1,15,000 / 3,70,000 = \text{2,76,27,628}$	0

Note: Amortisation = Total Cost/Total expected output x Output for the year.

5. Illustrations

X Pharmaceutical Ltd. seeks your opinion in respect of following accounting transactions:

1. Acquired a 4 year license to manufacture a specialised drug at a cost of Rs. 1,00,00,000 at the start of the year. Production commenced immediately.
 2. Also purchased another company at the start of year. As part of that acquisition, X Pharmacy Ltd. acquired a brand with a fair value of Rs. 3,00,00,000 based on sales revenue. The life of the brand is estimated at 15 years.
 3. Spent Rs. 1,00,00,000 on an advertising campaign during the first six months. Subsequent sales have shown a significant improvement and it is expected this will continue for 3 years.
 4. It has commenced developing a new drug 'Drug-A'. The project cost would be Rs. 10,00,00,000. Clinical trial proved successful and such drug is expected to generate revenue over the next 5 years.
- Cost incurred (accumulated) till 31st March, 20X1 is Rs. 5,00,00,000.
 - Balance cost incurred during the financial year 20X1-20X2 is Rs. 5,00,00,000.



5. It has also commenced developing another drug 'Drug B'. It has incurred Rs. 50,00,000 towards research expenses till 31st March, 20X2. The technological feasibility has not yet been established.

How the above transactions will be accounted for in the books of account of X Pharmaceutical Ltd?

Solution:

As per Ind AS 38, an intangible asset shall be recognised if:

- It is **identifiable** (either separable or arising from contractual/legal rights),
- The entity **controls** the future economic benefits,
- It is **probable** that future economic benefits will flow to the entity, and
- The **cost** can be **measured reliably**.

For **internally generated intangible assets**, **research expenditure** is always **expensed off**, while **development expenditure** can be **capitalised** only after meeting certain condition

S. No.	Transaction	Analysis	Accounting Treatment
1	Acquired license for 4 years – ₹1,00,00,000	✓ Meets recognition criteria: identifiable (contractual right), control, future economic benefit, reliable cost	📘 Recognise as intangible asset at ₹1 crore. Amortise over 4 years based on pattern of economic benefits.
2	Brand acquired via business combination – ₹3,00,00,000	✓ Brand has identifiable fair value and future benefits. Acquired in business combination	📘 Recognise brand at ₹3 crore. Amortise over 15 years . If not separable, include under Goodwill .
3	Advertising campaign – ₹1,00,00,000	✗ Advertising is considered part of promotional cost. Future benefits cannot be directly linked or controlled	📌 Expense off ₹1 crore in the year incurred. Not eligible for capitalisation.
4	Development of 'Drug-A' – total ₹10,00,00,000, with clinical success	✓ Assumed to be in development phase (technological feasibility established). Meets capitalisation criteria under Ind AS 38	📘 Capitalize entire ₹10 crore as intangible asset. Amortise over 5 years from date available for use.
5	Development of 'Drug-B' – ₹50,00,000 (research phase)	✗ Only research stage so far. No technological feasibility.	📌 Expense ₹50 lakhs as it does not qualify for recognition.

6. Illustrations

X Ltd. is engaged in the business of publishing Journals. They acquired 100% stake in Y Ltd., a company in the same industry. X Ltd. paid purchase consideration of Rs. 10,00,00,000 and fair value of net assets acquired is Rs. 8,50,00,000.

The purchase consideration includes payment for the following as well:

- Rs. 30,00,000 for obtaining the skilled staff of Y Ltd.
- Rs. 50,00,000 by way of payment towards 'Non-compete Fee' so as to restrict Y Ltd. to compete in the same line of business for next 5 years.

However, the above items (a) and (b) are not forming part of the net assets acquired of Rs. 8,50,00,000.

How should the above transactions be accounted for by X Ltd?

Solution:



(a) Payment for Skilled Staff – ₹30,00,000

- This payment **does not meet** the criteria for recognition as an intangible asset under Ind AS 38:
 - No **control** over the economic benefit.
 - Not **separable** or **identifiable** from the business.
- As per Ind AS 103, such cost is considered part of the overall **goodwill**.

(b) Non-Compete Fee – ₹50,00,000

- This meets the recognition criteria of an **intangible asset**:
 - Identifiable, contractual** in nature.
 - Expected to bring **economic benefit** by restricting competition.
- Hence, it should be **separately recognised** and **amortised over 5 years**.

Particulars	Rs. in Crs
Purchase Consideration	10.00
Less: Net fair value of assets received	(8.50)
Less: IA separately identified & capitalised (Non-Compete fee)	(0.50)
Goodwill	1.00

7. Illustration

X Ltd. acquired Y Ltd. on 30th April, 20X1. The purchase consideration is Rs. 50,00,000. The fair value of the tangible assets is Rs. 45,00,000. The company estimates the fair value of “in-process research projects” at Rs. 10,00,000. No other Intangible asset is acquired by X Ltd. in the transaction.

Further, cost incurred by X Ltd. in relation to that research project is as follows:

- (a) Rs. 5,00,000 – as research expenses
 - (b) Rs. 2,00,000 – to establish technological feasibility
 - (c) Rs. 7,00,000 – for further development cost after technological feasibility is established.
- At what amount the intangible asset should be measured under Ind AS 38?

Solution:

As per Ind AS 38:

- Research expenditure** is always **expensed off**.
- Development expenditure** can be **capitalised** once **technical feasibility** is established and other recognition criteria are met.

Acquired “in house research project”	Initially recognise at fair value i.e, Rs. 10,00,000.
Research cost of Rs. 5,00,000 and cost of Rs. 2,00,000 for establishing technical feasibility	Charge to P&L.
Costs Rs. 7,00,000 incurred from the technical feasibility point for development	Capitalise.

So, Intangible Asset value = Rs. 17,00,000 (Rs. 10,00,000 + Rs. 7,00,000).



8. Illustration

X Ltd. purchased a patent right on 1st April, 20X1, for Rs. 3,00,000; which has a legal life of 15 years. However, due to the competitive nature of the product, the management estimates a useful life of only 5 years. Straight-line amortisation is determined by the management to be the best method.

As at 1st April, 20X2, management is uncertain that the process can actually be made economically feasible, and decides to write down the patent to an estimated market value of Rs. 1,50,000 and decides to amortise over 2 years.

As at 1st April, 20X3, having perfected the related production process, the asset is now appraised at a value of Rs. 3,00,000. Furthermore, the estimated useful life is now believed to be 4 more years.

Determine the value of intangible asset at the end of each financial year?

Solution:

1/4/X1- 31/3/X2	Depreciation $\text{Value} = \frac{\text{Cost} - \text{Residual Value}}{\text{Useful life}}$ $= (3,00,000 - 0)/5$	Rs. 60,000
	Carrying amount as on 31/3/X2 = 3,00,000 – 60,000	Rs. 2,40,000
1/4/X2- 31/3/X3	Written down at beginning of year to market value to be amortised for 2 years	Rs. 1,50,000
	Loss (2,40,000 – 1,50,000) debited to P&L	Rs. 90,000
	Amortisation = 1,50,000/2	Rs. 75,000
	Carrying amount as on 31/3/X3 = 1,50,000 – 75,000	Rs. 75,000
1/4/X3- 31/3/X4	Revalued upwards at beginning of year to be amortised for 4 years	Rs. 3,00,000
	Revaluation gain (3,00,000 – 75,000)	Rs. 2,25,000
	Credit to P&L	Rs. 90,000
	Credit to Revaluation surplus (2,25,000 – 90,000)	Rs. 1,35,000
	Amortisation = 3,00,000/4	Rs. 75,000
	Carrying amount as on 31/3/X4 = 3,00,000 – 75,000	Rs. 2,25,000

Value as on March 31, 20X5 = 2,25,000 – 75,000 = Rs. 1,50,000

Value as on March 31, 20X6 = 1,50,000 – 75,000 = Rs. 75,000

Value as on March 31, 20X7 = 75,000 – 75,000 = Nil

9. Illustration

One of the senior engineers at XYZ has been working on a process to improve manufacturing efficiency and, consequently, reduce manufacturing costs. This is a major project and has the full support of XYZ's board of directors.

The senior engineer believes that the cost reductions will exceed the project costs within twenty-four months of their implementation.

Regulatory testing and health and safety approval was obtained on 1 June 20X5. This removed uncertainties concerning the project, which was finally completed on 20 April 20X6. Costs of Rs. 18,00,000, incurred during the year till 31st March 20X6, have been recognized as an intangible asset.

An offer of Rs. 7,80,000 for the new developed technology has been received by potential buyer but it has been rejected by XYZ. Utkarsh believes that the project will be a major success and has the potential to save the company Rs. 12,00,000 in perpetuity.

Director of research at XYZ, Neha, who is a qualified electronic engineer, is seriously concerned about the long-term prospects of the new process and she is of the opinion that competitors would have developed new technology at some time which would require to replace the new process within four years. She estimates that the present value of future cost savings will be Rs. 9,60,000 over this period. After that, she thinks that there is no certainty about its future.

What would be the appropriate accounting treatment of aforesaid issue?



Solution:

		Rs.	Rs.
R&D expenses	Dr.	3,00,000	
To Intangible assets			3,00,000
Impairment Loss on IA	Dr.	5,40,000	
To Intangible assets			5,40,000

Expenditure for April & May 20X5 = $\frac{18,00,000}{12} \times 2 = 3,00,000$ should not be capitalised.

Carrying amount as on 1/4/20X5	Rs. 15,00,000
Recoverable value	Rs. 9,60,000
Impairment Loss (15,00,000 – 9,60,000)	Rs. 5,40,000

Carrying amount after Impairment – Rs. 9,60,000

No Amortisation – Asset not yet ready to use.

10. Illustration (Nov 2019 Question Paper)

MNC Ltd. is in process of setting up a medicine manufacturing business which is at very initial stage. For this purpose, MNC Ltd. as part of its business expansion strategy acquired on 1st April, 2019, 100% shares of Akash Ltd., a company that manufactures pharmacy products. The purchase consideration for the same was by way of a share exchange valued at Rs. 38 crore. The fair value of Akash Ltd.'s assets and liabilities were Rs. 68 crore and Rs. 50 crore respectively, but the same does not include the following:

- (i) A patent owned by Akash Ltd. for an established successful new drug that has a remaining life of 6 years. A consultant has estimated the value of this patent to be Rs. 8 crore. However, the outcome of clinical trials for the same are awaited. If the trials are successful, the value of the drug would fetch the estimated Rs. 12 crore.
- (ii) Akash Ltd. has developed and patented another new drug which has been approved for clinical use. The cost of developing the drug was Rs. 13 crore. Based on early assessment of its sales success, a reputed valuer has estimated its market value at Rs. 19 crore. However, there is no active market for the patent.
- (iii) Akash Ltd.'s manufacturing facilities have received a favourable inspection by a government department. As a result of this, the company has been granted an exclusive five-year license on 1st April, 2018 to manufacture and distribute a new vaccine. Although the license has no direct cost to the Company, its directors believe that obtaining the license is valuable asset which assures guaranteed sales and the cost to acquire the license is estimated at Rs. 7 crore of remaining period of life. It is expected to generate at least equivalent revenue.

Suggest the accounting treatment of the above transactions with reasoning under applicable Ind AS in the books of MNC Ltd.

Solution:

	Treatment
(i)	- Patent owned will be recognised at fair value by MNC Ltd. - Amortised over the remaining useful life of the asset i.e, 6 years. - Patent should be valued at Rs. 8 crore. Rs. 4 crore should only be disclosed as a contingent asset and not recognised.
(ii)	Patent will be measured at fair value (s per Ind AS 103) ie Rs. 19 crore on the acquisition date. Reasons - Patent developed has been approved for clinical use, - And it is an identifiable asset.
(iii)	As per Ind AS 103, grant asset will be recognised at fair value on the acquisition date by MNC Ltd. On acquisition date, the fair value of the license asset is Rs. 7 crore. But there is no fair value of identifiable liability, it is assumed that the fair value of the liability with respect to grant, for acquirer is nil. Therefore, only, the grant asset (license) would be recognised at Rs. 7 crore.



(i)	Patent for which clinical trials are awaited	Rs. 8 crores
(ii)	Patent for which clinical trials approved	Rs. 19 crores
(iii)	License – Govt. grant	Rs. 7 crores

	Rs. in Crores
Fair value of assets of Akash Ltd	68
Add:	
Patents (Rs. 8 crores + Rs. 19 crores)	27
License (Rs. 7 crores)	7
Total	102
Less: Fair value of liabilities	(50)
Fair value of net assets	52
Purchase Consideration	38
Capital Reserve	14

11. Illustration (May 21)

Super Sounds Limited had the following transactions during the Financial Year 2019-2020:

- On 1st April 2019, the company purchased the net assets of Music Limited for ₹13,20,000. The fair value of Music Limited's identifiable net assets was ₹10,00,000. Super Sounds Limited believes that due to the popularity of Music Limited's product, the life of goodwill is 10 years.
- On 4th May 2019, Super Sounds Limited purchased a Franchise to organize musical shows from Armaan TV for ₹80,00,000 with an annual fee of 2% of the musical shows' revenue. The franchise expires after 5 years. The musical shows' revenue for 2019-2020 was ₹10,00,000. Projected revenue is ₹25,00,000 for 2020-2021 and ₹30,00,000 per year for the remaining 3 years.
- On 4th July 2019, the company was granted a copyright applied for by Music Limited. During the year, Super Sounds Limited incurred ₹2,50,000 as legal costs to register the copyright and ₹7,00,000 to successfully prosecute a copyright infringement suit. The copyright is valid for 10 years.

Super Sounds Limited amortizes all intangible assets on a straight-line basis (SLM) over the maximum period permitted by Ind AS, taking a full year's amortization in the year of acquisition.

Required:

- Prepare a schedule showing the Intangible Assets section in the Balance Sheet as of 31st March 2020.
- Prepare a schedule of related expenses to appear in the Statement of Profit and Loss for the year ended 31st March 2020.

Solution:

(i) Balance Sheet (Extract)

Super Sounds Limited
As on 31st March 2020

	Note	₹
Assets		
(1) Non-current assets	1	69,45,000
Intangible Assets		

Notes to Accounts (Intangible Assets):

Particulars	Opening Balance	Gross Additions	Closing Balance	Opening Balance	Depre. Additions	Closing Balance	Net Opening Balance	Net Closing Balance
Goodwill		3,20,000	3,20,000		-		-	3,20,000
Franchise		80,00,000	80,00,000		16,00,000		16,00,000	64,00,000
Copyright		2,50,000	2,50,000		25,000		25,000	2,25,000
Total		85,70,000	85,70,000		16,25,000		16,25,000	69,45,000



(ii) Statement of Profit and Loss (Extract)*Super Sounds Limited*

For the year ended 31st March 2020

	Note No.	Amount
Revenue from Operations		10,00,000
Expenses		
(1) Amortization expenses	2	16,25,000
(2) Other expenses	3	7,20,000
Total Expenses		23,45,000

Notes to Expenses:**1. Amortization Expenses:****Particulars Amount (₹)**

Franchise 16,00,000

Copyright 25,000

Total 16,25,000**2. Other Expenses:****Particulars****Amount (₹)**

Legal cost on copyright

7,00,000

Franchise fee (2% of revenue of ₹10,00,000)

20,000

Total**7,20,000****Working Notes:****1. Goodwill:**

Cost of acquiring Music Limited: ₹13,20,000

Less: Fair value of net assets acquired: ₹10,00,000

Goodwill: ₹3,20,000

As per Ind AS 36, goodwill is not amortized but subject to annual impairment testing.

2. Franchise:

Cost of acquisition: ₹80,00,000

Amortization over 5 years: ₹80,00,000 ÷ 5 = ₹16,00,000 per year

Balance to be shown in the Balance Sheet: ₹80,00,000 - ₹16,00,000 = ₹64,00,000**3. Copyright:**

Legal registration cost: ₹2,50,000

Amortization over 10 years: ₹2,50,000 ÷ 10 = ₹25,000 per year

Balance to be shown in the Balance Sheet: ₹2,50,000 - ₹25,000 = ₹2,25,000

Irrespective of whether there is any indication of impairment, an entity shall test goodwill acquired in a business combination for impairment annually. This implies that goodwill is not amortised annually but is subject to annual impairment, if any.

As per the information in the question, the limiting factor in the contract for the use is time i.e., 5 years and not the fixed total amount of revenue to be generated. Therefore, an amortisation method that is based on the revenue generated by an activity that includes the use of an intangible asset is inappropriate and amortisation based on time can only be applied.



Ind AS 40 Investment Property ILLUSTRATIONS

1. Illustration

X Ltd. is engaged in the construction industry and prepares its financial statements up to 31st March each year. On 1st April, 20X1, X Ltd. purchased a large property (consisting of land) for Rs. 2,00,00,000 and immediately began to lease the property to Y Ltd. on an operating lease. Annual rentals were Rs.20,00,000.

On 31st March, 20X5, the fair value of the property was Rs.2,60,00,000. Under the terms of the lease, Y Ltd. was able to cancel the lease by giving six months' notice in writing to X Ltd. Y Ltd. gave this notice on 31st March, 20X5 and vacated the property on 30th September, 20X5. On 30th September, 20X5, the fair value of the property was Rs.2,90,00,000.

On 1st October, 20X5, X Ltd. immediately began to convert the property into ten separate flats of equal size which X Ltd. intended to sell in the ordinary course of its business. X Ltd. spent a total of Rs. 60,00,000 on this conversion project between 30th September, 20X5 to 31st March, 20X6. The project was incomplete at 31st March, 20X6 and the directors of X Ltd. estimate that they need to spend a further Rs.40,00,000 to complete the project, after which each flat could be sold for Rs.50,00,000.

Examine and show how the three events would be reported in the financial statements of X Ltd. for the year ended 31st March, 20X6 as per Ind AS. (SM)

Solution:

Rental Income

- Lease active for 6 months (Apr–Sep 20X5): ₹20L per annum → ₹10L for half-year.

Bank A/c / Y Ltd. A/c Dr. ₹10,00,000
To Rental Income A/c ₹10,00,000

Presentation: Shown as **income in P&L** under "Other Income".

2. Reclassification – Investment Property → Inventory (Ind AS 40 Para 57)

- Reclassification occurs **only when there is a change in use**.
- On 1-Oct-20X5, the company **commences development with a view to sell** → qualifies for transfer to **Inventory (Ind AS 2)**.
- As per **Ind AS 40 Para 60**, reclassification is done **at carrying amount**, i.e., **₹2.90 Cr** (fair value on 30-Sep-20X5).

No gain/loss is recorded on reclassification.

Inventory A/c Dr. ₹2,00,00,000
To Investment Property A/c ₹2,00,00,000

Cost of Conversion (Ind AS 2 – Inventory Cost)

- ₹60L spent on conversion from 1-Oct-20X5 to 31-Mar-20X6 is capitalized as part of inventory cost.

Inventory A/c Dr. ₹60,00,000
To Bank/Creditors A/c ₹60,00,000



4. Inventory Valuation (Ind AS 2 – Lower of Cost and NRV)

Particulars	Amount
Total Cost	₹2.00 Cr (property) + ₹0.60 Cr (conversion) = ₹2.60 Cr
NRV	(10 flats × ₹50L = ₹5 Cr) – ₹0.40 Cr (cost to complete) = ₹4.60 Cr
Valuation	Inventory to be valued at ₹2.60 Cr (Cost)

2. Illustration

Shaurya Limited owns a Building A which is specifically used for the purpose of earning rentals. The Company has not been using the building A or any of its facilities for its own use for a long time. The company is also exploring the opportunities to sell the building if it gets the reasonable amount in consideration.

Following information is relevant for Building A for the year ending 31st March, 20X2:

Building A was initially purchased at the cost of Rs.10 crores. At that time, the useful life of the building was estimated to be 20 years; out of which 5 years have been expired as on 1st April, 20X1. The company follows straight line method for depreciation.

During the year, the company has invested in another Building B with the purpose to hold it for capital appreciation. The property was purchased on 1st April, 20X1 at the cost of Rs.2 crores. Expected life of the building is 40 years. As usual, the company follows straight line method of depreciation.

Further, during the year 20X1-20X2 the company earned/ incurred following direct operating expenditure relating to Building A and Building B:

Rental income from Building A	=	Rs. 75 lakhs
Rental income from Building B	=	Rs. 25 lakhs
Sales promotion expenses	=	Rs. 5 lakhs
Fees & Taxes	=	Rs. 1 lakhs
Ground rent	=	Rs. 2.5 lakhs
Repairs & Maintenance	=	Rs. 1.5 lakhs
Legal & Professional	=	Rs. 2 lakhs
Commission and brokerage	=	Rs. 1 lakhs

The company does not have any restrictions and contractual obligations against Property - A and B. For complying with the requirements of Ind AS, the management sought an independent report from the specialists so as to ascertain the fair value of buildings A and B. The independent valuer has valued the fair value of property as per the valuation model recommended by International valuation standards committee. Fair value has been computed by the method by streamlining present value of future cash flows namely, discounted cash flow method.

The other key inputs for valuation are as follows:

The estimated rent per month per square feet for the period is expected to be in the range of Rs. 50 - Rs. 60. And it is further expected to grow at the rate of 10 percent per annum for each of 3 years. The weighted discount rate used is 12% to 13%.

Assume that the fair value of properties based on discounted cash flow method is measured at Rs. 10.50 crores. The treatment of fair value of properties is to be given in the financials as per the requirements of Indian accounting standards.

What would be the treatment of Building A and Building B in the balance sheet of Shaurya Limited? Provide detailed disclosures and computations in line with relevant Indian accounting standards. Treat it as if you are preparing a separate note or schedule, of the given assets in the balance sheet. (SM)

Solution:

Disclosure of Investment Property in Balance Sheet (Rs. In lakhs)

Gross amount			Depreciation			Opening Balance	Closing Balance
Opening	Addition	Closing	Opening	Addition	Closing		
1000	200	1200	250	55 (50+5)	305	750	895

Disclosure for items recognized in Profit and Loss



Particular	Amount (₹ Lakhs)
Rental Income	100.00 (75 + 25)
Direct Operating Expenses	13.00 (Break-up below)
→ Sales Promotion Expenses	5.00
→ Fees & Taxes	1.00
→ Ground Rent	2.50
→ Repairs & Maintenance	1.50
→ Legal & Professional Fees	2.00
→ Commission & Brokerage	1.00
Net Profit from Investment Property (before depreciation & indirect expenses)	87.00
Net Profit (after depreciation)	32.00 (87 – 55)

Disclosure related to fair value of Investment Property

- Description
- Fair value
- Valuation by independent valuer
- Method of valuation by independent valuer
- Key assumption to arrive at fair value
- Restriction, if any

Disclosure Note on Investment Properties acquired by the entity

- The investment properties consist of Property A and Property B. As at March 31, 20X2, the fair value of the properties is Rs. 10.50 crores.
- The valuation is performed by independent valuers, who are specialists in valuing investment properties.
- A valuation model as recommended by International Valuation Standards Committee has been applied.
- The Company considers factors like management intention, terms of rental agreements, area leased out, life of the assets etc, to determine classification of assets as investment properties.
- The company has no restrictions on the realisability of its investment properties and no contractual obligations to purchase, construct or develop investment properties or for repairs, maintenance and enhancements.

Description of valuation techniques used and key inputs to valuation on investment properties:

Valuation technique	Significant observable inputs	Range (Weighted Average)
Discounted cash flow (DCF) method	• Estimated rental value per sq. ft, per month • Rent growth per annum • Discount rate	• Rs. 50 to 60 • 10% every 3 years • 12% to 13%

3. Illustration

Besides manufacturing plants, A Ltd. has various other assets, not used for operational activities, e.g., freehold land, townships in different locations, excess office space rented to ABC, etc. Also, A Ltd. has some land that is kept vacant as per government regulations which require that a specified area around the plant should be kept vacant.

The details of these assets are as follows:

Property	Details
A Ltd.'s office building (registered office)	A Ltd.'s registered office in Delhi, is a 15 storey building, of which only 3 floors are occupied by A Ltd., whereas remaining floors are given on rent to other companies. These agreements are usually for a period of 3 years. According to A Ltd., such



	excess office space will continue to be let out on lease to external parties and have no plans to occupy it, at least in near future.
Flats in Township located in location 1	As regards township in Location 1, there are approximately 2,000 flats in the said township. It was built primarily for A Ltd.'s employees, hence, approximately 80% of the flats are allotted to employees and remaining flats are either kept vacant or given on rent to other external parties. A lease agreement is signed between A Ltd. and an individual party for every 12 months being 1st April to 31st March. The lease entered is a cancellable lease (cancellable at the option of any of the parties). Also, besides monthly rent, additional charges are levied by A Ltd. on account of electricity, water, cable connection, etc. According to A Ltd., there is no intention of selling such excess flats or allotting it to its employees.
Flats in township located in location 2	There are 1,000 flats in location 2 township, of which: • 400 flats are given to employees for their own accommodation. • 350 flats are given on rent to Central Government and State Government for accommodation of their employees. Average lease period being 12 months with cancellable clause in lease agreements. • 250 flats are kept vacant.
Hostel located in location 1	60 rooms in the hostel have been let out to G Ltd., to give accommodation to their personnel. Lease agreement is prepared for every 11 months and renewed thereafter. Besides the monthly rent amount, some charges are levied towards water, electricity and other amenities, e.g., cable connection, etc.
Land in location 1	In 20X4, A Ltd. purchased a plot of land on the outskirts of a major city. The area has mainly low-cost public housing and very limited public transport facilities. The government has plans to develop the area as an industrial park in 5 years' time and the land is expected to greatly appreciate in value if the government proceeds with the plan. A Ltd. has not decided what to do with the property.
Land in location 1	A portion of land has been leased out to C Ltd. for its manufacturing operations. Land has been given on lease on a lease rental of ₹10 lacs p.a. with a lease term of 25 years.
Land in location 2	A portion of the land has been given on rent to D Ltd. which has constructed a petrol pump on such land. It has been leased for a period of 40 years and renewed for a further period of 40 years.

Determine the classification of properties which are not held for operational purposes, with suitable reasoning in the financial statements of A Ltd.

Solution:

Property	Simplified Classification & Reasoning
A Ltd.'s office building (registered office)	Out of 15 floors, only 3 are used by A Ltd., rest are let out on lease. A Ltd. has no plans to occupy the rented space and it is separately identifiable. Hence, excess office space is an Investment Property.
Flats in Township –	About 20% of flats are let out or vacant. There's no plan to sell or allot them to employees. Flats are separately identifiable and



Location 1	rental income is the main purpose. A Ltd. also charges its lessees on account of ancillary services, i.e., water, electricity, cable connection, etc., but the monthly charges in such cases are generally not significant as compared to rental payments. Hence, rented flats are Investment Property. Vacant flats: • If held to earn rent → Investment Property • If held for future employee use → PPE
Flats in Township – Location 2	350 flats are rented to govt. departments. If intention is to continue renting, they are Investment Property. 250 flats are vacant: • If to be rented → Investment Property • If for future employee use → PPE
Hostel – Location 1	Rooms rented to G Ltd. for use by their staff. Ancillary charges are minor compared to rent. Purpose is rental income. Hence, Investment Property.
Land – Location 1 (Vacant Land)	Purchased with expectation of value appreciation. No decision yet on use. As per Ind AS 40, if held for capital appreciation, then it is an Investment Property.
Land – Location 1 (Leased to C Ltd.)	Leased for 25 years to earn rent. Purpose is long-term rental income. Hence, Investment Property.
Land – Location 2 (Leased to D Ltd.)	Leased for 40 years (plus renewal). Purpose is to earn lease income over time. Hence, Investment Property.



Indian Accounting Standard 23
BORROWING COST
ILLUSTRATIONS

1. Illustration

Beta Ltd had the following loans in place at the end of 31st March, 20X2 ('000)

Loan	1st April, 20X1	31st March, 20X2
18% Bank Loan	1,000	1,000
16% Term Loan	3,000	3,000
14% Debentures	-	2,000

14% debenture was issued to fund the construction of Office building on 1st July, 20X1 but the development activities has yet to be started. On 1st April, 20X1, Beta ltd began the construction of a Plant being qualifying asset using the existing borrowings.

Expenditure drawn down for the construction was: ₹ 500,000 on 1st April, 20X1 and ₹ 2,500,000 on 1st January, 20X2.

Calculate the borrowing cost that can be capitalised for the plant.

Solution:

Loan Type	Amount (₹)	Interest Rate	Annual Interest (₹)
18% Bank Loan	₹10,00,000	18%	₹1,80,000
16% Term Loan	₹30,00,000	16%	₹4,80,000
Total	₹40,00,000		₹6,60,000
Capitalisation rate		16.5%	$\frac{660,000 \times 100\%}{40,00,000}$
Date	Amount (₹)	Period Outstanding	Borrowing Cost Capitalised
01-Apr-20X1	₹5,00,000	12 months	$₹5,00,000 \times 16.5\% \times 12/12 = ₹82,500$
01-Jan-20X2	₹25,00,000	3 months	$₹25,00,000 \times 16.5\% \times 3/12 = ₹1,03,125$
Total	₹30,00,000		₹1,85,625

Alternatively capitalisation rate can be computed as below

Loan Amount (₹)	Weight	Rate of Interest	Weighted Rate (%)
₹10,00,000	0.25	18%	4.5%
₹30,00,000	0.75	16%	12%
₹40,00,000			16.5%

2. Illustration

An entity constructs a new head office building commencing on 1st September 20X1, which continues till 31st December 20X1. Directly attributable expenditure at the beginning of the month on this asset are ₹ 100,000 in September 20X1 and ₹ 250,000 in each of the months of October to December 20X1.

The entity has not taken any specific borrowings to finance the construction of the asset but has incurred finance costs on its general borrowings during the construction period. During the year, the entity had issued 10% debentures with a face value of ₹ 20 lacs and had an overdraft of ₹ 500,000, which increased to ₹ 750,000 in December 20X1. Interest was paid on the overdraft at 15% until 1 October 20X1, then the rate was increased to 16%.

Calculate the capitalisation rate for computation of borrowing cost in accordance with Ind AS 23 'Borrowing Costs'.

Solution:



Calculation of Capitalisation Rate (Amt in lacs)				
Loan	Principal	Interest	No of Months	Product (Principal x Months)
10% Debentures	20.00	2.0000	12	240
Bank OD - 15%	5.00	0.5625	9	45
Bank OD [1st Oct] - 16%	5.00	0.1333	2	10
Bank OD [1st Dec] - 16%	7.50	0.1000	1	7.50
		2.7958		302.50
		Average funds		25.21
Interest of 2.7958 lacs is paid on a principal of 302.5 for 1 month				
Capitalisation Rate	<u>2.7958</u>	X 12	11.091%	11.091%
	302.50			

3. Illustration

Marine Transport Limited ordered 3 ships for its fleet on 1st April, 20X0. It pays a down payment of 25% of the contract value of each of the ship out of long term borrowings from a scheduled bank. The delivery has to commence from the financial year 20X7. On 1st March, 20X2, the ship builder informs that it has commenced production of one ship. There is no progress on other 2 ships. Marine Transport Limited prepares its financial statements on financial year basis. Is it permissible for Marine Transport Limited to capitalise any borrowing costs for the financial year ended 31st March, 20X1 or 31st March, 20X2.

Solution:

As per Ind AS 23, a **qualifying asset** is an asset that **necessarily takes a substantial period of time** to get ready for its **intended use or sale**. An entity shall begin **capitalising borrowing costs** as part of the cost of a qualifying asset on the **commencement date**. The **commencement date** for capitalisation is the date when the entity first meets **all of the following conditions**:

1. It **incurs expenditures** for the asset.
2. It **incurs borrowing costs**.
3. It undertakes **activities that are necessary** to prepare the asset for its **intended use or sale**.

The **ship is a qualifying asset**, as it takes a **substantial period of time** for its construction. Thus, the **related borrowing costs** should be capitalised.

- **Marine Transport Limited** borrows funds and incurs expenditures in the form of **down payment** on **1st April, 20X0**. Thus, **condition (a)** and **condition (b)** are met.
- However, **condition (c)** is met **only on 1st March, 20X2**, and that too only with respect to **one ship**.

There is **no capitalisation of borrowing costs** during the financial year ended **31st March, 20X1**, as condition (c) was not met for any ship.

For the financial year ended **31st March, 20X2**, borrowing costs related to the **one ship**, whose construction commenced on **1st March, 20X2**, will be **capitalised** from **1st March, 20X2 to 31st March, 20X2**.

Borrowing costs related to the **other two ships** or for periods prior to the commencement of construction will be **expensed**.



4. Illustration

K Ltd. began construction of a new building at an estimated cost of ₹ 7 lakh on 1st April, 20X1. To finance construction of the building it obtained a specific loan of ₹ 2 lakh from a financial institution at an interest rate of 9% per annum.

The company's other outstanding loans were:

Amount	Rate of Interest per annum
₹ 7,00,000	12%
₹ 9,00,000	11%

The expenditure incurred on the construction was:

April, 20X1	₹ 1,50,000
August, 20X1	₹ 2,00,000
October, 20X1	₹ 3,50,000
January, 20X2	₹ 1,00,000

The construction of building was completed by 31st January, 20X2. Following the provisions of Ind AS 23 'Borrowing Costs', calculate the amount of interest to be capitalized and pass necessary journal entry for capitalizing the cost and borrowing cost in respect of the building as on 31st January, 20X2.

Solution:

Step 1: Calculate Capitalisation Rate for General Borrowings

Loan Amount (₹)	Interest Rate	Interest (₹)
₹7,00,000	12%	₹84,000
₹9,00,000	11%	₹99,000
Total = ₹16,00,000		₹1,83,000

Capitalisation Rate = ₹1,83,000 / ₹16,00,000 = 11.4375%

Date	Amount (₹)	Type	Rate	Period	Interest (₹)
01-Apr-20X1	₹1,50,000	Specific	9%	10 months	₹11,250
01-Aug-20X1	₹2,00,000	₹50k Specific, ₹1.5L General	9% / 11.4375%	6 months	₹3,750 + ₹8,578
01-Oct-20X1	₹3,50,000	General	11.4375%	4 months	₹13,344
01-Jan-20X2	₹1,00,000	General	11.4375%	1 month	₹953
Total	₹8,00,000				₹37,875
				Capitalise	₹8,37,875

Interest = Amount x Rate x Period/12

Date	Particulars	Dr (₹)	Cr (₹)
Various Dates	CWIP A/c Dr.	8,00,000	
	To Bank A/c		8,00,000
	Being amount incurred for construction of building recorded under Capital Work in Progress.		
31-Jan-20X2	Interest Expense A/c Dr.	37,875	
	To Interest Payable A/c		37,875
	Being borrowing cost accrued on specific and general borrowings.		
31-Jan-20X2	Building A/c Dr.	8,37,875	
	To CWIP A/c		8,00,000
	To Interest Expense A/c		37,875
	Being completed building capitalised including borrowing cost.		



Single Entry			
	Building A/c Dr.	8,37,875	
	To Bank A/c		8,00,000
	To Interest payable / Bank		37,875
	Being completed building capitalised including borrowing cost.		

5. Illustration

On 1st April, 20X1, entity A contracted for the construction of a building for ₹ 22,00,000. The land under the building is regarded as a separate asset and is not part of the qualifying assets. The building was completed at the end of March, 20X2, and during the period the following payments were made to the contractor:

Payment date	Amount (₹ '000)
1st April, 20X1	200
30th June, 20X1	600
31st December, 20X1	1,200
31st March, 20X2	200
Total	2,200

Entity A's borrowings at its year end of 31st March, 20X2 were as follows:

- 10%, 4-year note with simple interest payable annually, which relates specifically to the project; debt outstanding on 31st March, 20X2 amounted to ₹ 7,00,000. Interest of ₹ 65,000 was incurred on these borrowings during the year, and interest income of ₹ 20,000 was earned on these funds while they were held in anticipation of payments.
- 12.5% 10-year note with simple interest payable annually; debt outstanding at 1st April, 20X1 amounted to ₹ 1,000,000 and remained unchanged during the year; and
- 10% 10-year note with simple interest payable annually; debt outstanding at 1st April, 20X1 amounted to ₹ 1,500,000 and remained unchanged during the year.

What amount of the borrowing costs can be capitalized at year end as per relevant Ind AS?

Solution:

Capitalisation Rate - General Borrowings

Loan Amt	Int Rate	Int Amt
10,00,000.00	12.50%	1,25,000.00
15,00,000.00	10%	1,50,000.00
25,00,000.00	11%	2,75,000.00
Capitalisation Rate		11.00%

Date	Amount	Nature	Rate	Interest
01-Apr-01	2,00,000	Specific		Separately
30-Jun-01	5,00,000	Specific		Separately
30-Jun-01	1,00,000	General – 9m	11%	8,250
31-Dec-01	12,00,000	General – 3m	11%	33,000
31-Mar-02	2,00,000	General – 0m	11%	0
		Total		41,250.00
	Add:	Interest (Specific)		65,000
	Less:	Income on temp inv.		(20,000)
Amount of borrowing costs to be capitalised				86,250.00



6. Illustration

In a group with Parent Company "P" there are 3 subsidiaries with following business:

"A" – Real Estate Company

"B" – Construction Company

"C" – Finance Company

- Parent Company has no operating activities of its own but performs management functions for its subsidiaries.
- Financing activities and cash management in the group are coordinated centrally.
- Finance Company is a vehicle used by the group solely for raising finance.
- All entities in the group prepare Ind AS financial statements.

The following information is relevant for the current reporting period 20X1-20X2:

Real Estate Company

- Borrowings of ₹ 10,00,000 with an interest rate of 7% p.a.
- Expenditures on qualifying assets during the period amounted to ₹ 15,40,000.
- All construction works were performed by Construction Company. Amounts invoiced to Real Estate Company included 10% profit margin.

Construction Company

- No borrowings during the period.
- Financed ₹ 10,00,000 of expenditures on qualifying assets using its own cash resources.

Finance Company

- Raised ₹ 20,00,000 at 7% p.a. externally and issued a loan to Parent Company for general corporate purposes at the rate of 8%.

Parent Company

- Used loan from Finance Company to acquire a new subsidiary.
- No qualifying assets apart from those in Real Estate Company and Construction Company.
- Parent Company did not issue any loans to other entities during the period.

What is the amount of borrowing costs eligible for capitalisation in the financial statements of each of the four entities for the current reporting period 20X1-20X2?

Solution:

Following is the treatment as per Ind AS 23:

Entity	Analysis	Borrowing Costs Eligible for Capitalization
Finance Company	- The Finance Company did not incur any expenditures on qualifying assets. - Therefore, it cannot capitalize any borrowing costs .	₹ 0
Real Estate Company	- The total interest cost is ₹ 70,000 (₹ 10,00,000 × 7%). - Expenditures on qualifying assets (₹ 15,40,000) exceed borrowings (₹ 10,00,000). - Thus, the entire interest cost of ₹ 70,000 can be capitalized.	₹ 70,000
Construction Company	- The Construction Company has no borrowings, hence no interest costs are incurred. - Therefore, it cannot capitalize any borrowing costs .	₹ 0

Calculation Table for Parent Company (Consolidated Borrowing Costs)

Particulars	Amount (₹)
Total Borrowings	₹ 30,00,000
Borrowings by Real Estate Company	₹ 10,00,000
Borrowings by Finance Company	₹ 20,00,000
Total Interest Expenditures for the Group	₹ 2,10,000
Interest on ₹ 10,00,000 (Real Estate Co.)	₹ 70,000 (₹ 10,00,000 × 7%)
Interest on ₹ 20,00,000 (Finance Co.)	₹ 1,40,000 (₹ 20,00,000 × 7%)
Expenditures on Qualifying Assets	₹ 24,00,000
Real Estate Company (after eliminating profit margin)	₹ 14,00,000 (₹ 15,40,000 ÷ 1.1)
Construction Company	₹ 10,00,000



Capitalization Rate	7%
Borrowing Costs Eligible for Capitalization	₹ 1,68,000 (₹ 24,00,000 × 7%)
Borrowing Costs Capitalized	₹ 1,68,000
Remaining interest costs to be expensed	₹ 42,000 (₹ 2,10,000 – ₹ 1,68,000)

7. Illustration

How will you capitalise the interest when qualifying assets are funded by borrowings in the nature of bonds that are issued at discount?

Y Ltd. issued at the start of year 1, 10% (interest paid annually and having maturity period of 4 years) bonds with a face value of ₹ 2,00,000 at a discount of 10% to finance a qualifying asset which is ready for intended use at the end of year 2.

Compute the amount of borrowing costs to be capitalized if the company amortizes discount using Effective Interest Rate method by applying 13.39% p.a. of EIR.

Solution:

Calculation of Effective Interest Rate (Not required for exams as already given in question)					
Year	Amount	PV @ 14%	PV at 14%	PV @ 13%	PV at 13%
1	20,000	0.8772	17,543.86	0.8850	17,699.12
2	20,000	0.7695	15,389.35	0.7831	15,662.93
3	20,000	0.6750	13,499.43	0.6931	13,861.00
4	2,20,000	0.5921	1,30,257.66	0.6133	1,34,930.12
			1,76,690.30		1,82,153.17
			14%		13%
	Initial Inflow		1,80,000		1,80,000
	NPV		3,309.70		-2,153.17
	Difference			5,463	
	<u>Change in %</u>			1.00	
	For a change of 2,153			-0.39	
	IRR		13% + 0.39%		13.39%
	Interest sch.				
Year	Opening	Interest	Payment	Closing	
1	1,80,000	24,102	20,000	1,84,102	
2	1,84,102	24,651	20,000	1,88,753	
3	1,88,753	25,274.06	20,000	1,94,027	-
4	1,94,027	25,980	2,20,000	8	
	Total	48,753			



8. Illustration

LT Ltd. is in the process of constructing a building. The construction process is expected to take about 18 months from 1st January 20X1 to 30th June 20X2. The building meets the definition of a qualifying asset. LT Ltd. incurs the following expenditure for the construction:

1 st January, 20X1	₹5 crores
30 th June, 20X1	₹ 20 crores
31 st March, 20X2	₹ 20 crores
30 th June, 20X2	₹ 5 crores

On 1st July 20X1, LT Ltd. issued 10% Redeemable Debentures of ₹50 crores. The proceeds from the debentures form part of the company's general borrowings, which it uses to finance the construction of the qualifying asset, ie, the building. LT Ltd. had no borrowings (general or specific) before 1st July 20X1 and did not incur any borrowing costs before that date. LT Ltd. incurred ₹25 crores of construction costs before obtaining general borrowings on 1st July 20X1 (pre-borrowing expenditure) and ₹25 crores after obtaining the general borrowings (post-borrowing expenditure).

For each of the financial years ended 31st March 20X1, 20X2 and 20X3, calculate the borrowing cost that LT Ltd. is permitted to capitalize as a part of the building cost.

Solution:

Borrowing costs can be capitalized when a qualifying asset is being constructed, and all three conditions are met:

1. Expenditure on the qualifying asset.
2. Borrowing costs are incurred.
3. Activities to prepare the asset for its intended use or sale are in progress.

Financial Year 20X0-20X1

Expenditure Date	Amount (₹)	Capitalization Period (current year)	Weighted Average Accumulated Expenditure (₹)
1 st Jan X1	5 crore	0	NIL

- **Borrowing Costs Eligible for Capitalization: ₹ 0**
- **Reason:** Borrowing costs were not incurred before 1st July 20X1.

Financial Year 20X1-20X2

Expenditure Date	Amount (₹)	Capitalization Period (current year)	Weighted Average Accumulated Expenditure (₹)
1 st Jan X1	5 crore	9/12	3.75 crore
30 th Jun X1	20 crore	9/12	15 crore
31 st Mar X2	20 crore	0/12	NIL
Total	25 crore		18.75 crore

- **Borrowing Costs Eligible for Capitalization: ₹ 1.875 crore** (18.75 crore × 10%).

