BCCA

CMA FINAL

CFR
Work Book

(PAPER 18)

CA CMA ANANTH SHARMA

INDEX

Question 1 (Cost calculation)

X Ltd. Sets up a plant at the purchase price of ₹5,00,000 plus GST at 18% (Intra-state). Freight paid ₹ 20,000 plus GST at 18% (Intra-state). Paid ₹10,000 as employee expenses for installation of the planet. After the plant wasput to use maintenance cost incurred ₹ 5,000. Measure the initial cost to be recognized and pass journal. Estimateddismantling cost ₹30,000, present value ₹12,000.

Solution:

An asset is recognized in the class Machinery under the item PPE in the non-current group of assets. The initialcost of the asset is measured as —

Particulars	**(₹)**
Purchase Price	5,00,000
Particulars	(₹)
Freight	20,000
Installation cost	10,000
Present value of dismantling cost	12000
	5,42000

GST and maintenance cost not to be recognized in initial cost of asset.

Journal **Dr.** **Cr.**

Particulars	**(₹)**	**(₹)**
Machinery A/c Dr.	5,42,000	
Input CGST A/c Dr.	46,800	
Input SGST A/c Dr.	46,800	
Maintenance Exp. A/c Dr.	5,000	
To, Bank A/c		6,28,600
To Liability for Dismantling A/c		12,000

Working:

GST	**State (9%)**	**Central (9%)**
On ₹5,00,000	₹45,000	₹45,000
On ₹ 20,000	₹1,800	₹1,800
Total	₹46,800	₹46,800

Question 2 (Cost calculation)

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.

Particulars	**₹ 000 (cost incurred)**
Site preparation costs	150
Direct Material	2,000
Direct Labour cost, including ₹ 10,000 incurred during an industrial strike	1,160
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

Calculate Cost to be capitalised as per Ind AS 16.

Answer

Particulars	**₹ 000 (As per Ind AS 16)**
Site preparation costs	150
Direct Material	2,000
Direct Labour cost, including ₹ 10,000 incurred during an industrial strike	1,150
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	4,000

Question 3 (Cost calculation)

On 1st April, 20X1, XYZ Ltd. acquired a machine under the following terms:

	₹
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 receivedwithin one month of purchase. XYZ Ltd. paid for the plant on 20th April, 20X1. At what cost the asset will be recognised?

Answer

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

	₹
List price	80,00,000
Less: Trade discount (10%)	(8,00,000)
	72,00,000
Import duty	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 costof ₹ 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 received of ₹ 3,60,000 (₹ 72,00,000 x 5%) is to be shown as other income in the profit or loss.

Question 4 (Cost calculation & Depreciation)

An