Financial Year 20X2-20X3

Expenditure Date	Amount (₹) crores	Capitalization Period (current year)	Weighted Average Accumulated Expenditure (₹)
1 st Jan X1	5	3/12	1.25
30 th Jun X1	20	3/12	5
31 st Mar X2	20	3/12	5
31 st Mar X2	1.875	3/12	0.47
30 th Jun X2	5	0/12	NIL
Total			11.72
Alternatively			
Opening WIP	45	3/12	11.25



Int in WIP	1.875	3/12	0.47
30th June, 20X2	5	0/12	NIL
Total			11.72 crore

- **Borrowing Costs Eligible for Capitalization:** ₹ 1.172 crore (11.72 crore × 10%).

9. Illustration

Harish Construction Company is constructing a huge building project consisting of four phases. It is expected that the full building will be constructed over several years but Phase I and Phase II of the building will be started as soon as they are completed. Following is the detail of the work done on different phases of the building during the current year (₹ in lakhs):

	Phase I (₹)	Phase II (₹)	Phase III (₹)	Phase IV (₹)
Cash Expenditure	10	30	25	30
Building Purchased	24	34	30	38
Total Expenditure	34	64	55	68

Total expenditure of all phases: ₹ 221

Loan taken @15% at the beginning of the year: ₹ 200

During mid of the current year, Phase I and Phase II have become operational. Find out the total amount to be capitalized and to be expensed during the year.

10. Illustration

Harish Construction Company is constructing a huge building project consisting of four phases. It is expected that the full building will be constructed over several years but Phase I and Phase II of the building will be started as soon as they are completed. Following is the detail of the work done on different phases of the building during the current year (₹ in lakhs):

	Phase I (₹)	Phase II (₹)	Phase III (₹)	Phase IV (₹)
Cash Expenditure	10	30	25	30
Building Purchased	24	34	30	38
Total Expenditure	34	64	55	68

Total expenditure of all phases: ₹ 221

Loan taken @15% at the beginning of the year: ₹ 200

During mid of the current year, Phase I and Phase II have become operational. Find out the total amount to be capitalized and to be expensed during the year.

Solution:

Particulars	Amount	Interest	
Loan Principal	₹2,00,00,000		
Annual Interest Rate	15%		
Total Annual Interest (Principal × 15%)	₹30,00,000		
Expenditure – Phase I	₹34,00,000	30,00,000 × 34/221 =	4,61,538
Expenditure – Phase II	₹64,00,000	30,00,000 × 64/221 =	8,68,779
Expenditure – Phase III	₹55,00,000	30,00,000 × 55/221 =	7,46,606
Expenditure – Phase IV	₹68,00,000	30,00,000 × 68/221 =	9,23,077
Total Expenditure	₹2,21,00,000		₹30,00,000
	Interest	Capitalise	Expense
Phase I & II (50% capitalise)	₹13,30,317	₹6,65,158.50	₹6,65,158.50
Phases III & IV	₹16,69,683	₹16,69,683	
Total Interest Capitalized		₹23,34,841.50	
Total Interest Expensed			₹6,65,158.50



1. Phase I and Phase II

Since Phase I and Phase II became operational at the mid-point of the year, only half of the interest amount of ₹6,65,158.50 (i.e., ₹13,30,317 ÷ 2) attributable to Phases I and II is **capitalized**. This capitalized portion should be allocated between Phase I and Phase II based on their respective asset costs (i.e., 34:64) and added to each phase's asset value.

The **remaining half** of this interest amount (the other ₹6,65,158.50) **must be expensed** during the year, because interest incurred **after** the assets become operational cannot be capitalized.

2. Phase III and Phase IV

Interest of ₹16,69,683 relating to Phases III and IV should be **held in Capital Work-in-Progress (CWIP)** until the construction work for these phases is fully completed. Once they are completed and ready for use, this accumulated interest will be **capitalized** in proportion to each asset's respective cost. **No portion** of this interest should be charged to expenses for the current year, since the work on these phases has not yet been completed.

11. Illustration (RTP May 22)

X Ltd. commenced the construction of a plant (qualifying asset) on 1st September, 20X1, estimated to cost ₹ 10 crores. For this purpose, X has not raised any specific borrowings, rather it intends to use general borrowings, which have a weighted average cost of 11%. Total borrowing costs incurred during the period, viz., 1st September, 20X1 to 31st March, 20X2 were ₹ 0.5 crore.

The other relevant details are as follows: (₹ in crore)

Month	Cost of construction Accrued	Cash outflows (paid in advance at the start of each month)
September	1.50	3.00
October	0.50	1.70
November	1.50	2.50
December	0.50	-
January	1.80	1.00
February	0.70	-
March	3.00	1.50

Based on the above information, discuss the treatment of borrowing cost as per cash outflow basis and accrual basis and also suggest the appropriate amount of interest that should be capitalised to the cost of the plant in the financial statements for the year ended 31st March, 20X2?

Solution:

Paragraph 14 of Ind AS 23 explains that when an entity borrows funds generally to acquire a qualifying asset, it must determine the borrowing costs eligible for capitalization by applying a *capitalization rate* to the expenditures on that asset. This rate is the weighted average of the borrowing costs from all borrowings outstanding during the period.

Borrowing costs from loans specifically taken for a qualifying asset are excluded from this calculation until the asset is substantially ready for its intended use or sale. Additionally, the total amount capitalized in any given period cannot exceed the total borrowing costs actually incurred in that period.

In applying this principle, one key question is whether the *expenditure* on which the capitalization rate is applied should be measured based on **costs accrued** or **actual cash outflows**. The following section provides a comparative illustration of borrowing cost calculations under both approaches.

Month	Cost of construction on Accrued	Average capital expenditure	Cash outflows (paid in advance at the start of each month)	Average capital expenditure
September	1.50	$1.50 \times 7/12$ = 0.875	3.00	$3.00 \times 7/12 =$ 1.75



October	0.50	$0.50 \times 6/12 = 0.25$	1.70	$1.70 \times 6/12 = 0.85$
November	1.50	$1.50 \times 5/12 = 0.625$	2.50	$2.50 \times 5/12 = 1.04$
December	0.50	$0.50 \times 4/12 = 0.17$	-	-
January	1.80	$1.80 \times 3/12 = 0.45$	1.00	$1 \times 3/12 = 0.25$
February	0.70	$0.70 \times 2/12 = 0.12$	-	-
March	3.00	$3.00 \times 1/12 = 0.25$	1.50	$1.50 \times 1/12 = 0.125$
	9.50	2.74	9.70	4.02

1. Different Methods, Different Results

- Using **accrued costs** (₹2.74 crore) as the basis for calculating borrowing costs gives a capitalizable amount of ₹0.30 crore (₹2.74 crore $\times$ 11%).
- Using **actual cash outflows** (₹4.02 crore) yields ₹0.44 crore (₹4.02 crore $\times$ 11%).
- This sizable difference (₹0.30 crore vs. ₹0.44 crore) highlights how the chosen method significantly affects the capitalizable borrowing cost—especially for large projects where advance payments do not immediately translate into accrued expenses.

2. Ind AS 23 Guidance (Paragraph 18)

- Only expenditures involving **actual outflow of cash**, transfers of other assets, or assumption of interest-bearing liabilities qualify for capitalization.
- Such expenditures are reduced by any progress payments or grants related to the asset.
- In most cases, the **average carrying amount** of the asset during the period (including any previously capitalized borrowing costs) is a suitable approximation for applying the capitalization rate.

3. Cash Paid Before Costs Accrue

- If cash is paid in advance, interest starts accruing from the date of payment, not from when the cost is formally recognized.
- Therefore, **actual cash flows** should form the basis for calculating interest eligible for capitalization, provided all other Ind AS 23 conditions are satisfied.
- In this scenario, computing interest based on **cash outflows** (₹0.44 crore) is appropriate, rather than using accrued costs (₹0.30 crore).

4. Overall Limit on Capitalization

- The total borrowing costs capitalized in a period cannot exceed the **actual borrowing costs incurred** in that period.
- Since the actual borrowing costs here total ₹0.50 crore, **the maximum that can be capitalized** is ₹0.50 crore, ensuring compliance with the standard.



Ind AS 20
Accounting for Government Grants and Disclosure of Government Assistance
Illustrations

1. Illustration

A Limited received from the government a loan of Rs. 50,00,000 @ 5% payable after 5 years in a bulleted payment. The prevailing market rate of interest is 12%. Interest is payable regularly at the end of each year. Calculate the amount of government grant.

State how the grant will be recognized in the statement of profit or loss assuming:

Case 1: The loan is an immediate relief measure to rescue the enterprise.

Case 2: The loan is a subsidy for staff training expenses, incurred equally, for a period of 4 years

Case 3: The loan is to finance a depreciable asset.

Solution:

Calculation of Fair value of Loan			
Year	Outflow	PVF @ 12%	PV
1	2,50,000	0.8929	2,23,214.29
2	2,50,000	0.7972	1,99,298.47
3	2,50,000	0.7118	1,77,945.06
4	2,50,000	0.6355	1,58,879.52
5	52,50,000	0.5674	29,78,990.99
		Fair Value	37,38,328
		Loan	50,00,000
		Govt Grant	12,61,672
	-		
	Bank A/c Dr	50,00,000	
	To Govt Grant		12,61,672
	To Fin. Liability		37,38,328

Case 1: Immediate Relief Measure

- If the **entire grant** is merely to **rescue** the enterprise (i.e., no future performance or expense conditions), the grant is **recognized as income** in the **period** in which the entity receives it and meets the conditions.
- Hence the entity will **immediately** recognise the grant in the **Statement of Profit or Loss**.

Case 2: Subsidy for Staff Training Over 4 Years

- If the grant is to **cover staff training costs** incurred equally over **4 years**, the grant should be **matched** with those **training expenses**.
- The company would **defer** the ₹12.62 lakhs in a **Deferred Income** account and then **recognize it as income** in **equal instalments** (or in proportion to training costs) over the **4 years** of the training program.

Case 3 : Finance a depreciable asset



For a **grant** linked to the acquisition or construction of a **depreciable asset**, the company can

- **Deduct** the grant from the **carrying amount** of the asset, reducing **future depreciation**, or
- **Show it as Deferred Income** and **amortize** it over the asset's **useful life** in the Statement of Profit or Loss, matching the **depreciation expense**.

2. Illustration

ABC Ltd is a government company and is a first-time adopter of Ind AS. As per the previous GAAP, the contributions received by ABC Ltd. from the government (which holds 100% shareholding in ABC Ltd.) which is in the nature of promoters' contribution have been recognised in capital reserve and treated as part of shareholders' funds in accordance with the provisions of AS 12, Accounting for Government Grants.

State whether the accounting treatment of the grants in the nature of promoters' contribution as per AS 12 is also permitted under Ind AS 20 Accounting for Government Grants and Disclosure of Government Assistance.

Solution:

Ind AS 20 does not cover **government participation in the ownership of the entity**.

ABC Ltd. must determine if the contributions received are:

- **Equity contributions** (provided as a shareholder); or
- **Government grants** (provided as assistance by the government).

Equity Contributions:

If the contributions are determined to be **shareholder contributions**, they should be recorded as part of **equity**.

Government Grants:

If the contributions are deemed **government grants**, Ind AS 20 requires:

- Recognition as **income** on a **systematic basis**, over the periods in which the entity recognizes the related costs as expenses.
- Grants cannot be directly credited to shareholders' funds or **capital reserves**, as was permitted under AS 12.

Retrospective Application:

As per **Ind AS 101** (First-Time Adoption of Ind AS), ABC Ltd. must retrospectively apply the requirements of Ind AS 20 if the contributions qualify as **government grants**.

Conclusion:

The accounting treatment under **AS 12** for grants in the nature of promoters' contribution (directly credited to capital reserves) is **not permitted** under Ind AS 20.

- If the contributions are **shareholder equity contributions**, they will be recorded in **equity**.
- If they are **government grants**, they will be recognized in the **Statement of Profit and Loss** systematically as income over the periods in which the related costs are incurred.

3. Illustration

An entity opens a new factory and receives a government grant of Rs. 15,000 in respect of capital equipment costing Rs. 1,00,000. It depreciates all plant and machinery at 20% per annum on straight-line basis.

Show the statement of profit and loss and balance sheet extracts in respect of the grant for first year under both the methods as per Ind AS 20.

Solution:



*Deferred Income Approach***Statement of Profit and Loss (Year 1)**

Particulars	Amount (₹)
Other Income (Grant amortised: ₹15,000 × 20%)	3,000
Expenses – Depreciation (₹1,00,000 × 20%)	20,000

Balance Sheet Extracts (End of Year 1)

Particulars	Amount (₹)
Assets	
Property, Plant & Equipment	1,00,000
Less: Accumulated Depreciation	(20,000)
Net PPE	80,000
Non-Current Liabilities	
Deferred Government Grant (15,000 – 3,000 – 3,000)	9,000
Current Liabilities	
Portion of Grant due to be recognised next year	3,000

*Reduction from Cost of Asset Approach***Working Note**

Particulars	Amount (₹)
Cost of Property, Plant & Equipment (PPE)	1,00,000
Less: Government Grant	(15,000)
Net Book Value of PPE	85,000
Depreciation @ 20% on ₹85,000	17,000

Statement of Profit and Loss (Year 1)

Particulars	Amount (₹)
Expenses – Depreciation (₹85,000 × 20%)	17,000

Balance Sheet Extracts (End of Year 1)

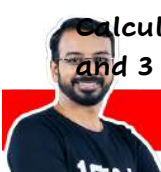
Particulars	Amount (₹)
Assets	
Property, Plant & Equipment (Net of Grant)	85,000
Less: Accumulated Depreciation	(17,000)
Net PPE	68,000

4. Illustration

Entity A is awarded a government grant of Rs.60,000 receivable over three years (Rs.40,000 in year 1 and Rs.10,000 in each of years 2 and 3), contingent on creating 10 new jobs and maintaining them for three years.

The employees are recruited at a total cost of Rs.30,000, and the wage bill for the first year is Rs. 1,00,000, rising by Rs.10,000 in each of the subsequent years.

Calculate the grant income and deferred income to be accounted for in the books for year 1, 2 and 3 in the following scenarios :



- a. There is a reasonable assurance that the entity will comply with the conditions related to the grant and that the grant would be received.
- b. There is no reasonable assurance that the grant would be received

Solution:

- a) If there is a reasonable assurance that the conditions will be complied and the grant would be received, the entity will account for the grant of Rs. 60,000 as a receivable.

Grant Receivable A/c Dr. 60,000
 To Deferred Grant Income 60,000

As per **Ind AS 20**, if there is **reasonable assurance** that the entity will comply with the conditions attached to the grant and that the grant will be received, the entity should **recognize the grant income on a systematic basis** over the period in which the related expenses (wages) are incurred.

Workings for Grant Income Allocation

Total Cost = ₹1,30,000 + ₹1,10,000 + ₹1,20,000 = ₹3,60,000

Total Grant Receivable = ₹60,000

Grant income is recognised in proportion to cost incurred each year.

Year	Cost Incurred (₹)	Grant Income (₹)	Deferred Income (Closing)
1	1,30,000	$60,000 \times 130,000 / 360,000 = 21,667$	$60,000 - 21,667 = 38,333$
2	1,10,000	$60,000 \times 110,000 / 360,000 = 18,333$	$38,333 - 18,333 = 20,000$
3	1,20,000	$60,000 \times 120,000 / 360,000 = 20,000$	$20,000 - 20,000 = 0$
Total	3,60,000	60,000	

The grant income will be recognised in each year in ratio of labour costs incurred. The balance amount in Deferred Income will be recognised in Balance Sheet as a liability.

- b) If there is no reasonable assurance that the grant would be received, the deferred income will be credited with the amount of government grant received.

Year 1 – on receipt of grant

Bank A/c Dr. Rs. 40,000
 To Deferred Grant Income Rs. 40,000

Year 2 & Year 3

Bank A/c Dr. Rs. 10,000
 To Deferred Grant Income Rs. 10,000

	Year 1	Year 2	Year 3	Total	Deferred Grant
Cost (₹)	130,000	110,000	1,20,000	360,000	Closing
Ratio	13	11	12	36	
Grant Received	40,000	10,000	10,000	60,000	
Grant Income					
Year 1	$40,000 \times 13/36 = 14,445$			14,445	$40,000 - 14,445 = 25,555$
Year 2	$40,000 \times 11/36 = 12,222$	$10,000 \times 11/23 = 4,783$		17,005	$25,555 + 10,000 - 17,005 = 18,550$
Year 3	$40,000 \times 12/36 = 13,333$	$10,000 \times 12/23 = 5,217$	10,000	28,550	0
			–		

Grant Income = $\frac{\text{Cost in respective year} \times \text{Grant Amount}}{\text{Total Cost}}$



Deferred Income Balance = Total Grant received till date - amount transferred to other income.

5. Illustration

X Ltd received a Govt. grant related to Income of Rs.5,00,000 in the year 20X1. X Ltd transferred Rs.1,00,000 to the statement of profit and loss systematically in the years 20X1 and 20X2 each. Due to certain non-fulfilment of conditions, government directed X Ltd. to repay the grant in 20X3.

How should X Ltd. reflect the grant repaid in the books of account, if

- (i) the total grant of Rs.5,00,000 is repaid
- (ii) the part of the grant of Rs.2,00,000 is repaid.

Solution:

Case (i): Total Grant of ₹5,00,000 is Repaid

Particulars	Amount (₹)	Remarks
Total grant received	5,00,000	Government grant related to income
Recognised in Profit & Loss	2,00,000	₹1,00,000 each in 20X1 and 20X2
Deferred grant balance	3,00,000	Yet to be transferred to P&L
Amount repaid	5,00,000	Full repayment required
Journal Entry		
Profit & Loss A/c Dr.	2,00,000	Balancing figure
Deferred Grant Account Dr.	3,00,000	Reverse unamortised balance
To Bank A/c	5,00,000	Payment of grant

Case (ii): Part of the Grant (₹2,00,000) is Repaid

Particulars	Amount (₹)	Remarks
Total grant received	5,00,000	Government grant related to income
Recognised in Profit & Loss	2,00,000	₹1,00,000 each in 20X1 and 20X2
Deferred grant balance	3,00,000	
Amount repaid	2,00,000	
Journal Entry		
Deferred Govt Grant A/c Dr	2,00,000	Reverse deferred Grant balance.
To Bank A/c	2,00,000	Payment of grant

6. Illustration

A Ltd. has received a grant of Rs. 10,00,00,000 in the year 20X1-20X2 from local government in the form of subsidy for selling goods at lower price to lower income group population in a particular area for two years.

A Ltd. had accounted for the grant as income in the year 20X1-20X2. While accounting for the grant in the year 20X1-20X2, A Ltd. was reasonably assured that all the conditions attached to the grant will be complied with.

However, in the year 20X5-20X6, it was found that A Ltd. has not complied with the above condition and therefore notice of refund of grant has been served to it. A Ltd. has contested but lost in court in 20X5-20X6 and now grant is fully repayable.

How should A Ltd. reflect repayable grant in its financial statements ending 20X5-20X6?

Solution:



A Limited has an accounting policy of recognising government grant in relation to depreciable assets in the proportion of depreciation expense. It has determined that the plant will be depreciated over a period of 5 years using straight-line method. In the month of March, 20X3, government officials conducted a surprise audit, and it was found that A Limited was not using the wastewater treatment plant as prescribed. Accordingly, on 31st March, 20X3, the government ordered A Limited to repay the entire loan along with penalty. A Limited repaid the loan with interest and penalty as per the order on 31st March, 20X3.

Measure the amount of government grant as on 1st April, 20X1. Determine the nature of the government grant and its accounting treatment (principally) for the year ended 31st March, 20X2. Also determine the impact on profit or loss if any, on account of revocation of government grant as on 31st March, 20X3.

Solution:

Initial Recognition of Government Grant (As on 01-Apr-20X1)

As per **Ind AS 20**, a loan at a below-market interest rate is considered a **government grant**. The **grant is measured as the difference** between the **fair value of the loan** and **proceeds received**.

Particulars	Amount (₹)
Loan received from government	25,00,000
Fair value of loan (PV factor @12% for 5 years = 0.567)	14,17,500
Government grant (difference)	10,82,500

Journal Entry (01-Apr-20X1)

Date	Particulars	Debit (₹)	Credit (₹)
01-Apr-20X1	Bank A/c	25,00,000	
	To Loan A/c		14,17,500
	To Deferred Grant Income		10,82,500
	(Being government loan recognized at fair value and grant recognized separately)		

Accounting Treatment for FY 20X1-20X2

- **Depreciation (Straight-line method):** ₹ 50,00,000 ÷ 5 years = ₹ 10,00,000 per year
- **Grant Recognition per year** (matching depreciation): ₹ 10,82,500 ÷ 5 = ₹ 2,16,500 per year

Journal Entries for FY 20X1-20X2 (31-Mar-20X2)

Date	Particulars	Debit (₹)	Credit (₹)
31-3-X2	Depreciation A/c	10,00,000	
	To PPE A/c / Accumulated Dep A/c		10,00,000
	(Being depreciation provided for the year)		
31-3-X2	Deferred Grant Income A/c	2,16,500	
	To Profit or Loss A/c		2,16,500
	(Being grant recognized in profit or loss proportionate to depreciation)		

Deferred Grant Income Ledger Movement

Year	Opening Balance (₹)	Adjustment (₹)	Closing Balance (₹)
31-Mar-20X2	10,82,500	(2,16,500)	8,66,000

Impact of Government Grant Revocation (31-Mar-20X3)

- The company violated the **government's conditions**, leading to **full loan repayment + ₹ 10 lakh penalty**.



- As per **Ind AS 20** a government grant that becomes repayable **is treated as a change in estimate** and adjusted **against deferred grant income first**, with any excess recognized **as an expense in Profit or Loss**.

Journal Entries for Repayment (31-Mar-20X3)

Date	Particulars	Debit (₹)	Credit (₹)
31-Mar-20X3	Deferred Grant Income A/c	2,16,500	
	To Profit or Loss A/c		2,16,500
	(Being deferred income adjusted)		
31-Mar-20X3	Loan A/c	17,78,112	
	Deferred Grant Income A/c	6,49,500	
	Profit or Loss A/c (bal fig)	72,388	
	To Government Grant Payable A/c		25,00,000
	(Being refund of government loan due to non-compliance)		
31-Mar-20X3	Profit or Loss A/c	10,00,000	
	To Government Grant Payable A/c		10,00,000
	(Being penalty payable due to non-compliance)		
31-Mar-20X3	Govt Grant Payable A/c Dr.	35,00,000	
	To Bank A/c		35,00,000

Impact on Profit or Loss for FY 20X2-20X3

Particulars	Amount (₹)
Expense Due to Loan Revocation	72,388
Penalty Imposed	10,00,000
Total Impact on Profit or Loss	10,72,388

Working Notes

Loan Amortization Schedule (At Market Rate 12%)

Year	Opening Loan Balance (₹)	Interest @ 12% (₹)	Closing Balance (₹)
31-Mar-20X2	14,17,500	1,70,100	15,87,600
31-Mar-20X3	15,87,600	1,90,512	17,78,112

Deferred Grant Income Schedule

Year	Opening Balance (₹)	Adjustment (₹)	Closing Balance (₹)
31-Mar-20X2	10,82,500	(2,16,500)	8,66,000
31-Mar-20X3	8,66,000	(2,16,500)	6,49,500

If Grant is reduced from Cost of Asset

Cost of Plant	50,00,000
Less: Government Grant	10,82,500
Net Amount of PPE	39,17,500
Depreciation for 2 years (Useful life 5 years)	$39,17,500 \times \frac{2}{5} = 15,67,000$
Carrying amount on date of repayment of grant	23,50,500
(+) Refund of Grant	10,82,500
Revised Carrying Amount	34,33,000
Shortfall in depreciation for 2 years	$20,00,000 - 15,67,000 = 4,33,000$
Carrying Amount after Refund	30,00,000

Loan A/c Dr.	17,78,112	
Plant A/c Dr.	10,82,500	

P&L A/c Dr.	72,388	
To Bank		25,00,000
To Acc. Depreciation		4,33,000



IND AS 36 Impairment of Assets Illustrations

1. Illustration

Mars Ltd. gives the following estimates of cash flows relating to property, plant and equipment on 31st March, 20X4. The discount rate is 15%

Year	Cash Flow (₹ in lakh)
20X4-20X5	2,000
20X5-20X6	3,000
20X6-20X7	3,000
20X7-20X8	4,000
20X8-20X9	2,000
Residual Value at 31st March, 20X9	500

- Property, plant & equipment was purchased on 1st April, 20X1 for ₹ 20,000 lakh
- Useful Life was 8 Years
- Residual Value estimated at the end of 8 years - ₹ 500 lakh
- Fair value less cost to disposal - ₹ 10,000 lakh

Calculate impairment loss, if any on the property, plant and equipment. Also calculate the revised carrying amount and revised depreciation of property, plant and equipment

Solution:

(a) Calculation of carrying amount as on 31.03.20x4:

	₹
Original cost on 1st April X1	20,000
Less: Residual value	500
Depreciation amount	19,500
Depreciation per year $\left(\frac{₹.19500}{8 \text{ years}}\right)$	2437.5
Depreciation for three years (₹. 2437.5 * 3 years)	7312.5
Carrying amount as on 31 March 20x4 (₹.20,000-₹.7312.5)	12687.5

(b) Calculation of value in use:

Year	Cash Flow (₹ in lakh)	P.V.	Amount (₹)
20X4-20X5	2,000	0.869	1,738
20X5-20X6	3,000	0.756	2,268
20X6-20X7	3,000	0.658	1,974
20X7-20X8	4,000	0.572	2,288
20X8-20X9	2,000	0.497	994
Residual Value at 31st March, 20X9	500	0.497	1,242
Total			9,510

(c) Calculation of Recoverable amount:

Recoverable amount= "Value in use" or "fair value less cost of disposal" whichever is higher

Value in use = ₹. 9,510

Fair value less cost of disposal = ₹. 10,000

Recoverable amount = ₹. 10,000

(d) Calculation of Impairment Loss

= Carrying Amount – Recoverable Amount

= 12,687.5 – 10,000 = 2,687.5

(e) Calculation of Revised Carrying Amount:

Particulars	₹
Carrying amount	12,687



Less: Impairment Loss	(2,687)
Revised carrying amount	10,000

(f) Calculation of Revised Depreciation:

$$= \frac{\text{Revised carrying amount} - \text{Residual value}}{\text{Remaining life}}$$

$$= \frac{10,000 - 500}{5} = 1,900$$

2. Illustration

On 31st March, 20X1, XYZ Ltd. makes following estimate of cash flows for one of its asset located in USA:

Year	Cash flows
20X1-20X2	US \$ 80
20X2-20X3	US \$ 100
20X3-20X4	US \$ 20

Following information has been provided:

Particulars	India	USA
Applicable discount rate	15%	10%

Exchange rates are as follows:

As on	Exchange rate
31st March, 20X1	₹ 45/US \$
31st March, 20X2	₹ 48/US \$
31st March, 20X3	₹ 51/US \$
31st March, 20X4	₹ 55/US \$

Calculate value in use as on 31st March, 20X1.

Solution:

Year	Cash Flow (\$)	PVF @ 10%	PV
20X1-X2	80	0.9091	72.73
20X2-X3	100	0.8264	82.64
20X3-X4	20	0.7513	15.03
TOTAL			170.40

Value in use (\$) = \$ 170.40

Exchange rate as on 31st March 20x1 = ₹ 45/US \$

Value in use (₹) = \$ 170.4 x ₹ 45/US \$ = ₹ 7667.92

3. Illustration

From the following details of an asset, find out:

- Impairment loss and its treatment.
- Current year depreciation for the year end

Particulars of assets:

Cost of asset	₹ 56 lakh
Useful life	10 years
Salvage value	Nil
Carrying value at the beginning of the year	₹ 27.30 lakh



Remaining useful life	3 years
Recoverable amount at the beginning of the year	₹ 12 lakh
Upward revaluation done in last year	₹ 14 lakh

Solution:**a. Impairment loss**

Impairment loss = Carrying amount of the asset – Recoverable amount
= ₹. 27.30 lakh – ₹.12 lakh
= ₹. 15.30 lakh

b. Treatment of impairment loss:

As per Ind AS 36, impairment loss (whether of an individual asset or a CGU) is recognised in the following manner:

- o **Impairment loss of a revalued asset:** It is recognised in other comprehensive income to the extent that the impairment loss does not exceed the amount held in the revaluation surplus for that same asset. The balance, if any, is recognised as an expense in the statement of profit and loss.
- o **Impairment loss of other assets:** Impairment loss of any other asset should be recognised as an expense in the statement of profit and loss.

Since, the asset in question has been revalued upwards, the impairment loss will be adjusted first against the revaluation surplus of ₹. 14 lakh. The balance amount of Rs. 1.30 lakh will be recognised as an expense in the profit and loss account.

c. Current year depreciation

Revised carrying amount (after impairment loss)	₹. 12,00,000
Remaining useful life	3 Years
Depreciation per year	₹. 4,00,000

4. Illustration

On 1st January Year 1, Entity Q purchased a machine costing ₹ 2,40,000 with an estimated useful life of 20 years and an estimated zero residual value. Depreciation is computed on straight-line basis. The asset had been re-valued on 1 January Year 3 to ₹ 2,50,000, but with no change in useful life at that date. On 1 January Year 4 an impairment review showed the machine's recoverable amount to be ₹ 1,00,000 and its estimated remaining useful life to be 10 years.

Calculate:

- The carrying amount of the machine on 31st December Year 2 and the revaluation surplus arising on 1st January Year 3.
- The carrying amount of the machine on 31st December Year 3 (immediately before the impairment).
- The impairment loss recognised in the year to 31st December Year 4 and its treatment thereon
- The depreciation charge in the year to 31st December Year 4.

Note: During the course of utilization of machine, the company did not opt to transfer part of the revaluation surplus to retained earnings.

Solution:**a. Calculation of depreciation per year:**

$$= \frac{\text{Original cost} - \text{Residual Value}}{\text{No. of years}} = \frac{2,40,000 - 0}{20 \text{ years}} = 12,000$$

b. Calculation of carrying amount as on 31st December Year 2:

Particulars	₹
Original cost	2,40,000
Less: Depreciation for Year 1 & Year 2	24,000
carrying amount as on 31 st December	2,16,000



Year 2	
--------	--

c. Computation of Revaluation Surplus:

= Revalued amount as on 1st Jan Year 3 (-) Carrying amount as on 31st Dec Year 2

= ₹. 2,50,000 (-) ₹. 2,16,000

= ₹. 34,000

d. Computation of carrying amount as on 31st Dec Year 3

(i)	Revalued amount	₹. 2,50,000
(ii)	Remaining useful life	18 years
(iii)	Depreciation per year $\left(\frac{(i)}{(ii)}\right)$	₹. 13,888.89
(iv)	Carrying amount as on 31 st Dec Year 3 [(i)- (iii)]	₹. 2,36,111.11

e. Calculation of impairment loss for 31st December Year 4:= Carrying amount as on 1st Jan Year 4– Recoverable amount as on 1st Jan Year 4

= ₹. 2,36,111.11 – ₹. 1,00,000

= ₹. 1,36,111.11

Note: Since impairment review had been done on 1st Jan Year 4, impairment loss had been computed on 1st Jan Year 4.

f. Treatment of revaluation surplus for year ended 31st December Year 4:

As per Ind AS 36, impairment loss (whether of an individual asset of a CGU) is recognised in the following manner:

- **Impairment loss of a revalued asset:** It is recognised in other comprehensive income to the extent that the impairment loss does not exceed the amount held in the revaluation surplus for that same asset.

The balance, if any, is recognised as an expense in the statement of profit and loss.

- **Impairment loss of other assets:** Impairment loss of any other asset should be recognised as an expense in the statement of profit and loss.

Since, the asset in question has been revalued upwards, the impairment loss will be adjusted first against the revaluation surplus of ₹. 34,000. The balance amount of ₹. 1,02,111.11 (1,02,111.11-34,000) will be recognised as an expense in the profit and loss account.

Assumption: The company didn't opt to transfer part of the revaluation surplus to retained earnings.

g. Computation of depreciation for the year ended 31st Dec Year 4:

(i)	Revised carrying amount	₹. 1,00,000
(ii)	Remaining useful life	10 years
(iii)	Depreciation $\left(\frac{(i)}{(ii)}\right)$	₹. 10,000

5. Illustration

PQR Ltd. is the company which has performed well in the past but one of its major assets, an item of equipment, suffered a significant and unexpected deterioration in performance. Management expects to use the machine for a further four years after 31st March 20X6, but at a reduced level. The equipment will be scrapped after four years. The financial accountant for PQR Ltd. has produced a set of cash-flow projections for the equipment for the next four years, ranging from optimistic to pessimistic. CFO thought that the projections were too conservative, and he intended to use the highest figures each year. These were as follows:

	₹ '000
Year ended 31st March 20X7	276
Year ended 31st March 20X8	192
Year ended 31st March 20X9	120
Year ended 31st March 20Y0	114

The above cash inflows should be assumed to occur on the last day of each financial year. The pre-tax discount rate is 9%. The machine could have been sold at 31st March 20X6 for ₹ 6,00,000 and related selling expenses in this regard could have been ₹ 96,000. The machine had been revalued previously, and at 31st March 20X6 an amount of ₹ 36,000 was held in



revaluation surplus in respect of the asset. The carrying value of the asset at 31st March 20X6 was ₹ 6,60,000. The Indian government has indicated that it may compensate the company for any loss in value of the assets up to its recoverable amount.

Calculate impairment loss, if any and revised depreciation of asset. Also suggest how Impairment loss, if any would be set off and how compensation from government be accounted for?

Solution:

a. Calculation of value in use:

Year	Cash Flow	PVF (@9%)	PV of CF
31st March X7	2,76,000.00	0.9174	2,53,202.40
31st March X8	1,92,000.00	0.8417	1,61,606.40
31st March X9	1,20,000.00	0.7722	92,664.00
31st March Y0	1,14,000.00	0.7084	80,757.60
Value in Use			5,88,230.40

b. Calculation of Recoverable amount as on 31st March 20x6

Recoverable amount= "Value in use" or "fair value less cost of disposal" whichever is higher

Value in use = ₹. 5,88,230.4

Fair value less cost of disposal = ₹. 6,00,000 - ₹. 5,04,000= ₹. 96,000

Recoverable amount = ₹. 5,88,230.4

c. Computation of Impairment loss:

	Particulars	₹
(i)	Recoverable amount	5,88,230.40
(ii)	Carrying amount	6,60,000
(iii)	Impairment loss [(i) – (ii)]	71,769.60

d. Treatment of revaluation surplus:

As per Ind AS 36, impairment loss (whether of an individual asset or a CGU) is recognised in the following manner:

- **Impairment loss of a revalued asset:** It is recognised in other comprehensive income to the extent that the impairment loss does not exceed the amount held in the revaluation surplus for that same asset. The balance, if any, is recognised as an expense in the statement of profit and loss.
- **Impairment loss of other assets:** Impairment loss of any other asset should be recognised as an expense in the statement of profit and loss.

Since, the asset in question has been revalued upwards, the impairment loss will be adjusted first against the revaluation surplus of ₹.36,000 . The balance amount of ₹. 35,769 (71,769-36,000) will be recognised as an expense in the profit and loss account.

e. Calculation revised depreciation of assets:

(i)	Revised carrying amount	₹. 5,88,230.40
(ii)	Remaining useful life	4 years
(iii)	Depreciation($\frac{(i)}{(ii)}$)	₹. 1,47,057.60

6. Illustration

Assets	Carrying Amount	Fair Value less cost of disposal	Impairment	Revised carrying amount
Plant & Machinery	1,00,000	50,000		
Building	80,000	85,000		
Electric Equipment	40,000	-		
Goodwill	50,000	NA		
Patents	20,000	NA		



Other Monetary assets	60,000	60,000		
Total	3,50,000			
Recoverable amount	2,00,000			

Solution:**Calculation of impairment loss:**

Total assets	3,50,000
Less: Recoverable amount	2,00,000
Impairment loss	1,50,000
Less: Goodwill impaired	50,000
Balance impairment loss	1,00,000
Less: impairment loss allocated to plant and machinery (Note 1)	50,000
Balance impairment loss	50,000

Allocation of impairment loss to Electric equipment and patents:

- Electric equipment = ₹. 50,000 * $\frac{40,000}{60,000}$ = ₹. 33,333.33
- Patents = ₹. 50,000 * $\frac{20,000}{60,000}$ = ₹. 16,666.67.

Computation of Revised carrying amount:

Assets	Carrying Amount	Fair Value less cost of disposal	Impairment	Revised carrying amount
Plant & Machinery	1,00,000	50,000	50,000	50,000
Building	80,000	85,000	-	80,000
Electric Equipment	40,000	-	33,333.33	6,666.67
Goodwill	50,000	NA	50,000	0
Patents	20,000	NA	16,666.67	3,333.33
Other Monetary assets	60,000	60,000	-	60,000

Note 1**Allocation of impairment loss to plant and machinery:**

- Plant and machinery = ₹. 1,00,000 * $\frac{1,00,000}{1,00,000+40,000+20,000}$ = ₹. 62,500.
Since the Fair value less cost of disposal is ₹. 50,000, the carrying amount after impairment cannot be less than ₹. 50,000. Hence the maximum impairment loss allocated to Plant and machinery is ₹. 50,000.

7. Illustration

ABC Ltd. has three cash-generating units: A, B and C, the carrying amounts of which as on 31st March, 20X1 are as follows:

Cash-generating units	Carrying amount	(₹ in crore) Remaining useful life
A	500	10
B	750	20
C	1,100	20

ABC Ltd. also has two corporate assets having a remaining useful life of 20 years

Corporate asset	Carrying amount	(₹ in crore) Remarks
X	600	The carrying amount of X can be allocated on a reasonable basis (i.e., pro rata basis) to the individual cash-generating units. The carrying amount of Y cannot be allocated on a reasonable basis to the individual cash-generating units.
Y	200	



Recoverable amount as on 31st March, 20X1 is as follows:

Cash-generating units	Recoverable amount (₹ in crore)
A	600
B	900
C	1,400
ABC Ltd.	3,200

Calculate the impairment loss, if any. Ignore decimals.

Solution:

Allocation of corporate assets

The carrying amount of X is allocated to the carrying amount of each individual cash-generating unit. A weighted allocation basis is used because the estimated remaining useful life of A's cash-generating unit is 10 years, whereas the estimated remaining useful lives of B and C's cash-generating units are 20 years.

	(₹ In crore)		
Particulars	A	B	C
Carrying Amount of CGU Assets	500	750	1,100
Remaining useful life	10	20	20
Weight based on useful life	1	2	2
Carrying amount (After assigning weight)	500	1,500	2,200
Pro-rata allocation of X	0	0	1
	(500/4200)	(1500/4200)	(2200/4200)
Allocation of carrying amount of X	72	216	312
Carrying amount (after allocation of X)	572	966	1,412

Calculation of impairment loss:

Step I: Impairment losses for individual cash-generating units and its allocation

(a) Impairment loss of each cash-generating units:

	(₹ In crore)		
Particulars	A	B	C
Carrying amount after allocation of X	572	966	1,412
Recoverable amount	600	900	1,400
impairment loss	-	66	12

(b) Allocation of the impairment loss

	(Rs. In crore)			
Allocation to	B		C	
X	15	$66 \times \frac{216}{966}$	3	$12 \times \frac{312}{1412}$
Other assets in cash-generating units	51	$66 \times \frac{750}{966}$	9	$66 \times \frac{1100}{1412}$
Impairment loss	66		12	

Step II: Impairment losses for the larger cash-generating unit, i.e., ABC Ltd. as a whole

	(₹ In crore)					
Particulars	A	B	C	X	Y	ABC Ltd
Carrying amount					200	



	500	750	1,100	600		3,150
impairment loss (step 1)	-	(51)	(9)	(18)	-	(78)
Carrying amount	500	699	1,091	582	200	3,072
Recoverable amount						3,200
Impairment loss for the larger CGU						Nil

8. Illustration

E Ltd. owns a machine used in the manufacture of steering wheels, which are sold directly to major car manufacturers.

- The machine was purchased on 1st April, 20X1 at a cost of ₹ 5,00,000 through a vendor financing arrangement on which interest is being charged at the rate of 10% per annum.
- During the year ended 31st March, 20X3, E Ltd. sold 10,000 steering wheels at a selling price of ₹ 190 per wheel.
- The most recent financial budget approved by E Ltd.'s management, covering the period 1st April, 20X3 – 31st March, 20X8, including that the company expects to sell each steering wheel for ₹ 200 during 20X3-20X4, the price rising in later years in line with a forecast inflation of 3% per annum.
- During the year ended 31st March, 20X4, E Ltd. expects to sell 10,000 steering wheels. The number is forecast to increase by 5% each year until 31st March, 20X8.
- E Ltd. estimates that each steering wheel costs ₹ 160 to manufacture, which includes ₹ 110 variable costs, ₹ 30 share of fixed overheads and ₹ 20 transport costs.
- Costs are expected to rise by 1% during 20X4-20X5, and then by 2% per annum until 31st March, 20X8.
- During 20X5-20X6, the machine will be subject to regular maintenance costing ₹ 50,000.
- In 20X3-20X4, E Ltd. expects to invest in new technology costing ₹ 1,00,000. This technology will reduce the variable costs of manufacturing each steering wheel from ₹ 110 to ₹ 100 and the share of fixed overheads from ₹ 30 to ₹ 15 (subject to the availability of technology, which is still under development).
- E Ltd. is depreciating the machine using the straight-line method over the machine's 10 year estimated useful life. The current estimate (based on similar assets that have reached the end of their useful lives) of the disposal proceeds from selling the machine is ₹ 80 000 net of disposal costs. E Ltd. expects to dispose of the machine at the end of March, 20X8.
- E Ltd. has determined a pre-tax discount rate of 8%, which reflects the market's assessment of the time value of money and the risks associated with this asset.

Assume a tax rate of 30%. What is the value in use of the machine in accordance with Ind AS 36?

Solution:

Computation of cash inflows:

Particulars	X3-X4	X4-X5	X5-X6	X6-X7	X7-X8
Units sold [A]	10,000	10,500	11,025	11,576	12,155
Growth rate		5%	5%	5%	5%
Selling Price per unit [B]	200	206	212	219	225
Inflation		3%	3%	3%	3%
Cash inflow from sales [A*B]	20,00,000	21,63,000	23,39,285	25,29,882	27,36,112
Net disposal proceeds					80,000



Total cash inflow	20,00,000	21,63,000	23,39,285	25,29,882	28,16,112
-------------------	-----------	-----------	-----------	-----------	-----------

Computation of cash outflows:

Particulars	X3-X4	X4-X5	X5-X6	X6-X7	X7-X8
Manufacturing cost [C]	160	162	165	168	171
Growth in cost		1%	2%	2%	2%
Total Cost [A x C]	16,00,000	16,96,800	18,17,273	19,46,257	20,84,476
Add: Maintenance			50,000		
Total Cash Outflows	16,00,000	16,96,800	18,67,273	19,46,257	20,84,476

Computation of value in use:

Particulars	X3-X4	X4-X5	X5-X6	X6-X7	X7-X8
Net Cash inflow [total cash inflow – total cash outflow]	4,00,000	4,66,200	4,72,012	5,83,624	7,31,636
PVF 8%	0.926	0.857	0.794	0.735	0.681
PV of Cashflows	3,70,360	3,99,673	3,74,683	4,28,964	4,97,952
Value in use	20,71,632				

9. Illustration

On 1st April 20X1, Venus Ltd acquired 100% of Saturn Ltd for ₹ 4,00,000. The fair value of the net identifiable assets of Saturn Ltd was ₹ 3,20,000 and goodwill was ₹ 80,000. Saturn Ltd is in coal mining business. On 31st March, 20X3, the government has cancelled licenses given to it in few states.

As a result Saturn's Ltd revenue is estimated to get reduce by 30%. The adverse change in market place and regulatory conditions is an indicator of impairment. As a result, Venus Ltd has to estimate the recoverable amount of goodwill and net assets of Saturn Ltd on 31st March, 20X3.

Venus Ltd uses straight line depreciation. The useful life of Saturn's Ltd assets is estimated to be 20 years with no residual value. No independent cash inflows can be identified to any individual assets. So, the entire operation of Saturn Ltd is to be treated as a CGU. Due to the regulatory entangle it is not possible to determine the selling price of Saturn Ltd as a CGU. Its value in use is estimated by the management at ₹ 2,12,000.

Suppose by 31st March, 20X5 the government reinstates the licenses of Saturn Ltd. The management expects a favourable change in net cash flows. This is an indicator that an impairment loss may have reversed. The recoverable amount of Saturn's Ltd net asset is re-estimated. The value in use is expected to be ₹ 3,04,000 and fair value less cost to disposal is expected to be ₹ 2,90,000.

Calculate the impairment loss, if any. Also show the accounting treatment for reversal of impairment loss and the subsequent depreciation thereon.

Solution:

Calculation of Impairment loss:

	Goodwill	Other assets	Total
Historical Cost	80,000	3,20,000	4,00,000
Less: Accumulated Depreciation $(3,20,000/20) \times 2$	-	32,000	32,000
Carrying amount	80,000	2,88,000	3,68,000
Impairment loss			



	(80,000)	(76,000)	(1,56,000)
--	----------	----------	------------

Revised Carrying Amount

- Impairment Loss = Carrying Amount – Recoverable Amount (₹ 3,68,000 – ₹ 2,12,000) = ₹ 1,56,000 is charged in statement of profit and loss for the period ending 31st March, 20X3 as impairment loss.
- Impairment loss is allocated first to goodwill ₹ 80,000 and remaining loss of ₹76,000 (₹1,56,000 – ₹80,000) is allocated to the other assets.

Reversal of Impairment loss

Reversal of impairment loss is recognised subject to:-

- The impairment loss on goodwill cannot be reversed.
- The increased carrying amount of an asset after reversal of an impairment loss not to exceed the carrying amount that would have been determined had no impairment loss been recognised in prior years.

Calculation of carrying amount of identifiable assets had no impairment loss is recognised:

	₹
Historical Cost	3,20,000
Accumulated Depreciation for 4 years $(3,20,000/20) \times 4$	(64,000)
Carrying amount had no impairment loss is recognised on 31st March, 20X5	2,56,000

Carrying amount of other assets after recognition of impairment loss:

	₹
Carrying amount on 31st March, 20X3	2,12,000
Accumulated Depreciation for 2 years $(2,12,000/18) \times 2$	(23,556)
Carrying amount on 31st March, 20X5	1,88,444

- The impairment loss recognised previously can be reversed only to the extent of lower of re-estimated recoverable amount is ₹. 2,56,000 (higher of fair value less costs of disposal ₹.2,90,000 and value in use ₹.3,04,000)
- Impairment loss reversal will be ₹.67,556 i.e. (₹.2,56,000 – ₹.1,88,444). This amount is recognised as income in the statement of profit and loss for the year ended 31st March, 20X5.
- The carrying amount of other assets at 31st March, 20X5 after reversal of impairment loss will be ₹.2,56,000.
- From 1st April, 20X5 the depreciation charge will be ₹.16,000 i.e. (₹.2,56,000/16 years).

10. Illustration

Elia limited is a manufacturing company which deals in to manufacturing of cold drinks and beverages. It is having various plants across India. There is a Machinery A in the Baroda plant which is used for the purpose of bottling. There is one more machinery which is Machinery B clubbed with Machinery A. Machinery A can individually have an output and also sold independently in the open market.

Machinery B cannot be sold in isolation and without clubbing with Machine A it cannot produce output as well. The Company considers this group of assets as a Cash Generating Unit and an Inventory amounting to ₹ 2 Lakh and Goodwill amounting to ₹ 1.50 Lakhs is included in such CGU.

Machinery A was purchased on 1st April 2013 for ₹ 10 Lakhs and residual value is ₹ 50 thousands. Machinery B was purchased on 1st April, 2015 for ₹ 5 Lakhs with no residual value. The useful life of both Machine A and B is 10 years. The Company expects following cash flows in the next 5 years pertaining to Machinery A. The incremental borrowing rate of the company is 10%.

Year	Cash Flows from Machinery A
1	1,50,000
2	1,00,000
3	1,00,000
4	1,50,000
5	1,00,000 (excluding Residual Value)
Total	6,00,000



On 31st March, 2018, the professional valuers have estimated that the current market value of Machinery A is ₹ 7 lakhs. The valuation fee was ₹ 1 lakh. There is a need to dismantle the machinery before delivering it to the buyer. Dismantling cost is ₹ 1.50 lakhs. Specialised packaging cost would be ₹ 25 thousand and legal fees would be ₹ 75 thousand.

The Inventory has been valued in accordance with Ind AS 2. The recoverable value of CGU is ₹ 10 Lakh as on 31st March, 2018. In the next year, the company has done the assessment of recoverability of the CGU and found that the value of such CGU is ₹ 11 Lakhs ie on 31st March, 2019. The Recoverable value of Machine A is ₹ 4,50,000 and combined Machine A and B is ₹ 7,60,000 as on 31st March, 2019

Required:

- Compute the impairment loss on CGU and carrying value of each asset after charging impairment loss for the year ending 31st March, 2018 by providing all the relevant working notes to arrive at such calculation.
- Compute the prospective depreciation for the year 2018-2019 on the above assets.
- Compute the carrying value of CGU as at 31st March, 2019.

Solution:

I. Computation of carrying amount as on 31.03.2018

Particulars	Machine A (2013)	Machine B (2015)
Cost	10,00,000	5,00,000
Residual value	50,000	-
Depreciable amount	9,50,000	5,00,000
Useful life (years)	10	10
Depreciation per year	95,000	50,000
No of years elapsed	5	3
Accumulated depreciation	4,75,000	1,50,000
Carrying Amount (31.03.18)	5,25,000	3,50,000

II. Computation of Recoverable Amount for Machine A

A. Computation of value in use

Years	Cashflow	PVF (10%)	PV of Cashflows
1	1,50,000	0.909	1,36,365
2	1,00,000	0.827	82,650
3	1,00,000	0.751	75,140
4	1,50,000	0.683	1,02,465
5	1,00,000	0.621	62,100
5(Residual value)	50,000	0.621	31,050
	Value in use for Machine A		4,89,770

B. Computation of Fair value less cost of disposal:

Estimated Fair value	7,00,000
Less: Cost of disposal	
1. Dismantling Costs	



	1,50,000
2. Packaging	25,000
3. Legal fees	75,000
Total cost of disposal	2,50,000
FV less Cost of disposal	4,50,000

C. Computation of Recoverable amount:

Recoverable amount is higher of Fair value less cost of disposal and value in use. Hence, the recoverable amount is ₹. 4,89,770.

III. Computation of carrying amount of Machine A after impairment loss:

Particulars	₹
Recoverable amount	4,89,770
Less: Carrying Amount of Machine A as on 31st March 2018 (Note 1)	5,25,000
Impairment loss	35230
Carrying amount of Machine A (Note I)	5,25,000
Less: Impairment loss	35,230
carrying amount of Machine A after impairment loss	4,89,770

IV. Computation of revised carrying amount:

	Carrying Amount	Impairment loss	Revised Carrying Amount
Machine - A	489770	0	489770
Machine - B	350000	39770	310230
Inventory	200000	0	200000
Goodwill	150000	150000	0
Carrying Amount of CGU	1189770	189770	1000000
Recoverable Amount of CGU	1000000		
Impairment loss	189770		
Less: Goodwill	150000		
Balance	39770		

V. Computation of carrying amount as on 31.03.2019

	Machine A	Machine B
Carrying Amount (31.03.18)	4,89,770	3,10,230
Residual value	50,000	-
Depreciable Amount	4,39,770	3,10,230
Remaining life	5	7
Depreciation	87,954	44,319.47
Carrying Amount (31.03.19)	4,01,816	2,65,911.53

VI. Computation of impairment loss/excess:

Particulars	₹
Machine A	4,01,816.00
Machine B	2,65,911.43
Inventory	2,00,000.00



Goodwill	-
Total Carrying Amount of CGU	8,67,727.43
Recoverable amount	11,00,000.00
Excess	2,32,272.57

VII. Reversal of impairment loss:

Particulars	Machine A	Machine B	Inventory
Carrying amount before Impairment loss (31.03.18)	5,25,000.00	3,50,000.00	
Less: Depreciation on original cost basis	95,000.00	50,000.00	
Carrying Amount without impairment	4,30,000.00	3,00,000.00	2,00,000.00
Carrying Amount after impairment (Note V)	4,01,816.00	2,65,911.43	2,00,000.00
Reversal of impairment loss	28,184.00	34,088.57	-

11. Illustration (Students are advised to revisit this question after completing Ind AS 103)

A Ltd acquires 80% shares of a subsidiary B Ltd. for ₹ 3,200 thousand. At the date of acquisition, B Ltd.'s identifiable net assets is ₹ 3,000 thousand. A elects to measure NCI at proportionate share of net identifiable assets. It recognizes

	₹ in '000
Purchase Consideration	3,200
NCI (3,000 x 20%)	600
	3,800
Less: Net Assets	(3,000)
Goodwill	800

At the end of next financial year, B Ltd.'s carrying amount is reduced to ₹ 2,700 thousand (excluding goodwill).

Recoverable amount of B Ltd.'s assets is

Case (i) ₹ 2,000

Case (ii) ₹ 2,800

Calculate impairment loss allocable to Parent and NCI in both the cases.

Solution:**Note 1: Calculation of Goodwill**

Particulars	Amount
Purchase Consideration	3,200
Add: NCI Share in net assets (20% of 3,000)	600
	3,800
Less: Net Assets	3,000
Goodwill (80%)	800
Notional Goodwill (20%)	200

Case (i)→Recoverable amount is ₹ 2,000

Carrying amount of goodwill as at the end of financial year:

	Other Assets	Goodwill	Total
Carrying Amount			



	2,700	800	3,500
Add: Notional Goodwill for NCI	0	200	200
Total Carrying Amount	2,700	1,000	3,700

Calculation of impairment loss:

	Other Assets	Goodwill	Total
Carrying Amount	2,700	1,000	3,700
Recoverable amount			2,000
Impairment loss		-	1,700

Allocation:

	Parent [80%]	NCI [20%]	Total
Goodwill	800	200	1,000
Other Net Assets	560	140	700
Total	1,360	340	1,700

Case (ii)→ Recoverable amount is ₹ 2,800**Carrying amount of goodwill as at the end of financial year:**

	Other Assets	Goodwill	Total
Carrying Amount	2,700	800	3,500
Add: Notional Goodwill for NCI	0	200	200
Total Carrying Amount	2,700	1,000	3,700

Calculation of impairment loss:

	Other Assets	Goodwill	Total
Carrying Amount	2,700	1,000	3,700
Recoverable amount			2,800
Impairment loss		-	900

Allocation:

	Parent [80%]	NCI [20%]	Total
Goodwill	720	180	900
Total	720	180	900

12. Illustration

Sun Ltd is an entity with various subsidiaries. The entity closes its books of account at every year ended on 31st March. On 1st July, 20X1, Sun Ltd acquired an 80% interest in Pluto Ltd. Details of the acquisition were as follows:

Sun Ltd acquired 800,000 shares in Pluto Ltd by issuing two equity shares for every five acquired. The fair value of Sun Ltd's share on 1st July, 20X1 was ₹ 4 per share and the fair value of a Pluto's share was ₹ 1.40 per share. The costs of issue were 5% per share.



Sun Ltd incurred further legal and professional costs of ₹ 100,000 that directly related to the acquisition.

The fair values of the identifiable net assets of Pluto Ltd at 1st July, 20X1 were measured at ₹ 1.3 million. Sun Ltd initially measured the non-controlling interest in Pluto Ltd at fair value. They used the market value of a Pluto Ltd share for this purpose. No impairment of goodwill arising on the acquisition of Pluto Ltd was required at 31st March, 20X2 or 20X3.

Pluto Ltd comprises three cash generating units A, B and C. When Pluto Ltd was acquired the directors of Sun Ltd estimated that the goodwill arising on acquisition could reasonably be allocated to units A:B:C on a 2:2:1 basis. The carrying values of the assets in these cash generating units and their recoverable amounts are as follows:

Unit	Carrying value (before goodwill allocation)	Recoverable amount	
	₹ '000	₹ '000	
A	600	740	
B	550	650	
C	450	400	

Required:

- Compute the carrying value of the goodwill arising on acquisition of Pluto Ltd in the consolidated Balance Sheet of Sun Ltd at 31st March, 20X4 following the impairment review.
- Compute the total impairment loss arising as a result of the impairment review, identifying how much of this loss would be allocated to the non-controlling interests in Pluto Ltd.

Solution:

Note 1: Computation of goodwill on acquisition

Particulars	Amount (Rs. In 000)
Cost of investment (8,00,000 x 2/5 x Rs. 4)	1,480
Fair value of non-controlling interest (2,00,000 x Rs. 1.4)	280
Fair value of identifiable net assets at date of acquisition	(1,300)
Goodwill	260

Acquisition costs are not included as part of the fair value of the consideration given under

Ind AS 103, Business Combination.

Note 2:

Unit	Carrying value			Recoverable amount	Impairment loss
	Before allocation	Allocation of goodwill (2:2:1)	After allocation		
A	600	104	704	740	-
B	550	104	654	650	4
C	400	52	452	400	52

Note 3: Calculation of closing goodwill

Particulars	₹
Goodwill arising on acquisition (Note 1)	260
Impairment loss (Note 2)	(56)
Closing goodwill	204

Note 4: Calculation of overall impairment:

Particulars	₹
Goodwill (Note 3)	56
Assets in unit C (450-	50



400)	
Total loss	106

₹. 21.2 (20%) of the above is allocated to the NCI with the balance allocated to the shareholders of Sun Ltd.

13. Illustration (RTP May 21)

On 31 March 20X1, Vision Ltd acquired 80% of the equity shares of Mission Ltd for Rs. 190 million. The fair values of the net assets of Mission Ltd that were included in the consolidated statement of financial position of Vision Ltd at 31 March 20X1 were Rs. 200 million. It is the Group's policy to value the non- controlling interest in subsidiaries at the date of acquisition at its proportionate share of the fair value of the subsidiaries' identifiable net assets. On 31 March 20X4, Vision Ltd carried out its annual review of the goodwill on consolidation of Mission Ltd and found evidence of impairment. No impairment had been evident when the reviews were carried out at 31 March 20X2 and 31 March 20X3. The review involved allocating the assets of Mission Ltd into 3 cash- generating units and computing the value in use of each unit. The carrying values of the individual units before any impairment adjustments are given below:

	Unit A Rs. in million	Unit B Rs. in million	Unit C Rs. in million
Intangible assets	30	10	-
Property, Plant and Equipment	80	50	60
Current Assets	60	30	40
Total	170	90	100
Value in use of unit	180	66	104

It was not possible to meaningfully allocate the goodwill on consolidation to the individual cash generating units but all the other net assets of Mission Ltd are allocated in the table shown above.

The intangible assets of Mission Ltd have no ascertainable market value but all the current assets have a market value that is at least equal to their carrying value. The value in use of Mission Ltd as a single cash- generating unit on 31 March 20X4 is Rs. 350 million.

Discuss and compute the accounting treatment of impairment of goodwill as per Ind AS 36?

Solution :

Computation of Goodwill

Particulars	Amount (₹ million)
Purchase Consideration (Paid for 80%)	190.00
Add: Non-Controlling Interest (20% of Net Assets)	40.00
Less: Fair Value of Net Assets Acquired	(200.00)
Goodwill on Consolidation	30.00

Identifying Impairment in Cash-Generating Units (CGUs) (31 March 20X4)

- **Unit A & Unit C:** No impairment as their value in use > carrying amount.
- **Unit B:** Value in use (₹ 66 million) < Carrying Amount (₹ 90 million) → Impairment of ₹ 24 million.
- **Goodwill is not allocated to CGUs**, so impairment must be tested at the overall Mission Ltd. level.

Allocation of Impairment Loss to Unit B Assets

Asset	Carrying Amount (₹ million)	Impairment (₹ million)	Revised Amount (₹ million)
Intangible Assets	10	(4)	6
Property, Plant & Equipment	50	(20)	30
Current Assets	30	Nil	30
Total	90	(24)	66



Note: Current assets are not impaired as they are expected to be realized at carrying value. The impairment loss of Rs. 24 million is allocated in the ratio of carrying amount of other assets.

Testing Mission Ltd. as a Single CGU (Including Goodwill)

Particulars	Carrying Amount Before Impairment (₹ million)
Goodwill (to be grossed up for 100%)	37.50 (30 × 100/80)
Unit A	170.00
Unit B (Revised)	66.00
Unit C	100.00
Total Carrying Amount	373.50
Recoverable Amount (Value in Use of Entire Business)	350.00
Total Impairment	(23.50)

The ₹ 23.50 million impairment is fully allocated to goodwill.

Adjusting Consolidated Goodwill in Vision Ltd.

Particulars	Amount (₹ million)
Grossed-up Goodwill (100%)	37.50
Less: Impairment	(23.50)
Revised Goodwill (100%)	14.00
Revised Goodwill for 80% shareholding (14 × 80%)	11.20
Impairment Loss Recognized in Consolidated FS (23.50 × 80%)	18.80

Carrying amounts after impairment

Component	Pre-Impairment (₹ million)	Impairment (₹ million)	Post-Impairment (₹ million)
Goodwill (80%)	30.00	(18.80)	11.20
Unit A	170.00	Nil	170.00
Unit B (Revised)	66.00	Nil	66.00
Unit C	100.00	Nil	100.00
Total	373.50	(23.50)	350.00



IND AS 105
NCA held for sale & Discontinued Operations
Illustrations

1. Illustration

Recognise the loss / gain on the recognised value of Disposal group held for sale from the following details:

Assets	Carrying amount at reporting date before classification	Carrying amount remeasured just before classification
Goodwill	1,500.00	1,500.00
PPE (Revaluation Model)	4,600.00	4,000.00
Building (at cost)	5,700.00	5,700.00
Inventory	2,400.00	2,200.00
Investments in Equity Sh.	1,800.00	1,500.00
Total Carrying amount	16,000.00	14,900.00

The entity has estimated that FV less costs to sell will be 13,000.00

Solution

As per Ind AS 105, When an entity classifies a disposal group as **held for sale**, it must measure the group at the **lower of its carrying amount and fair value less costs to sell**. In this case, before classification, the **total carrying amount was ₹16,000**, which was subsequently **remeasured to ₹14,900** in accordance with applicable standards. This reduction of **₹1,100 is not considered an impairment loss** but rather a normal accounting adjustment.

Upon classification as held for sale, the disposal group is measured at the **lower of ₹14,900 (remeasured carrying amount) and ₹13,000 (fair value less costs to sell)**. Since **₹13,000 is lower, an impairment loss of ₹1,900 is recognized**. The impairment loss is **first allocated to goodwill**, which is **completely written off**, and then distributed proportionately among other assets in ratio of their carrying amount. However, impairment loss is not allocated to **inventory and investments in equity instruments**, as they are measured separately under Ind AS 2 and Ind AS 109.

Allocation of Impairment Loss

Disposal Group	Carrying Amount before Classification (₹)	Remeasured Carrying Amount (₹)	Impairment Loss Allocated (₹)	Carrying Amount after Impairment (₹)
Goodwill	1,500	1,500	(1,500)	-
PPE (Revaluation Model)	4,600	4,000	(165) [400 x 4000/9700]	3,835
Building (at cost)	5,700	5,700	(235) [400 x 5700/9700]	5,465
Inventory	2,400	2,200	-	2,200
Investments in Equity Shares	1,800	1,500	-	1,500
Total	16,000	14,900	(1,900)	13,000



If, at the end of the reporting period, the **fair value less costs to sell increases to ₹15,500**, the **maximum reversal allowed is ₹1,900**, as this was the impairment loss recognized earlier. However, the **reversal cannot be applied to goodwill**, as **Ind AS 36 does not permit the reversal of goodwill impairment**. Instead, the reversal will be **distributed among the other impaired assets** in proportion to their original impairment allocation.

2. Illustrations

A freehold property was originally acquired for Rs.40,00,000. Some years later, after cumulative depreciation of Rs.11,00,000 has been recognised, an impairment loss of Rs.3,50,000 is recognised, taking the carrying amount to Rs.25,50,000, which represents the estimated value in use of the property. Shortly thereafter, as a consequence of a proposed move to new premises, the freehold property is classified as held for sale.

At the time of classification as held for sale:

- carrying amount is Rs.25,50,000; and
- fair value less costs to sell is assessed at Rs.25,00,000.

At the reporting date fair value less costs to sell is 26,50,000. After 6 months the fair value less cost to sell increases to 30,00,000.

Solution

Step 1: Initial Recognition & Impairment

Particulars	Amount (Rs.)
Original Cost	40,00,000
Less: Accumulated Depreciation	(11,00,000)
Carrying Amount Before Impairment	29,00,000
Less: Impairment Loss Recognised	(3,50,000)
Carrying Amount After Impairment	25,50,000

- The impairment loss of **Rs.3,50,000** is recognised, bringing the carrying amount to **Rs.25,50,000**, which reflects its value in use.

Step 2: Classification as Held for Sale

Particulars	Amount (Rs.)
Carrying Amount Before Classification	25,50,000
Fair Value Less Costs to Sell	25,00,000
Initial Write-Down on Classification	(50,000)
Carrying Amount After Classification	25,00,000

- Since **Fair Value Less Costs to Sell (Rs.25,00,000)** is lower than **Carrying Amount (Rs.25,50,000)**, a further write-down of **Rs.50,000** is recorded.
- **Depreciation ceases** from this point as per Ind AS 105.
- **Cumulative impairment loss is 3,50,000 + 50,000 = 4,00,000**

Step 3: Reassessment at the Next Reporting Date

Particulars	Amount (Rs.)
Fair Value Less Costs to Sell (Revised)	26,50,000
Previous Carrying Amount	25,00,000
Impairment Reversal	1,50,000
Updated Carrying Amount	26,50,000

- Since the market value has increased, **Rs.1,50,000 of the previous impairment loss is reversed**, subject to the impairment loss reversal limit.



Step 4: Further Increase in Fair Value After 6 Months

Particulars	Amount (Rs.)
Fair Value Less Costs to Sell (Revised Again)	30,00,000
Previous Carrying Amount	26,50,000
Increase in value	3,50,000
Further Impairment Reversal (Restricted to total impairment recognised earlier less reversals)	2,50,000
[4,00,000 – 1,50,000]	
Updated Carrying Amount	29,00,000

- Another Rs.2,50,000 impairment reversal is recognised as the market value further increases, ensuring total reversal does not exceed earlier impairment loss.

Step 5: Final Sale Transaction

Particulars	Amount (Rs.)
Final Sale Price	30,00,000
Carrying Amount Before Sale	29,00,000
Gain on Sale Recognised	1,00,000

- Since the property is finally sold at Rs.30,00,000, a gain of Rs.1,00,000 is recognised in the income statement.

3. Illustrations

Following is the extract of the consolidated financial statements of A Ltd. for the year ended on:

Asset/ (liability)	Carrying amount as on 31st March, 20X1 (In '000)
Attributed goodwill	200
Intangible assets	950
Financial asset measured at fair value through other comprehensive income	300
Property, plant & equipment	1100
Deferred tax asset	250
Current assets – inventory, receivables, and cash balances	600
Current liabilities	(850)
Non-current liabilities – provisions	(300)
Total	2,250

On 15th September 20X1, Entity A decided to sell the business. It noted that the business meets the condition of disposal group classified as held for sale on that date in accordance with Ind AS 105. However, it does not meet the conditions to be classified as discontinued operations in accordance with that standard.

The disposal group is stated at the following amounts immediately prior to reclassification as held for sale.

Asset/ (liability)	Carrying amount as on 15th September 20X1 (In '000)
Attributed goodwill	200
Intangible assets	930
Financial asset measured at fair value through other comprehensive income	360
Property, plant & equipment	1020
Deferred tax asset	250



Current assets – inventory, receivables, and cash balances	520
Current liabilities	(870)
Non-current liabilities – provisions	(250)
Total	2160

Entity A proposed to sell the disposal group at Rs.19,00,000. It estimates that the costs to sell will be Rs.70,000. This cost consists of professional fee to be paid to external lawyers and accountants.

As at 31st March 20X2, there has been no change to the plan to sell the disposal group and entity A still expects to sell it within one year of initial classification. Mr. X, an accountant of Entity A remeasured the following assets/ liabilities in accordance with respective standards as on 31st March 20X2:

Available for sale:	(In '000)
Financial assets	410
Deferred tax assets	230
Current assets- Inventory, receivables, and cash balances	400
Current liabilities	900
Non- current liabilities- provisions	250

The disposal group has not been trading well and its fair value less costs to sell has fallen to 16,50,000.

Required:

What would be the value of all assets/ liabilities within the disposal group as on the following dates in accordance with Ind AS 105?

(a) 15 September, 20X1 and

(b) 31st March, 20X2

Answers:

(a) As at 15 September, 20X1

The disposal group should be measured at Rs. 18,30,000 (19,00,000-70,000). The impairment write down of Rs. 3,30,000 (Rs. 21,60,000 – Rs. 18,30,000) should be recorded within profit from continuing operations.

The impairment of Rs. 3,30,000 should be allocated to the carrying values of the appropriate noncurrent assets.

Asset/ (liability)	Carrying amount as on 15th September 20X1 (In '000)	Impairment	Revised carrying value as per IND AS 105
Attributed goodwill	200	(200)	-
Intangible assets	930	(62)	868
Financial asset measured at fair value through other comprehensive income	360	-	360
Property, plant & equipment	1020	(68)	952
Deferred tax asset	250	-	250
Current assets – inventory, receivables, and cash balances	520	-	520
Current liabilities	(870)	-	(870)
Non-current liabilities – provisions	(250)	-	(250)
	2160	(330)	1830

The impairment loss is allocated first to goodwill and then pro rata to the other assets of the disposal group within Ind AS 105 measurement scope.

Following assets are not in the measurement scope of the standard

- financial asset measured at other comprehensive income,
- the deferred tax asset or the current assets.



In addition, the impairment allocation can only be made against assets and is not allocated to liabilities.

(b) As on 31 March, 20X2

All of the assets and liabilities, outside the scope of measurement under Ind AS 105, are remeasured in accordance with the relevant standards.

The assets that are remeasured in this case under the relevant standards are the Financial asset measured at fair value through other comprehensive income (Ind AS 109), the deferred tax asset (Ind AS 12), the current assets and liabilities (various standards) and the non-current liabilities (Ind AS 37).

Asset/ (liability)	Carrying amount as on 15 September, 20X1	Carrying Amount as on 31 st March 20X2	Impairment	Revised carrying value as per Ind AS105
Attributed goodwill	-	-	-	-
Intangible assets	868	868	(29)	839
Financial asset measured at fair value through other	360	410	-	410
Property, plant & Equipment	952	952	(31)	921
Deferred tax asset	250	230	-	230
Current assets " inventory, receivables and cash balances	520	400	-	400
Current liabilities	(870)	(900)	-	(900)
Non- current liabilities "provisions	(250)	(250)	-	(250)
Total	1,830	1710	(60)	1,650

The carrying amount of disposal group is 17,10,000 and the fair value less costs to sell is 1650,000. Hence an impairment loss of 60,000 is recognised in ratio of carrying amount of intangible asset and PPE.

4. Illustrations

S Ltd purchased a property for 6,00,000 on 1st April, 20X1. The useful life of the property is 15 years. On 31st March, 20X3, S Ltd classified the property as held for sale. The impairment testing provides the estimated recoverable amount of 4,70,000.

The fair value less cost to sell on 31st March, 20X3 was 4,60,000. On 31st March, 20X4 management changed the plan, as property no longer met the criteria of held for sale. The recoverable amount as at 31st March, 20X4 is 5,00,000.



Provide the accounting treatment of events for the year ending 31st March, 20X3 and 31st March, 20X4 and value the property at the end of 20X3 and 20X4.

Answers:

(a) Value of property immediately before the classification as held for sale as per Ind AS 16 as on 31 March 20x3

	₹
Purchase Price	6,00,000
Less: Accumulated Depreciation (40,000*2 years)	80,000
Carrying amount	5,20,000
Recoverable amount	4,70,000
Impairment loss	50,000
Carrying amount after impairment (5,20,000-50,000)	4,70,000
Fair value less cost to sell	4,60,000

On initial classification as held for sale on 31 March 20X3, the value will be lower of:

Carrying amount	4,70,000
Fair Value less Cost to sell	4,60,000

On 31 March 20X3 Non-current assets classified as held for sale will be recorded at ₹.4,60,000.

Depreciation of ₹.40,000 and Impairment Loss of ₹.60,000 (50,000 +10,000) is charged in profit or loss for the year ended 31 March 20X3.

(b) On 31 March 20X4 held for sale property is reclassified as criteria doesn't met. The value will be lower of:

	₹
Purchase Price	6,00,000
Less: Accumulated Depreciation (40,000*2 years)	80,000
Less: Impairment	50,000
Carrying amount as on 31 st March Year 3	4,70,000
Less: Depreciation that would have charged ($\frac{4,70,000}{13}$)	36154
Carrying amount had the asset is not classified as held for sale	4,33,846
Recoverable amount	5,00,000

Property will be valued at ₹. 4,33,846 on 31 March 20X4

Adjustment to the carrying amount of ₹.26,154 (₹.4,60,000 - ₹.4,33,846) is charged to the profit

5. Illustration – Nov 22 [8 Marks]

Violet Limited is a beverages manufacturing company having various plants across India. There is Machinery A in the Surat plant which is used for the purpose of bottling. There is one more machinery which is Machinery B clubbed with Machinery A. Machinery A can individually have an output and also be sold independently in the open market. Machinery B cannot be sold in isolation and without clubbing with Machinery A it cannot produce output as well. The company considers this group of assets as a Cash Generating Unit and an Inventory amounting to Rs. 1.65 lakhs and Goodwill amounting to Rs. 1.50 lakhs is included in such CGU.

Machinery A was purchased on 1st April 2016 for Rs. 12 lakhs and residual value is Rs. 60 thousand. Machinery B was purchased on 1st April, 2018 for Rs. 5 lakhs with no residual value. The useful life of both Machinery A and B is 10 years. The company expects following cash flows in the next 5 years pertaining to Machinery A. The incremental borrowing rate of company is 10% p.a.

Year Cash Flows from Machinery A



1	2,00,000
2	1,50,000
3	1,00,000
4	1,50,000
5	1,00,000 (Excluding Residual Value)
Total	7,00,000

On 31st March, 2021, the professional valuers have estimated that the current market value of machinery A is Rs. 8.5 lakhs. There is a need to dismantle the machinery before delivering it to the buyer. Dismantling cost is Rs. 1.60 lakhs. Specialized packaging cost would be Rs. 30,000 and legal fees would be Rs. 68,000.

The inventory has been valued in accordance with Ind AS 2. The recoverable value of CGU is Rs. 10 lakhs as on 31st March, 2021. In the next year, the company has done the assessment of recoverability of the CGU and found that the value of such CGU is Rs. 11 lakhs i.e. on 31st March, 2022. The recoverable value of Machinery A is Rs. 5,50,000 and combined for Machinery A and Machinery B is Rs. 8,00,000 as on 31st March, 2022.

You are required to:

(i) Compute the impairment loss on CGU and carrying value of each asset after charging impairment loss for the year ending 31st March, 2021 by providing all the relevant working notes to arrive at such calculation.

(ii) Compute the carrying value after considering prospective depreciation for the year 2021-2022 on the above assets.

(iii) Compute the carrying value of CGU as at 31st March, 2022.

(Note: Present value factor of Rs. 1 should be taken upto 4 decimals for the purpose of calculation)

Answer:

(i) **Computation of impairment loss and carrying value of each of the asset in CGU after impairment loss**

• **Calculation of carrying value of Machinery A and B before impairment**

	Machinery A (₹)	Machinery B (₹)
Cost	12,00,000	5,00,000
Residual value	60,000	-
Useful life	10 years	10 years
Useful life already elapsed	5 years	3 years
Yearly depreciation $\left(\frac{\text{Cost} - \text{Residual value}}{\text{useful life}}\right)$	1,14,000 $\left(\frac{12,00,000 - 60,000}{10}\right)$	50,000 $\left(\frac{5,00,000}{10}\right)$
WDV as at 31st March 2021 [Cost - (Yearly depreciation* useful life already elapsed)]	6,30,000	3,50,000

• **Calculation of Value-in-use of Machinery A**

Year	Cash flows	PVF @ 10%	PV
1	2,00,000	0.909	1,81,818
2	1,50,000	0.826	1,23,967
3	1,00,000	0.751	75,131
4	1,50,000	0.683	1,02,452
5	1,00,000	0.621	62,092
5	60,000	0.621	37,255
	Total		5,82,716

• **Calculation of Fair Value less cost of disposal of Machinery A**

Particulars	₹
Fair Value	8,50,000
Less:	



Dismantling cost	-1,60,000
Packaging cost	-30,000
Legal Fees	-68,000
Fair value less cost of disposal	5,92,000

• **Calculation of Impairment loss on Machinery A**

Particulars	₹
Carrying Value	6,30,000
Less: Recoverable Value i.e., higher of Value-in-use (₹. 5,82,704) and Fair value less cost of disposal (₹.5,92,000)	-5,92,000
Impairment Loss	38,000

• **Calculation of Impairment loss of CGU**

1. First goodwill will be impaired fully and then the remaining impairment loss of CGU will be allocated to Machinery A and Machinery B.

2. After deduction of value of goodwill ₹ 1,50,000 from total impairment loss of CGU of ₹ 2,95,000, remaining impairment loss would be ₹ 1,45,000. If we allocate remaining impairment loss to Machinery A and B on pro-rata basis, it will come to ₹ 93,214 on Machinery A. However, the impairment loss of Machinery A cannot exceed ₹ 38,000 since its recoverable value is ₹.5,92,000.

Hence, impairment loss to CGU will be as follows:

	Carrying value before impairment loss	Impairment loss	Carrying value after impairment loss
Machinery A	6,30,000	38,000	5,92,000
Machinery B	3,50,000	1,07,000*	2,43,000
Inventory	1,65,000	-	1,65,000
Goodwill	1,50,000	1,50,000	-
Total	12,95,000	2,95,000	10,00,000

* Balancing figure

(ii) **Carrying value after adjustment of depreciation of 2021-2022**

	₹
Machinery A [5,92,000 – {(5,92,000 – 60,000)/5}]	4,85,600
Machinery B [2,43,000 – (2,43,000/7)]	2,08,286
Inventory	1,65,000
Goodwill	-
Total	8,58,886

Calculation of carrying value of CGU as on 31st March 2022

The revised value of CGU is ₹. 11 lakh. However, impaired goodwill cannot be reversed. Further, the individual assets cannot be increased above the lower of recoverable value or carrying value as if the assets were never impaired.

Accordingly, the carrying value as on 31st March 2022 assuming that the impairment loss had never incurred, will be:

	Carrying Value	Recoverable Value	Final CV as at 31 st March 2022
Machinery A	5,16,000 [12,00,000 – (1,14,000 x 6)]	5,50,000	5,16,000
Machinery B	3,00,000 [5,00,000 – (50,000x4)]	2,50,000 (8,00,000 – 5,50,000)	2,50,000
Inventory	1,65,000*	1,65,000*	1,65,000*
Goodwill	-	-	-
	9,81,000	9,65,000	9,31,000



Hence, the impairment loss to be reversed will be limited to ₹. 72,114 only (₹. 9,31,000 – ₹. 8,58,886).

*Note: The question required valuation of CGU at the year-end 31st March 2022, for which value of inventory was required. In the absence of the value of inventory for the year ended 31st March 2022, it is assumed that the value of inventory for the year ended 31st March 2022 is same as it was for the year ended 31st March, 2021.

6. Illustration – RTP

Company X has identified one of its division (disposal group) to be sold to a prospective buyer and the Board has approved the plan to sell the division on 30th September, 20X1. The sale is expected to complete after one year but it still qualifies to be held for sale under Appendix B of Ind AS 105. Costs to sell the division is estimated to be ₹ 10 crores (to be incurred in March, 20X3). The fair value of the division is ₹ 400 crores (on 30th September, 20X1 and 31st March, 20X2) and carrying value is ₹ 500 crores.

How shall such a division (disposal group) be measured under Ind AS 105 on following reporting dates:

A. 30th September, 20X1

B. 31st March, 20X2

Consider the discounting factor @ 10% for 1 year to 0.909 and for 1.5 years to be 0.867.

Solution

Company X has identified a **division (disposal group) for sale**, and the **Board approved the plan on September 30, 20X1**. Since the sale is **expected to occur beyond one year**, **costs to sell must be measured at present value**.

Measurement on Reporting Dates:

A. As of September 30, 20X1:

The disposal group is measured at **fair value less costs to sell**:

- **Fair Value** = ₹ 400.00 crores
- **Present Value of Costs to Sell** (₹ 10 crores × 0.867) = ₹ 8.67 crores
- **Net Measurement Value** = ₹ 391.33 crores

Since ₹ 391.33 crores is lower than the carrying value of ₹ 500 crores, an impairment loss of ₹ 108.67 crores (₹ 500 – ₹ 391.33 crores) will be recognized in the **Statement of Profit and Loss**.

B. As of March 31, 20X2:

- **Fair Value** = ₹ 400.00 crores
- **Present Value of Costs to Sell** (₹ 10 crores × 0.909) = ₹ 9.09 crores
- **Net Measurement Value** = ₹ 390.91 crores

The **increase in present value of costs to sell** by ₹ 0.42 crores (₹ 9.09 crores – ₹ 8.67 crores) is recognized as a **financing cost** in the **Statement of Profit and Loss**,

Conclusion:

- The **disposal group is reported separately** in the financial statements.
- An **impairment loss of ₹ 108.67 crores** is recognized on **September 30, 20X1**.
- The **increase in costs to sell by ₹ 0.42 crores** is recorded as a **financing cost** on **March 31, 20X2**.



IND AS 116 LEASES ILLUSTRATIONS

1. Illustration

Company MNO enters into a 15-year contract with Power Company PQR to purchase all of the electricity produced by a new solar farm.

PQR owns the solar farm and will receive tax credits relating to the construction and ownership of the solar farm, and MNO will receive renewable energy credits that accrue from use of the solar farm.

Who has the right to substantial benefits from the solar farm?

Answer:

A customer **controls an asset** under **Ind AS 116** if it obtains **substantially all of the economic benefits** from its use. In this case, **Company MNO has a 15-year contract to purchase all the electricity produced by the solar farm**. Additionally, it receives **renewable energy credits**, which are financial benefits associated with using renewable energy.

Although **Power Company PQR owns the solar farm** and enjoys **tax benefits**, these **do not relate to the use of the asset** but rather to **its ownership**. Since **Company MNO gets all the electricity and renewable energy credits**, it effectively enjoys **substantially all of the economic benefits from the solar farm**. Hence, the **solar farm qualifies as an identified asset under Ind AS 116**.

2. Illustration

Entity A contracts with Supplier H to manufacture parts in a facility.

Entity A designed the facility and provided its specifications. Supplier H owns the facility and the land.

Entity A specifies how many parts it needs and when it needs the parts to be available.

Supplier H operates the machinery and makes all operating decisions including how and when the parts are to be produced, as long as it meets the contractual requirements to deliver the specified number on the specified date.

Assuming supplier H cannot substitute the facility and hence is an identified asset.

Which party has the right to control the use of the identified asset (i.e., equipment) during the period of use?

Answer:

To determine whether an arrangement contains a lease, we need to check **who controls the use of the asset**. According to **Ind AS 116**, a customer has the right to **direct the use of an asset** if it controls **how and for what purpose** the asset is used throughout the lease term.

In this case, although **Entity A designed the facility and set the production requirements**, it does **not control how and when the facility operates**. **Supplier H owns the facility and makes all operational decisions, including machinery operation, production schedule, and maintenance**. Entity A only decides the **quantity of parts and delivery timelines**, which does not amount to directing the use of the facility.



Since **Supplier H retains operational control**, this contract is considered a **supply agreement, not a lease**. Therefore, **Entity A does not have the right to use an identified asset** under Ind AS 116.

3. Illustration

Entity X (customer) enters into a contract for six years with Entity Y (supplier). As per contract, Entity Y is required to install an air-conditioning plant in its office premises.

Air-conditioning plant is designed as per the specifications provided by Entity X.

To optimize the efficiency of the air conditioning plant, Entity Y provides operation and maintenance services on regular basis and as and when required throughout the contract period.

However, Entity X decides and directs the hours of operation and the floors of the building on which and at what time the cooling is required and the temperature to be maintained by the air conditioning plant.

Whether Entity X has right to direct the use of the air conditioning plant?

Answer:

As per **Ind AS 116**, a customer has the **right to direct the use of an identified asset** if it controls **how and for what purpose** the asset is used during the contract period. This can be established if:

1. The customer **determines how and for what purpose** the asset is used, or
2. The key decisions about its use are **pre-determined**, and the customer either:
 - o **Operates the asset**, or
 - o **Designed the asset in a way that determines its use**.

In this case, **Entity X enters into a contract with Entity Y** for installing an **air-conditioning plant** in its office. The plant is **customized as per Entity X's specifications**, ensuring it meets its needs. While **Entity Y handles operations and maintenance**, the key factor is that **Entity X decides how the air-conditioning plant is used**.

Entity X has full control over:

- **When the system will operate** (timing of cooling),
- **Which floors will receive cooling**, and
- **The temperature settings** throughout the office.

These decisions directly affect **how and for what purpose** the air-conditioning plant functions. Even though **Entity Y provides maintenance**, this role is **supportive in nature** and does not determine the **primary use of the asset**.

Since **Entity X makes the key decisions about the plant's usage**, it has the **right to direct the use of the identified asset**. As the air-conditioning plant is **customized, physically distinct, and under Entity X's control**, it qualifies as an **identified asset** under Ind AS 116.

4. Illustration

An entity enters into a 10-year lease of property. The lease payment is to be done at the beginning of each year. The lease payment for the first year is Rs. 1,000.

The lease payments are linked to the consumer price index (CPI), i.e., not a floating interest rate. The CPI at the beginning of the first year is 100.



Lease payments are updated at the end of every second year. At the end of year one, the CPI is 105. At the end of year two, the CPI is 108.

You are required compute the lease liability at the commencement of the lease and at the lease payment is adjusted assuming a discount rate of 8%.

Answer:

An entity enters into a **10-year lease of property** with annual lease payments of ₹ 1,000, paid **at the beginning of each year**. Payments are linked to the **Consumer Price Index (CPI)**:

- **CPI at lease commencement: 100.**
- **CPI at the end of Year 1: 105** (no adjustment yet).
- **CPI at the end of Year 2: 108** (adjustment applies).

Under **Ind AS 116**, lease payments linked to an index **should be initially measured using the rate at lease commencement** (CPI = 100). Future changes in CPI **are not considered at lease inception**. At the **end of Year 1**, since no payment change occurs, the lease liability remains unchanged. However, at the **end of Year 2**, when the CPI increases to **108**, the lease payments are **revised to ₹ 1,080 per year** ($₹ 1,000 \times 108/100$) for the remaining **eight years**, and the lease liability is updated accordingly.

5. Illustration

Entity L enters into a lease for 10 years, with a single lease payment payable at the beginning of each year. The initial lease payment is Rs.100,000.

Lease payments will increase by the rate of LIBOR each year. At the date of commencement of the lease, LIBOR is 2 per cent.

Assume that the interest rate implicit in the lease is 5 per cent. How lease liability is initially measured?

Answer:

In the given case, the lease payments depend on a rate (i.e., LIBOR) and hence is included in measuring lease liability. As per Ind AS 116, the lease payments should initially be measured using the rate (i.e. LIBOR) as at the commencement date. LIBOR at that date is 2 per cent; therefore, in measuring the lease liability, it is assumed that each year the payments will increase by 2 per cent, as follows:

Year	Lease Payment	Discount factor @ 5%	PV of lease payments
1	1,00,000	1	1,00,000
2	1,02,000	0.952	97,102
3	1,04,040	0.907	94,364
4	1,06,121	0.864	91,689
5	1,08,243	0.823	89,084
6	1,10,408	0.784	86,560
7	1,12,616	0.746	84,012
8	1,14,869	0.711	81,672
9	1,17,166	0.677	79,321
10	1,19,509	0.645	77,083
			8,80,887

Therefore, the lease liability is initially measured at ₹ 8,80,887

6. Illustration



Entity Y and Entity Z execute a 12-year lease of a railcar with the following terms on 1 January, 20X1:

- The lease commencement date is 1 February 20X1.
- Entity Y must pay Entity Z the first monthly rental payment of Rs. 10,000 upon execution of the lease.
- Entity Z will pay Entity Y Rs. 50,000 cash incentive to enter into the lease payable upon lease execution.

Entity Y incurred Rs. 1,000 of initial direct costs, which are payable on 1 February 20X1. Entity Y calculated the initial lease liability as the present value of the lease payments discounted using its incremental borrowing rate because the rate implicit in the lease could not be readily determined; the initial lease liability is Rs. 8,50,000.

How would Lessee Company measure and record this lease?

Answer:

Entity Y would calculate the right-of-use asset as follows:

Particulars	₹
Initial measurement of lease liability	8,50,000
Lease payments made to Entity Z at or before the commencement date	10,000
Lease incentives received from Entity Z	(50,000)
Initial direct cost	1,000
Initial measurement of right-of-use asset	8,11,000

Illustration

Company H leases an aircraft for a period of 5 years. The aircraft must undergo a planned check after every 100,000 flight hours. At the end of the lease, company H must have a check performed (or refund the costs to the lessor), irrespective of the actual number of flight hours.

What are the lease payments for purposes of calculating ROU asset?

Answer:

Company H leases an aircraft for **five years**. The contract requires a **mandatory maintenance check** after every **100,000 flight hours**. However, regardless of actual flight hours, **the check must be performed at lease-end**, with Company H either **carrying out the check or reimbursing the lessor for costs**.

Under **Ind AS 116**, costs that must be incurred **regardless of asset usage** are considered part of the **right-of-use (ROU) asset's cost**. Since the **check must be performed at lease-end**, Company H **must recognize a provision** for the expected cost at the **beginning of the lease term**. This amount is also **included in the cost of the ROU asset**, in accordance with **Ind AS 116**.

7. Illustration

Entity ABC (lessee) enters into a three-year lease of equipment. Entity ABC agrees to make the following annual payments at the end of each year:

Rs. 20,000 in year one

Rs. 30,000 in year two

Rs. 50,000 in year three.



For simplicity purposes, there are no other elements to the lease payments (like purchase options, lease incentives from the lessor or initial direct costs). Assumed a discount rate of 12% (which is Entity ABC's incremental borrowing rate because the interest rate implicit in the lease cannot be readily determined). Entity ABC depreciates the ROU Asset on a straight-line basis over the lease term.

How would Entity ABC would account for the said lease under Ind AS 116?

Answer:

At the commencement date, Entity ABC would initially recognise ROU Asset and the corresponding Lease Liability of ₹ 77,364 which is calculated as follows:

Year	Payments (Cash flows)	Discounting Factor @12%	Discounted Cash flows / Present Value
1	20,000	0.8929	17,858
2	30,000	0.7972	23,916
3	50,000	0.7118	35,590
	1,00,000		77,364

Then, the next step would be to prepare a schedule for Lease Liability and ROU Asset as follows:

Lease Liability:

Year	Lease Liability			
	Initial value	Lease payments	Interest expense @ 6%	Closing balance
	a	b	c = a x 6%	d = a-b + c
1	77,364	9,284	(20,000)	66,648
2	66,648	7,998	(30,000)	44,646
3	44,646	5,354*	(50,000)	-

* Difference of ₹ 4 is due to approximation.

ROU Asset (assuming no lease incentives, no initial direct costs, etc.):

Year	Opening balance	Depreciation	Closing balance
1	77,364	(25,788)	51,576
2	51,576	(25,788)	25,788
3	25,788	(25,788)	-

At lease commencement, Entity ABC would recognise the Lease Liability and the corresponding ROU Asset as follows:

ROU Asset	Dr.	77,364	
To Lease Liability			77,364
To initially recognise the Lease Liability and the corresponding ROU Asset			

The following journal entries would be recorded in the first year:

Interest Expense	9,284	
Dr.		
To Lease Liability		9,284
To record interest expense and accrete the lease liability using the effective interest method (₹ 77,364 x 12%)		
Depreciation Expense	25,788	
Dr.		
To ROU Asset		25,788
To record interest expense and accrete the lease liability using the straight-line method (₹ 77,364 / 3 years)		
Lease Liability	20,000	
Dr.		
To Cash / Bank		20,000
To record lease payment		



Following is the summary of the said lease contract's accounting (assuming no changes due to reassessment):

Particulars	Initially	Year 1	Year 2	Year 3
Cash lease payments		20,000	30,000	50,000
Lease Expense Recognised:				
Interest Expense		9,284	7,998	5,354
Depreciation Expense		25,788	25,788	25,788
Total Periodic Expense		35,072	33,786	31,142
Balance Sheet:				
ROU Asset	77,364	51,576	25,788	
Lease Liability	(77,364)	(66,648)	(44,646)	

8. Illustration

Entity W entered into a contract for lease of retail store with Entity J on January 01/01/20X1. The initial term of the lease is 5 years with a renewal option of further 3 years.

The annual payments for initial term and renewal term is Rs. 100,000 and Rs. 110,000 respectively. The annual lease payment will increase based on the annual increase in the CPI at the end of the preceding year. For example, the payment due on 01/01/20X2 will be based on the CPI available at 31/12/20X1.

Entity W's incremental borrowing rate at the lease inception date and as at 01/01/20X4 is 5% and 6% respectively and the CPI at lease commencement date and as at 01/01/20X4 is 120 and 125 respectively.

At the lease commencement date, Entity W did not have a significant economic incentive to exercise the renewal option. In the first quarter of 20X4, Entity W installed unique lease improvements into the retail store with an estimated five-year economic life.

Entity W determined that it would only recover the cost of the improvements if it exercises the renewal option, creating a significant economic incentive to extend.

Is Entity W required to remeasure the lease in the first quarter of 20X4?

Answer:

Since Entity W is now reasonably certain that it will exercise its renewal option, it is required to remeasure the lease in the first quarter of 20X4.

The following table summarizes information pertinent to the lease remeasurement.

Remeasured lease term	5 years; 2 years remaining in the initial term plus 3 years in the renewal period
Entity W's incremental borrowing rate on the remeasurement date	6%
CPI available on the remeasurement date	125
Right-of-use asset immediately before the remeasurement	₹ 1,81,840 (Refer note 1)
Lease liability immediately before the remeasurement	₹ 1,95,244 (Refer note 1)

To remeasure the lease liability, Entity W would first calculate the present value of the future lease payments for the new lease term (using the updated discount rate of 6%). The following table shows the present value of the future lease payments based on an updated CPI of 125. Since the initial lease payments were based on a CPI of 120, the CPI has increased by 4.167% approx. As a result, Entity W would increase the future lease payments by 4.167%. As shown in the table, the revised lease liability is ₹ 4,91,376.

Year	4	5	6	7	8	Total
Lease payment	1,04,167	1,04,167	1,14,583	1,14,583	1,14,583	5,52,083
Discount	1	0.943	0.890	0.840	0.792	



@ 6%						
Present value	1,04,167	98,230	1,01,979	96,250	90,750	4,91,376

To calculate the adjustment to the lease liability, Entity W would compare the recalculated and original lease liability balances on the remeasurement date.

Revised lease liability	4,91,376
Original lease liability	(1,95,244)
	2,96,132

Entity W would record the following journal entry to adjust the lease liability.

ROU Asset Dr.	2,96,132	
To Lease liability		2,96,132
Being lease liability and ROU asset adjusted on account of remeasurement.		

Working Notes:

1. Calculation of ROU asset before the date of remeasurement

Year beginning	Lease Payment (A)	Present value factor @ 5% (B)	Present value of lease payments (A x B=C)
1	1,00,000	1.000	1,00,000
2	1,00,000	0.952	95,200
3	1,00,000	0.907	90,700
4	1,00,000	0.864	86,400
5	1,00,000	0.823	82,300
Lease liability as at commencement date			4,54,600

2. Calculation of Lease Liability and ROU asset at each year end

Year	Lease Liability				ROU asset		
	Initial value	Lease payments	Interest expense @ 5%	Closing balance	Initial Value	Depreciation	Closing balance
	a	b	c = a x 5%	d = a-b + c	e	f	g
1	4,54,600	1,00,000	17,730	3,72,330	4,54,600	90,920	3,63,680
2	3,72,330	1,00,000	13,617	2,85,947	3,63,680	90,920	2,72,760
3	2,85,947	1,00,000	9,297	1,95,244	2,72,760	90,920	1,81,840
4	1,95,244				1,81,840		2,20,770

9. Illustration

Lessee enters into a 10-year lease for 5,000 square metres of office space. The annual lease payments are Rs. 1,00,000 payable at the end of each year. The interest rate implicit in the lease cannot be readily determined.

Lessee's incremental borrowing rate at the commencement date is 6% p.a.

At the beginning of Year 7, Lessee and Lessor agree to amend the original lease by extending the contractual lease term by four years. The annual lease payments are unchanged (i.e., Rs. 1,00,000 payable at the end of each year from Year 7 to Year 14).

Lessee's incremental borrowing rate at the beginning of Year 7 is 7% p.a.

How should the said modification be accounted for?

Answer:



At the effective date of the modification (at the beginning of Year 7), Lessee remeasures the lease liability based on:

- (a) An eight-year remaining lease term
 - (b) Annual payments of ₹ 1,00,000 and
 - (c) Lessee's incremental borrowing rate of 7% p.a.
- The modified lease liability equals ₹ 5,97,100 (W.N.1).

The lease liability immediately before the modification (including the recognition of the interest expense until the end of Year 6) is ₹ 3,46,355 (W.N.3).

Lessee recognises the difference between the carrying amount of the modified lease liability and the carrying amount of the lease liability immediately before the modification (i.e., ₹ 2,50,745) (W.N. 4) as an adjustment to the ROU Asset.

Working Notes:

1. Calculation of modified lease liability:

PV of lease liability = $1,00,000 \times \text{PVAF}(7\%, 8 \text{ years})$
 $= 1,00,000 \times 5.971$
 $= 5,97,100$

2. Calculation of Lease liability as at commencement date:

PV of lease liability = $1,00,000 \times \text{PVAF}(6\%, 10 \text{ years})$
 $= 1,00,000 \times 7.359$
 $= 7,35,900$

3. Calculation of Lease liability immediately before modification date:

Year	Initial value	Lease payments	Interest expense @ 6%	Closing balance
	a	b	c = a x 6%	d = a-b + c
1	7,35,900	100,000	44,154	6,80,054
2	6,80,054	100,000	40,803	6,20,857
3	3,10,429	100,000	37,251	5,58,108
4	5,58,108	100,000	33,486	4,91,594
5	4,91,594	100,000	29,496	4,21,090
6	4,21,090	100,000	25,265	3,46,355
				3,46,355

4. Adjustment to ROU asset:

Modified Lease liability	5,97,100
Original Lease liability as at modification date	(3,46,355)
Adjustment to ROU asset	2,50,745

The ROU asset will be increased by ₹ 2,50,745 on the date of modification.

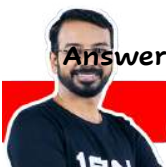
10. Illustration

Lessee enters into a 10-year lease for 5,000 square metres of office space. The annual lease payments are Rs. 50,000 payable at the end of each year. The interest rate implicit in the lease cannot be readily determined. Lessee's incremental borrowing rate at the commencement date is 6% p.a.

At the beginning of Year 6, Lessee and Lessor agree to amend the original lease to reduce the space to only 2,500 square metres of the original space starting from the end of the first quarter of Year 6. The annual fixed lease payments (from Year 6 to Year 10) are Rs. 30,000. Lessee's incremental borrowing rate at the beginning of Year 6 is 5% p.a.

How should the said modification be accounted for?

Answer:



Note: First we reduce the ROU asset and Lease liability proportionately in ratio of reduction in area and then remeasure liability.

Step 1: Initial Lease Liability and ROU Asset Calculation

Entity **Lessee** enters into a **10-year lease** for **5,000 sq. metres** of office space, with **annual lease payments of ₹ 50,000** payable **at year-end**. Since the **implicit rate is not available**, the **incremental borrowing rate of 6%** is used.

Calculation of Lease Liability and ROU Asset at Commencement

- **PVAF at 6% for 10 years = 7.3600**
- **Lease Payment = ₹ 50,000 per year**
- **Present Value of Lease Payments = ₹ 50,000 × 7.3600 = ₹ 3,68,000**
- **Initial Lease Liability = ₹ 3,68,000**
- **Initial ROU Asset = ₹ 3,68,000**

Step 2: Pre-Modification Lease Liability and ROU Asset Balances

At the **beginning of Year 6**, before modification, the lease liability and ROU asset balances are:

ROU Asset Balance Calculation

- **ROU Asset at commencement = ₹ 3,68,000**
- **Depreciation for 5 years (Straight-line basis) = ₹ 3,68,000 / 10 × 5 = ₹ 1,84,000**
- **ROU Asset at the beginning of Year 6 = ₹ 1,84,000**
- **50% of remaining ROU Asset = ₹ 92,000**

Lease Liability Amortization Schedule (Years 1-5)

Year	Opening Balance (₹)	Interest @ 6% (₹)	Lease Payment (₹)	Closing Balance (₹)
1	3,68,000.00	22,080.00	(50,000.00)	3,40,080.00
2	3,40,080.00	20,404.80	(50,000.00)	3,10,484.80
3	3,10,484.80	18,629.09	(50,000.00)	2,79,113.89
4	2,79,113.89	16,746.83	(50,000.00)	2,45,860.72
5	2,45,860.72	14,751.64	(50,000.00)	2,10,612.36

Calculation of Lease Liability for Remaining 5 Years

- **PV of ₹ 50,000 for 5 years @ 6% = ₹ 2,10,615**
- **PV of ₹ 25,000 for 5 years @ 6% = ₹ 1,05,308 (considering 50% of space)**

Thus, the lease liability **before modification** is **₹ 2,10,615**.

Step 3: Lease Modification Adjustment

At the beginning of **Year 6**, the lease is **modified** to **reduce office space to 2,500 sq. metres**, reducing the **annual lease payment to ₹ 30,000** for the remaining **5 years**. The new **incremental borrowing rate is 5%**.

Proportionate Reduction

- **ROU Asset Reduction (50% of ₹ 1,84,000) = ₹ 92,000**
- **Lease Liability Reduction (50% of ₹ 2,10,615) = ₹ 1,05,308**
- **Gain on modification (Lease Liability Reduction - ROU Asset Reduction)**
= ₹ 1,05,308 - ₹ 92,000 = ₹ 13,308



Journal Entry for Lease Reduction

Lease Liability A/c Dr.	₹ 1,05,308	
To ROU Asset A/c		₹ 92,000
To Profit & Loss A/c	₹ 13,308	

(To record lease modification gain and reduce ROU Asset)

Step 4: Reassessment of Lease Liability Post-Modification [Consider new rent with new rate]

Since the **remaining lease liability (₹ 1,05,308)** is **lower** than the **new lease liability (₹ 1,29,870)**, the difference of **₹ 24,562** is adjusted in the ROU Asset.

Revised Lease Liability Calculation (5 Years, 5% Discount Rate)

Year	Lease Payment (₹)	Discount Factor @ 5%	Present Value (₹)
6	30,000	0.952	28,560
7	30,000	0.907	27,210
8	30,000	0.864	25,920
9	30,000	0.823	24,690
10	30,000	0.784	23,520
Total	1,50,000		1,29,870

Thus, **new lease liability after modification = ₹ 1,29,870.**

Journal Entry for Lease Adjustment

ROU Asset A/c Dr.	₹ 24,562
To Lease Liability A/c	₹ 24,562

(To adjust ROU Asset for revised lease liability)

11. Illustration

Lessee enters into a 10-year lease for 5,000 square metres of office space. At the beginning of Year 6, Lessee and Lessor agree to amend the original lease for the remaining five years to reduce the lease payments from Rs. 1,00,000 per year to Rs. 95,000 per year. The interest rate implicit in the lease cannot be readily determined. Lessee's incremental borrowing rate at the commencement date is 6% p.a. Lessee's incremental borrowing rate at the beginning of Year 6 is 7% p.a. The annual lease payments are payable at the end of each year.

How should the said modification be accounted for?

Answer:

Step 1: Initial Lease Liability and ROU Asset Calculation at Lease Commencement

Calculation of Lease Liability and ROU Asset at commencement

PVAF (6%, 10 years)	7.36
Lease payments	1,00,000.00
PV of Lease payments at beg of Y1	7,36,000.00

Step 2: Lease Liability Before Modification (Years 1-5)

Year	Opening bal	Int @ 6%	Payment	Closing
1	7,36,000	44,160	(1,00,000)	6,80,160



2	6,80,160	40,810	(1,00,000)	6,20,970
3	6,20,970	37,258	(1,00,000)	5,58,228
4	5,58,228	33,494	(1,00,000)	4,91,721
5	4,91,721	29,503	(1,00,000)	4,21,225

Step 3: Remeasuring Lease Liability After Modification

At the **beginning of Year 6**, the lease is modified with the following changes:

- **Remaining lease term: 5 years**
- **New annual lease payment: ₹ 95,000**
- **New incremental borrowing rate: 7%**
- **PVAF 7%, 5 Years = 4.100**

Calculation of Lease Liability Post-Modification = $95,000 \times 4.1 = 389,500$

Step 4: Adjustment to ROU Asset

The difference between **modified lease liability (₹ 3,89,500)** and the **pre-modification lease liability (₹ 4,21,224)** ₹ 31,724 is adjusted against the ROU Asset.

Lease Liability A/c Dr. ₹ 31,724
To ROU Asset A/c ₹ 31,724

(To adjust ROU Asset for revised lease liability due to lease modification)

12. Illustration

Lessee enters into a 10-year lease for 2,000 square metres of office space. The annual lease payments are Rs. 1,00,000 payable at the end of each year. The interest rate implicit in the lease cannot be readily determined. Lessee's incremental borrowing rate at the commencement date is 6% p.a.

At the beginning of Year 6, Lessee and Lessor agree to amend the original lease to:

- include an additional 1,500 sq. mtr of space in the same building starting from the beginning of Year 6 and
- reduce the lease term from 10 years to eight years. The annual fixed payment for the 3,500 square metres is Rs. 1,50,000 payable at the end of each year (from Year 6 to Year 8).

Lessee's incremental borrowing rate at the beginning of Year 6 is 7% p.a.

The consideration for the increase in scope of 1,500 square metres of space is not commensurate with the stand-alone price for that increase adjusted to reflect the circumstances of the contract. Consequently, Lessee does not account for the increase in scope that adds the right to use an additional 1,500 square metres of space as a separate lease.

How should the said modification be accounted for?

Answer:

Step 1: Initial Lease Liability and ROU Asset Calculation at Lease Commencement

Calculation of Lease Liability and ROU Asset at commencement



PVAF (6%, 10 years)	7.36
Lease payments	1,00,000.00
PV of Lease payments at beg of Y1	7,36,000.00

Step 2: Lease Liability Before Modification (Years 1-5)

Year	Opening bal	Int @ 6%	Payment	Closing
1	7,36,000	44,160	(1,00,000)	6,80,160
2	6,80,160	40,810	(1,00,000)	6,20,970
3	6,20,970	37,258	(1,00,000)	5,58,228
4	5,58,228	33,494	(1,00,000)	4,91,721
5	4,91,721	29,503	(1,00,000)	4,21,225

Step 3: Lease Modification Adjustments (Reduction in term)**Lease liability for original 2000 Sq meters as at beg of Y6 for 3 years**

Lease Payments	1,00,000
PVAF (6%, 3 Years)	2.6730
Lease Liability for 2000 Sq meters at beg of Y6.	2,67,300

Particulars	Lease Liability	ROU Asset
Carrying amount at end of Y5 (for 5 years)	421,225	368,000 [7,36,000 x 5/10]
Recomputed for 2000 Sqm	2,67,300	220,800 [368000 x 3/5]
Difference	153,925	147200

Journal Entry

Lease Liability Dr.	Rs. 153,925	
To ROU Asset		Rs. 147,200
To P&L		Rs. 6,725

Step 4: Lease Modification Adjustments (increase in scope/area)

Lease Payments	1,50,000
PVAF (7%, 3 Years)	2.6243
Lease Liability for 2000 Sq meters at beg of Y6.	393,645
Lease Liability recomputed above	2,67,300
Difference (Adjust to ROU)	1,26,345

ROU Asset A/c Dr. Rs. 1,26,345

 To Lease Liability Rs. 1,26,345

Breakup of changes on account of modification			



Existing lease payments		Liability	
Lease Payments	1,00,000		
PVAF(6%,3Y)	2.6730	2,67,300	
PVAF(7%,3Y)	2.6243	2,62,430	
		4,870	Reduction
Increase in Lease Liability due to increase in space			
Lease Payments	50,000		
PVAF(7%,3Y)	2.6243	1,31,215	Increase
Net Increase		1,26,345	

13. Illustration

Computation for low value assets

- Lease Term – 3 years
- Lease payment each year
 - Year 1 – Rs.2,000
 - Year 2 – Rs.2,500
 - Year 3 – Rs.2,100

Answer:

Year	Payment	Expense	Difference
1	2,000.00	2,200.00	(200.00)
2	2,500.00	2,200.00	300.00
3	2,100.00	2,200.00	(100.00)

JOURNAL ENTRY

Year 1	Lease expenses	Dr.	2,200	
	To Bank A/c			2,000
	To Lease equalisation Reserve A/c			200
Year 2	Lease expenses	Dr.	2,200	
	Lease equalisation Reserve A/c	Dr.	300	
	To Bank A/c			2,500
Year 3	Lease expenses	Dr.	2,200	
	To Bank A/c			2,100
	To Lease equalisation reserve A/c			100

14. Illustration

A lessee enters into a lease of an equipment. The contract stipulates the lessor will perform maintenance of the leased equipment and receive consideration for that maintenance service. The contract includes the following fixed prices for the lease and non-lease component:

Lease

Rs. 80,000



Maintenance Rs. 10,000

Total Rs. 90,000

Assume the stand-alone prices cannot be readily observed, so the lessee makes estimates, maximising the use of observable information, of the lease and non-lease components, as follows:

Lease Rs. 85,000

Maintenance Rs. 15,000

Total Rs. 1,00,000

In the given scenario, assuming lessee has not opted the practical expedient, how will the lessee allocate the consideration to lease and non-lease component?

Answer:

The lease component represents **85%** of the total estimated value, and the maintenance represents **15%**.

Component	Estimated Standalone Price	% of Total Standalone Price	Allocation of ₹ 90,000
Lease	₹ 85,000	85%	₹ 76,500
Maintenance	₹ 15,000	15%	₹ 13,500
Total	₹ 1,00,000	100%	₹ 90,000

Thus, **₹ 76,500 is allocated to the lease, and ₹ 13,500 to maintenance.**

15. Illustration

Entity X is an Indian entity whose functional currency is Indian Rupee. It has taken a plant on lease from Entity Y for 5 years to use in its manufacturing process for which it has to pay annual rentals in arrears of USD 10,000 every year. On the commencement date, exchange rate was USD = Rs. 68. The average rate for Year 1 was Rs. 69 and at the end of year 1, the exchange rate was Rs. 70. The incremental borrowing rate of Entity X on commencement of the lease for a USD borrowing was 5% p.a.

How will entity X measure the right of use (ROU) asset and lease liability initially and at the end of Year 1?

Answer:

On initial measurement, Entity X will measure the lease liability and ROU asset as under:

Calculation of Lease Liability and ROU Asset at commencement		
PV factor (5%, 5 Years)	4.3290	
Lease payments	10,000.00	
PV of lease payments	43,290.00	USD
Exchange Rate	68.00	
PV of lease payments	29,43,720	INR

As per **Ind AS 21**, lease liability (a monetary item) is **remeasured at the year-end exchange rate. However, non-monetary items (ROU Asset) are not remeasured.**



The lease schedule is presented below

Year	Opening bal	Int @ 5%	Payment	Closing bal	Closing rate	INR Closing
1	43,290.00	2,164.50	10,000.00	35,454.50	70	24,81,815
2	35,454.50	1,772.73	10,000.00	27,227.23		
3	27,227.23	1,361.36	10,000.00	18,588.59		
4	18,588.59	929.43	10,000.00	9,518.02		
5	9,518.02	481.98	10,000.00	0.00		

Lease payment schedule			INR		
Year	Opening bal	Interest	Payment	Closing bal	
1	29,43,720.00	1,49,350.50	7,00,000.00	23,93,071	
		[2164.5 x 69]			
		Exchange diff		88,744.50	dr. P&L

The exchange difference of Rs. 88,744.50 will be debited to P&L as per Ind AS 23.

Particulars	Dr. (₹)	Cr. (₹)
Interest Expense	Dr. 1,49,350	
To Lease liability		149350

Lease payment would be accounted for at the reporting date exchange rate, i.e. ₹ 70 at the end of year 1

Particulars	Dr. (₹)	Cr. (₹)
Lease liability	Dr. 7,00,000	
To Cash		7,00,000

At the end of year 1, the ROU asset will be measured as under:

Year	Opening Balance (₹)	Depreciation (₹)	Closing Balance (₹)
1	29,44,400	5,88,880	23,55,520

16. Illustration

A Dealer-Lessor enters into a 10-year lease of equipment with Lessee. The equipment is not specialised in nature and is expected to have alternative use to Lessor at the end of the 10-year lease term. Under the lease:

- Lessor receives annual lease payments of Rs 15,000, payable at the end of the year. Lessor expects the residual value of the equipment to be Rs 50,000 at the end of the 10-year lease term.
- Lessee provides a residual value guarantee that protects Lessor from the first Rs 30,000 of loss for a sale at a price below the estimated residual value at the end of the lease term (i.e., Rs 50,000).
- The equipment has an estimated remaining economic life of 15 years, a carrying amount of Rs.1,00,000 and a fair value of Rs 1,11,000.
- The lease does not transfer ownership of the underlying asset to Lessee at the end of the lease term or contain an option to purchase the underlying asset.
- The interest rate implicit in the lease is 10.078%.

How should the Lessor account for the same in its books of accounts?

Answer:

Lessor shall classify the lease as a FINANCE LEASE because the sum of the present value of lease payments amounts to substantially all of the fair value of the underlying asset.

At lease commencement, Lessor accounts for the finance lease, as follows:



Net investment in the lease	₹ 1,11,000(a)	
Cost of goods sold	₹ 92,340(b)	
Revenue		₹ 1,03,340(c)
Property held for lease		₹ 1,00,000(d)

To record the net investment in the finance lease and derecognise the underlying asset.

(a) The net investment in the lease consists of:

- (i) the present value of 10 annual payments of ₹ 15,000 plus the guaranteed residual value of ₹ 30,000, both discounted at the interest rate implicit in the lease, which equals ₹ 1,03,340 (i.e., the lease payment) (Refer note 1) AND
- (ii) the present value of unguaranteed residual asset of ₹ 20,000, which equals ₹ 7,660 (Refer note 2).

(b) Cost of goods sold is the carrying amount of the equipment of ₹ 1,00,000 (less) the present value of the unguaranteed residual asset of ₹ 7,660.

(c) Revenue equals the lease receivable

(d) The carrying amount of the underlying asset.

Computation of selling profit

Lease Payment	1,03,340
Cost of Goods Sold	1,00,000 – 7,660 = 92,340
Profit	11,000

Year 1 [Journal entry for a finance lease]

Cash	Dr.	₹ 15,000(e)	
Net investment in the lease			₹ 3,813(f)
Interest income			₹ 11,187(g)

(e) Receipt of annual lease payments at the end of the year

(f) Reduction of the net investment in the lease for lease payments received of ₹ 15,000, net of interest income of ₹ 11,187

(g) Interest income is the amount that produces a constant periodic discount rate on the remaining balance of the net investment in the lease. Please refer the computation below:

The following table summarises the interest income from this lease and the related amortisation of the net investment over the lease term:

Year	Annual Rental Payment	Annual Interest Income (h)	Net investment at the end of the year
Initial net investment	-	-	1,11,000
1	15,000	11,187	1,07,187
2	15,000	10,802	1,02,989
3	15,000	10,379	98,368
4	15,000	9,914	93,282
5	15,000	9,401	87,683
6	15,000	8,837	81,520
7	15,000	8,216	74,736
8	15,000	7,532	67,268
9	15,000	6,779	59,047
10	15,000	5,953	50,000(i)

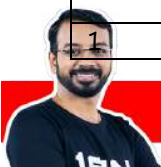
(h) Interest income equals 10.078% of the net investment in the lease at the beginning of each year. For e.g., Year 1 annual interest income is calculated as ₹ 1,11,000 (initial net investment) x 10.078%.

(i) The estimated residual value of the equipment at the end of the lease term.

Working Notes:

1 Calculation of net investment in lease:

Year	Lease Payment (A)	Present value factor @ 10.078% (B)	Present value of lease payments (A x B = C)
1	15,000	0.908	13,620



2	15,000	0.825	12,375
3	15,000	0.750	11,250
4	15,000	0.681	10,215
5	15,000	0.619	9,285
6	15,000	0.562	8,430
7	15,000	0.511	7,665
8	15,000	0.464	6,960
9	15,000	0.421	6,315
10	15,000	0.383	5,745
10	30,000	0.383	11,480*
			1,03,340

* Figure has been rounded off for equalization of journal entry

2 Calculation of present value of unguaranteed residual asset

Year	Lease Payment (A)	Present value factor @ 10.078% (B)	Present value of lease payments (A x B = C)
10	20,000	0.383	7,660

17. Illustration

An entity (Seller-lessee) sells a building to another entity (Buyer-lessor) for cash of Rs. 30,00,000. Immediately before the transaction, the building is carried at a cost of Rs. 15,00,000. At the same time, Seller-lessee enters into a contract with Buyer-lessor for the right to use the building for 20 years, with annual payments of Rs. 2,00,000 payable at the end of each year.

The terms and conditions of the transaction are such that the transfer of the building by Seller-lessee satisfies the requirements for determining when a performance obligation is satisfied in Ind AS 115 'Revenue from Contracts with Customers'.

The fair value of the building at the date of sale is Rs. 27,00,000. Initial direct costs, if any, are to be ignored. The interest rate implicit in the lease is 12% p.a., which is readily determinable by Seller-lessee.

Buyer-lessor classifies the lease of the building as an operating lease.

How should the said transaction be accounted by the Seller-lessee and the Buyer-lessor?

Answer:

Carrying Amount of Asset		15,00,000		
Fair value of Asset		27,00,000		
Sale price		30,00,000		
	Excess of Sale price over FV	3,00,000		
Additional financing		3,00,000	Op bal of a financial liability	
Gain on Sale of Asset		12,00,000	Total Gain	
PV of Lease payments				
Lease Payments		2,00,000		
Lease term		20		
Discounting factor		12%		
PVAF 12%, 20 Years		7.4700		
PV of Lease payments		14,94,000		
			Split of Payment	
Less: Related to Additional Financing		3,00,000		
			40,161	
Lease Liability (also Asset)		11,94,000		



retained)			1,59,839	
The payment of 2,00,000 is split between financing component and lease component in the ratio of 3,00,000 and 11,94,000				
Seller - Lessee				
Right			Total	Retained
				Transferred
Fair Value of Asset		27,00,000		
			11,94,000	15,06,000
Proportion			44.22%	55.78%
Carrying Amount		15,00,000		
			6,63,333	8,36,667
Profit		12,00,000		
			5,30,667	6,69,333
ROU Asset - Carrying Amount		(PV of LP / FV) x Existing Carrying Amt		
			6,63,333	
Profit to be recognised		Profit - Profit related to rights retained		
			6,69,333	
Profit related to rights retained		(PV of LP / FV) x Profits		
			5,30,667	
Cash/Bank Dr.		30,00,000		
ROU Asset Dr.		6,63,333		Portion retained
To Lease Liability			11,94,000	
To Finance Liability			3,00,000	
To Asset			15,00,000	
To Profit on sale			6,69,333	
		36,63,333		
			36,63,333	
Cash/Bank Dr.		30,00,000		
ROU Asset Dr.		11,94,000		
To Lease Liability			11,94,000	
To Finance Liability			3,00,000	
To Asset			15,00,000	
To Profit on sale			12,00,000	
		41,94,000		
			41,94,000	



Buyer-Lessor				
Building (Asset) Dr		27,00,000		
Financial Asset		3,00,000		
To Bank			30,00,000	
Financial Asset				
Opening balance		3,00,000		
Interest		36,000	Income	
Receipt		40,161		
Closing balance		2,95,839		



IND AS 19
Employee Benefits
ILLUSTRATIONS

1. Illustration

Mr. Niranjana is working for Infotech Ltd. Consider the following particulars:

	20X0-X1	20X1-X2
Annual salary	30,00,000	30,00,000
Working days	300 days	300 days
Leave allowed	10 days	10 days
Leave taken	7 days	13 days
Leave unutilized carried forward to next year	3 days	NIL

Scenario I

Based on past experience, Infotech Ltd. assumes that Mr. Niranjana will avail the unutilized leaves of 3 days of 20X0-20X1 in 20X1-20X2.

Infotech Ltd. contends that it will record Rs. 30,00,000 as employee benefits expense in each of the years 20X0-20X1 and 20X1-20X2, stating that the leaves will, in any case, be utilized by 20X1-20X2.

Comment on the accounting treatment proposed to be followed by Infotech Ltd. Also pass journal entries for both the years.

Scenario II

Based on past experience, Infotech Ltd. assumes that Mr. Niranjana will avail the unutilized leaves of 2 days of 20X0-20X1 subsequently. However, in 20X1-20X2, Mr. Niranjana availed in actual all 3 days of brought forward leave.

Compute the expense to be recognised in 20X0-20X1 and 20X1-20X2. Also pass journal entries for both the years.

Answer:

Scenario - I

Infotech Ltd. assumes that unutilized leaves from **20X0-X1 (3 days)** will be used in **20X1-X2**. Under **Ind AS 19, expense should be recognized in the period in which the benefit accrues**, rather than when the leave is taken.

The expenditure to be recognized will be as under:

	Year 20X0- 20X1	Year 20X1- 20X2
Annual Salary	₹.30,00,000	₹.30,00,000
No. of working days (A)	300 days	300 days
Salary cost per day (A ÷ B)	₹.10,000 per day	₹. 10,000 per day
No. of days worked (from above)	293 days	287 days
Expense to be recognised:		
In 20X0-20X1: 30,00,000 + [10,000 per day x 3 days (leaves unutilized expected to be utilized subsequently)]	₹. 30,30,000	
In 20X1-20X2: 30,00,000 – [10,000 per day– 3 days (excess leave utilized in 20X1-20X2)]		₹. 29,70,000

Journal Entry for 20X0-20X1

Employee Benefits Expense Account	Dr.	30,30,000	
To Bank Account			30,00,000
To Provision for Leave Encashment			30,000

Journal Entry for 20X1-20X2

Employee Benefits Expense Account	Dr.	29,70,000	
Provision for Leave Encashment Account	Dr.	30,000	
To Bank Account			30,00,000

Scenario-II

The expenditure to be recognized will be as under:



Particulars	Year 20X0-20X1	Year 20X1-20X2
Annual salary (A)	₹. 30,00,000	₹. 30,00,000
No. of working days (B)	300 days	300 days
Salary cost per day (A ÷ B)	₹. 10,000 per day	₹. 10,000 per day
Expense to be recognised: In 20X0-20X1: ₹ 30,00,000 + [₹ 10,000 per day x 2 days (leaves unutilized expected to be utilized subsequently)]	₹ 30,20,000	
In 20X1-20X2: ₹ 30,00,000 – [₹ 10,000 per day x 3 days (excess leave utilized in 20X1- 20X2)] + ₹ 10,000 (additional expense due to change in accounting estimate)		₹ 29,80,000

The additional ₹. 10,000 booked as an expense in 20X1-20X2 represents a change in accounting estimate (i.e. as against the entity's estimation that 2 days of unutilized leave would be utilized subsequently, actually 3 days were utilized subsequently), for which a prospective effect needs to be given, in line with Para 36 of Ind AS 8 Accounting Policies, Changes in Accounting Estimates and Errors.

Journal Entry for 20X0-20X1

Employee Benefits Expense Account Dr.	30,20,000	
To Bank Account		30,00,000
To Provision for Leave Encashment		30,000

Journal Entry for 20X1-20X2

Employee Benefits Expense Account	Dr.	29,80,000	
Provision for Leave Encashment Account	Dr.	20,000	
To Bank Account			30,00,000

2. Illustration

An entity has 100 employees, who are each entitled to ten working days of paid sick leave for each year. Unused sick leave may be carried forward for one financial year. Sick leave is taken first out of the current year's entitlement and then out of any balance brought forward from the previous year (a LIFO basis).

At 31 March 20X1, the average unused entitlement is two days per employee. Based on past experience, the management expects that only 20% of the employees will use 1 day from their carried forward leave. Salary per day is Rs. 2,500.

Compute the expenses in respect of the short-term compensated absences, if they are assumed to be

- vested short-term compensated absences, and
- non-vested short-term compensated absences.

Solution:

Vested short-term compensated absences:

$$\text{Employee Benefit Expense} = 100 \text{ Employees} \times 2 \text{ Days} \times ₹ 2,500 = ₹ 5,00,000$$

Non-vested short-term compensated absences:

$$\text{Employee Benefit Expense} = 100 \text{ Employees} \times 20\% \times 1 \text{ Day} \times ₹ 2,500 = ₹ 50,000$$

3. Illustration

A company has an employee benefit plan which involves a lump sum payment to employee on termination of service and that is equal to 1 per cent of final salary for each year of service. Consider the salary in year 1 is Rs. 10,000 and is assumed to increase at 7 per cent (compound) each year.

Taking a discount rate at 10 per cent per year, you are required to show

- benefits attributed (year on year) and

(b) the obligation in respect of this benefit (year on year)
for an employee who is expected to leave at the end of year 5.

Solution:

Salary at Year 1		10,000
Annual Increment		7%
Salary at Year 5	10000×1.07^5	13,108
Benefit payable 1% for every year		131
Total benefit payable		655

Benefits attributed year on year

Years	Benefit	Cumulative	PVF 10%	PV
1 (End)	131	131	0.6830	89.47
2	131	262	0.7513	98.42
3	131	393	0.8264	108.26
4	131	524	0.9091	119.09
5 (End)	131	655	1	131.00

Computation of interest cost and obligation

Years	Opening	Int @ 10%	Service Cost	Closing
1 (End)	0	0.00	89.47	89.47
2	89.47	8.95	98.42	196.84
3	196.84	19.68	108.26	324.79
4	324.79	32.48	119.09	476.36
5 (End)	476.36	47.64	131.00	655.00

4. Illustration

RKA Private Ltd is an old company established in 19XX. The company started with a very small capital base and today it is one of the leading companies in India in its industry. The company has an annual turnover of Rs.11,000 crores and planning to get listed in the next year.

The company has a large employee base. The company provided a defined benefit plan to its employees. Following is the information relating to the balances of the fund's assets and liabilities as on 1st April X1 and 31st March X2 (Rs. Lacs)

Particulars	1 st April	31 st March
Present Value of benefit obligation	1,400	1,580
Fair Value of plans assets	1,140	1,275

For the financial year ended 31st March, 20X2, service cost was Rs. 55 lacs. The company made a contribution of an amount of Rs. 111 lacs to the plan. No benefits were paid during the year.

Consider a discount rate of 8%.

You are required to -

- Compute the balance(s) of the company to be included its balance sheet as on 31st March, 20X2 and amounts to be recognized in the statement of profit and loss and other comprehensive income for the year ended 31st March, 20X2.
- Give the journal entries in respect of amount(s) to be recognized.



Solution:

- (a) Extract of the Balance Sheet of RKA Private Ltd as at 31
- st
- March, 20X2:

Closing net defined liability [(1,580 – 1,275) lacs] = ₹. 305 lacs

Extract of the Statement of Profit or Loss of RKA Private Ltd for the year ended 31st March, 20X2

Particulars	₹ in lacs
Service cost	55
Net interest (Refer W.N.1)	21
Profit or loss	96
Other comprehensive income:	
Remeasurements (Refer W.N.2)	80
Total	156

- (b) Journal entries in the books of RKA Private Ltd

	₹ in lacs	₹ in lacs
Profit & Loss Dr	76	
Other comprehensive income Dr	80	
To Cash (Contribution)		111
To Net defined benefit liability (Refer WN 3)		45

Working Notes:

- Computation of Net interest taken to the Statement of Profit or Loss
 = Discount rate x Opening net defined benefit liability
 = 8% x (1,400 – 1,140) lacs
 = 8% x 260 lacs
 = ₹ 21 lacs (Rounded off to nearest lacs)
- Computation of Remeasurements

Defined Benefit Obligation Account

Particulars	₹	Particulars	₹
To Balance c/d (given)	1,580	By Balance b/d (given)	1,400
		By Current Service Cost	55
		By Interest on Opening Liability (1,400 x 8%)	112
		By Actuarial loss (bal. figure)	13
	1580		1580

Plan Assets Account

Particulars	₹	Particulars	₹
To Balance b/d (given)	1,140	By Balance c/d	1,275
To Bank Account (contribution for the year)	111		
To Surplus / Actual Return	24		
	1,275		1,275

Net interest on opening balance of plan asset = ₹ 91 lacs (i.e. ₹ 1,140 lacs x 8%)
 (Rounded off to nearest lacs)

Hence there is a decrease in plan assets due to remeasurement for which computation is as follows:

= Actual Return – Net interest on opening plan asset

= ₹ 24 lacs – ₹ 91 lacs = ₹ 67 lacs.

Net remeasurement would be computed as follows:

Actuarial loss on liability + Loss on return = 13 lacs + 67 lacs = 80 lacs.

- Computation of increase/ decrease in net defined benefit liability:

Particulars	₹ in lacs
Opening net liability (₹ 1,400 lacs – ₹ 1,140 lacs)	260
Closing net liability (₹ 1,580 lacs – ₹ 1,275 lacs)	305
Increase in liability	45

Alternate working note

Particulars	Obligation	Plan Assets	Net
Opening balance 1st April	1,400.00	1,140.00	260.00
Add: Interest cost/ Exp. Return @ 8%	112.00	91.20	20.80
Add: Service Cost	55.00		55
Add: Contribution		111.00	(111.00)
Expected closing bal on 31st Mar	1,567.00	1,342.20	
Actual Closing bal on 31st Mar	1,580.00	1,275.00	305.00
Actuarial Gains/(Losses)	(13.00)		
Loss on Remeasurement of PA		(67.20)	
Total Loss to be debited to OCI			(80.20)

5. Illustration

A Ltd. prepares its financial statements to 31st March each year. It operates a defined benefit retirement benefits plan on behalf of current and former employees. A Ltd. receives advice from actuaries regarding contribution levels and overall liabilities of the plan to pay benefits. On 1st April, 20X1, the actuaries advised that the present value of the defined benefit obligation was ₹ 6,00,00,000. On the same date, the fair value of the assets of the defined benefit plan was ₹ 5,20,00,000. On 1st April, 20X1, the annual market yield on government bonds was 5%. During the year ended 31st March, 20X2, A Ltd. made contributions of ₹ 70,00,000 into the plan and the plan paid out benefits of ₹ 42,00,000 to retired members. Both these payments were made on 31st March, 20X2.

The actuaries advised that the current service cost for the year ended 31st March, 20X2 was ₹ 62,00,000. On 28th February, 20X2, the rules of the plan were amended with retrospective effect. These amendments meant that the present value of the defined benefit obligation was increased by ₹ 15,00,000 from that date.

During the year ended 31st March, 20X2, A Ltd. was in negotiation with employee representatives regarding planned redundancies. The negotiations were completed shortly before the year end and redundancy packages were agreed. The impact of these redundancies was to reduce the present value of the defined benefit obligation by ₹ 80,00,000. Before 31st March, 20X2, A Ltd. made payments of ₹ 75,00,000 to the employees affected by the redundancies in compensation for the curtailment of their benefits. These payments were made out of the assets of the retirement benefits plan.

On 31st March, 20X2, the actuaries advised that the present value of the defined benefit obligation was ₹ 6,80,00,000. On the same date, the fair value of the assets of the defined benefit plan were ₹ 5,60,00,000.

Examine and present how the above event would be reported in the financial statements of A Ltd. for the year ended 31st March, 20X2 as per Ind AS. Finance cost is to be computed on the opening balances.

Solution:

During the year, A Ltd. **incurred a current service cost of ₹ 62,00,000**, which is recognized as an expense in the **profit and loss statement**. Additionally, the company amended the plan retrospectively on **28th February 20X2**, leading to a **past service cost of ₹ 15,00,000**, which is also recognized in **profit and loss**. The redundancy program reduced the **DBO by ₹ 80,00,000**, with **settlement payments of ₹ 75,00,000** made out of the plan's assets. The net gain on settlement was ₹ 5,00,000, which is recorded in **profit and loss**.

The **finance cost** for the year is based on the opening net liability of ₹ 80,00,000, at a discount rate of 5%, resulting in ₹ 4,00,000 being charged to **profit and loss**. The company



contributed ₹ 70,00,000 to the plan during the year, and **benefits paid to retired employees amounted to ₹ 42,00,000.**

On **31st March 20X2**, the **DBO increased to ₹ 6,80,00,000**, while the **fair value of plan assets rose to ₹ 5,60,00,000**, leading to a closing **net liability of ₹ 1,20,00,000**. The difference between the expected and actual values results in a **remeasurement loss of ₹ 34,00,000**, which is recognized in **other comprehensive income (OCI)**.

For the year ended 31st March, 20X2, the remeasurement loss will be 3,400,000 (Refer W. N.).

Working Note:

Remeasurement of gain or loss

	₹ in '000
Liability at the start of the year (60,000 – 52,000)	8,000
Current service cost	6,200
Past service cost	1,500
Net finance cost	400
Gain on settlement	(500)
Contributions to plan	(7,000)
Remeasurement loss (balancing figure)	3,400
Liability at the end of the year (68,000 – 56,000)	12,000



Ind AS 115
Revenue from Contracts with Customers
ILLUSTRATIONS

1. Illustration (SM)

An entity promises to sell 120 products to a customer for Rs. 120,000 (Rs. 1,000 per product). The products are transferred to the customer over a six-month period. The entity transfers control of each product at a point in time. After the entity has transferred control of 60 products to the customer, the contract is modified to require the delivery of an additional 30 products (a total of 150 identical products) to the customer at a price of Rs. 950 per product which is the standalone selling price for such additional products at the time of placing this additional order. The additional 30 products were not included in the initial contract.

It is assumed that additional products are contracted for a price that reflects the stand-alone selling price.

Determine the accounting for the modified contract?

Solution

An entity agrees to sell **120 products** for ₹ **1,000 per product**, with control transferring at a **point in time** over **six months**. After delivering **60 products**, the contract is **modified** to include **30 additional products** at ₹ **950 per product**, which is their **stand-alone selling price** at the time of modification.

Since the **30 additional products are distinct and priced at their stand-alone selling price**, the contract modification is treated as a **separate contract**. The original contract for **120 products remains unaffected**, and the additional 30 products are accounted for separately at ₹ **950 per unit**. This approach ensures that revenue recognition reflects the **fair value of goods at the time of modification**, in accordance with Ind AS 115.

2. Illustration (SM)

Growth Ltd enters into an arrangement with a customer for infrastructure outsourcing deal. Based on its experience, Growth Ltd determines that customising the infrastructure will take approximately 200 hours in total to complete the project and charges ₹ 150 per hour.

After incurring 100 hours of time, Growth Ltd and the customer agree to change an aspect of the project and increases the estimate of labour hours by 50 hours at the rate of ₹ 100 per hour.

Determine how contract modification will be accounted as per Ind AS 115?

Solution:

Considering that the remaining goods or services are not distinct, the modification will be accounted for on a cumulative catch up basis, as given below:

Particulars	Hours	Rate (₹)	Amount (₹)
Initial contract amount	200	150	30,000
Modification in contract	50	100	5000
Contract amount after modification	250	140*	35,000
Revenue to be recognized	100	140	14,000
Revenue already booked	100	150	15,000
Adjustment in revenue			(1,000)

$$*35,000 / 250 = 140$$

3. Illustration (SM)

XYZ Limited enters into a contract with a customer to build a sophisticated machinery. The promise to transfer the asset is a performance obligation that is satisfied over time. The promised consideration is ₹ 2.5 crore, but that amount will be reduced or increased depending on the timing of completion of the asset. Specifically, for each day after 31st March, 20X1 that the asset is incomplete, the promised consideration is reduced by ₹ 1 lakh.



For each day before 31st March, 20X1 that the asset is complete, the promised consideration increases by ₹ 1 lakh.

In addition, upon completion of the asset, a third party will inspect the asset and assign a rating based on metrics that are defined in the contract. If the asset receives a specified rating, the entity will be entitled to an incentive bonus of ₹ 15 lakh.

Determine the transaction price.

Solution:

To determine the transaction price, XYZ Limited needs to estimate the variable consideration using appropriate methods as per **Ind AS 115**.

1. Variable Consideration for Early/Late Completion:

- The contract specifies that the promised consideration of ₹ 2.5 crore will be adjusted by ₹ 1 lakh per day depending on the completion date.
- Since there are multiple possible outcomes (early completion, timely completion, or delay), the entity applies the **expected value method** to estimate this component.

2. Incentive Bonus Based on Asset Rating:

- The entity may receive an additional incentive of ₹ 15 lakh if the asset meets the required rating upon inspection.
- Since there are only **two possible outcomes** (either the entity receives ₹ 15 lakh or receives nothing), the entity applies the **most likely amount method** to estimate this component.

4. Illustration (SM)

AST Limited enters into a contract with a customer to build a manufacturing facility. The entity determines that the contract contains one performance obligation satisfied over time.

Construction is scheduled to be completed by the end of the 36th month for an agreed-upon price of ₹ 25 crore.

The entity has the opportunity to earn a performance bonus for early completion as follows:

- 15 percent bonus of the contract price if completed by the 30th month (25% likelihood)
- 10 percent bonus if completed by the 32nd month (40% likelihood)
- 5 percent bonus if completed by the 34th month (15% likelihood)

In addition to the potential performance bonus for early completion, AST Limited is entitled to a quality bonus of ₹ 2 crore if a health and safety inspector assigns the facility a gold star rating as defined by the agency in the terms of the contract. AST Limited concludes that it is 60% likely that it will receive the quality bonus.

Determine the transaction price.

Solution:

To determine the **transaction price**, AST Limited estimates the **variable consideration** separately for each element of variability:

1. Early Completion Bonus:

- The contract provides performance bonuses for early completion, ranging from **5% to 15%** of the contract price.
- Since there are multiple possible outcomes and AST Limited has experience with similar contracts, the **expected value method** is applied to estimate this component.
- The expected early completion bonus is calculated as follows:

table:

Bonus %	Amount of bonus (₹ in crore)	Probability	Probability-weighted amount (₹ in crore)
15%	3.75	25%	0.9375
10%	2.50	40%	1.00
5%	1.25	15%	0.1875

0%	-	20%	-
			2,125

2. Quality Bonus:

- AST Limited is eligible for an additional **₹ 2 crore** if the facility receives a **gold star rating**.
- Since there are only **two possible outcomes** (₹ 2 crore or nil), the **most likely amount method** is used.
- The entity concludes that it is **60% likely** to receive this quality bonus, making ₹ 2 crore the most likely estimate for this component.

Final Transaction Price Calculation:

Component	Amount (₹ in Crore)
Fixed Consideration	25.00
Expected Early Completion Bonus	2.125
Most Likely Quality Bonus	2.00
Total Transaction Price	₹ 29.125 crore

Thus, the **transaction price** for the contract is **₹ 29.125 crore**, considering the estimated variable considerations.

5. Illustration (SM)

A TV manufacturer sells TV sets to its dealers at the list price of Rs.10,000 per TV. If a dealer takes more than 8,000 sets during the contract period, then it is eligible for a discount of 5% on the list price retrospectively (i.e. for all sets purchased since the commencement of the agreement). The contract period starts in June and ends in May of each year. On the reporting date, i.e., March 31, 2018, a particular dealer has purchased 5,000 sets. Based on the past trends, it is expected that the total purchases to be made by dealer during the contract period up to May 2018 will be more than 8,000 sets. Should revenue be adjusted for the discount expected to be availed by such a dealer?

Solution:

Ind AS 115 requires that the transaction price be determined based on the consideration an entity expects to receive in exchange for transferring goods or services. The transaction price must account for any variable consideration, such as discounts, rebates, and price concessions.

An entity should assess whether there is a valid expectation from the customer, based on past business practices, policies, or other circumstances, that a discount or rebate will be provided. Additionally, revenue should only be recognized to the extent that it is highly probable that there will be no significant reversal when the uncertainty is resolved.

Analysis of the Case:

- The TV manufacturer sells TV sets at a list price of ₹10,000 per unit.
- If a dealer purchases more than 8,000 units during the contract period (June to May), a **retrospective** discount of **5% on all units purchased** applies.
- By **March 31, 2018**, the dealer has purchased **5,000 sets**.
- Based on past trends, it is **expected** that the dealer's total purchases by May 2018 will exceed **8,000 units**, making the dealer eligible for the discount.

Conclusion:

Since it is probable that the dealer will cross the 8,000-unit threshold, **the revenue recognized should be adjusted for the expected 5% discount** on all sales made up to March 31, 2018. This adjustment ensures that the reported revenue reflects the actual amount expected to be received, in line with Ind AS 115 requirements.



Additionally, as per Ind AS 10 (Events after the Reporting Period), any relevant events occurring between the reporting date and the approval of financial statements should be considered while estimating the probable discount.

Thus, revenue should be reduced by the probable discount amount to reflect the economic reality of the transaction.

6. Illustration (SM)

An entity enters into 1,000 contracts with customers. Each contract includes the sale of one product for ₹ 50 (1,000 total products × ₹ 50 = ₹ 50,000 total consideration). Cash is received when control of a product transfers. The entity's customary business practice is to allow a customer to return any unused product within 30 days and receive a full refund. The entity's cost of each product is ₹ 30.

The entity applies the requirements in Ind AS 115 to the portfolio of 1,000 contracts because it reasonably expects that, in accordance with paragraph 4, the effects on the financial statements from applying these requirements to the portfolio would not differ materially from applying the requirements to the individual contracts within the portfolio. Since the contract allows a customer to return the products, the consideration received from the customer is variable. To estimate the variable consideration to which the entity will be entitled, the entity decides to use the expected value method (see paragraph 53(a) of Ind AS 115) because it is the method that the entity expects to better predict the amount of consideration to which it will be entitled. Using the expected value method, the entity estimates that 970 products will not be returned.

The entity estimates that the costs of recovering the products will be immaterial and expects that the returned products can be resold at a profit.

Determine the amount of revenue, refund liability and the asset to be recognised by the entity for the said contracts.

Solution

Provision under Ind AS 115:

Ind AS 115 requires that if a contract includes a right of return, the consideration received from the customer is considered **variable**. The entity should estimate the amount of revenue to be recognized based on expected returns, applying the **expected value method** when it provides the best prediction of the consideration to be received. Additionally, the entity must recognize a **refund liability** for the expected returns and an **asset** for the right to recover products expected to be returned.

Analysis of the Case:

The entity enters into **1,000 contracts**, selling **one product per contract** at **₹50 per unit**, resulting in **₹50,000 total consideration**. Customers are allowed to return unused products within **30 days** for a full refund. The entity estimates that **970 products will not be returned**, and **30 products will be returned**. The cost per product is **₹30**, and returned products can be **resold at a profit**.

Since returns introduce **variability in consideration**, the entity applies the **expected value method** to estimate revenue. Given its past experience and the **short return window of 30 days**, the entity concludes that it is highly probable that a **significant reversal** of recognized revenue will not occur.

Conclusion:

Upon transferring control of the **1,000 products**, the entity recognizes:

1. **Revenue** = ₹48,500 (₹50 × 970 products not expected to be returned)
2. **Refund Liability** = ₹1,500 (₹50 × 30 products expected to be returned)
3. **Asset for Right to Recover Products** = ₹900 (₹30 × 30 products expected to be returned)



7. Illustration (SM)

ST Limited enters into a contract with a customer to sell an asset. Control of the asset will transfer to the customer in two years (i.e. the performance obligation will be satisfied at a point in time). The contract includes two alternative payment options:

- 1) Payment of ₹ 5,000 in two years when the customer obtains control of the asset or
- 2) Payment of ₹ 4,000 when the contract is signed. The customer elects to pay ₹ 4,000 when the contract is signed.

ST Limited concludes that the contract contains a significant financing component because of the length of time between when the customer pays for the asset and when the entity transfers the asset to the customer, as well as the prevailing interest rates in the market. The interest rate implicit in the transaction is 11.8 per cent, which is the interest rate necessary to make the two alternative payment options economically equivalent. However, the entity determines that, the rate that should be used in adjusting the promised consideration is 6%, which is the entity's incremental borrowing rate.

Pass journal entries showing how the entity would account for the significant financing component

Solution:

Journal Entries showing accounting for the significant financing component

- (a) Recognize a contract liability for the 4,000 payment received at contract inception:

Cash	Dr.	₹. 4,00,000	
To Contract liability			₹. 4,00,000

- (b) During the two years from contract inception until the transfer of the asset, the entity adjusts the promised amount of consideration and accretes the contract liability by recognizing interest on ₹. 4,000 at 6% for two years:

Interest expense	Dr.	₹. 494	
To Contract liability			₹. 494
₹. 494 = ₹. 4,000 contract liability × (6% interest per year for two years).			

- (c) Recognize revenue for the transfer of the asset:

Contract liability	Dr.	₹. 4,494	
To Revenue			₹. 4,494

8. Illustration (SM)

An entity regularly sells Products X, Y and Z individually, thereby establishing the following stand-alone selling prices:

Product	Stand-alone selling price Rs.
Product X	50,000
Product Y	25,000
Product Z	45,000
Total	1,20,000

In addition, the entity regularly sells Products Y and Z together for Rs. 50,000.

Case A—Allocating a discount to one or more performance obligations

The entity enters into a contract with a customer to sell Products X, Y and Z in exchange for Rs. 100,000. The entity will satisfy the performance obligations for each of the products at different points in time; or Product Y and Z at same point of time. Determine the allocation of transaction price to Product Y and Z.

Case B—Residual approach is appropriate

The entity enters into a contract with a customer to sell Products X, Y and Z as described in Case A. The contract also includes a promise to transfer Product Alpha. Total consideration in the contract is Rs. 130,000. The stand-alone selling price for Product Alpha is highly variable because the entity sells Product Alpha to different customers for a broad range of amounts (Rs. 15,000 – Rs. 45,000). Determine the stand-alone selling price of Products, X, Y, Z and Alpha using the residual approach.

Case C—Residual approach is inappropriate

The same facts as in Case B apply to Case C except the transaction price is Rs. 1,05,000 instead of Rs. 130,000.



Solution

The contract includes a **₹20,000 discount** on the overall transaction price of **₹100,000**. Using the **relative stand-alone selling price method**, this discount would typically be **proportionately allocated** to all three products (X, Y, and Z). However, since the entity **regularly sells Products Y and Z together for ₹50,000**, it has evidence that the **entire discount of ₹20,000 should be allocated to Products Y and Z**.

- If **Products Y and Z are transferred at the same time**, the entity can account for them as a **single performance obligation**, allocating **₹50,000 to Product X** and recognizing revenue of **₹50,000 when Products Y and Z are delivered**.
- If **Products Y and Z are transferred separately**, the **₹50,000 allocated to them** is further split based on their **relative stand-alone selling prices**:

Product	Allocated Transaction Price (₹)	Calculation
Product Y	₹17,857	$(₹25,000 \div ₹70,000) \times ₹50,000$
Product Z	₹32,143	$(₹45,000 \div ₹70,000) \times ₹50,000$
Total	₹50,000	

Case B – Residual Approach is Appropriate

The contract now includes **Product Alpha**, and the **total consideration is ₹130,000**. The **stand-alone selling price of Product Alpha is highly variable**, ranging from **₹15,000 to ₹45,000**.

Since **Products X, Y, and Z have observable selling prices** (₹50,000 for Product X and ₹50,000 for Products Y and Z after discount), the residual approach is used to allocate the remaining transaction price to **Product Alpha**.

Product	Stand-alone Selling Price (₹)	Method Used
Product X	₹50,000	Directly Observable
Products Y & Z	₹50,000	Directly Observable (with Discount)
Product Alpha	₹30,000	Residual Approach (₹130,000 – ₹100,000)
Total	₹130,000	

Since **₹30,000 falls within the expected range (₹15,000 – ₹45,000)**, the residual approach is **appropriate** for allocating the price to Product Alpha.

Case C – Residual Approach is Inappropriate

The transaction price is now **₹105,000**, and applying the residual approach would allocate **₹5,000 to Product Alpha** (₹105,000 – ₹100,000 for Products X, Y, and Z). However, this **does not faithfully depict the expected consideration**, as **₹5,000 is significantly lower** than the observed selling range (₹15,000 – ₹45,000).

Since the residual approach **produces an unrealistic allocation**, the entity **cannot use it**. Instead, the entity must use **another method, such as the relative stand-alone selling price method**, to allocate the **₹105,000 transaction price** across all products **X, Y, Z, and Alpha**.

Thus, in this case, the **transaction price must be allocated based on relative stand-alone selling prices** following **Ind AS 115 guidelines (Paragraphs 73-80)** instead of the residual approach.

9. Illustration (SM)

An entity enters into a contract with a customer for two intellectual property licences (Licences A and B), which the entity determines to represent two performance obligations



each satisfied at a point in time. The stand-alone selling prices of Licences A and B are Rs. 1,600,000 and Rs. 2,000,000, respectively. The entity transfers Licence B at inception of the contract and transfers Licence A one month later. Case A – Variable consideration allocated entirely to one performance obligation The price stated in the contract for Licence A is a fixed amount of Rs. 1,600,000 and for Licence B the consideration is three per cent of the customer's future sales of products that use Licence B. For purposes of allocation, the entity estimates its sales-based royalties (ie the variable consideration) to be Rs. 2,000,000. Allocate the transaction price. Case B – Variable consideration allocated on the basis of stand-alone selling prices The price stated in the contract for Licence A is a fixed amount of Rs. 600,000 and for Licence B the consideration is five per cent of the customer's future sales of products that use Licence B. The entity's estimate of the sales-based royalties (i.e., the variable consideration) is Rs. 3,000,000. Here, Licence A is transferred 3 months later. The royalty due from the customer's first month of sale is Rs. 4,00,000. Allocate the transaction price and determine the revenue to be recognised for each licence and the contract liability, if any.

Case A – Variable Consideration Allocated Entirely to One Performance Obligation

The contract involves two intellectual property licenses, **Licence A** (₹16,00,000) and **Licence B** (₹20,00,000). The consideration for **Licence A** is fixed at ₹16,00,000, while for **Licence B**, it is a 3% sales-based royalty, estimated to be ₹20,00,000.

As per **Ind AS 115**, variable consideration should be allocated to a **specific performance obligation** if:

- The variable payment **relates specifically** to the obligation (here, Licence B is linked to the customer's future sales).
- The allocation is **consistent with the stand-alone selling price** of the licenses.

Since the estimated royalty of ₹20,00,000 aligns with Licence B's selling price, the entity **allocates the entire royalty to Licence B** and ₹16,00,000 to Licence A.

- Upon transferring **Licence B**, no revenue is recognized initially because it is based on **future sales-based royalties**. Revenue will be recognized when actual sales occur.
- Upon transferring **Licence A** (one month later), revenue of ₹16,00,000 is recognized immediately.

Case B – Variable Consideration Allocated on the Basis of Stand-Alone Selling Prices

In this case, **Licence A** has a fixed price of ₹6,00,000, and **Licence B** has a 5% sales-based royalty, estimated at ₹30,00,000. Since **Licence A** is transferred three months later, the allocation must reflect stand-alone selling prices.

Applying **Ind AS 115**, variable consideration should only be allocated entirely to one obligation if it reflects the stand-alone price. Here, allocating ₹6,00,000 to **Licence A** and ₹30,00,000 to **Licence B** does not match their relative stand-alone prices (₹16,00,000 and ₹20,00,000, respectively). Thus, allocation is done using **relative stand-alone selling price**.

Product	Stand-alone Price (₹)	Allocation Basis (%)	Allocated Fixed Price (₹6,00,000)
Licence A	16,00,000	(16,00,000 ÷ 36,00,000)	₹2,66,667
Licence B	20,00,000	(20,00,000 ÷ 36,00,000)	₹3,33,333
Total	36,00,000	100%	6,00,000

- When **Licence B** is transferred, the entity recognizes revenue of ₹3,33,333.
- When **Licence A** is transferred three months later, revenue of ₹2,66,667 is recognized.

For **royalty recognition**, the **first month's royalty payment** is ₹4,00,000. The allocation is based on **stand-alone selling price**:



Product	Royalty Allocation (%)	Royalty Revenue Recognized (₹)
Licence B (Transferred)	$(20,00,000 \div 36,00,000)$	₹2,22,222
Licence A (Not Yet Transferred)	$(16,00,000 \div 36,00,000)$	₹1,77,778 (Contract Liability)

Since **Licence A is not yet transferred**, the **₹1,77,778 royalty is recorded as a contract liability** and recognized only when Licence A is delivered.

10. Illustration (SM)

On 1st April, 20X0, a consultant enters into an arrangement to provide due diligence, valuation, and software implementation services to a customer for Rs. 2 crore. The consultant can earn Rs. 20 lakh bonus if it completes the software implementation by 30th September, 20X0 or Rs. 10 lakh bonus if it completes the software implementation by 31st December, 20X0.

The due diligence, valuation, and software implementation services are distinct and therefore are accounted for as separate performance obligations. The consultant allocates the transaction price, disregarding the potential bonus, on a relative stand-alone selling price basis as follows:

- Due diligence – Rs. 80 lakh
- Valuation – Rs. 20 lakh
- Software implementation – Rs. 1 crore

At contract inception, the consultant believes it will complete the software implementation by 30th January, 20X1. After considering the factors in Ind AS 115, the consultant cannot conclude that a significant reversal in the cumulative amount of revenue recognized would not occur when the uncertainty is resolved since the consultant lacks experience in completing similar projects. As a result, the consultant does not include the amount of the early completion bonus in its estimated transaction price at contract inception.

On 1st July, 20X0, the consultant notes that the project has progressed better than expected and believes that implementation will be completed by 30th September, 20X0 based on a revised forecast. As a result, the consultant updates its estimated transaction price to reflect a bonus of Rs. 20 lakh.

After reviewing its progress as of 1st July, 20X0, the consultant determines that it is 100 percent complete in satisfying its performance obligations for due diligence and valuation and 60 percent complete in satisfying its performance obligation for software implementation.

Determine the transaction price.

Solution

Since **each service is distinct**, the consultant initially **allocates the transaction price** based on the **relative stand-alone selling price method** as follows:

- **Due diligence – ₹80 lakh**
- **Valuation – ₹20 lakh**
- **Software implementation – ₹1 crore**

At contract inception, the consultant expects completion by **30th January, 20X1** and, given its **lack of prior experience**, it **does not include the early completion bonus** in the transaction price due to the risk of a **significant revenue reversal** as per **Ind AS 115**.

On **1st July, 20X0**, based on **better-than-expected project progress**, the consultant **revises its forecast** and now expects to complete the software implementation by **30th September, 20X0**, making the **₹20 lakh bonus probable**. As a result, the transaction price is **updated to ₹2.2 crore** and the **software implementation price is revised to ₹1.2 crore** (₹1 crore + ₹20 lakh bonus).

As of **1st July, 20X0**, the **completion status** of the performance obligations is:

- **Due diligence – 100% complete**



- **Valuation – 100% complete**
- **Software implementation – 60% complete**

Since the **bonus is allocated entirely to the software implementation service**, the **revised cumulative revenue** for software implementation is calculated as **60% of ₹1.2 crore = ₹72 lakh**.

11. Illustration (SM)

Telco G Ltd. grants a one-time credit of Rs. 50 to a customer in Month 14 of a two-year contract. The credit is discretionary and is granted as a commercial gesture, not in response to prior service issues (often referred to as a 'retention credit'). The contract includes a subsidised handset and a voice and data plan. G Ltd. does not regularly provide these credits and therefore customers do not expect them to be granted.

How this will be accounted for under Ind AS 115?

Solution

Telco G Ltd. grants a **one-time credit of ₹50** to a customer in **Month 14** of a **two-year contract** as a **commercial gesture**, unrelated to prior service issues. The contract includes a **subsidized handset and a voice and data plan**. Since G Ltd. **does not regularly provide such credits**, customers do **not expect** them to be granted.

As per **Ind AS 115**, this is **not variable consideration** but a **change in the transaction price**. Since the credit does **not relate to a satisfied performance obligation**, it is accounted for as a **contract modification** and is **recognized over the remaining contract term**.

If instead of a **one-time credit**, G Ltd. had granted a **₹5 discount per month for the remaining term**, this too would be considered a **change in the transaction price** and treated as a **contract modification**, with the discount **allocated over the remaining contract period**.

12. Illustration (ICAI EM)

An entity, Moon Ltd. which manufactures auto components enters into a two year contract with a customer Venus Ltd., a car manufacturer. The total contract value is Rs.20,00,000. Additionally, Moon Ltd. agrees to pay Rs.4,00,000 to Venus Ltd. as compensation for storage facility which will require certain modifications to accommodate the components manufactured by Moon Ltd. The storage facility is controlled by Venus Ltd. and will be utilised exclusively to store goods received from Moon Ltd.

What will be the accounting treatment for the consideration payable to Venus Ltd.?

Solution:

As per **Ind AS 115 (Paragraphs 70-72)**, **consideration payable to a customer** should be treated as a **reduction in the transaction price** unless it is in exchange for a **distinct good or service** that the customer provides to the entity. Since **Moon Ltd. does not obtain control over the storage facility**, the **₹4,00,000 payment is not for a distinct good or service** but rather a **cost incurred to facilitate the contract**. Therefore, the **transaction price is reduced to ₹16,00,000 (₹20,00,000 - ₹4,00,000)**.

As per **Ind AS 115**, this reduction should be **recognized as a reduction in revenue** when the **related goods are transferred**. The reduction is **allocated proportionately** across the contract. The **reduction percentage is 20% (₹4,00,000 ÷ ₹20,00,000)**.

If, in the **first month**, **components worth ₹5,00,000 are delivered**, the revenue recognized will be **₹4,00,000** after adjusting for the **20% reduction (₹5,00,000 - ₹1,00,000)**. The **same proportionate adjustment** will apply to future deliveries.



13. Illustration (ICAI EM)

Entity Y enters into an agreement to sell hardware, professional services and maintenance services for Rs. 2,00,000. Entity Y determines that each of the promised goods or services represents a separate performance obligation because the entity frequently sells professional services and maintenance services on a stand-alone basis. The stand-alone selling prices of professional services and maintenance services are Rs.25,000 and Rs.15,000 respectively. The Entity Y rarely sells the hardware on a stand-alone basis, so it estimates the stand-alone selling price at Rs.185,000 based on the hardware's underlying cost, the entity's targeted cost and the amount of margin the entity believes the market will bear (i.e., the expected cost plus a margin approach).

The contract price will include Rs.10,000 incentive, if professional services are provided within seven days of the delivery date of the hardware.

- How will the transaction price be allocated to performance obligations?
- What will be the accounting treatment for the incentive amount?

Solution

(a) Allocation of Transaction Price to Performance Obligations

Entity Y enters into a contract to sell **hardware, professional services, and maintenance services** for **₹2,00,000**. Each component is a **separate performance obligation**, as professional and maintenance services are **regularly sold separately**. The **stand-alone selling prices** are:

- Hardware** – ₹1,85,000 (estimated using the expected cost plus margin approach).
- Professional Services** – ₹25,000 (directly observable).
- Maintenance Services** – ₹15,000 (directly observable).

As per **Ind AS 115**, the transaction price is allocated **proportionately based on stand-alone selling prices**.

Performance Obligation	Stand-Alone Selling Price (₹)	Allocation Ratio	Allocated Transaction Price (₹)
Hardware	1,85,000	(1,85,000 / 2,25,000)	₹1,64,444
Professional Services	25,000	(25,000 / 2,25,000)	₹22,222
Maintenance Services	15,000	(15,000 / 2,25,000)	₹13,334
Total	2,25,000	100%	₹2,00,000

Thus, the transaction price of **₹2,00,000** is allocated as **₹1,64,444 to Hardware, ₹22,222 to Professional Services, and ₹13,334 to Maintenance Services**.

(b) Accounting Treatment of Incentive Amount

The contract includes an **incentive of ₹10,000**, payable only if **professional services are provided within 7 days** of hardware delivery.

As per **Ind AS 115**, variable consideration should be **allocated entirely to a single performance obligation** if:

- The **variable payment relates specifically** to an obligation (here, **professional services**).
- Allocating the **variable amount entirely to that obligation** aligns with the **contract objectives**.

Since the incentive **depends entirely on the timely completion of professional services**, it should be **allocated entirely to the professional services obligation**.



Thus, if the performance condition is met, the total allocated price for **professional services** becomes:

₹22,222 (initial allocation) + ₹10,000 (incentive) = ₹32,222.

14. Illustration (SM)

On 1st January, 20X1, an entity contracts to renovate a building including the installation of new elevators. The entity estimates the following with respect to the contract:

Particulars	Amount (₹)
Transaction price	50,00,000
Expected costs:	
(a) Elevators	15,00,000
(b) Other costs	25,00,000
Total	40,00,000

The entity purchases the elevators and they are delivered to the site six months before they will be installed. The entity uses an input method based on cost to measure progress towards completion. The entity has incurred actual other costs of ₹ 500,000 by 31st March, 20X1. How will the Company recognize revenue, if performance obligation is met over a period of time?

Solution

Costs to be incurred comprise two major components – elevators and cost of construction service.

- The elevators are part of the overall construction project and are not a distinct performance obligation
- The cost of elevators is substantial to the overall project and are incurred well in advance.
- Upon delivery at site, the customer acquires control of such elevators.
- And there is no modification made to the elevators, which the company only procures and delivers at site. Nevertheless, as part of materials used in overall construction project, the company is a principal in the transaction with the customer for such elevators also.

Therefore, applying the guidance on Input method –

- The measure of progress should be made based on the percentage of costs incurred relative to the total budgeted costs.
- The cost of elevators should be excluded when measuring such progress and revenue for such elevators should be recognized to the extent of costs incurred.

The revenue to be recognized is measured as follows:

Particulars	₹
Transaction price	5,000,000
Costs incurred:	
(a) Cost of elevators	1,500,000
(b) Other costs	500,000
Measure of progress:	500,000 / 2,500,000 = 20%
Revenue to be recognized:	
(a) For costs incurred (other than elevators)	Total attributable revenue = 3,500,000 % of work completed = 20% Revenue to be recognized = 700,000
(b) Revenue for elevators	1,500,000 (equal to costs incurred)
Total revenue to be recognized	1,500,000 + 700,000 = 2,200,000

Therefore, for the year ended 31st March, 20X1, the Company shall recognize revenue of ₹. 2,200,000 on the project.

15. Illustration (SM)

An entity has a fixed fee contract for Rs. 1 million to develop a product that meets specified performance criteria. Estimated cost to complete the contract is Rs. 9,50,000. The entity will transfer control of the product over five years, and the entity uses the cost-to-cost input



method to measure progress on the contract. An incentive award is available if the product meets the following weight criteria:

Weight (kg)	Award % of fixed fee	Incentive fee
951 or greater	0%	—
701–950	10%	Rs. 100,000
700 or less	25%	Rs. 250,000

The entity has extensive experience creating products that meet the specific performance criteria. Based on its experience, the entity has identified five engineering alternatives that will achieve the 10 percent incentive and two that will achieve the 25 percent incentive. In this case, the entity determined that it has 95 percent confidence that it will achieve the 10 percent incentive and 20 percent confidence that it will achieve the 25 percent incentive. Based on this analysis, the entity believes 10 percent to be the most likely amount when estimating the transaction price. Therefore, the entity includes only the 10 percent award in the transaction price when calculating revenue because the entity has concluded it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved due to its 95 percent confidence in achieving the 10 percent award.

The entity reassesses its production status quarterly to determine whether it is on track to meet the criteria for the incentive award. At the end of the year four, it becomes apparent that this contract will fully achieve the weight-based criterion. Therefore, the entity revises its estimate of variable consideration to include the entire 25 percent incentive fee in the year four because, at this point, it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when including the entire variable consideration in the transaction price.

Evaluate the impact of changes in variable consideration when cost incurred is as follows:

Year	Rs.
1	50,000
2	1,75,000
3	4,00,000
4	2,75,000
5	50,000

Solution

Note: For simplification purposes, the table calculates revenue for the year independently based

on costs incurred during the year divided by total expected costs, with the assumption that total expected costs do not change.

Fixed Consideration	A	1,000,000				
Estimated costs to complete*	B	950,000				
		Year 1	Year 2	Year 3	Year 4	Year 5
Total estimated variable amount	C	100,000	100,000	100,000	250,000	250,000
Fixed revenue	$D=A \times H/B$	52,632	184,211	421,053	289,474	52,632
Variable revenue	$E=C \times H/B$	5,263	18,421	42,105	72,368	13,158
Cumulative revenue adjustment	F (see below)	-	-	-	99,370	-
Total revenue	$G=D+E+F$	57,895	202,632	463,158	461,212	65,790
Costs	H	50,000	175,000	400,000	275,000	50,000
Operating profit	$I=G-H$	7,895	27,632	63,158	186,212	15,790



Margin (rounded off)	J=I/G	14%	14%	14%	40%	24%
----------------------	-------	-----	-----	-----	-----	-----

* For simplicity, it is assumed there is no change to the estimated costs to complete throughout the contract period.

* In practice, under the cost-to-cost measure of progress, total revenue for each period is determined by multiplying the total transaction price (fixed and variable) by the ratio of cumulative cost incurred to total estimated costs to complete, less revenue recognized to date.

Calculation of cumulative catch-up adjustment:			
Updated variable consideration	L		250,000
Percent complete in Year 4: (rounded off)	M=N/O		95%
Cumulative costs through Year 4	N	900,000	
Estimated costs to complete	O	950,000	
Cumulative variable revenue through Year 4:	P		138,157
Cumulative catch-up adjustment	$F = L \times M - P$		99,343

16. Illustration (SM)

An entity manufactures and sells computers that include an assurance-type warranty for the first 90 days. The entity offers an optional 'extended coverage' plan under which it will repair or replace any defective part for three years from the expiration of the assurance-type warranty.

Since the optional 'extended coverage' plan is sold separately, the entity determines that the three years of extended coverage represent a separate performance obligation (i.e., a service-type warranty). The total transaction price for the sale of a computer and the extended warranty is Rs. 36,000. The entity determines that the stand-alone selling prices of the computer and the extended warranty are Rs. 32,000 and Rs. 4,000, respectively. The inventory value of the computer is Rs. 14,400.

Furthermore, the entity estimates that, based on its experience, it will incur Rs. 2,000 in costs to repair defects that arise within the 90-day coverage period for the assurance-type warranty.

Pass required journal entries.

Solution:

The entity will record the following journal entries:

Particulars	₹	₹
Cash/Trade Receivable Dr	36,000	
Warranty Expense Dr	2,000	
To Accrued warranty costs (assurance-type warranty)		2,000
To Revenue		32,000
To Contract Liability (Service-type warranty)		4,000
(To record revenue and contract liabilities related to warranties)		
Cost of Goods Sold Dr.	14,000	
To Inventory		14,000
(To derecognize inventory and recognize cost of goods sold)		

The entity derecognizes the accrued warranty liability associated with the assurance-type warranty as actual warranty costs are incurred during the first 90 days after the customer receives the computer.

The entity recognizes the contract liability associated with the service type warranty as revenue during the contract warranty period and recognizes the costs associated with providing the service-type warranty as they are incurred.



The entity had to determine whether the repair costs incurred are applied against the warranty reserve already established for claims that occur during the first 90 days or recognized as an expense as incurred.

17. Illustration (SM)

An entity enters into a contract with a customer on 1st April, 20X1 for the sale of a machine and spare parts. The manufacturing lead time for the machine and spare parts is two years. Upon completion of manufacturing, the entity demonstrates that the machine and spare parts meet the agreed-upon specifications in the contract. The promises to transfer the machine and spare parts are distinct and result in two performance obligations that each will be satisfied at a point in time. On 31st March, 20X3, the customer pays for the machine and spare parts, but only takes physical possession of the machine. Although the customer inspects and accepts the spare parts, the customer requests that the spare parts be stored at the entity's warehouse because of its close proximity to the customer's factory. The customer has legal title to the spare parts and the parts can be identified as belonging to the customer. Furthermore, the entity stores the spare parts in a separate section of its warehouse and the parts are ready for immediate shipment at the customer's request. The entity expects to hold the spare parts for two to four years and the entity does not have the ability to use the spare parts or direct them to another customer.

How will the Company recognise revenue for sale of machine and spare parts? Is there any other performance obligation attached to this sale of goods?

Solution

In this scenario, an entity enters into a contract with a customer for the sale of a **machine and spare parts**, with the manufacturing process spanning two years. The entity satisfies two **distinct performance obligations** at a **point in time**. Upon completion of manufacturing, the customer **takes possession of the machine** but **requests the spare parts to be stored** at the entity's warehouse due to its proximity to the customer's factory. The legal title and identification of spare parts are transferred to the customer, but physical possession remains with the entity.

Performance Obligations and Revenue Recognition

The total transaction price will be allocated to three **performance obligations**:

1. **Sale of Machinery** – Since the customer has taken physical possession and legal title of the machine, revenue for the sale of the machine shall be recognized **on 31st March, 20X3**.
2. **Sale of Spare Parts (Bill-and-Hold Arrangement)** – The entity needs to evaluate whether it meets the criteria for recognizing revenue for spare parts under a **bill-and-hold arrangement**.
3. **Custodial Services for Storing Spare Parts** – The obligation to store spare parts for **2 to 4 years** is a **separate performance obligation** and should be recognized as revenue **over time**.

Evaluation of Bill-and-Hold Criteria for Spare Parts

According to **Ind AS 115**, revenue for the **sale of spare parts** can be recognized under the **bill-and-hold arrangement** if the following conditions are met:

- **Substantive Reason for Bill-and-Hold** – The **customer requested** the storage arrangement due to the warehouse's proximity to their factory.
- **Product Identification** – The spare parts are **identified separately** as belonging to the customer and have been **inspected** by them.
- **Readiness for Transfer** – The spare parts are **ready for shipment** at the customer's request.



- **Entity Has No Further Control** – The entity **cannot redirect** or use the spare parts for another customer.

Since **all criteria** are satisfied, revenue for spare parts will be recognized **on 31st March, 20X3**.

Recognition of Custodial Services

The **storage of spare parts** is a **distinct obligation** that benefits the customer over time. The **Illustration (SM)**

An entity enters into a contract for the sale of Product A for ₹ 1,000. As part of the contract, the entity gives the customer a 40% discount voucher for any future purchases up to ₹ 1,000 in the next 30 days. The entity intends to offer a 10% discount on all sales during the next 30 days as part of a seasonal promotion. The 10% discount cannot be used in addition to the 40% discount voucher.

The entity believes there is 80% likelihood that a customer will redeem the voucher and on an average, a customer will purchase ₹ 500 of additional products.

Determine how many performance obligations does the entity have and their stand-alone selling price and allocated transaction price?

Solution:

According to **Ind AS 115**, since the voucher provides a **material right**, it must be treated as a **separate performance obligation**, and the transaction price must be allocated between Product A and the voucher based on their **relative standalone selling prices**.

The standalone selling price of Product A is **₹1,000**, and the voucher is valued at **₹500 × 30% × 80% = ₹120**. The total combined standalone price is **₹1,120**. The transaction price of **₹1,000** is then allocated proportionally.

Performance Obligation	Standalone Selling Price (₹)	Allocated Transaction Price (₹)
Product A	1,000	$(₹1,000/₹1,120) \times ₹1,000 = ₹890$
Discount Voucher	120	$(₹120/₹1,120) \times ₹1,000 = ₹110$

Revenue of **₹890** is recognized when Product A is delivered, while **₹110** is recognized when the voucher is either redeemed or expires.

18. Illustration

For every ₹ 100 of sale, entity awards 10. If total sales are ₹ 1,00,000. Each point is worth ₹ 1. Entity expects that only 9,500 points would be redeemed.

At the end of year 1, 4500 points were redeemed.

At the end of year 2, 4000 points were redeemed.

At the end of year 2, entity expects that 9,700 points would be redeemed.

Determine the revenue to be recognised in each year.

Step 1: Allocation of Transaction Price

- The entity awards **10 points for every ₹100 of sales**.
- **Total sales = ₹1,00,000** → **Total points awarded = $(1,00,000 / 100) \times 10 = 10,000$ points**.
- Each point is worth **₹1**, but the entity expects **only 9,500 points to be redeemed**.
- **Total estimated liability for loyalty points = $9,500 \times ₹1 = ₹9,500$** .
- **Total Standalone Selling Price = ₹1,09,500**.
- The total transaction price (₹1,00,000) is allocated based on the standalone selling price:

Performance Obligation	Standalone Selling Price (₹)	% Allocation	Allocated Revenue (₹)
Sale of Product	1,00,000	91.32%	91,324.20

Loyalty Points	9,500	8.68%	8,675.80
Total	1,09,500	100%	1,00,000

At the time of sale, **₹91,324.20 is recognized as revenue** and **₹8,675.80 is deferred as a liability** for future redemption.

Step 2: Recognizing Revenue When Points Are Redeemed

Revenue is recognized for loyalty points **as and when they are redeemed**, based on the expected redemption rate.

At the End of Year 1

- **4,500 points redeemed.**
- Revenue recognized = $(4,500/9,500) \times 8,675.80$.

Year	Points Redeemed	Total Expected Redemptions	Revenue Recognized for Points (₹)	Remaining Deferred Revenue (₹)
Year 1	4,500	9,500	₹4,109.59	₹8,675.80 - ₹4,109.59 = ₹4,566.21

At the End of Year 2

- **Additional 4,000 points redeemed.**
- Cumulative redemption = **8,500 points.**
- The entity revises its estimate and now expects **9,700 points to be redeemed.**
- **Revised revenue allocation = $(8,500/9,700) \times 8,675.80$.**
- Revenue to be recognized in Year 2 = **₹7,602.50 - ₹4,109.59.**

Year	Cumulative Points Redeemed	Revised Expected Redemptions	Total Revenue Recognized for Points (₹)	Revenue Recognized in Current Year (₹)	Remaining Deferred Revenue (₹)
Year 2	8,500	9,700	₹7,602.50	₹3,492.92	₹8,675.80 - ₹7,602.50 = ₹1,073.30

Thus, **₹3,492.92 is recognized in Year 2**, leaving a balance deferred revenue of **₹1,073.30**, which will be recognized as remaining points are redeemed.

19. Illustration

A Ltd. is in the business of the infrastructure and has two divisions under the same; (I) Toll Roads and (II) Wind Power.

The brief details of these business and underlying project details are as follows:

- I. Bhilwara-Jabalpur Toll Project - The Company has commenced the construction of the project in the current year and has incurred total expenses aggregating to ₹ 50 crore as on 31st December, 20X1. Under IGAAP, the Company has 'recorded such expenses as Intangible Assets in the books of account. The brief details of the Concession Agreement are as follows:
 - Total Expenses estimated to be incurred on the project ₹ 100 crore;
 - Fair Value of the construction services is ₹ 110 crore;
 - Total Cash Flow guaranteed by the Government under the concession agreement is ₹ 200 crore;
 - Finance revenue over the period of operation phase is ₹ 15 crore;
 - Other income relates to the services provided during the operation phase.
- II. Kolhapur- Nagpur Expressway - The Company has also entered into another concession agreement with Government of Maharashtra in the current year. The construction cost for the said project will be ₹ 110 crore. The fair value of such



construction cost is approximately ₹ 200 crore. The said concession agreement is Toll based project and the Company needs to collect the toll from the users of the expressway. Under IGAAP, UK Ltd. has recorded the expenses incurred on the said project as an Intangible Asset.

- (i) What would be the classification of Bhilwara-Jabalpur Toll Project as per applicable Ind AS? Give brief reasoning for your choice.
- (ii) What would be the classification of Kolhapur-Nagpur Expressway Toll Project as per applicable Ind AS? Give brief reasoning for your choice.
- (iii) Also, suggest suitable accounting treatment for preparation of financial statements as per Ind AS for the above 2 projects.

Solution

(i) Here the operator has a contractual right to receive cash from the grantor. The grantor has little, if any, discretion to avoid payment, usually because the agreement is enforceable by law. The operator has an unconditional right to receive cash if the grantor contractually guarantees to pay the operator. Hence, the operator recognizes a financial asset to the extent it has a contractual right to receive cash.

(ii) Here the operator has a contractual right to charge users of the public services. A right to charge users of the public service is not an unconditional right to receive cash because the amounts are contingent on the extent that the public uses the service. Therefore, the operator shall recognize an intangible asset to the extent it receives the right (a licence) to charge users of the public service.

(iii) Accounting treatment for preparation of financial statements

Bhilwara-Jabalpur Toll Project

Journal Entries

	Particulars	Dr. (₹. In crore)	Cr. (₹. In crore)
1	Financial asset A/c Dr.	110	
	To Construction revenue		110
	[To recognize revenue relating to construction services, to be settled in case]		
2	Cost of construction (profit or loss) Dr.	100	
	To Bank A/c (As and when incurred)		100
	[To recognize costs relating to construction services]		
	During the operation phase:		
3	Financial asset Dr.	15	
	To Finance revenue (As and when received or due to receive)		15
	[To recognize interest income under the financial asset model]		
4	Financial asset Dr.	75	
	To Revenue [(200-110) – 15]		75
	[To recognize revenue relating to the operation phase]		
5	Bank A/c Dr.	200	
	To Financial asset		200
	[To recognize cash received from the grantor]		

Kolhapur-Nagpur Expressway -Intangible asset

Journal Entries

	Particulars	Dr. (₹. In crore)	Cr. (₹. In crore)
	During construction:		
1	Cost of construction (profit or loss) Dr.	110	
	To Bank A/c (As and when incurred)		110

	[To recognize costs relating to construction services]		
2	Intangible asset Dr	200	
	To Revenue		200
	[To recognize revenue relating to construction services provided for non-cash consideration]		
	During the operation phase:		
3	Amortisation expense Dr.	200	
	To Intangible asset (accumulated amortisation)		200
	[To recognize amortisation expense relating to the operation phase over the period of operation]		
4	Bank A/c Dr.	-	
	To Revenue		-
	[To recognize revenue relating to the operation phase]		

Note: Amount in entry 4 is kept blank as no information in this regard is given in the question.

20. Illustration (Nov 19 – 12 Marks)

Nivaan Limited commenced work on two long-term contracts during the financial year ended on 31st March, 2019.

The first contract with A & Co. commences on 1st June, 2018 and had a total sales value of Rs. 40 lakh. It was envisaged that the contract would run for two years and that the total expected costs would be Rs. 32 lakh. On 31st March, 2019, Nivaan Limited revised its estimate of the total expected cost to Rs. 34 lakh on the basis of the additional rectification cost of Rs. 2 lakh incurred on the contract during the current financial year. An independent surveyor has estimated at 31st March, 2019 that the contract is 30% complete. Nivaan Limited has incurred costs up to 31st March, 2019 of Rs. 16 lakh and has received payments on account of Rs. 13 lakh.

The second contract with B & Co. commenced on 1st September, 2018 and was for 18 months. The total sales value of contract was Rs. 30 lakh and the total expected cost is Rs. 24 lakh. Payments on account already received were Rs. 9.50 lakh and total costs incurred to date were Rs. 8 lakh. Nivaan Limited has insisted on a large deposit from B & Co. because the companies had not traded together prior to the contract. The independent surveyor estimated that on 31st March, 2019 the contract was 20% complete.

The two contracts meet the requirement of Ind AS 115 'Revenue from Contracts with Customers' to recognize revenue over time as the performance obligations are satisfied over time.

The company also has several other contracts of between twelve and eighteen months in duration. Some of these contracts fall into two accounting periods and were not completed as at 31st March, 2019. In absence of any financial date relating to the other contracts, you are advised to ignore these other contracts while preparing the financial statements of the company for the year ended 31st March, 2019.

Prepare financial statement extracts for Nivaan Limited in respect of the two construction contracts for the year ending 31st March, 2019.

Solution:

Extracts of Balance Sheet of Nivaan Ltd. as on 31st March, 2019

	₹. In lacs
Current Assets	
Contract Assets- Work-in-progress (Refer W.N. 3)	9.0
Current Liabilities	
Contract Liabilities (Advance from customers) (Refer W.N. 2)	4.5

Extracts of Statement of Profit and Loss of Nivaan Ltd. as on 31st March, 2019



	₹. In lacs
Revenue from contracts (Refer W.N. 1)	18
Cost of Revenue (Refer W.N. 1)	(15)
Net Profit on Contracts (Refer W.N. 1)	3

Working Notes:

1. Table showing calculation of total revenue, expenses and profit or loss on contract for the year (₹. In lacs)

	A & Co.	B & Co.	Total
Revenue from contracts	12 (40*30%)	6 (30*20%)	18
Expenses due for the year	10.2 (34*30%)	4.8 (24*20%)	15
Profit or loss on contract	1.8	1.2	3

2. Calculation of amount due from / (to) customers (₹. In lacs)

	A & Co.	B & Co.	Total
Billing based on revenue recognised in the books	12	6	18
Payments received from the customers	(13)	(9.5)	(22.5)
Advance received from the customers	1	3.5	4.5

3. Work in Progress recognised as part of contract asset at the end of the year (₹. In lacs)

	A & Co.	B & Co.	Total
Total actual cost incurred during the year	16	8	24
Less: Cost recognised in the books for the year 31.3.2019	(10.2)	(4.8)	(15)
Work-in-progress recognised at the end of the year	5.8	3.2	9.0

21. Illustration (Jan 21 – 12 Marks)

A Ltd. is a company which is in the business of manufacturing engineering machines and providing after sales services. The company entered into a contract with Mr. Anik to supply and install a machine, namely 'model pi' on 1st April 2018 and to service this machine on 30th September 2018 and 1st April 2019. The cost of manufacturing the machine to A Ltd. was Rs. 1,60,000.

It is possible for a customer to purchase both the machine 'model pi' and the maintenance services separately. Mr. Anik is contractually obliged to pay A Ltd Rs. 4,00,000 on 1st April, 2019.

The prevailing rate for one-year credit granted to trade customers in the industry is 5 percent per six-month period. As per the experience, the servicing of the machine 'model pi' sold to Mr. Anik is expected to cost A Ltd. Rs. 30,000 to perform the first service and Rs. 50,000 to perform the second service. Assume actual costs equal expected costs. When A Ltd. provides machine services to customers in a separate transaction it earns a margin of 50 % on cost. On 1st April, 2018, the cash selling price of the machine 'model pi' sold to Mr. Anik is Rs. 2,51,927.

The promised supply of machine 'model pi' and maintenance service obligations are satisfactorily carried out in time by the company.

You are required to:

- Segregate the components of the transaction that A Ltd. shall apply to the revenue recognition criteria separately as per Ind AS 115
- Calculate the amount of revenue which A Ltd. must allocate to each component of the transaction
- Prepare journal entries to record the information set out above in the books of accounts of A Ltd. for the years ended 31st March 2019 and 31st March 2020; and



- (iv) Draft an extract showing how revenue could be presented and disclosed in the financial statements of A Ltd. for the year ended 31st March 2019 and 31st March 2020.

Solution:**Identification of Performance Obligations**

As per **Ind AS 115**, a contract must be separated into distinct performance obligations if:

- The **customer can benefit** from each component separately.
- The company's promise to transfer goods or services is **separately identifiable**.

Based on this, the contract has **three distinct elements**:

1. **Sale of the machine (Model Pi)** – This is a separate obligation since the customer can purchase the machine without availing maintenance services.
2. **Rendering of after-sales services** – Maintenance services on **30th September 2018** and **1st April 2019** are independent from the machine sale.
3. **Financing component** – Since payment is deferred until **1st April 2019**, there is a **significant financing component**.

- (i) Calculation and allocation of revenue to each component of the transaction

Date	Opening balance	Finance income	Goods	Services	Payment received	Closing balance
1 st April, 2018	-	-	2,51,927	-	-	2,51,927
30th September, 2018	2,51,927	12,596 (Note 1)	-	45,000	-	3,09,523
31st March 2019	3,09,523	15,477 (Note 2)	-	-	-	3,25,000
1 st April, 2019	3,25,000	-	-	75,000	(4,00,000)	

Notes:

1. Calculation of finance income as on 30th September, 2018 = $5\% \times 2,51,927 = ₹ 12,596$
2. Calculation of finance income as on 31st March, 2019 = $5\% \times 3,09,523 = ₹ 15,477$

- (ii) Journal Entries

Date	Particulars		Dr.	Cr.
1 st April, 2018	Mr. Anik	Dr.	2,51,927	
	To Revenue - sale of goods (Profit or loss A/c)			2,51,927
	(Being revenue recognised from the sale of the machine on credit)			
	Cost of goods sold (Profit or loss)	Dr.	1,60,000	
	To Inventories			1,60,000
30th September 2018	Mr. Anik	Dr.	12,596	
	To Finance Income (Profit or loss)			12,596
	(Being finance income recognised)			
	Mr. Anik	Dr.	45,000	
	To Revenue- rendering of services (Profit or loss)			45,000
	(Being revenue from the rendering of maintenance services recognised)			



	Cost of services (Profit or loss)	Dr.	30,000	
	To Cash/Bank or payables			30,000
	(Being the cost of performing maintenance services recognised)			
31st March 2019	Mr. Anik	Dr.	15,477	
	To Finance Income (Profit or loss)			15,477
	(Being finance income recognised)			
1st April, 2019	Mr. Anik	Dr.	75,000	
	To Revenue- rendering of services (Profit or loss)			75,000
	(Being revenue from the rendering of maintenance services recognised)			
	Cost of services (Profit or loss)	Dr.	50,000	
	To Cash/Bank or payables			50,000
	(Being the cost of performing maintenance services recognised)			
	Cash/Bank	Dr.	4,00,000	
	To Mr. Anik			4,00,000
	(Being the receipt of cash from the customer recognised)			

- (iii) Extract of Notes to the financial statements for the year ended 31st March, 2019 and 31st March, 2020
Note on Revenue

	2019-2020	2018-2019
Sale of goods	-	2,51,927
Rendering of machine - maintenance services	75,000	45,000
Finance income	-	28,073
	75,000	3,25,000



Ind AS 113

FAIR VALUE MEASUREMENT

Illustrations

1. Illustration

ABC Ltd. acquired 5% equity shares of XYZ Ltd. for Rs. 10 crore in the year 20X1-20X2. The company is in process of preparing the financial statements for the year 20X2-20X3 and is assessing the fair value at subsequent measurement of the investment made in XYZ Ltd. Based on the observable input, the ABC Ltd. identified a similar nature of transaction in which PQR Ltd. acquired 20% equity shares in XYZ Ltd. for Rs. 60 crore. The price of such transaction was determined on the basis of Comparable Companies Method (CCM)- Enterprise Value (EV) / EBITDA which was 8.

For the current year, the EBITDA of XYZ Ltd. is Rs. 40 crore. At the time of acquisition, the valuation was determined after considering 5% of liquidity discount and 5% of non-controlling stake discount. What will be the fair value of ABC Ltd.'s investment in XYZ Ltd. as on the balance sheet date?

Hint: Fair Value Rs.14.40 Crores

Solution:

1. *Determination of Enterprise Value of XYZ Ltd.*

Particulars	in crore
EBITDA as on the measurement date	40
EV/EBITDA multiple as on the date of valuation	8
Enterprise value of XYZ Ltd.	320

Determination of subsequent measurement of XYZ Ltd.

Particulars	in crore
Enterprise Value of XYZ Ltd.	<u>320</u>
ABC Ltd.'s share based on percentage of holding (5% of 320)	16
Less: Liquidity discount & Non-controlling stake discount (5%+5%=10%)	<u>(1.6)</u>
Fair value of ABC Ltd.'s investment in XYZ Ltd.	<u>14.4</u>

2. Illustration

UK Ltd. is in the process of acquisition of shares of PT Ltd. as part of business reorganization plan. The projected free cash flow of PT Ltd. for the next 5 years are as follows:

(Rs. in crore)

Particulars	Year 1	Year 2	Year 3	Year 4	Year 5
Cash flows	187.1	187.6	121.8	269	278.8
Terminal Value					3,965

The weightage average cost of capital of PT Ltd. is 11%. The total debt as on measurement date is Rs. 1,465 crore and the surplus cash & cash equivalent is Rs. 106.14 crore.

The total numbers of shares of PT Ltd. as on the measurement date is 8,52,84,223 shares. Determine value per share of PT Ltd. as per Income Approach.

Hint: Value per share Rs.205



Solution

Particulars		1	2	3	4	5
Cashflow		187.10	187.60	121.80	269	278.80
Terminal Value (At end of Year 5)						3,965
Discount rate - 11%	PVF	0.901	0.812	0.731	0.659	0.593
	Present value	168.56	152.26	89.06	177.20	2,518.49
	Enterprise val.					3,105.57
	Less: Debt					(1,465)
	Add: Cash					106.14
	Equity value					1,746.71
	No of shares					8,52,84,223
	Value per share					204.81

3. Illustration

You are a senior consultant of your firm and are in process of determining the valuation of KK Ltd. You have determined the valuation of the company by two approaches i.e. Market Approach and Income approach and selected the highest as the final value. However, based upon the discussion with your partner you have been requested to assign equal weights to both the approaches and determine a fair value of shares of KK Ltd. The details of the KK Ltd. are as follows:

Particulars	Rs. in crore
Valuation as per Market Approach	5268.2
Valuation as per Income Approach	3235.2
Debt obligation as on Measurement date	1465.9
Surplus cash & cash equivalent	106.14
Fair value of surplus assets and Liabilities	312.4
Number of shares of KK Ltd.	8,52,84,223 shares

Determine the Equity value of KK Ltd. as on the measurement date on the basis of above details.

Hint: Value per share Rs.375.72

Solution:

		<u>Value</u>	Weight	Value x Weight
Valuation as per Market Approach		5,268.20	50%	2,634.10
Valuation as per Income Approach		3,235.20	50%	1,617.60
	Total Ent. Value			4,251.70
Add: Surplus Cash				106.14
Add: Surplus Assets				312.40
Less: Debt				-1,465.90
	Total Equity value in Rs. Crores			3,204.34



		No of Shares		8,52,84,223
	Fair value	Value per share		375.72

4. Illustration

Comment on the following by quoting references from appropriate Ind AS.

(i) DS Limited holds some vacant land for which the use is not yet determined. The land is situated in a prominent area of the city where lot of commercial complexes are coming up and there is no legal restriction to convert the land into a commercial land. The company is not interested in developing the land to a commercial complex as it is not its business objective. Currently the land has been let out as a parking lot for the commercial complexes around.

The Company has classified the above property as investment property. It has approached you, an expert in valuation, to obtain fair value of the land for the purpose of disclosure under Ind AS.

On what basis will the land be fair valued under Ind AS?

(ii) DS Limited holds equity shares of a private company. In order to determine the fair value of the shares, the company used discounted cash flow method as there were no similar shares available in the market.

Under which level of fair value hierarchy will the above inputs be classified?

What will be your answer if the quoted price of similar companies were available and can be used for fair valuation of the shares.

Hint: (i) Highest best possibility of developing a commercial complex will be the basis.

(ii) Level 3 (iii) If quoted price available then Level 2 inputs

Solution:

(i) Fair Valuation of Land Held by DS Limited

As per **Ind AS 113, Fair Value Measurement**, the fair value of a non-financial asset is determined considering its **highest and best use** from the perspective of **market participants**. The highest and best use must meet the following criteria:

- **Physically Possible:** The asset should have the physical characteristics required for its potential highest use (e.g., location, size).
- **Legally Permissible:** The asset should be legally allowed to be used for its potential highest use (e.g., zoning regulations).
- **Financially Feasible:** The asset's potential highest use should generate economic benefits or returns that a market participant would expect.

The **entity's intention** regarding the use of the asset is not relevant in determining fair value. Even if DS Limited **does not intend** to develop a commercial complex, the fair valuation must assume a **market participant's perspective** and not an entity-specific viewpoint.

In this case, DS Limited owns vacant land in a prime location where commercial complexes are being developed. Although the land is currently being used as a **parking lot**, the highest and best use of the land would be its **development as a commercial complex**. Since there are **no legal restrictions** preventing commercial development, the fair value of the land should be determined based on **its potential use for commercial development** rather than its current use as a parking lot.

Thus, under **Ind AS 113**, the fair value of the land should be measured at the price that would be received in an orderly transaction when sold to a market participant who would develop a **commercial complex**.



(ii) Fair Valuation of Equity Shares Held by DS Limited

As per **Ind AS 113**, the **fair value hierarchy** is categorized into three levels based on the observability of inputs:

- **Level 1 Inputs:** Quoted prices in **active markets** for identical assets or liabilities.
- **Level 2 Inputs:** Observable inputs other than Level 1, such as:
 - Quoted prices for **similar** assets or liabilities in active markets.
 - Inputs based on market data but not directly observable for the specific asset.
- **Level 3 Inputs: Unobservable inputs**, including those based on **entity-specific assumptions** in the absence of market data.

In this case, DS Limited holds **equity shares of a private company** and has used the **Discounted Cash Flow (DCF) method** for valuation due to the absence of comparable market-traded shares. The **DCF method relies on unobservable inputs** such as projected cash flows and discount rates, which are based on the company's internal assumptions. As a result, this valuation falls under **Level 3** of the fair value hierarchy.

However, if **quoted prices for similar companies** were available and could be used without significant adjustments, the valuation would be classified as **Level 2** because it would be based on observable inputs from the market.

5. Illustration

(i) Entity A owns 250 ordinary shares in company XYZ, an unquoted company. Company XYZ has a total share capital of 5,000 shares with nominal value of Rs. 10. Entity XYZ's after-tax maintainable profits are estimated at Rs. 70,000 per year. An appropriate price/earnings ratio determined from published industry data is 15 (before lack of marketability adjustment). Entity A's management estimates that the discount for the lack of marketability of company XYZ's shares and restrictions on their transfer is 20%. Entity A values its holding in company XYZ's shares based on earnings. Determine the fair value of Entity A's investment in XYZ's shares.

(ii) Based on the facts given in the aforementioned part (i), assume that, Entity A estimates the fair value of the shares it owns in company XYZ using a net asset valuation technique. The fair value of company XYZ's net assets including those recognised in its balance sheet and those that are not recognised is Rs. 8,50,000. Determine the fair value of Entity A's investment in XYZ's shares.

Hint: (i) Value of Investment 42,000 (ii) Value of investment Rs.42,500

Solution:

Profit after tax	70,000	
No of shares	5,000	
EPS	14	
P/E ratio		
Industry	15	
Adjustment	(3)	
	12	
Value per share	168	
No of shares	250	
Value of Investment		42,000.00
Total value of XYZ		8,50,000.00



No of shares		5,000.00
Value per share		170.00
No of shares held		250.00
Value of investments		42,500.00



Ind AS 102
Share Based Payments
ILLUSTRATIONS

1. Illustration

ABC Limited granted to its employees, share options with a fair value of Rs. 5,00,000 on 1st April, 20X0, if they remain in the organization up to 31st March, 20X3. On 31st March, 20X1, ABC Limited expects only 91% of the employees to remain in the employment. On 31st March, 20X2, company expects only 89% of the employees to remain in the employment. However, only 82% of the employees remained in the organisation at the end of March, 20X3 and all of them exercised their options. Pass the Journal entries? (SM)

Solution:

Particulars		20X0-X1	20X1-X2	20X2-X3
FV of Option Granted	5,00,000			
Expected vesting		91%	89%	82%
Total Expected Vesting		4,55,000	4,45,000	4,10,000
No of years - vesting period		3	3	3
Cumulative expense to be recognised			2,96,667	4,10,000
expense to be recognised		1,51,667		
Cumulative expense		1,51,667		
Expense already recognised		-	1,51,667	2,96,667
Balance expense to be recognised		1,51,667	1,45,000.00	1,13,333
Employee Expense Dr.		1,51,667		
To Share based payment reserve (equity)			1,45,000	1,13,333
		1,51,667	1,45,000	1,13,333
In Year X3,				
Share based payment Reserve Dr.				4,10,000
To Share capital				4,10,000
Assume, employees must pay Rs. 3,00,000 to get the shares				
82% will pay		2,46,000		
Share based payment Reserve Dr.			4,10,000	
Bank Dr.			2,46,000	
To Share capital & Sec. Premium				6,56,000

2. Illustration

An entity issued 100 shares each to its 1,000 employees subject to service condition of next 2 years. Grant date fair value of the share is Rs. 195 each. There is an expectation 97% of the employees will remain in service at the end of 1st year. However, at the end of 2nd year the expected employees to remain in service would be 91% of the total employees. Calculate expense for the year 1 & 2? (SM)

Solution:

No of employees	1,000		
Shares per employee	100		
FV per share	195		
FV of shares	1,95,00,000		
		Year 1	Year 2
Expected Vesting		97%	91%
Expected vesting (Rs.)		1,89,15,000	1,77,45,000
Cumulative expense to be recognised		94,57,500	1,77,45,000
Expenses already recognised		-	94,57,500
Expense to be recognised		94,57,500	82,87,500
Particulars		Year 1	Year 2
Expense for the year		$1000 \times 100 \times 97\% \times \frac{1}{2} \times 195$	$1000 \times 100 \times 91\% \times 195 \times \frac{2}{2} - 94,57,500$
		94,57,500	82,87,500

3. Illustration

Entity X grants 10 shares each to its 1000 employees on the conditions as mentioned below-

- To remain in service for 3 years & entity's profit after tax (PAT) shall reach to Rs. 100 million.
- It is expected that PAT should reach to Rs. 100 million by the end of 3 years.
- Fair value at grant date is Rs. 100.
- Employees expected for vesting right by 1st year 97%, then it revises to 95% by 2nd year and finally to 93% by 3rd year.

Calculate expenses for next 3 years in respect of share-based payment. (SM)

Solution:

Entity's PAT is one of the non-market related conditions and hence would be included while making an expectation of vesting shares and there is no requirement to make any changes in the non-market condition whether this is fulfilled or not because it has already been considered in the expectation of vesting rights at the end of each year.

Year -1	$1,000 \times 10 \times 100 \times 97\% \times \frac{1}{3} = 3,23,333$
Year-2	$1,000 \times 10 \times 100 \times 95\% \times \frac{2}{3} - 3,23,333 = 3,10,000$
Year -3	$1,000 \times 10 \times 100 \times 93\% \times \frac{3}{3} - 6,33,333 = 2,96,667$

4. Illustration

XYZ issued 10,000 Share Appreciation Rights (SARs) that vest immediately to its employees on 1st April, 20X0. The SARs will be settled in cash. Using an option pricing model, at that date it is estimated that the fair value of a SAR is Rs. 95. SAR can be exercised any time up to 31st March, 20X3. At the end of period on 31st March, 20X1 it is expected that 95% of

total employees will exercise the option, 92% of total employees will exercise the option at the end of next year and finally 89% were exercised at the end of the 3rd year.

Fair Values at the end of each period have been given below:

Fair value of SAR	Rs.
31st March, 20X1	112
31st March, 20X2	109
31st March, 20X3	114

Pass the Journal entries? (SM)

Solution:

Years	Expectation	No of Rights	FV	Liability
1st April X0	100%	10,000	95	9,50,000
31st Mar X1	95%	9,500	112	10,64,000
31st Mar X2	92%	9,200	109	10,02,800
31st Mar X3	89%	8,900	114	10,14,600
SARs.	10,000			
1st Apr X0				
Employee Benefit Expense Dr.		9,50,000		
To SBP Liability			9,50,000	
31st March X1				
Employee Benefit Expense Dr.		1,14,000		
To SBP Liability			1,14,000	
31st March X2				
SBP Liability		61,200		
To Employee benefit expense			61,200	
31st March X3				
Employee Benefit Expense Dr.		11,800		
To SBP Liability			11,800	
SBP Liability Dr.		10,14,600		
To Bank			10,14,600	

5. Illustration

On 1st January, 20X1, ABC limited gives options to its key management personnel (employees) to take either cash equivalent to 1,000 shares or 1,500 shares. The minimum service requirement is 2 years and shares being taken must be kept for 3 years.

Fair values (Rs.) of the shares are as follows:

Share alternative fair value (with restrictions)	102
Grant date fair value on 1st January, 20X1	113
Fair value on 31st December, 20X1	120
Fair Value on 31st December, 20X2	132

The employees exercise their cash option at the end of 20X2. Pass the journal entries.

Solution:

Particulars	Date	No of Shares	FV per Sh.	Total FV	
Cash Alternative	1-Jan-X1	1,000	113	1,13,000	Liability Component
Share Alternative	1-Jan-X1	1,500	102	1,53,000	FV of Eq. alternative
				40,000	Equity Component
	31-Dec-X1	31-Dec-X2			
Equity Component	20,000	20,000			
Liability Component					
FV as on date	120	132			
Expected Liability	1,20,000	1,32,000			
(1000 x FV)					
Cumulative expense	60,000	1,32,000			Expected liab / Total Years x Years completed
Expense already rec.	-	60,000			
Balance expense	60,000	72,000			
	31-Dec-X1			31-Dec X2	
Employee benefit exp.	80,000			92,000	
To SBP reserve		20,000			20,000
To Liability SBP		60,000			72,000
31-Dec X2					
Liability SBP	1,32,000				
To Bank		1,32,000			

6. Illustration

Indian Inc. issued 995 shares in exchange for purchase of an office building. The title was transferred in the name of Indian Inc. on February, 20X1 and shares were issued. Fair value of the office building was Rs. 2,00,000 and face value of each share of Indian Inc was Rs. 100.

Pass the journal entries. (SM)

Solution:

1 st February, 20X1			Rs.
--------------------------------	--	--	-----

Office Building	D r.	2,00,000	
To Share capital (995 x 100)			99,500
To Securities premium (balance)			1,00,500
(Recognition of equity option and cash settlement option)			

7. Illustration

Reliance limited hired a maintenance company for its oil fields. The services will be settled by issuing 1,000 shares of Reliance. Period for which the service is to be provided is 1st April, 20X1 to 1st July, 20X1 and fair value of the service was estimated using market value of similar contracts for Rs. 1,00,000. Nominal value per share is Rs. 10.

Record the transactions. (SM)

Solution:

Fair value of services	1,00,000
Number of months	3
Monthly expense	33,333.33

30th April, 20X1			Rs.
Repair & Maintenance	Dr.	33,333.33	
To Share-based payment reserve (equity)			33,333.33
(Recognition of Equity settled SBP using fair value of services rendered)			
31st May, 20X1			
Repair & Maintenance	Dr.	33,333.33	
To Share-based payment reserve (equity)			33,333.33
(Recognition of Equity settled SBP using fair value of services rendered)			
30th June, 20X1			
Repair & Maintenance	Dr.	33,333.33	
To Share-based payment reserve (equity)			33,333.33
(Recognition of Equity settled SBP using fair value of services rendered)			
1st July, 20X1			
Share-based payment reserve (equity)	Dr.	1,00,000	
To Equity Shares (1000 x 10)			10,0000
To Securities premium (balancing figure)			90,000
(Recognition of Equity settled SBP using fair value of services rendered)			

8. Illustration

Ankita Holding Inc. grants 100 shares to each of its 500 employees on 1st January, 20X1. The employees should remain in service during the vesting period. The shares will vest at the end of the

First year if the company's earnings increase by 12%;

Second year if the company's earnings increase by more than 20% over the two-year period;

Third year if the entity's earnings increase by more than 22% over the three-year period.

The fair value per share at the grant date is Rs. 122. In 20X1, earnings increased by 10%, and 29 employees left the organisation. The company expects that the shares will vest at the end of the year 20X2. The company also expects that additional 31 employees will leave the organisation in the year 20X2 and that 440 employees will receive their shares at the end of the year 20X2.

At the end of 20X2, company's earnings increased by 18%. Therefore, the shares did not vest. Only 29 employees left the organization during 20X2. Company believes that additional 23 employees will leave in 20X3 and earnings will further increase so that the performance target will be achieved in 20X3. At the end of the year 20X3, only 21 employees have left the organization. Assume that the company's earnings increased to desired level and the performance target has been met.

Determine the expense for each year and pass appropriate journal entries. (SM)

Solution:

Particulars	Year 1	Year 2	Year 3
Total Employees	500	500	500
Less: Employees actually left	(29)	(58)	(79)
Less: Employees expected to leave	(31)	(23)	-
No of Employees eligible	440	419	421
No of shares per employee	100	100	100
Total Shares expected to vest	44,000	41,900	42,100
FV per share on grant date	122	122	122
Total Fair Value of options granted	53,68,000	51,11,800	51,36,200
Vesting period (in years)	2	3	3
Vesting condition met	No	No	Yes
Cumulative expense to be rec. at end of year	26,84,000	34,07,867	51,36,200
	1/2	2/3	3/3
Expenses already recognised	-	(26,84,000)	(34,07,867)
Balance expense to be recognised	26,84,000	7,23,867	17,28,333
End of each year			
Employee Benefit Expense Dr.	26,84,000	7,23,867	17,28,333
To SBP Reserve (Equity)	26,84,000	7,23,867	17,28,333
On issuing equity shares			

SBP Reserve (Equity) Dr.			51,36,200
To Share capital & Securities premium			51,36,200
Particulars	Year 1	Year 2	Year 3
Total Employees	500	500	500
Less: Employees actually left	(29)	(58)	(79)
Less: Employees expected to leave	(31)	(23)	-
No of Employees eligible	440	419	421
No of shares per employee	100	100	100
Total Shares expected to vest	44,000	41,900	42,100
FV per share on grant date	122	122	122
Total Fair Value of options granted	53,68,000	51,11,800	51,36,200
Vesting period (in years)	2	3	3
Vesting condition met	No	No	No
Cumulative exepense to be rec. at end of year	26,84,000	34,07,867	-
	1/2	2/3	3/3
Expenses already recognised	-	(26,84,000)	(34,07,867)
Balance expense to be recognised	26,84,000	7,23,867	(34,07,867)
End of each year			
Employee Benefit Expense Dr.	26,84,000	7,23,867	
To SBP Reserve (Equity)	26,84,000	7,23,867	
On reversal of expesens			
SBP Reserve (Equity) Dr.			34,07,867
To employee benefit expense			34,07,867

9. Illustration

ACC limited granted 10,000 share options to one of its managers. In order to get the options, the manager has to work for next 3 years in the organization and reduce the cost of production by 10% over the next 3 years.

Fair value of the option at grant date was Rs. 95

Cost reduction achieved-

Year 1 12%	Achieved
Year 2 8%	Not expected to vest in future
Year 3 10%	Achieved

How the expenses would be recorded? (SM)

Solution:

Particulars	Year 1	Year 2	Year 3
Total Options Granted	10,000	10,000	10,000
FV per option	95	95	95
Total FV of options granted	9,50,000	9,50,000	9,50,000
Vesting Condition	Expected to be met	Not expected	Met
Vesting period	3	NA	3
Cumulative Expense	1/3	-	3/3
Cumulative Expense	3,16,667	-	9,50,000
Expense already recognised	-	3,16,667	-
Expense to be booked	3,16,667	-3,16,667	9,50,000
		Reversed	Recognised

10. Illustration

Anara Fertilisers Limited issued 2000 share options to its 10 directors for an exercise price of Rs. 100. The directors are required to stay with the company for next 3 years.

Fair value of the option estimated	Rs. 130
Expected number of directors to vest the option	8

During the year 2, there was a crisis in the company and Management decided to cancel the scheme immediately. It was estimated further as below -

Fair value of option at the time of cancellation was	Rs. 90
Market price of the share at the cancellation date was	Rs. 99

There was a compensation which was paid to directors and only 9 directors were currently in employment. At the time of cancellation of such scheme, it was agreed to pay an amount of

Rs. 95 per option to each of 9 directors.

How the cancellation would be recorded? (SM)

Solution:

Particulars	Year 1	Year 2	
Expected no of directors	8	9	
No of options per director	2,000	2,000	
FV per option	130	130	
Total FV of expected vesting	20,80,000	23,40,000	

Expected vesting	3	Acc. Vesting	
Cumulative expense	6,93,333	23,40,000	
Expense already recognised	-	6,93,333	
Balance expense to be recognised	6,93,333	16,46,667	
Dr. Employee Expense	6,93,333	16,46,667	
Cr. SBPreserve (Equity)	6,93,333	16,46,667	
Payment of Rs. 95 per share to Directors		No of Options	Amount
FV on date of cancellation	90.00	18,000	16,20,000
Payment made	95.00	18,000	17,10,000
SBP Reserve (Equity) Dr.		16,20,000	upto FV
Employee Expense		90,000	
To Bank			17,10,000

11. Illustration

A parent grants 200 share options to each of 100 employees of its subsidiary, conditional upon the completion of two years' service with the subsidiary. The fair value of the share options on grant date is Rs. 30 each. At grant date, the subsidiary estimates that 80 percent of the employees will complete the two-year service period. This estimate does not change during the vesting period. At the end of the vesting period, 81 employees complete the required two years of service. The parent does not require the subsidiary to pay for the shares needed to settle the grant of share options.

Pass the necessary journal entries for giving effect to the above arrangement. (SM)

Solution:

Particulars	Year 1	Year 2
No of options expected to vest/actually vested	16,000	16,200
FV of option on grant date	30	30
Total FV	4,80,000	4,86,000
Expense to be recognised	2,40,000	2,46,000
Entries in Subsidiary books		
Employee Benefit Expense Dr.	2,40,000	2,46,000
To Equity	2,40,000	2,46,000
Entries in Parents books		
Investment in Subsidiary	2,40,000	2,46,000
To Equity	2,40,000	2,46,000

12. Illustration

At 1st January, 20X0, Ambani Limited grants its CEO an option to take either cash amount equivalent to 800 shares or 990 shares. The minimum service requirement is 2 years. There is a condition to keep the shares for 3 years if shares are opted.

Fair values of the shares	Rs.	
Share alternative fair value (with restrictions)		212
Grant date fair value on 1st January, 20X0	213	
Fair value on 31st December, 20X0	220	
Fair value on 31st December, 20X1	232	

The key management exercises his cash option at the end of 20X2. Pass journal entries. (SM)

Solution:

Particulars		
On Grant date		
FV of equity alternative (990 x 212)	2,09,880	
FV of liability alternative (800 x 213)	1,70,400	
FV of equity option	39,480	Credited to eq
Liability Portion	31-Dec-X0	31-Dec-X1
FV of Options expected to vest	1,76,000	1,85,600
Vesting period	2	2
Expense to be recognised - Cash settled - Liability	88,000	97,600
Expense to be recognised - Equity option - Equity	19,740	19,740
Employee Benefit expense	1,07,740	1,17,340
To SBP Liability	88,000	97,600
To Equity	19,740	19,740
Settlement		
31-Dec-X2		
SBP Liability	1,85,600	
To Cash/Bank		1,85,600
(Being sbp setteled in cash)		

13. Illustration

The following particulars in respect of stock options granted by a company are available:

No. of Employees covered	400	Nominal Value per share	₹ 100
No. of options per Employee	60	Exercise price per share	₹ 125

Shares offered were put in three groups. Group I was for 20% of shares offered with vesting period one- year. Group II was for 40% of shares offered with vesting period two- years. Group III was for 40% of shares offered with vesting period three-years. Fair value of option per share on grant date was ₹ 10 for Group I, ₹ 12.50 for Group II and ₹ 14 for Group III.

Position on 1st Year	Position on 2nd Year	Position on 3rd Year
- No. of employees left = 40 - Estimate of employees to leave in Year 2 = 36 - Estimate of employees to leave in Year 3 = 34	- Employees left = 35 - Estimate of employees to leave in Year 3 = 30 - Employees exercising Options in Group II = 319	- Employees left = 28 - Employees exercising Options in Group III = 295

- Employees exercising Options in Group I = 350		
---	--	--

Options not exercised immediately on vesting, were forfeited. Compute expenses to recognise in each year and show important accounts in the books of the company.

Solution

Group	Vesting Period	% of Options	No. of Options per Employee	Fair Value per Option (₹)
Group I	1 Year	20%	12	₹10
Group II	2 Years	40%	24	₹12.50
Group III	3 Years	40%	24	₹14

Total number of options per employee = 60

Group = No. of Options	Group I = 12 Options	Group II = 24 Options		Group III = 24 Options		
	1	1	2	1	2	3
(a) Employees at year end = [Opening No. of Employees - Forfeiture]	400 - 40 = 360	400 - 40 = 360	360 - 35 = 325	40 - 40 = 0 = 360	36 - 35 = 0 = 325	325 - 28 = 297
(b) Expected to leave in future	NA	36	NA	36 + 34 = 70	30	NA
(c) No. of employees eligible (a - b)	360	324	325	290	295	297
(d) Options expected to Vest = [(c) x No. of Shares]	(360 x 12 sh.) = 4,320	(324 x 24 sh.) = 7,776	(325 x 24 sh.) = 7,800	(290 x 24 sh.) = 6,960	(295 x 24 sh.) = 7,080	(297 x 24 sh.) = 7,128
(e) FV per option =	₹ 10	₹ 12.50	₹ 12.50	₹ 14	₹ 14	₹ 14
(f) Value of Total Options = [d x e]	₹ 43,200	₹ 97,200	₹ 97,500	₹97,440	₹99,120	₹ 99,792
(g) Total Cumulative Cost of Options = [(f) x Completed Yrs/ Total Yrs]	₹ 43,200	[(f) x 1/2] = ₹ 48,600	[(f) x 2/2] = ₹ 97,500	[(f) x 1/3] = ₹32,480	[(f) x 2/3] = ₹66,080	[(f) x 3/3] = ₹ 99,792
(h) Less: Recognized in last years	0	0	₹ 48,600	0	₹32,480	₹ 66,080
(i) Expenses to be recognized	₹ 43,200	₹ 48,600	₹ 48,900	₹32,480	₹33,600	₹ 33,712
(j) Employees not exercising ESOP	10 Employees	325 - 319 = 6 Employees		297 - 295 = 2 Employees		
(k) Total Expenses						

for-	
Year 1	₹ 43,200 (Gr. 1) + ₹ 48,600 (Gr.2) + ₹32,480 (Gr. 3) = ₹ 1,24,280
Year 2	₹ 48,900 (Gr. 2) + ₹ 33,600 (Gr. 3)= ₹82,500
Year 3	₹ 33,712 (Gr. 3 only)

Employees Benefit Expenses A/c			
Year 1			
	₹		₹
To Share-based Payment Reserve A/c	1,24,280	By Profit and Loss A/c	1,24,280
	1,24,280		1,24,280
Year 2			
To Share-based Payment Reserve A/c	82,500	By Profit and Loss A/c	82,500
	82,500		82,500
Year 3			
To Share-based Payment Reserve A/c	33,712	By Profit and Loss A/c	33,712
	33,712		33,712
Share-based Payment Reserve A/c			
Year 1			
	₹		₹
To Retained Earnings [(360 - 350) Emp x 12 Options x ₹ 10]	1,200	By Employees Benefit Expenses A/c	1,24,280
To Share Capital (350 Emp x 12 Options x ₹ 100)	4,20,000	By Bank A/c. (350 Emp x 12 Options x ₹ 125)	5,25,000
To Securities Premium (350 Emp x 12 Options x ₹ 35)	1,47,000		
To balance c/d	81,080		
	6,49,280		6,49,280
Year 2			
To Retained Earnings [(325 - 319) Emp x 24 Options x ₹ 12.50]	1,800	By balance b/d.	81,080
To Share Capital (319 Emp x 24 Options x ₹ 100)	7,65,600	By Employees Benefit Expenses A/c	82,500
To Securities Premium (319 Emp x 24 Options x ₹ 37.50)	2,87,100	By Bank A/c. (319 Emp x 24 Options x ₹ 125)	9,57,000
	66,080		
	11,20,580		11,20,580
To balance c/d	0		0
Year 3			
To Retained Earnings	672	By balance b/d.	66,080

[(297 - 295) Emp x 24 Options x ₹ 14]		By Employees Benefit Expenses A/c	33,712
To Share Capital (295 Emp x 24 Options x ₹ 100)	7,08,000	By Bank A/c. (295 Emp x 24 Options x ₹ 125)	8,85,000
To Securities Premium (295 Emp x 24 Options x ₹ 39)	2,76,120		
	9,84,792		9,84,792

	Group I	Group II	Group III
	Year 1	Year 2	Year 3
Exercise Price received per share	125.00	125.00	125.00
Value of service received per share, being the FV of the Options	<u>10.00</u>	<u>12.50</u>	<u>14.00</u>
Total Consideration received per share	135.00	137.50	139.00
Less: Nominal Value per share	<u>(100.00)</u>	<u>(100.00)</u>	<u>(100.00)</u>
Securities Premium per share	<u>35.00</u>	<u>37.50</u>	<u>39.00</u>

Ind AS 41
AGRICULTURE
Illustration

1. Illustration

A farmer owned a dairy herd, of three years old cattle as at 1st April, 20X1 with a fair value of Rs. 13,750 and the number of cattle in the herd was 250.

The fair value of three year cattle as at 31st March, 20X2 was Rs. 60 per cattle. The fair value of four year cattle as at 31st March, 20X2 is Rs. 75 per cattle.

Calculate the measurement of group of cattle as at 31st March, 20X2 stating price and physical change separately.

Hint: Fair Value on 31/3/X2 Rs.18,750

Solution:

	31st March X1	31st March X2	Increase
Number of Cattles (3 years)	250	250	
Total Fair value (Rs.)	13,750	15,000	1,250
Fair value for 3 year old cattle	55	60	
Fair value for 4 year old cattle		75	
Increase due to growth		15	3,750
Total fair value (75 x 250)		18,750	18,750

2. Illustration

XYZ Ltd., on 1st December, 20X3, purchased 100 sheep from a market for Rs. 5,00,000. The transaction cost of 2% on the market price of the sheep was incurred which was paid by the seller. Sheep's fair value increased from Rs. 500,000 to Rs. 600,000 on 31st March, 20X4. Transaction cost of 2% would have to be incurred by the seller to get the sheep to the relevant market.

Determine the fair value on the date of purchase and the reporting date and pass necessary journal entries thereon.

Hint: Loss on initial recognition - Rs.10,000; Gain - Change in fair value Rs.98,000

Solution:

Initial Recognition on 1st Dec X3			
Fair Value		5,00,000	
Less: Costs to Sell - 2%		10,000	
Initial Recognition		4,90,000	
Biological Asset Dr.		4,90,000	
Profit & Loss Dr.		10,000	
To Cash/Bank			5,00,000
Subsequent Measurement on 31st March X4			
Fair Value		6,00,000	
Less: Costs to Sell - 2%		12,000	
Carrying Amount on 31st March		5,88,000	
Initial recognition		4,90,000	
Gain to be recognised		98,000	

Biological Asset Dr.		98,000	
To Profit and Loss			98,000

3. Illustration

Entity A purchased cattle at an auction on 30th June 20X1

Purchase price at 30th June 20X1 Rs. 1,00,000

Costs of transporting the cattle back to the entity's farm Rs. 1,000

Sales price of the cattle at 31st March, 20X2 Rs. 1,10,000

The company would have to incur similar transportation costs if it were to sell the cattle at auction, in addition to an auctioneer's fee of 2% of sales price. The auctioneer charges 2% of the selling price, from both, the buyer as well as the seller.

Calculate the amount at which cattle is to be recognised in books on initial recognition and at year end 31st March, 20X2.

Hint: Fair value less costs to sell Rs.1,06,800

Solution:

Initial Recognition		30th Jun X1	
Fair Value		1,00,000	
Less: Costs to Sell			
- Transportation		1,000	
- Auctioneer Fees		2,000	
Fair value less cost to sell		97,000	
Amount paid by the entity			
Price of cattle		1,00,000	
Transportation cost		1,000	
Auctioneer's fees		2,000	
	Total outflow	1,03,000	
	Difference loss	6,000	
Dr. Biological Asset		97,000	
Dr. P&L		6,000	
Cr. Cash/Bank			1,03,000
ON 31st March			
Fair value		1,10,000	
Less: Cost to sell			
- Transport		(1,000)	
- Auctioneer's Fee		(2,200)	
Fair value less cost to sell		1,06,800	
Initial Recognition		97,000	
Gain		9,800	
Dr. Biological Asset		9,800	
Cr. P&L			9,800



4. Illustration

XY Ltd. is a farming entity where cows are milked on a daily basis. Milk is kept in cold storage immediately after milking and sold to retail distributors on a weekly basis. On 1 April 20X1, XY Ltd. had a herd of 500 cows which were all three years old.

During the year, some of the cows became sick and on 30 September 20X1, 20 cows died. On 1 October 20X1, XY Ltd. purchased 20 replacement cows from the market for Rs. 21,000 each. These 20 cows were all one year old when they were purchased.

On 31 March 20X2, XY Ltd. had 1,000 litres of milk in cold storage which had not been sold to retail distributors. The market price of milk at 31 March 20X2 was Rs. 20 per litre. When selling the milk to distributors, XY Ltd. incurs selling costs of Rs. 1 per litre. These amounts did not change during March 20X2 and are not expected to change during April 20X2.

Information relating to fair value and costs to sell is given below:

Date	Fair value of a dairy cow (aged)				Costs to sell a cow
	1 year	1.5 years	3 years	4 years	
1st April 20X1	20,000	22,000	27,000	25,000	1,000
1st October 20X1	21,000	23,000	28,000	26,000	1,000
31st March 20X2	21,500	23,500	29,000	26,500	1,100

You can assume that fair value of a 3.5 years old cow on 1st October 20X1 is Rs. 27,000.

Pass necessary journal entries of above transactions with respect to cows in the financial statements of XY Ltd. for the year ended 31st March, 20X2? Also show the amount lying in inventory if any.

Hint: Loss on death of 20 cows - Rs.5,20,000; Loss on initial recognition of 20 new cows - Rs.20,000; loss on remeasurement of old cows - 2,88,000; Biological Asset on 31st Mar 20X2 - 480 4years : Rs.1,21,92,000 and 20 1.5 years : Rs.4,48,000.

Solution:

Date	<u>Age</u>	No of Cows	FV	Costs to Sell	FV Less Cost	Total FV
01 Apr X1	3	500	27,000	1,000	26,000	1,30,00,000
30 Sep X1	3.50	(20)	27,000	1,000	26,000	(5,20,000)
1st Oct X1	1	20	21,000	1,000	20,000	4,00,000
Carrying Amount 31st March X2						1,28,80,000
Fair Value on 31st March X2						
	4	480	26,500	1,100	25,400	1,21,92,000
	1.50	20	23,500	1,100	22,400	4,48,000



						1,26,40,000
					Loss	(2,40,000)
				Loss on Old Cows		(2,40,000)
Journal Entries				Gain on new Cows		48,000
30th Sep X1						
Loss on Death of Cow (P/L) Dr.			5,20,000			
To Biological Asset				5,20,000		
1st Oct X1						
Biological Asset			4,00,000			
Loss on Initial rec. (P&L)			20,000			
To Bank				4,20,000		
31st March X2						
Loss on Old Cows Dr			2,40,000			
To Biological Asset				2,40,000		
Biological Asset			48,000			
To Profit on new cows				48,000		
		Litres	FV	Cost to Sell	FV - Cost to sel	Value of inventory
Inventory Value		1,000	20	1	19	19,000

5. Illustration

Moon Ltd prepares financial statements to 31st March, each year. On 1st April 20X1 the company carried out the following transactions:

- Purchased a land for Rs. 50 Lakhs.
- Purchased 200 dairy cows (average age at 1st April, 20X1 is 2 years) for Rs. 10 Lakhs.
- Received a grant of Rs. 1 million towards the acquisition of the cows. This grant was non-refundable.

For the year ending 31st March, 20X2, the company has incurred following costs:

- Rs. 6 Lakh to maintain the condition of the animals (food and protection).
- Rs. 4 Lakh as breeding fee to a local farmer.

On 1st October, 20X1, 100 calves were born. There were no other changes in the number of animals during the year ended 31st March, 20X2. As of 31st March, 20X2, Moon Ltd had 3,000 litres of unsold milk in inventory. The milk was sold shortly after the year end at market prices.

Information regarding fair values is as follows:



Item	Fair Value less cost to sell		
	1st April, 20X1	1st October, 20X1	31st March, 20X2
	Rs.	Rs.	Rs.
Land	50 Lakhs	60 Lakhs	70 Lakhs
New born calves (per calf)	1,000	1,100	1,200
Six month old calves (per calf)	1,100	1,200	1,300
Two year old cows (per cow)	5,000	5,100	5,200
Three year old cows (per cow)	5,200	5,300	5,500
Milk (per litre)	20	22	24

Prepare extracts from the Balance Sheet and Statement of Profit & Loss that would be reflected in the financial statements of the entity for the year ended 31st March, 20X2.

Hint: Net Income Rs.3,02,000; Assets : Dairy Cow - Rs.11,00,000 ; Calves - Rs.1,30,000; Milk - Rs.72,000

Solution:

Extracts of P&L	<u>W.N</u>				
Income					
1. Government Grant received	2	10,00,000			
2. Gain on initial recognition of Calves	3	1,10,000			
3. Inventory	4	72,000			
4. Gain on FV of Cows	5	1,00,000			
5. Gain on FV of Calves	5	20,000			
Expenses					
1. Maintenance of Animals		6,00,000			
2. Breeding Fees		4,00,000			
1. There is not gain or loss at initial recognition on purchase of 200 cows because the cows are purchased at Fair value and there is no information about costs to sell.					
2. Since the Government Grant is unconditional and non-refundable, the grant is recognised in P&L					



3. Value of new born calves on 1st of October of 20X1					
No of Calves	100				
Fair Value	1,100				
Biological Asset - Calves to be recognised	1,10,000				
Dr. Biological Assets	1,10,000				
Cr. P&L		1,10,000			
4. Inventory of Milk as on 31st March	3,000.00				
FV less cost to sell	24				
	72,000				
Inventory Dr.	72,000				
To P&L		72,000			
Bank	72,000				
To Revenue		72,000			
COGS	72,000				
To Inventory		72,000			
5. Fair value less cost to sell of Biological Asset			FV	Carrying Amt	Gain
Cows - 3 years	200	5,500	11,00,000	10,00,000	1,00,000
Calves - 1/2 year old	100	1,300	1,30,000	1,10,000	20,000
Extracts of Balance Sheet on 31st March					
Assets					
Property, Plant & Equipment		WN			
Biological Assets - Cows	11,00,000	5			



Biological Assets - Calves	1,30,000	5			
Land	50,00,000				
Inventory	72,000	4			



Ind AS 12
Income Taxes
Illustrations

1. Illustration

Given,

- Cost of Machine – Rs.1,00,000
- Useful life – 5 years
- Deprecation for Tax – 25% on SLM
- Tax Rate – 30%

Based on the above, compute

- Carrying amount as per books
- Tax base
- Check if there is any deferred tax asset or liability and compute deferred tax impact.

Solution:

Cost of Machine	100000					
Useful life	5 years					
Dep for Tax	25% On SLM					
Tax Rate	30%					
Carrying Amount in Books		Year 1	Year 2	Year 3	Year 4	Year 5
Cost/Opening Balance		1,00,000	80,000	60,000	40,000	20,000
Depreciation		20,000	20,000	20,000	20,000	20,000
Closing Balance/Carrying Amount		80,000	60,000	40,000	20,000	0
Tax Base						
Cost/Opening Balance		1,00,000	75,000	50,000	25,000	0
Depreciation	25%	25,000	25,000	25,000	25,000	0
Closing WDV / Tax Base		75,000	50,000	25,000	0	0
Tax Base of Asset		Lower	Lower	Lower	Lower	No diff
Create		DTL	DTL	DTL	DTL	
Difference		-5,000	-10,000	-15,000	-20,000	0
DTL	30%	-1500	-3000	-4500	-6000	0
Opening Balance		0	-1500	-3000	-4500	-6000
Expense for the period		-1500	-1500	-1500	-1500	6000
Deferred Tax		Expense	Expense	Expense	Expense	Income

2. Illustration

An entity has a deductible temporary difference of Rs. 50,000. It has no taxable temporary differences against which it can be offset. The entity is also not anticipating any future profits. However, it can implement a tax planning strategy which can generate profits up to Rs. 60,000. The cost of implementing this tax



planning strategy is Rs. 12,000. The tax rate is 30%. Compute the deferred tax asset that should be recognised.

Solution:

Deductible temporary difference	50000		
Profit due to tax planning	60000		
Less: Additional cost	12000		
Taxable profits available	48000		
Deferred tax to be recognised for deductible temporary difference of Rs. 48,000 only.			
DTA 48,000 x 30%	14400	DTA to be recognised	

3. Illustration

A Limited recognises interest income in its books on accrual basis. However, for income tax purposes the method is 'cash basis'. On December 31, 20X1, it has interest receivable of Rs. 10,000 and the tax rate was 25%. On 28th February, 20X2, the finance bill is introduced in the legislation that changes the tax rate to 30%. The finance bill is enacted as Act on 21st May, 20X2. Discuss the treatment of deferred tax in case the reporting date of A Limited's financial statement is 31st December, 20X1 and these are approved for issued on 31st May, 20X2.

Solution:

According to **Ind AS 12 - Income Taxes**, **deferred tax liabilities (DTL) should be recognized based on the tax rate that is enacted or substantively enacted as of the reporting date**. In this case, as on **31st December, 20X1**, the tax rate was **25%**, and the **new tax rate of 30% was introduced in the finance bill on 28th February, 20X2**, but was **enacted only on 21st May, 20X2**, after the reporting date.

Since the **new tax rate was not enacted or substantively enacted as of the reporting date (31st December, 20X1)**, A Limited must compute **deferred tax liability at the existing tax rate of 25%**. The deferred tax liability will be calculated as follows:

$$\text{DTL} = \text{Taxable Temporary Difference} \times 25\% = 10,000 \times 25\% = ₹2,500$$

4. Illustration

B Limited is a newly incorporated entity. Its first financial period ends on 31st March, 20X1. As on the said date, the following temporary differences exist:

(a) Taxable temporary differences relating to accelerated depreciation of Rs. 9,000. These are expected to reverse equally over next 3 years.

(b) Deductible temporary differences relating to preliminary expenses of Rs. 4,000 expected to reverse equally over next 4 years.

It is expected that B Limited will continue to make losses for next 5 years. Tax rate is 30%. Losses can be carried forward but not backwards.

Discuss the treatment of deferred tax as on 31st March, 20X1.

Solution:

Particulars	X2	X3	X4	X5
Reversal of Taxable Temp diff	3,000	3,000	3,000	
Reversal of deductible temp diff	1,000	1,000	1,000	1,000



Deferred tax liability for taxable temp diff	2,700	DTL			
Deferred tax asset for deductible	900	DTA			
No deferred tax asset will be created for Rs. 1000 which is expected to reverse in X5. Because there is no taxable income or taxable temp difference against which it can be utilised					

5. Illustration

On 1st April 20X1, S Ltd. leased a machine over a 5 year period. The present value of lease liability is Rs. 120 Cr (discount rate of 8%) and is recognized as lease liability and corresponding Right of Use (RoU) Asset on the same date. The RoU Asset is depreciated under straight line method over the 5 years. The annual lease rentals are Rs. 30 Cr payable starting 31st March 20X2. The tax law permits tax deduction on the basis of payment of rent. Assuming tax rate of 30%, you are required to explain the deferred tax consequences for the above transaction for the year ended 31st March 20X2 .

Solution:

Lease payments		30		
Term		5		
Implicit Rate		8%		
	PV	(120)		
ROU Asset Dr.		120		
Lease Liability Cr.			120	
Year	Op Bal	Int	Payment	Closing bal
1	120.00	9.60	30	99.60
2	99.60	7.97	30	77.57
3	77.57	6.21	30	53.77
4	53.77	4.30	30	28.08
5	28.08	2.25	30	0.32
	Interest Expenses	30.32		
	Depreciation	120		
		Carrying	Tax Base	



		Amount		
ROU Asset		96.00	-	
Lease Liability		99.60	-	
Net Liability		3.60	-	
Deductible Temp Diff.		DTA	1.08	DTA
First year tax deduction		30.00		
First year accounting expense		33.60		

6. Illustration

A Ltd. acquired B Ltd. The following assets and liabilities are acquired in a business combination:

	Fair Value	Carrying amount	Temporary Difference
Plant and Equipment	250	260	(10)
Inventory	120	125	(5)
Debtors	200	210	(10)
	570	595	(25)
9% Debentures	(100)	(100)	
	470	495	
Consideration paid	500	500	
Goodwill	30	5	(25)

'000

Calculate Deferred Tax Asset.

Solution:

In this case there is a Deferred Tax Asset as the Tax base of assets acquired is higher by 25,000. DTA would be ₹ 7,500 (25,000 x 30%)

Journal entry:

Plant and equipment	Dr	250	
Inventory	Dr	120	
Debtors	Dr	200	
Goodwill	Dr	22.5 (30- 7.5)	
DTA	Dr	7.5	
To 9% Debentures			100
To Bank			500

7. Illustration

X Ltd. prepares consolidated financial statements to 31st March each year. During the year ended 31st March 2018, the following events affected the tax position of the group:

(i) Y Ltd., a wholly owned subsidiary of X Ltd., made a loss adjusted for tax purposes of ₹. 30,00,000. Y Ltd. is unable to utilise this loss against previous tax liabilities. Income-tax Act does not allow Y Ltd. to transfer the tax loss to other group companies. However,



it allows Y Ltd. to carry the loss forward and utilise it against company's future taxable profits. The directors of X Ltd. do not consider that Y Ltd. will make taxable profits in the foreseeable future.

(ii) Just before 31st March, 2018, X Ltd. committed itself to closing a division after the year end, making a number of employees redundant. Therefore, X Ltd. recognised a provision for closure costs of Rs. 20,00,000 in its statement of financial position as at 31st March, 2018. Income-tax Act allows tax deductions for closure costs only when the closure actually takes place. In the year ended 31st March 2019, X Ltd. expects to make taxable profits which are well in excess of Rs. 20,00,000. On 31st March, 2018, X Ltd. had taxable temporary differences from other sources which were greater than Rs. 20,00,000.

(iii) During the year ended 31st March, 2017, X Ltd. capitalised development costs which satisfied the criteria in paragraph 57 of Ind AS 38 'Intangible Assets'. The total amount capitalised was Rs. 16,00,000. The development project began to generate economic benefits for X Ltd. from 1st January, 2018. The directors of X Ltd. estimated that the project would generate economic benefits for five years from that date. The development expenditure was fully deductible against taxable profits for the year ended 31st March, 2018.

(iv) On 1st April, 2017, X Ltd. borrowed Rs. 1,00,00,000. The cost to X Ltd. of arranging the borrowing was Rs. 2,00,000 and this cost qualified for a tax deduction on 1st April, 2017. The loan was for a three-year period. No interest was payable on the loan but the amount repayable on 31st March, 2020 will be Rs. 1,30,43,800. This equates to an effective annual interest rate of 10%. As per the Income-tax Act, a further tax deduction of Rs. 30,43,800 will be claimable when the loan is repaid on 31st March, 2020.

Explain and show how each of these events would affect the deferred tax assets / liabilities in the consolidated balance sheet of X Ltd. group at 31st March, 2018 as per Ind AS. Assume the rate of corporate income tax is 20%.

Solution:

			Carrying amount		
Year	Op Bal	Interest @10%	Closing Bal	Amt deductible	Tax Base
1	98,00,000	9,80,000	1,07,80,000	7,80,000	1,00,00,000
2	1,07,80,000	10,78,000	1,18,58,000	18,58,000	1,00,00,000
3	1,18,58,000	11,85,800	1,30,43,800		
		Year ended 31st March 2018			
	Temporary diff	7,80,000			
	DTA	1,56,000			

8. Illustration

A's Ltd. profit before tax according to Ind AS for Year 20X1-20X2 is Rs. 100 thousand and taxable profit for year 20X1-20X2 is Rs. 104 thousand. The difference between these amounts arose as follows:

1. On 1st February, 20X2, it acquired a machine for Rs. 120 thousand. Depreciation is charged on the machine on a monthly basis for accounting purpose. Under the tax law, the machine will be depreciated for 6 months. The machine's useful life is 10 years according to Ind AS as well as for tax purposes.

2. In the year 20X1-20X2, expenses of Rs. 8 thousand were incurred for charitable donations. These are not deductible for tax purposes.



Prepare necessary entries as at 31st March 20X2, taking current and deferred tax into account. The tax rate is 25%. Also prepare the tax reconciliation in absolute numbers as well as the tax rate reconciliation.

Solution:

Profit before tax (accounting)	100	
Less: Additional Depreciation	(4)	
Add: Expense disallowed	8	Donation
Taxable Income	104	
Tax Rate	25%	
Current Tax	26.00	
Deferred Tax - Expense	1.00	
Income Tax Expense	27.00	
W.N - 1 Depreciation		
	Books	Tax
Cost of Asset	120	120
Depreciation	2	6
WDV	118	114
Taxable temp diff because Tax Base of an asset is less than the carrying amount.		
Temporary Diff	4	
DTL	1	
Journal Entries		
Income Tax expense - Current Dr.	26	
Income Tax expense - Deferred Dr.	1	
To Income Tax Payable		26
To Deferred Tax Liability		1
Reconciliation		
Accounting Profit	100	
Tax Rate	25%	
Acc Profit x Tax Rate	25	
Add: Tax impact on donation	2	
Tax Expense	27	



Percentage based reconciliation		
Tax rate	25%	
Add: Impact of donation disallowed	2%	
	27%	

9. Illustration

A Ltd prepares financial statements to 31 March each year. The rate of income tax applicable to A Ltd is 25%. The following information relates to transactions, assets and liabilities of A Ltd during the year ended 31 March 20X2:

(i) A Ltd has a 40% shareholding in L Ltd. A Ltd purchased this shareholding for Rs. 45 Cr. The shareholding gives A Ltd significant influence over L Ltd but not control and therefore A Ltd. accounts for its interest in L Ltd using the equity method. The equity method carrying value of A Ltd's investment in L Ltd was Rs. 70 Cr on 31 March 20X1 and Rs. 75 Cr on 31 March 20X2. In the tax jurisdiction in which A Ltd operates, profits recognised under the equity method are taxed if and when they are distributed as a dividend or the relevant investment is disposed of.

(ii) A Ltd. measures its head office building using the revaluation model. The building is revalued every year on 31 March. On 31 March 20X1, carrying value of the building (after revaluation) was Rs. 40 Cr and its tax base was Rs. 22 Cr. During the year ended 31 March 20X2, A Ltd charged depreciation in its statement of profit or loss of Rs. 2 Cr and claimed a tax deduction for tax depreciation of Rs. 1.25 Cr. On 31 March 20X2, the building was revalued to Rs. 45 Cr. In the tax jurisdiction in which A Ltd operates, revaluation of property, plant and equipment does not affect taxable income at the time of revaluation. Basis the above information, you are required to compute:

- The deferred tax liability of A Ltd at 31 March 20X2
- The charge or credit to both profit or loss and other comprehensive income relating to deferred tax for the year ended 31 March 20X2

Solution:

Investments in Associate - Ltd	31st March X2	31st March X1
Carrying Amount	75	70
Tax Base	45	45
Temporary Difference (Taxable)	30.00	25.00
Deferred Tax Liability (25%)	7.50	6.25
Increase in DTL	1.25	Debited to P&L
Income Tax expense Deferred (PL)	1.25	
To DTL		1.25
Office Building - PPE		
	31st March X2	31st March X1
Carrying Amount	45	40
Tax Base	20.75	22.00
Taxable Temp. Diff	24.25	18.00
DTL @ 25%	6.06	4.50
Increase in DTL	1.56	



Carrying Amount on 31st March X1	40	
Less: Depreciation	(2)	
Carrying amount before revaluation	38	
Tax Base	20.75	
Taxable Temp diff on 31st March X2	17.25	DTL @ 25%
		4.31
Taxable Temp diff on 31st March X1	18.00	
Reversal of taxable temp diff	0.75	
Deferred Tax Liability to be reversed	0.19	0.19
Revalued amount	45	
Tax Base	20.75	DTL
Difference	24.25	6.06
		1.75
Revaluation Surplus	7	
DTL on revaluation surplus created	1.75	Created
	1.56	Net
Deferred Tax Liability Dr.	0.19	
To Income Tax Benefit -Deff/PL		0.19
PPE Dr.	7	
To Revaluation Surplus/OCI		7
Revaluation surplus/OCI	1.75	
To DTL		1.75
	1.75	

10. Illustration – Nov 22 [8 Marks]

Following is the summarized Statement of Profit and Loss of New Age Ltd. as per Ind AS for the year ended 31.3.2022:

Particulars	Rs. in lakhs
Revenue from operations	1,450.00
Other income	70.00
(A) Total income	1,520.00
Purchase of stock in trade	50.00
Changes in inventories of stock in trade	20.00
Employee benefit expenses	145.00



Finance costs	180.00
Other expenses	375.00
(B) Total expenses	770.00
(C) Profit before tax (A - B)	750.00
(D) Current tax expense	211.65
(E) Profit after tax (C - D)	538.35

Additional information:

- (1) Consider that Income tax rate applicable to New Age Ltd. in India is 30%.
- (2) 'Other expenses' include the following expenses which are not deductible for income tax purposes:
 - (i) Penalties Rs. 1.50 lakh
 - (ii) Donations Rs. 55.00 lakhs
 - (iii) Impairment of goodwill Rs. 7.00 lakhs
- (3) 'Other expenses' also include expenditure on Scientific Research amounting to Rs. 10 lakhs in respect of which a 150% weighted deduction is available under income tax laws.
- (4) 'Other income' includes:
 - (i) Dividends of Rs. 5 lakhs, which is exempt from tax.
 - (ii) Long term capital gains of Rs. 12 lakhs which are taxable at the rate of 10%.
- (5) 'Profit before tax of Rs. 750 lakhs' includes:
 - (i) Agriculture income of Rs. 65 lakhs which is exempt from tax; and
 - (ii) Profit of Rs. 75 lakhs earned in USA on which New Age Ltd. has paid tax at the rate of 20%.

During review of financial statements of New Age Ltd., the CFO multiplied profit before tax by the income tax rate and arrived at Rs. 225 lakhs as the tax expenses. However, the actual income tax expenses appearing in the summarized Statement of Profit and Loss is Rs. 211.65 lakhs.

You are required to help the CFO of the company in reconciling the difference between the tax expense amount.

Solution:

	Income	Tax Rate	Tax	
Profit before tax as given	750	30%	225	
Add: Expenses not allowed				
1. Penalties	1.50	30%	0.45	
2. Donations	55.00	30%	16.50	
3. Impairment of goodwill	7.00	30%	2.10	
Tax Impact of expenses not allowed.			19.05	A
Less: Weighted deduction				
1. Scientific research	-5.00	30%	-1.50	
Tax Impact of extra deduction			-1.50	B
Less: exempt income				
1. Dividend income	-5.00	30%	-1.50	
2. Agri income	-65.00	30%	-19.50	
Tax impact of exempt income			-21.00	C
Less: Tax Impact of difference in rates				
1. LTCG	12	-20%	-2.40	
2. US Income	75	-10%	-7.50	



Tax impact of difference in rates			-9.90	D
Tax expense as per Income tax			211.65	
Taxable Income	738.50			
Tax on special rate income				
1. LTCG	12	10%	1.20	
2. US Income	75	20%	15.00	
3. Other income at 30%	651.50	30%	195.45	
			211.65	



Indian Accounting Standard 21
THE EFFECT OF CHANGES IN FOREIGN EXCHANGE RATES
ILLUSTRATIONS

1. Illustration

On 30th January, 20X1, A Ltd. purchased a machinery for \$ 5,000 from USA supplier on credit basis. A Ltd.'s functional currency is Rupees. The exchange rate on the date of transaction is 1 \$ = Rs. 60. The fair value of the machinery determined on 31st March, 20X1 is \$ 5,500. The exchange rate on 31st March, 20X1 is 1\$ = Rs. 65. The payment to overseas supplier done on 31st March 20X2 and the exchange rate on 31st March 20X2 is 1\$ = Rs. 67. The fair value of the machinery remain unchanged for the year ended on 31st March 20X2. Prepare the Journal entries for the year ended on 31st March 20X1 and year 20X2 according to Ind AS 21. Tax rate is 30%. A Ltd. follows Revaluation method in respect of Plant & Machinery. (SM)

Solution:

30th Jan X1	\$	Exchange Rate	INR
Cost of Purchase	5,000	60	3,00,000
Machinery A/c - PPE Dr.	3,00,000		
To Creditor		3,00,000	
31st Mar X1	\$		
Revalued Amount - PPE	5,500	65	3,57,500
Carrying Amount			3,00,000
Revaluation - OCI			57,500
DTL	30%		17,250
Amount payable to Creditor	5,000.00	65.00	3,25,000
Carrying Amount			3,00,000
Exchange difference loss			25,000.00
Machinery A/C - PPE	57,500		
To OCI		57,500	
OCI Dr.	17,250		
To Deferred Tax Liability		17,250	
Exchange Diff. Loss Dr.	25,000		
To Creditors		25,000	
31st March X2			
Machinery A/C - PPE	11,000		
To OCI		11,000	
[(67-65) x 5,500]			
OCI Dr.	3,300.00		
To DTL		3,300	
(11,000 x 30%)			
Payment to creditor			
Creditor Dr.	3,25,000.00		



Exchange Loss Dr	10,000.00		
To Bank - [5,000 x 67]		3,35,000	

2. Illustration

On 1st January, 2018, P Ltd. purchased a machine for \$ 2 lakhs. The functional currency of P Ltd. is Rupees. At that date the exchange rate was \$1= Rs. 68. P Ltd. is not required to pay for this purchase until 30th June, 2018. Rupees strengthened against the \$ in the three months following purchase and by 31st March, 2018 the exchange rate was \$1 = Rs. 65. CFO of P Ltd. feels that these exchange fluctuations wouldn't affect the financial statements because P Ltd. has an asset and a liability denominated in rupees. which was initially the same amount. He also feels that P Ltd. depreciates this machine over four years so the future year-end amounts won't be the same.

Examine the impact of this transaction on the financial statements of P Ltd. for the year ended 31st March, 2018 as per Ind AS. (SM)

Solution:

As per **Ind AS 21**, foreign currency transactions must be recorded at the spot exchange rate on the date of the transaction. At each reporting date:

- **Monetary items** (like payables) must be translated using the **closing rate**.
- **Non-monetary items** (like PPE) are not retranslated if measured at historical cost.

Initial Recognition

Particulars	USD	Rate (₹)	INR Amount	Closing Balance
Cost of Machine	2,00,000	68	₹1,36,00,000	₹1,36,00,000
Depreciation ₹1,36,00,000 x 3/12 x 1/4			₹8,50,000	(₹8,50,000)
Carrying Amount				₹1,27,50,000
Payable (Liability)	2,00,000	68	₹1,36,00,000	₹1,30,00,000
Closing Balance	2,00,000	65	₹1,30,00,000	
Gain			₹6,00,000	

The CFO's understanding is incorrect. As per Ind AS 21:

- The machine will be initially recognised at INR 1,36,00,000 on 1st Jan 2018 and a corresponding liability of same amount will be recognised
- **PPE (non-monetary asset)** remains at historical cost (₹68/\$).
- **Payable (monetary item)** must be retranslated at closing rate (₹65/\$).
- Resultant **exchange gain** of ₹6,00,000 is recognised in **profit or loss**.
- There is no matching in rupee terms at reporting date — **exchange differences do impact financials**.

3. Illustration

Supplier, A Ltd., enters into a contract with a customer, B Ltd., on 1st January, 2018 to deliver goods in exchange for total consideration of USD 50 million and receives an upfront payment of USD 20 million on this date. The functional currency of the supplier is INR. The goods are delivered and revenue is recognised on 31st March, 2018. USD 30 million is received on 1st April, 2018 in full and final settlement of the purchase consideration.

State the date of transaction for advance consideration and recognition of revenue. Also state the amount of revenue in INR to be recognized on the date of recognition of revenue. The exchange rates on 1st January, 2018 and 31st March, 2018 are Rs. 72 per USD and Rs. 75 per USD respectively. (SM)



[Ans: Amount of revenue to be recognised on date of revenue (31st March 2018) – ₹ 3,690 million)

Solution:

Particulars	Recognition	USD (Mio)	Rate	INR (Mio)
Advance (Contract Liability)	01-Jan-18	20	72	1,440
Revenue	31-Mar-18			
1. Derecognition of Contract Liability and recognition of Revenue				
		20	72	1,440
2. Recognition of balance 30 Mio revenue		30	75	2,250
				3,690
Dr. Contract Liability	1,440			
Cr. Revenue		1,440		
Dr. Account Receivable	2,250.00			
Cr. Revenue		2,250.00		

4. Illustration

On 1st April, 20X1, Makers Ltd. raised a long term loan from foreign investors. The investors subscribed for 6 million Foreign Currency (FCY) loan notes at par. It incurred incremental issue costs of FCY 2,00,000. Interest of FCY 6,00,000 is payable annually on 31st March, starting from 31st March, 20X2. The loan is repayable in FCY on 31st March, 20X7 at a premium and the effective annual interest rate implicit in the loan is 12%. The appropriate measurement basis for this loan is amortised cost. Relevant exchange rates are as follows:

- 1st April, 20X1 - FCY 1 = Rs. 2.50.
- 31st March, 20X2 - FCY 1 = Rs. 2.75.
- Average rate for the year ended 31st March, 20X2 - FCY 1 = Rs. 2.42. The functional currency of the group is Indian Rupee.

What would be the appropriate accounting treatment for the foreign currency loan in the books of Makers Ltd. for the FY 20X1-20X2? Calculate the initial measurement amount for the loan, finance cost for the year, closing balance and exchange gain / loss. (SM)

[Ans: Initial measurement amount – ₹ 1,45,00,000; Finance cost for year – ₹ 16,84,320; Closing balance – ₹ 1,62,14,000; Exchange loss – ₹ 16,79,860]

Solution:

	FCY	Exch. Rate	INR	Date
Initial Recognition	58,00,000	2.50	1,45,00,000	1-Apr-X1
Add: Interest @ 12%	6,96,000	2.42	16,84,320	31-Mar-X2
Payment	6,00,000	2.75	16,50,000	31-Mar-X2
Closing Balance	58,96,000	2.75	1,45,34,320	Restated
Closing balance after restatement			1,62,14,000	
			16,79,680	Exchange loss

5. Illustration

Infotech Global Ltd. has a functional currency of USD and needs to translate its financial statements into the functional and presentation currency of Infotech Inc. (L\$).



The following balances appear in the books of Infotech Global Ltd. at the year-end prior to translation:

	USD	L\$
Property, plant and equipment	50,000	
Receivables	9,35,000	
Total assets	9,85,000	
Issued capital	50,000	30,055
Opening retained earnings	28,000	15,274
Profit & Loss A/c (Profit for the year)	20,000	
Accounts payable	8,40,000	
Accrued liabilities	47,000	
Total equity and liabilities	9,85,000	

Translate the above balances of Infotech Global Ltd. into L\$ ready for consolidation by Infotech Inc. (Share capital and opening retained earnings have been pre-populated.)

Prepare a working of the cumulative balance of the foreign currency translation reserve.

Additional information:

Relevant exchange rates are:

Rate at beginning of the year L\$ 1 = USD 1.22

Average rate for the year L\$ 1 = USD 1.175

Rate at end of the year L\$ 1 = USD 1.13 (SM)

Solution:

When translating the financial statements of a foreign operation for consolidation:

- **Assets and liabilities** are translated at the **closing rate**.
- **Income and expenses (P&L)** are translated at the **average rate**.
- **Share capital and opening retained earnings** are translated at **historical rates**.
- The **foreign currency translation reserve (FCTR)** is the balancing figure routed through OCI.

Translated Balance sheet

Particulars	USD	Rate (L\$/USD)	L\$
Assets			
Property, plant & equipment	50,000	1.13	44,247.79
Receivables	9,35,000	1.13	8,27,433.63
Total Assets	9,85,000		8,71,681.42
Equity & Liabilities			
Share Capital	50,000	(Given)	30,055.00
Opening Retained Earnings	28,000	(Given)	15,274.00
Profit for the year	20,000	1.175 (Avg)	17,021.28
Accounts Payable	8,40,000	1.13	7,43,362.83
Accrued Liabilities	47,000	1.13	41,592.92
FCTR (Balancing Figure)			24,375.39
Total Equity & Liabilities	9,85,000		8,71,681.42

Working for FCTR

Component	USD	Closing Rate (1.13)	L\$ @ Closing Rate	L\$ Used	Difference (FCTR)
Profit for the year	20,000	1.13	17,699.12	17,021.28	677.84
Issued Capital	50,000	1.13	44,247.79	30,055.00	14,192.79
Opening Retained Earnings	28,000	1.13	24,778.76	15,274.00	9,504.76
Total FCTR					24,375.39

6. Illustration

Functional currency of parent P is EURO while the functional currency of its subsidiary S is USD. P sells inventory to S and a transaction for the same was made for USD 300 during the



year. At the year end, a balance of the same amount is outstanding as receivable from S. It has been observed that such balance amount has been continuing as receivable from S year on year and even though the payments in respect of these balances are expected to be received in the foreseeable future but if we look at the year-end then we see this balance as outstanding every year.

In addition to the trading balances between P and S, P has lent an amount of USD 500 to S that is not expected to be repaid in the foreseeable future. Should the exchange difference, if any, be recognised in the profit and loss? (SM)

Modifying the above illustration, suppose that for tax reasons, the 'permanent' funding (i.e. loan amount) extended to S is made via another entity in group, T, rather than from P directly. That is, on directions of P, T gives loan to S. T is also a subsidiary of P. Where should exchange difference, if any, be recognised? (SM)

Solution:

Ind AS 21 distinguishes between **trading balances** and **net investment in a foreign operation** for exchange difference treatment.

1. **Trade Receivable from S (USD 300)**
 - Since this is a **normal trading balance** expected to be settled, it **does not** qualify as net investment.
 - **Exchange differences should be recognized in profit or loss.**
2. **Loan from P to S (USD 500) – Permanent Funding**
 - As repayment is **not expected in the foreseeable future**, this qualifies as **net investment in a foreign operation**.
 - **Exchange differences should be recognized in:**
 - P&L in P's standalone financials.
 - OCI in P's consolidated financials.
3. **Loan Routed Through T Instead of Direct Loan**
 - Since **T is a subsidiary of P**, the loan remains **net investment in S** from a group perspective.
 - **Exchange differences should be:**
 - **Recognized in P&L in T's standalone financials.**
 - **Recognized in OCI in P's consolidated financials.**

Thus, **trading balances affect P&L**, while **exchange differences on net investment are recorded in OCI in consolidated financials**.

7. Illustration

M Ltd is engaged in the business of manufacturing of bottles for pharmaceutical companies and non-pharmaceutical companies. It has a wholly owned subsidiary, G Ltd, which is engaged in the business of pharmaceuticals. G Ltd purchases the pharmaceutical bottles from its parent company. The demand of G Ltd is very high and hence to cater to its shortfall, G Ltd also purchases the bottles from other companies. Purchases are made at the competitive prices.

M Ltd sold pharmaceuticals bottles to G Ltd for Euro 12 lacs on 1st February, 20X1. The cost of these bottles was Rs. 830 lacs in the books of M Ltd at the time of sale. At the year-end i.e. 31st March, 20X1, all these bottles were lying as closing stock and payable with G Ltd.

Euro is the functional currency of G Ltd. while Indian Rupee is the functional currency of M Ltd. Following additional information is available:

Exchange rate on 1st February, 20X1 1 Euro = Rs. 83

Exchange rate on 31st March, 20X1 1 Euro = Rs. 85

Provide the accounting treatment for the above in books of M Ltd. and G Ltd. Also show its impact on consolidated financial statements. Support your answer by Journal entries, wherever necessary, in the books of M Ltd. (SM)

Solution:

M Ltd	Holding	INR		
G Ltd	Sub	EUR		



Particulars	Amount (EUR in lacs)	(₹/EUR)	Amount (INR in lacs)
Sales by M Ltd to G Ltd	12	83	996
Cost of Goods Sold	—	—	830
Profit on Sale	—	—	166
Closing Receivable	12	85	1,020
Forex Gain (Unrealised)	—	—	24

In Books of M Ltd (INR)

G Ltd A/c Dr.	996		In the books of G Ltd (EUR)		
To Sales A/c		996	Inventory A/c Dr.	12	
(Being intra-group sale recorded)			To M Ltd		12
G Ltd A/c Dr.	24		(Being purchase of inventory)		
To Forex Gain		24			
(Being forex gain on closing balance)					

Translation of financial from EUR to INR

Particulars	EUR (in lacs)	Exchange Rate (₹/EUR)	INR (in lacs)
Inventory	12	85	1,020
Trade Payables	12	85	1,020

Extracts of Parent company's (M) BS

Assets	₹ (in lacs)
Trade Receivable (G Ltd)	1,020
Equity & Liabilities	₹ (in lacs)
Profit on Sale	166
Forex Gain (Unrealised)	24
Other Equity & Liabilities	830
Total	1,020

Accounting treatment in the consolidated financial statements

- Receivable and payable in respect of above mentioned sale / purchase between M Ltd and G Ltd will get eliminated.
- The closing stock of G Ltd will be recorded at lower of cost or NRV.

Particulars	Working	Value
Cost (₹) to G Ltd		996 lacs
NRV	12 x 85	1,020 lacs
Lower of cost or NRV → ₹996 lacs		No write down

- The inventory will be shown at 830 in consolidated financial statements being cost to the parent. The unrealised profits will be eliminated.

Consolidated P&L A/c Dr.	166	
To Inventory		166
(Being intra-group sale recorded)		



8. Illustration

Infotech Global Ltd. (a stand-alone entity) has a functional currency of USD and needs to translate its financial statements into the presentation currency (INR). The following is the draft financial statements of Infotech Global Ltd. prepared in accordance with its functional currency.

Balance Sheet

Particulars	31st March, 20X3 (USD)	31st March, 20X2 (USD)
Property, plant and equipment	50,000	55,000
Trade Receivables	68,500	56,000
Inventory	8,000	5,000
Cash	40,000	35,000
Total assets	1,66,500	1,51,000
Share Capital	50,000	50,000
Retained earnings	29,500	18,000
Total Equity	79,500	68,000
Trade payables	40,000	38,000
Loan	47,000	45,000
Total liabilities	87,000	83,000
Total equity and liabilities	1,66,500	1,51,000

Statement of Profit and Loss

Particulars	USD
Revenue	1,77,214
Cost of sales	1,13,100
Gross Profit	64,114
Distribution costs	2,400
Administrative expenses	18,000
Other expenses	11,000
Finance costs	12,000
Profit before tax	20,714
Income tax expense	6,214
Profit for the year	14,500

Extracts from Statement of Changes in Equity

Particulars	31st March, 20X3 (USD)
Retained earnings at the beginning of the year	18,000
Profit for the year	14,500
Dividends	(3,000)
Retained earnings at the end of the year	29,500

Additional Information:

- Share capital was issued when the exchange rate was **USD 1 = INR 70**.
- Retained earnings on 1st April, 20X1 was **INR 4,00,000**.
- At 31st March, 20X2, a cumulative gain of **INR 4,92,000** was recognized in the foreign exchange reserve.
- The entity paid a dividend of **USD 3,000** at an exchange rate of **USD 1 = INR 73.5**.
- Profit for the year 20X1-20X2 of **USD 8,000**, translated at **INR 5,72,000**.
- Profit for the year 20X2-20X3 of **USD 14,500**, translated at **INR 10,72,985**.

Exchange Rates:

- 31st March, 20X2: **USD 1 = INR 73**
- 31st March, 20X3: **USD 1 = INR 75**

Required:

Prepare financial statements of **Infotech Global Ltd.** translated from functional currency (USD) to presentation currency (INR).

Solution: As per paragraph 39 of Ind AS 21, all assets and liabilities are translated at the closing exchange rate:

- 31st March, 20X2: **USD 1 = INR 73**
- 31st March, 20X3: **USD 1 = INR 75**



The **share capital** is translated at the **historical exchange rate** (USD 1 = INR 70) and remains unchanged.

Retained Earnings Calculation:

Particulars	31st March, 20X3 (INR)	31st March, 20X2 (INR)
Opening retained earnings	9,72,000	4,00,000
Profit for the year	10,72,985	5,72,000
Dividends paid (USD 3,000 x 73.5)	(2,20,500)	-
Closing retained earnings	18,24,485	9,72,000

Translated Balance Sheet (INR)

Particulars	31st March, 20X3 (USD)	Rate	31st March, 20X3 (INR)	31st March, 20X2 (USD)	Rate	31st March, 20X2 (INR)
Property, plant and equipment	50,000	75	37,50,000	55,000	73	40,15,000
Trade Receivables	68,500	75	51,37,500	56,000	73	40,88,000
Inventory	8,000	75	6,00,000	5,000	73	3,65,000
Cash	40,000	75	30,00,000	35,000	73	25,55,000
Total assets	1,66,500		1,24,87,500	1,51,000		1,10,23,000
Share Capital	50,000	70	35,00,000	50,000	70	35,00,000
Retained earnings (Refer note 1)	29,500		18,24,485	18,000		9,72,000
Foreign Exchange Reserve (Balancing Figure)			6,38,015			4,92,000
Total Equity	79,500		59,62,500	68,000		49,64,000
Trade payables	40,000	75	30,00,000	38,000	73	27,74,000
Loan	47,000	75	35,25,000	45,000	73	32,85,000
Total Liabilities	87,000		65,25,000	83,000		60,59,000
Total Equity and Liabilities	1,66,500		1,24,87,500	1,51,000		1,10,23,000

Other Comprehensive Income (OCI)

Exchange differences on translation:

- **Foreign exchange reserve movement = 6,38,015 - 4,92,000 = INR 1,46,015**

Statement of Changes in Equity (INR)

Particulars	Share Capital	Retained Earnings	Foreign Exchange Reserve	Total Equity
Balance at 1st April, 20X2	35,00,000	9,72,000	4,92,000	49,64,000
Dividends	-	(2,20,500)	-	(2,20,500)
Profit for the year	-	10,72,985	-	10,72,985
Exchange difference (transferred to OCI)	-	-	1,46,015	1,46,015
Balance at 31st March, 20X3	35,00,000	18,24,485	6,38,015	59,62,500



Ind AS 33 Earning Per Share

1. Illustration

An entity has following preference shares in issue at the end of 20X4:

- 5% redeemable, non-cumulative preference shares: These shares are classified as liabilities. During the year, a dividend was paid on the 5% preference shares – Rs. 100,000.
- Increasing-rate, cumulative, non-redeemable preference shares issued at a discount in 20X0, with a cumulative dividend rate from 20X5 of 10%: The shares were issued at a discount to compensate the holders, because dividend payments will not commence until 20X5. The accrual for the discount in the current year, calculated using the effective interest method amounted to, say, Rs. 18,000. These shares are classified as equity – Rs. 200,000.
- 8% non-redeemable, non-cumulative preference shares: At the beginning of the year, the entity had Rs. 100,000 8% preference shares outstanding but, at 30 June 20X4, it repurchased Rs. 50,000 of these at a discount of Rs. 1,000 – Rs. 50,000.
- 7% cumulative, convertible preference shares (converted in the year): These shares were classified as equity, until their conversion into ordinary shares at the beginning of the year. No dividend was accrued in respect of the year, although the previous year's dividend was paid immediately prior to conversion. To induce conversion, the terms of conversion of the 7% convertible preference shares were also amended, and the revised terms entitled the preference shareholders to an additional 100 ordinary shares on conversion with a fair value of Rs. 300 – Nil.

The profit after tax for the year 20X4 is Rs. 150,000.

Determine the adjustments for the purpose of calculating EPS.

Solution:

Profit after tax			150000
Less: Amortisation of increasing rate pref. shares	-18,000.00		
Add: Discount on redemption of preference shares	1,000.00		
Less : Excess fv on conversion	-30,000.00	-47,000.00	
	Earnings for EPS		1,03,000

2. Illustration

On 31 March, 20X2, the issued share capital of a company consisted of Rs. 100,000,000 in ordinary shares of Rs. 25 each and Rs. 500,000 in 10% cumulative non-redeemable preference shares (classified as equity) of Re 1 each. On 1 October, 20X2, the company issued 1,000,000 ordinary shares fully paid by way of capitalisation of reserves in the proportion 1:4 for the year ended 31 March, 20X3.

Profit for 20X1-20X2 and 20X2-20X3 is Rs. 450,000 and Rs. 550,000 respectively.

Calculate the basic EPS for 20X1-20X2 and 20X2-20X3..

Solution:

Calculation of Basic Earnings per share as on 31st March 20X2 reported in FS of 20X1-X2			
Net Profit		450000	
Less: Cumulative Pref. Dividends		50000	
Earnings available to ordinary equity holders		4,00,000.00	A
No of Eq. Shares outstanding		40,00,000	B
EPS		0.10	A/B



Calculation of Basic EPS as on 31st March 20X3 and 20X2 for FS of 20X2-X3			
		20X2-X3	20X1-X2
Net Profit		5,50,000	4,50,000.00
Less: Cumulative pref. dividend		50,000	50,000
Earnings available to ordinary equity holders		5,00,000	4,00,000
Weighted Avg. No of equity shares o/s		50,00,000	50,00,000
EPS		0.1	0.08
EPS reported in 20X1-X2 x Adj factor			0.08
W.N 1			
No of shares outstanding			
			Weighted Average
No of Shares before bonus issue		40,00,000	12/12
Bonus issue 1 for 4		10,00,000	12/12
Total no of share o/s		50,00,000	
Adjustment factor	Bonus issue		
No of shares before bonus		4	
No of shares after bonus		5	
	Bonus Adj factor	4/5	
		0.80	

3. Illustration

1st January 1,000,000 shares in issue
 28th February Issued 200,000 shares at fair value
 31st August Bonus issue 1 shares for 3 shares held
 30th November Issued 250,000 shares at fair value.

Calculate the number of shares which would be used in basic EPS calculation if the reporting date is 31st December.

Solution:

Date	Transaction	No of Shares	No of Months	Weight	weighted Avg
01-Jan	Opening Bal	1000000	12	12/12	10,00,000.00
01-Jan	Bonus on opening bal	3,33,333.33	12	12/12	3,33,333.33
28-Feb	Fresh issue	2,00,000.00	10	10/12	1,66,666.67
28-Feb	Bonus issue	66,666.67	10	10/12	55,555.56
30-Nov	Fresh issue	2,50,000	1	1/12	20,833.33
				W.A.N.E.S	15,76,388.89
Bonus issue 1:3					

Adjusting Bonus issue with opening balance



01-Jan	Opening bal	10,00,000 $\times 12/12 \times 4/3$			13,33,333	
28-Feb	Issue	200000 $\times 10/12$ $\times 4/3$			2,22,222	
30-Nov	Issue	250000 $\times 1/12$			20,833.33	
					15,76,389	
Alternate working				Weighted Average		
01-Jan	Opening bal	10,00,000	2/12	$10,00,000 \times 2/12 \times 4/3$		2,22,222.22
28-Feb	Issue	12,00,000	6/12	$1200000 \times 6/12 \times 4/3$		8,00,000.00
31-Aug	Bonus issue	1600000	3/12	$16,00,000 \times 3/12$		4,00,000.00
30-Nov	Fresh issue	1850000	1/12	$18,50,000 \times 1/12$		1,54,166.67
						15,76,388.89

4. Illustration

At 31 December 20X1, the issued share capital of a company consisted of 1.8 million ordinary shares of Rs. 10 each, fully paid. The profits for the year ended 31 December 20X1 and 20X2 amounted to Rs. 630,000 and Rs. 875,000 respectively. On 31 March 20X2, the company made a rights issue on a 1 for 4 basis at Rs. 30. The market price of the shares immediately before the rights issue was Rs. 60.

Calculate EPS..

Solution:

Step 1

Theoretical Ex-rights price	$\frac{N \times \text{CMP} + 1 \times \text{Rights issue price}}{N+1}$			
		$\frac{4 \times 60 + 1 \times 30}{4+1}$		
		54.00		
Step 2 - Right Adjustment factor	$\frac{\text{MP before Rights}}{\text{TERP}}$			60/54
				10/9
		1.111111		
EPS		20X2	20X1	
Net profit		8,75,000	630000	
WANES outstanding		2187500	1800000	
WANES outstanding after bonus element			2000000	
EPS as computed in 20X1			0.35	As computed in 20X1
EPS for reporting in 20X2	0.40		0.315	
Restated EPS for 20X1			EPS as computed / RAF	
			0.315	



WN 1					
WANES outstanding			RAF		
	Shares	No of months	Adjusment	Weighted Average	
Opening Balance	1800000	3	1.11	$18,00,000 \times \frac{3}{12} \times \frac{10}{9}$	5,00,000.00
			(10/9)		
After rights issue	2250000	9.00	1	$22,50,000 \times \frac{9}{12}$	16,87,500.00
Rights issue	4,50,000.00				21,87,500.00

5. Illustration

Entity A has in issue 25,000 4% debentures with a nominal value of Re 1. The debentures are convertible to ordinary shares at a rate of 1:1 at any time until 20X9. The entity's management receives a bonus based on 1% of profit before tax.

Entity A's results for 20X2 showed a profit before tax of Rs. 80,000 and a profit after tax of Rs. 64,000 (for simplicity, a tax rate of 20% is assumed in this question).

Calculate Earnings for the purpose of diluted EPS..

Solution:

Earnings available to equity holders	64,000		
Add: Savings in interest (net of tax)	800	+1000	Profit before tax
		-200	
[25,000 x 1 x 4% (1-20%)]			
Less: Bonus payable to mgmt.	-10.00	[1% of 1,000]	
Add: Tax savings on bonus	2.00		
Earnings available after conversion	64,792.00		

6. Illustration

At 30 June 20X1, the issued share capital of an entity consisted of 1,500,000 ordinary shares of Rs. 1 each. On 1 October 20X1, the entity issued Rs. 1,250,000 of 8% convertible loan stock for cash at par. Each Rs. 100 nominal value of the loan stock may be converted, at any time during the years ended 20X6 to 20X9, into the number of ordinary shares set out below:

30 June 20X6: 135 ordinary shares;

30 June 20X7: 130 ordinary shares;

30 June 20X8: 125 ordinary shares; and

30 June 20X9: 120 ordinary shares.

If the loan stocks are not converted by 20X9, they would be redeemed at par.

It is assumed that the written equity conversion option is accounted for as a derivative liability and marked to market through profit or loss. The change in the options' fair value reported in 20X2 and 20X3 amounted to losses of Rs. 2,500 and Rs. 2,650 respectively. It is assumed that there are no tax consequences arising from these losses.

The profit before interest, fair value movements and taxation for the year ended 30 June 20X2 and 20X3 amounted to Rs. 825,000 and Rs. 895,000 respectively and relate wholly to continuing operations. The rate of tax for both periods is 33%.

Calculate Basic and Diluted EPS.

Solution:

Nominal value of loan stock	12,50,000	
Conversion (most favourable)		



135 share per Rs. 100 nominal value			
No of potential equity shares /ordinary shares		1250000 / 100 x135	
		16,87,500.00	
Particulars		30-Jun-X3	30-Jun-X2
Profit before interest, FV and Tax		8,95,000.00	8,25,000.00
Less: Interest on loan		1,00,000.00	75,000.00
Less: FV losses (MTM)		2,650.00	2,500.00
Profits before tax		7,92,350	7,47,500
Less: Tax @ 33%		2,62,350	2,47,500.00
(Profit before int, FV - Interest) x 33%			
Profit after tax (Earnings avbl to ord. share)		5,30,000.00	5,00,000.00
WANES		15,00,000.00	15,00,000.00
	Basic EPS	0.3533	0.3333
Check for dilution			
Incremental Earnings			
1. Interest saved (net of tax)		67,000.00	50,250.00
2. FV MTM losses		2,650.00	2,500.00
	Increase in earnings	69,650.00	52,750.00
	Potential equity	16,87,500.00	12,73,125.00
	Incremental EPS	0.04	0.04
Diluted EPS			
Earnings available after conversion			
Profit after tax		5,30,000.00	5,00,000.00
Add: Interest saved (net of tax)		67,000.00	50,250.00
Add: FV MTM losses		2,650.00	2,500.00
	Earnings available	5,99,650.00	5,52,750.00
WANES			
	WANES for basic	15,00,000.00	15,00,000.00
Add: Potential equity shares [Weighted avg]		16,87,500.00	12,65,625.00
			[1687500 x 9/12]
	WANES	31,87,500.00	27,65,625.00
	Diluted EPS	0.19	0.20

7. Illustration

At 31 December 20X7 and 20X8, the issued share capital of an entity consisted of 4,000,000 ordinary shares of Rs. 25 each. The entity has granted options that give holders the right to subscribe for ordinary shares between 20Y6 and 20Y9 at Rs. 70 per share. Options outstanding at 31 December 20X7 and 20X8 were 630,000. There were no grants, exercises or lapses of options during the year. The profit after tax, attributable to ordinary equity holders for the years ended



31 December 20X7 and 20X8, amounted to Rs. 500,000 and Rs. 600,000 respectively (wholly relating to continuing operations).

Average market price of share:

Year ended 31 December 20X7 = Rs. 120

Year ended 31 December 20X8 = Rs. 160

Calculate basic and diluted EPS.

Solution:

Particulars	20X7	20X8
Profit attributable to ord. equity holders	5,00,000	600,000
No of ordinary shares o/s	40,00,000	40,00,000
EPS (Basic)	0.13	0.15
Weighted Average share price	120.00	160.00
Exercise price	70.00	70
No of options	6,30,000.00	6,30,000.00
Total consideration receivable	4,41,00,000	4,41,00,000
No of shares at full value (avg price)	3,67,500.00	2,75,625.00
Bonus element (dilutive shares)	2,62,500	3,54,375
No of shares for diluted EPS	42,62,500.00	43,54,375.00
Diluted EPS	0.12	0.14

8. Illustration

Assume the following facts for Company XY:

- Income from continuing operations: 30,00,000
- Loss from discontinued operations: (36,00,000)
- Net loss: (6,00,000)
- Weighted average Number of shares outstanding – 10,00,000
- Incremental common shares outstanding relating to stock options – 2,00,000

Calculate Basic and Diluted EPS

Assume, if in above case, Loss from continued operations is Rs. 10,00,000 and income from discontinued operations is Rs. 36,00,000 calculate the diluted EPS..

Solution:

Particulars	Continuing	Discontinued	Total
Profit/(Loss)	30,00,000	-36,00,000	-6,00,000
No of shares outstanding for Basic EPS	10,00,000	10,00,000	10,00,000
Basic EPS	3.00	-3.60	-0.6
Diluted Earnings per share			
Since, the entity has profits from continuing operations, the effect of additional shares would be dilutive			
Weighted avg no of shares (adjusted)	12,00,000.00	12,00,000.00	12,00,000.00
Diluted EPS	2.50	-3.00	-0.50



Particulars		Continuing	Discontinued	Total
Profit/(Loss)		-10,00,000	36,00,000	26,00,000
No of shares outstanding for Basic EPS		10,00,000	10,00,000	10,00,000
	Basic EPS	-1.00	3.60	2.6
Diluted Earnings per share				
Adjusted no of shares considering options		12,00,000.00		
EPS		-0.83		
Since the entity has loss from continued operation, addition of shares would reduce the loss per share Hence, the potential equity is anti dilutive.				

9. Illustration

An entity issues 2,000 convertible bonds at the beginning of Year1. The bonds have a three-year term and are issued at par with a face value of Rs. 1,000 per bond, giving total proceeds Rs. 2,000,000. Interest is payable annually in arrears at a nominal annual interest rate of 6 per cent. Each bond is convertible at any time up to maturity into 250 ordinary shares. The entity has an option to settle the principal amount of the convertible bonds in ordinary shares or in cash.

When the bonds are issued, the prevailing market interest rate for similar debt without a conversion option is 9 per cent. At the issue date, the market price of one ordinary share is Rs. 3. Income tax is ignored.

Calculate basic and diluted EPS when Profit attributable to ordinary equity holders of the parent entity Year 1 Rs. 1,000,000

Ordinary shares outstanding	1,200,000
Convertible bonds outstanding	2,000

Solution:

Solution:					
Particulars					
No of Bonds		2,000			
No of shares per bond		250			
Face value of bonds		1,000.00			
Coupon Rate		6%			
Year	Cash flow		PVF	PV	
1	1,20,000.00	Interest	0.9174	1,10,091	
2	1,20,000.00	Interest	0.8417	1,01,001	
3	1,20,000.00	Interest	0.7722	92,664	
				303,756	Liability comp
				16,96,244	Equity Comp
Liability Component					



Year	Op bal	Int @ 9%	Payment	Closing bal	
1	3,03,756.00	27,338	120000	2,11,094.04	
2	2,11,094.04	18,998	120000	1,10,092.50	
3	1,10,092.50	9,908	120000	0.83	
Basic EPS					
Profit available to ordinary shareholders		10,00,000.00			
No of shares		12,00,000			
	Basic EPS	0.83			
Diluted Earnings per share					
Profit available to ordinary shareholders		10,27,338	[10,00,000 + 27,338]		
No of Ordinary shares		17,00,000			
	Diluted EPS	0.60			

10. Illustration

An entity has two classes of shares in issue:

- 5,000 non-convertible preference shares
- 10,000 ordinary shares

The preference shares are entitled to a fixed dividend of Rs. 5 per share before any dividends are paid on the ordinary shares.

Ordinary dividends are then paid in which the preference shareholders do not participate. Each preference share then participates in any additional ordinary dividend above Rs. 2 at a rate of 50% of any additional dividend payable on an ordinary share.

The entity's profit for the year is Rs. 100,000, and dividends of Rs. 2 per share are declared on the ordinary shares.

Compute the allocation of earnings for the purpose of calculation of Basic EPS when an entity has ordinary shares & participating equity instruments that are not convertible into ordinary shares.

Solution:

Profit for the period	1,00,000			
Less: Preference dividend 5 x 5000	25,000			
Balance profit	75,000.00		7.50	
Less: Dividend on ordinary shares	20,000.00			
Balance profit (for participation)	55,000.00	Undistributed		
Assume additional dividend on ordinary shares to be 'x' per share				
Dividend on preference shares (participating) will be 0.5x per share				
Additional dividend on ordinary shares	10,000x			
Additional dividend on preference shares	5000 x 0.5x	2500x		
10,000x + 2500 x = 55,000				
12,500x = 55000				
x = 55000/12500	4.40	per share		



Preference dividend (participating)	2.20	per share		
Profits	Distributed	Undistributed	Total	
Ordinary Shares	2	4.40	6.40	64000
Preference shares	5.00	2.20	7.20	36000
				100000
EPS	6.40			

11. Illustration

CAB Limited is in the process of preparation of the consolidated financial statements of the group for the year ending 31st March, 20X3 and the extract of the same is as follows:

Particulars	Attributable to CAB Limited	Non-controlling interest	Total (Rs. in '000)
Profit for the year	39,000	3,000	42,000
Other Comprehensive Income	5,000	Nil	5,000
Total Comprehensive Income	44,000	3,000	47,000

The long-term finance of the company comprises of the following:

- (i) 20,00,00,000 equity shares at the beginning of the year and the company has issued 5,00,00,000 shares on 1st July, 20X2 at full market value
- (ii) 8,00,00,000 irredeemable preference shares. These shares were in issue for the whole of the year ended 31st March, 20X3. The dividend on these preference shares is discretionary.
- (iii) Rs. 18 crores of 6% convertible debentures issued on 1st April, 20X1 and repayable on 31st March, 20X5 at par. Interest is payable annually. As an alternative to repayment at par, the holder on maturity can elect to exchange their convertible debentures for 10 crores ordinary shares in the company. On 1st April, 20X1, the prevailing market interest rate for four-year convertible debentures which had no right of conversion was 8%. Using an annual discount rate of 8%, the present value of Rs. 1 payable in four years is 0.74 and the cumulative present value of Rs. 1 payable at the end of years one to four is 3.31.

In the year ended 31st March, 20X3, CAB Limited declared an ordinary dividend of 0.10 paise per share and a dividend of 0.05 paise per share on the irredeemable preference shares.

Compute the following:

- the finance cost of convertible debentures and its closing balance as on 31st March, 20X3 to be presented in the consolidated financial statements.
- the basic and diluted earnings per share for the year ended 31st March, 20X3.
- Assume that income tax is applicable to CAB Limited and its subsidiaries at 25%.

Solution:

		All amounts in '000			
PV of debentures (liability) considering discount of 8%			PVF/PVAF	PV	
Redemption value	1,80,000.00	0.74	1,33,200.00		
Interest payments	10,800.00	3.31	35,748.00		
	Liability Component		1,68,948.00		
	Total proceeds		1,80,000.00		



		Equity component		11,052.00	
Calculation of interest expense and closing balance of liability					
Date	Op bal	Int @ 8%	payment	Closing bal	
1/Apr/X1	1,68,948.00	13,515.84	10,800.00	1,71,663.84	31/3/X2
1/Apr/X2	1,71,663.84	13,733.11	10,800.00	1,74,596.95	31/3/X3
Basic earnings per share					
Profit attributable to owners of parent		39,000.00			
Less: Preference dividends (0.05 per share)		4,000			
Earnings available to equity holders		35,000.00			
Weighted avg no of shares					
Date	No of shares	Weight	Weighted avg		
1/Apr/X2	200000	3/12	50,000.00		
1/Jul/X2	250000	9/12	1,87,500.00		
			2,37,500.00		
	Basic EPS		0.1474		
Diluted earnings per share					
Profit available for ordinary share holders		35,000.00			
Add: Interest savings (net of tax)		10,299.83	[13,733.11 x 75%]		
Profit for computing diluted earnings		45,299.83			
Weighted average no of shares					
		3,37,500.00			
	Diluted EPS	0.1342			

12. Illustration

Following information pertains to an entity for the year ending 31st March 20X1:

Net profit for the year	₹ 12,00,000
Weighted average number of equity shares outstanding during the year	5,00,000 shares
Average market price per share during the year	₹ 20
Weighted average number of shares under option during the year	1,00,000 shares
Exercise price per share under option during the year	₹ 15

Calculate basic and diluted earnings per share.

Solution:

Calculation of earnings per share

	Earnings	Shares	Per share
Profit attributable to ordinary equity holders of the parent entity for year 20X1	Rs 1,200,000		
Weighted average shares outstanding during year 20X1		500,000	
Basic earnings per share			Rs 2.40
Weighted average number of shares under option		100,000	
Weighted average number of shares that would have been issued at average market price: (100,000 × Rs 15.00) + Rs 20.00	Refer Note	(75,000)	
Diluted earnings per share	Rs 1,200,000	525,000	Rs 2.29

13. Illustration

Company S is a subsidiary of Company P. Following facts are in respect of Company S:

- Company S has 10,000 ordinary shares and 1,000 options outstanding, of which Company P owns 9,000 shares and 500 options, respectively.
- The options have an exercise price of ₹ 40.
- The average market price of Company S's ordinary share was ₹ 50 in 20X1.
- In 20X1, Company S's profit was ₹ 30,000.

Following facts are in respect of Company P:

- Company P has 5,000 ordinary shares outstanding.
- In 20X1, Company P's profit (excluding any distributed and undistributed earnings of subsidiaries) was ₹ 7,000.
- The options outstanding are dilutive at P's level.

Determine the diluted EPS of Company P for the year 20X1. Ignore income tax. (RTP Nov 22)

Solution:

To determine the diluted EPS of Company P, the diluted EPS of Company S has to be calculated first.

Calculation of Company S's diluted EPS:

Particulars	Amount (₹)
Company S's earnings for the period	30,000
Weighted average ordinary shares	10,000
Incremental shares (refer W.N.)	200
Company S's diluted EPS	$30,000 / (10,000 + 200) = 2.94$

Calculation of Company P's diluted EPS:

Particulars	Amount (₹)
Company P's earnings for the period	7,000
Company P's share of Company S's earnings attributable to ordinary shares	$26,460 [(9,000 / 10,000) \times (2.94 \times 10,000)]$
Company P's share of Company S's earnings attributable to options	$294 [(500 / 1,000) \times (2.94 \times 200)]$
Company P's weighted average ordinary shares outstanding	5,000
Company P's diluted EPS	$(7,000 + 26,460 + 294) / 5,000 = 6.75$

Working Note: Computation of Incremental shares related to weighted average options outstanding:

All options are dilutive because their exercise price is below the average market price of Company S's ordinary



shares for the period.

The incremental shares are calculated as follows:

Particulars	Amount (₹)
Shares issued on assumed exercise of options	1,000
Less: Shares that would be issued at average market Price $[(40 \times 1,000)/50]$	(800)
Incremental shares	200

14. Illustration (Self practice)

Company P has both ordinary shares and equity-classified preference shares in issue. The reconciliation of the number of shares during Year 1 is set out below:

Number of shares

Dates in Year 1	Transaction	Ordinary shares	Treasury shares	Preference shares
1st April	Balance	30,00,000	(5,00,000)	5,00,000
15th April	Bonus issue - 5% (no corresponding changes in resources)	1,50,000	(25,000)	-
1st May	Repurchase of shares for cash	-	(2,00,000)	-
1st November	Shares issued for cash	4,00,000	-	-
31st March	Balance	35,50,000	(7,25,000)	5,00,000

Additional Information for Year 1:

- Company P's net profit for the year is ₹ 46,00,000.
- On 15th February, non-cumulative preference dividends of ₹ 1.20 per share were declared and paid on 15th March.
- Preference shares do not participate in additional dividends with ordinary shares.
- Dividends on non-cumulative preference shares are deductible for tax purposes. The applicable income tax rate is 30%.
- The financial year of Company P ends on 31st March.

Determine the Basic EPS of Company P for Year 1. (Use the number of months or part of months, rather than the number of days in the calculation of EPS.) (RTP May 23)

Solution:

Step 1: Determination of Numerator for Basic EPS Calculation

The first step in the basic EPS calculation is to determine the profit or loss that is attributable to ordinary shareholders of Company P for the period.

Non-cumulative dividends paid on equity-classified preference shares are not deducted in arriving at net profit or loss for the period, but they are not returns to ordinary shareholders. Accordingly, these dividends are deducted from net profit or loss for the period in arriving at the numerator.

Particulars	Amount (₹)
Net Profit	46,00,000
Preference Dividends (5,00,000 shares × 1.2)	(6,00,000)
Related Tax (₹ 6,00,000 × 30%)	1,80,000
Profit or Loss Attributable to P's Ordinary Shareholders	41,80,000



Thus, the **numerator** for the Basic EPS calculation is ₹ 41,80,000.

Step 2: Determination of Denominator for Basic EPS Calculation

The second step in the basic EPS calculation is to determine the weighted-average number of ordinary shares outstanding for the reporting period.

Number of Shares	Time Weighting	Weight	Weighted Average Number of Shares
1st April – Opening balance (30,00,000 – 5,00,000)	25,00,000	1	-
15th April – Bonus issue (1,50,000 – 25,000)	1,25,000	-	-
1st April to 30th April	26,25,000	1/12	2,18,750
1st May – Repurchase of shares (2,00,000)	(2,00,000)	-	-
1st May to 31st October	24,25,000	6/12	12,12,500
1st November – New shares issued	4,00,000	-	-
1st November to 31st March	28,25,000	5/12	11,77,083
Total Weighted Average Number of Shares for the Year	26,08,333		

Thus, the **denominator** for the Basic EPS calculation is **26,08,333 shares**.

Step 3: Calculation of Basic EPS

Basic EPS = $41,80,000 / 26,08,333 = ₹1.60$ per share



Indian Accounting Standard 34 INTERIM FINANCIAL REPORTING ILLUSTRATIONS

1. Illustration

ABC Ltd. presents interim financial report quarterly. On 1.4.20X1, ABC Ltd. has carried forward loss of Rs. 600 lakhs for income-tax purpose for which deferred tax asset has not been recognized. ABC Ltd. earns Rs. 900 lakhs in each quarter ending on 30.6.20X1, 30.9.20X1, 31.12.20X1 and 31.3.20X2 excluding the carried forward loss. Income-tax rate is expected to be 40%. Calculate the amount of tax expense to be reported in each quarter.

Solution:

Amount of income tax expense reported in each quarter would be as below:

The estimated payment of the annual tax on earnings for the current year:

$$3,000^* \times 40 / 100 = 1,200 \text{ lakhs.}$$

$$*(3,600 \text{ lakhs} - 600 \text{ lakhs}) = 3,000 \text{ lakhs}$$

$$\text{Average annual effective tax rate} = (1,200 / 3,600) \times 100 = 33.33\%$$

$$\text{Tax expense to be shown in each quarter} = 900 \times 33.33\% = 300 \text{ lakhs}$$

2. Illustration

Innovative Corporation Private Limited (or "ICPL") is dealing in seasonal product and the sales pattern of the product, quarter wise is as under during the financial year 20X1-20X2:

Qtr. I	Qtr. II	Qtr. III	Qtr. IV
ending 30 June	ending 30 September	ending 31 December	ending 31 March
10%	10%	60%	20%

For the first quarter ending on 30 June, 20X1, ICPL has provided the following information :

Particulars	Amounts (in crore)
Sales	70
Employees benefits expenses	25
Administrative and other expenses	12
Finance cost	4

ICPL while preparing interim financial report for first quarter wants to defer Rs. 16 crores expenditure to third quarter on the argument that third quarter is having more sales therefore third quarter should be debited by more expenditure. Considering the seasonal nature of business and that the expenditures are uniform throughout all quarters.

Calculate the result of first quarter as per Ind AS 34 and comment on the company's view.

Solution:

Result of the first quarter ending 30 June

Particulars	Amounts (in crore)
Sales	70
Total Revenue (A)	70



Less: Employees benefits expenses	(25)
Administrative and other expenses	(12)
Finance cost	<u>(4)</u>
Total Expense (B)	(41)
Profit (A-B)	29

Note- As per Ind AS 34, the income and expense should be recognized when they are earned and incurred respectively. Seasonal incomes will be recognized when they occur. Therefore, the argument of ICPL is not correct considering the principles of Ind AS 34.

3. Illustration

Fixed production overheads for the financial year is Rs. 10,000. Normal expected production for the year, after considering planned maintenance and normal breakdown, also considering the future demand of the product is 2,000 MT. It is considered that there are no quarterly / seasonal variations. Therefore, the normal expected production for each quarter is 500 MT and the fixed production overheads for the quarter are Rs. 2,500.

Actual production achieved Quantity (In MT)

First quarter	400
Second quarter	600
Third quarter	500
Fourth quarter	400
Total	1,900

Presuming that there are no quarterly / seasonal variation, calculate the allocation of fixed production overheads for all the four quarters as per Ind AS 34 read with Ind AS 2. Will the quarterly results affect the annual results?

Solution:

If it is considered that there is no quarterly / seasonal variation, therefore normal expected production for each quarter is 500 MT and fixed production overheads for the quarter are ₹ 2,500.

Fixed production overhead to be allocated per unit of production in every quarter will be ₹ 5 per MT (Fixed overheads / Normal production).

Quarters	Allocations
First Quarter	➤ Actual fixed production overhead ₹ = 2,500 ➤ Fixed production overheads based on the allocation rate of ₹ 5 per unit allocated to actual production ₹ 5 x 400 = ₹ 2,000
	➤ Unallocated fixed production overheads to be charged as expense as per Ind AS 2 and consequently as per Ind AS 34 = ₹ 500
Second Quarter	➤ Actual fixed production overheads on year-to-date basis = ₹ 5,000 ➤ Fixed production overheads to be absorbed on year-to-date basis = ₹ 1,000 x ₹ 5 = ₹ 5,000 ➤ Earlier ₹ 500 was not allocated to production in the 1st quarter. To give effect to the entire ₹ 5,000 to be allocated in the second



	quarter, as per Ind AS 34, 500 are reversed by way of a credit to the statement of profit and loss of the 2nd quarter.
Third Quarter	➤ Actual production overheads on year-to-date basis = 7,500 ➤ Fixed production overheads to be allocated on year-to-date basis = $1,500 \times 5 = 7,500$ ➤ There is no under or over recovery of allocated overheads. Hence, no further action is required.
Fourth Quarter	➤ Actual fixed production overheads on year-to-date basis = ₹ 10,000 ➤ Fixed production overheads to be allocated on year-to-date basis $1,900 \times 5 = 9,500$ ➤ ₹ 500, i.e., ₹[2,500 – (₹ 5 × 400)] unallocated fixed production overheads in the 4th quarter, are to be expensed off as per the principles of Ind AS 2 and Ind AS 34 by way of a charge to the statement of profit and loss. ➤ Unallocated production overheads for the year ₹ 500 (i.e., ₹ 10,000 – ₹ 9,500) are expensed in the Statement of profit and loss as per Ind AS 2.

The cumulative result of all the quarters would also result in unallocated overheads of ₹ 500, thus, meeting the requirements of Ind AS 34 that the quarterly results should not affect the measurement of the annual results.

4. Illustration

ABC Limited manufactures automobile parts. ABC Limited has shown a net profit of Rs. 20,00,000 for the third quarter of 20X1.

Following adjustments are made while computing the net profit:

- Bad debts of Rs. 1,00,000 incurred during the quarter. 50% of the bad debts have been deferred to the next quarter.
- Additional depreciation of Rs. 4,50,000 resulting from the change in the method of depreciation.
- Exceptional loss of Rs. 28,000 incurred during the third quarter. 50% of exceptional loss have been deferred to next quarter.
- Rs. 5,00,000 expenditure on account of administrative expenses pertaining to the third quarter is deferred on the argument that the fourth quarter will have more sales; therefore fourth quarter should be debited by higher expenditure. The expenditures are uniform throughout all quarters.

Analysis and ascertain the correct net profit to be shown in the Interim Financial Report of third quarter to be presented to the Board of Directors.

Solution:

In the instant case, the quarterly net profit has not been correctly stated. As per Ind AS 34, *Interim Financial Reporting*, the quarterly net profit should be adjusted and restated as follows:

- The treatment of bad debts is not correct as the expenses incurred during an interim reporting period should be recognised in the same period. Accordingly, ₹ 50,000 should be deducted from ₹ 20,00,000.
- Recognising additional depreciation of ₹ 4,50,000 in the same quarter is correct and is in tune with Ind AS 34.
- Treatment of exceptional loss is not as per the principles of Ind AS 34, as the entire amount of ₹ 28,000 incurred during the third quarter should be recognized in the same quarter. Hence ₹ 14,000 which was deferred should be deducted from the profits of third quarter only.
- As per Ind AS 34 the income and expense should be recognised when they are earned and incurred respectively. As per para 39 of Ind AS 34, the costs should be anticipated or deferred only when:
 - it is appropriate to anticipate or defer that type of cost at the end of the financial year, and



(ii) costs are incurred unevenly during the financial year of an enterprise.

Therefore, the treatment done relating to deferment of ₹ 5,00,000 is not correct as expenditures are uniform throughout all quarters.

Thus considering the above, the correct net profits to be shown in Interim Financial Report of the third quarter shall be ₹ 14,36,000 (₹ 20,00,000 - ₹ 50,000 - ₹ 14,000 - ₹ 5,00,000).

5. Illustration

Company A expects to earn Rs. 15,000 pre-tax profit each quarters and has a corporate tax slab of 20 percent on the first Rs. 20,000 of annual earnings and 40 per cent on all additional earnings. Actual earnings match expectations. Calculate the amount of income tax to be shown in each quarter.

Solution:

Quarterly earnings		15,000	
Annual Earnings [15000 x 4]		60,000	
Tax on first 20,000		4,000	20000x 20%
Tax on remaining 40,000		16,000	40000x40%
Total Tax expense		20,000	
Effective Tax Rate		33.33%	
[20,000 / 60000]			
Tax Expense in each quarter		5,000	
[15,000 x33.33%]			

6. Illustration

Narayan Ltd. provides you the following information and asks you to calculate the tax expense for each quarter, assuming that there is no difference between the estimated taxable income and the estimated accounting income:

Estimated Gross Annual Income 33,00,000

(inclusive of Estimated Capital Gains of Rs. 8,00,000)

Estimated Income of Quarter I is Rs. 7,00,000, Quarter II is Rs. 8,00,000, Quarter III (including Estimated Capital Gains of Rs. 8,00,000) is Rs. 12,00,000 and Quarter IV is Rs. 6,00,000.

Tax Rates: On Capital Gains 12%

On Other Income: First Rs. 5,00,000 30%

Balance Income: 40%

Solution:

Estimated Taxable Income	33,00,000				
(Includes capital gain of 8,00,000)					
Capital Gains	8,00,000				
Other income	25,00,000				
			Tax Expense = Income x Tax rate	Tax Rate of 12%	Total Tax
	Other Income	Capital Gain	Other income	Capital Gain	
Q1	7,00,000		2,66,000		2,66,000
Q2	8,00,000		3,04,000		3,04,000
Q3			1,52,000		
	4,00,000	8,00,000		96,000	2,48,000



Q4	6,00,000		2,28,000		2,28,000
	25,00,000	8,00,000	9,50,000	96,000	10,46,000
Tax rates	Capital Gain	12%			
	Others upto 5,00,000	30%			
	Above 5,00,000	40%			
Tax payable					
Upto 5,00,000	1,50,000	5,00,000 x 30%			
Balance 20,00,000	8,00,000	20,00,000 x 40			
Total Tax	9,50,000				
Total of income (excluding capital gain)	25,00,000				
Effective tax rate	38.00%				

7. Illustration

An entity reports quarterly, earns Rs. 1,50,000 pre-tax profit in the first quarter but expects to incur losses of Rs. 50,000 in each of the three remaining quarter The entity operates in a jurisdiction in which its estimated average annual income tax rate is 30%.

The management believes that since the entity has zero income for the year, its income-tax expense for the year will be zero. State whether the management's views are correct or not? If not, then calculate the tax expense for each quarter as well as for the year as per Ind AS 34.

Solution:

	<u>Profit</u>	<u>Tax expense</u>
Q1	1,50,000	45,000
Q2	(50,000)	(15,000)
Q3	(50,000)	(15,000)
Q4	(50,000)	(15,000)
	-	-
Effective tax rate / prevailing tax rate	30%	



**Ind AS 108
OPERATING SEGMENTS
ILLUSTRATIONS**

1. Illustration

X Ltd. has identified 4 operating segments for which revenue data is given below:

	External Revenue	Internal Revenue (₹)	Total (₹)
Segment A	30,00,000	Nil	30,00,000
Segment B	6,50,000	Nil	6,50,000
Segment C	8,50,000	1,00,000	9,50,000
Segment D	5,00,000	49,00,000	54,00,000
Total Revenue	50,00,000	50,00,000	1,00,00,000

Additional information:

Segment C is a new business unit and management expect this segment to make a significant contribution to external revenue in coming years.

Which of the segments would be reportable under the criteria identified in Ind AS 108? (SM)

Solution:

Step 1: Apply the 10% Revenue Threshold

A segment is considered **reportable** if its total revenue (internal + external) is **at least 10%** of the total segment revenue.

- **Total segment revenue = ₹ 1,00,00,000**
- **10% threshold = ₹ 10,00,000**

Segment	External (₹)	Internal (₹)	Total (₹)	Reportable?
A	30,00,000	Nil	30,00,000	Yes
B	6,50,000	Nil	6,50,000	No
C	8,50,000	1,00,000	9,50,000	No
D	5,00,000	49,00,000	54,00,000	Yes
Total	50,00,000	50,00,000	1,00,00,000	-

- **Segment A and Segment D** exceed the **₹ 10,00,000 threshold** and are **reportable**.
- **Segments B & C** do not meet the threshold, so they are **not reportable** at this stage.

Step 2: Apply the 75% External Revenue Threshold

As per Ind AS 108, the total external revenue from **reportable segments** must cover **at least 75%** of the entity's total external revenue.

- **75% of total external revenue = 75% of ₹ 50,00,000 = ₹ 37,50,000**
- **External revenue from reportable segments (A & D) = ₹ 30,00,000 + ₹ 5,00,000 = ₹ 35,00,000**
- **Since ₹ 35,00,000 < ₹ 37,50,000**, more segments need to be included.

Step 3: Include Additional Segments

- **Segment C (₹ 8,50,000 external revenue)** is closer to the threshold than Segment B.
- **By including Segment C, external revenue = ₹ 35,00,000 + ₹ 8,50,000 = ₹ 43,50,000**, which meets the 75% requirement.



2. Illustration

X Ltd. is operating in coating industry. Its business segments comprise Coating and Others (consisting of chemicals, polymers and related activities). Certain information for financial year 20X1-20X2 is given below:

(Rs. in lakhs)

Segments	External Revenue (including GST)	GST	Other operating income	Result	Asset	Liabilities
Coating	2,00,000	5,000	40,000	10,000	50,000	30,000
Others	70,000	3,000	15,000	4,000	30,000	10,000

Additional information:

1. Unallocated income net of expenses is Rs. 30,00,00,000
2. Interest and bank charges is Rs. 20,00,00,000
3. Income tax expenses is Rs. 20,00,00,000 (current tax Rs. 19,50,00,000 and deferred tax Rs. 50,00,000)
4. Unallocated Investments are Rs. 1,00,00,00,000 and other assets are Rs. 1,00,00,00,000.
5. Unallocated liabilities, Reserves & surplus and share capital are Rs. 2,00,00,00,000, Rs. 3,00,00,00,000 & Rs. 1,00,00,00,000 respectively.
6. Depreciation amounts for coating & others are Rs. 10,00,00,000 and Rs. 3,00,00,000 respectively.
7. Capital expenditure for coating and others are Rs. 50,00,00,000 and Rs. 20,00,00,000 respectively.
8. Revenue from outside India is Rs. 6,20,00,00,000 and segment asset outside India Rs. 1,00,00,00,000.

Based on the above information, how X Ltd. would disclose information about reportable segment revenue, profit or loss, assets and liabilities for financial year 20X1-20X2? (SM)

Solution:

Information about Profit/Loss			
Particulars	Coating	Others	Total
Revenue (Including GST)	2,00,000	70,000	2,70,000
Less: GST	(5,000)	(3,000)	(8,000)
Total Revenue	1,95,000	67,000	2,62,000
Other Operating Income	40,000	15,000	55,000
Total Income	2,35,000	82,000	3,17,000
Segment Results (Profit/Loss)	10,000	4,000	14,000
Unallocated Income (net of expense)			3,000
Total	10,000	4,000	17,000
Less: Interest and Bank Charges			(2,000)
Profit before tax			15,000
Less: Tax Expense			
Current			(1,950)
Deferred			(50)
Profit after Tax			13,000
Other Information - Assets			
Segment Assets	50,000	30,000	80,000
Unallocated Investments			10,000
Unallocated other assets			10,000



				1,00,000	
Liabilities / Equity					
Segment Liabilities		30,000	10,000	40,000	
Unallocated Liabilities				20,000	
Share capital				10,000	
Reserves				30,000	
				1,00,000	
Information about capex and dep/amoritsation					
Capital Expenditure		5,000	2,000		
Depreciation/Amortisation		1,000	300		
Entity wide disclosures					
Revenue					
- India				2,55,000	
- Outside India				62,000	
				3,17,000	
Assets					
- India				90,000	
- Outside India				10,000	
				1,00,000	

3. Illustration

XYZ Ltd. has eight segments namely A, B, C, D, E, F, G and H. The information regarding respective segments for the year ended 31st March, 20X1 is as follows:

Segments	A	B	C	D	E	F	G	H
External sales	0	255	15	10	15	50	25	35
Inter-segment sales	100	60	30	5				
Total	100	315	45	15	15	50	25	35
Segment result Profit/(Loss)	5	(90)	15	(5)	8	(5)	5	7
Segment assets	15	47	5	11	3	5	5	9

Identify which of the above segments out of A to H would be considered as reportable segments of XYZ Ltd. for the year ending 31st March, 20X1? (RTP MAY 22)

Solution:

An entity has eight segments and the relevant information is as follows:

1 Criteria 1: Segment revenue is 10% or more of total external + inter-segment sales

Segments	A	B	C	D	E	F	G	H	Total
Total sales	100	315	45	15	15	50	25	35	600
% to total sales	16.7	52.5	7.5	2.5	2.5	8.3	4.2	5.8	
Reportable segments	A	B	-	-	-	-	-	-	



2 Criteria 2: 10% or more of segment result

Segments	A	B	C	D	E	F	G	H	Total
Profit	5		15		8		5	7	40
Loss		(90)		(5)		(5)			100
Threshold									10%
Reportable		B	C						

Since segment loss is greater, we select 100 as evaluating the segment percentage.

3 Criteria 3: 10% or more of segment assets

Segments	A	B	C	D	E	F	G	H	Total
Assets	15	47	5	11	3	5	5	9	100
%	15	47	5	11	3	5	5	9	100
Reportable segments	A	B	-	D	-	-	-	-	

Based on the above three criteria, the **Reportable Segments are A, B, C & D.**

However, **75% test for external sales** should also be checked.

Reportable Segments	A	B	C	D	TOTAL
External sales	0	255	15	10	280
Total entity's sales (external)					405
% of reportable segments external sales to entity's sales					69.14%
Required percentage					75%

Hence, in the above scenario, **additional operating segments need to be identified as reportable segments**, till the 75% test is satisfied, even if those segments do not satisfy the quantitative threshold limits.

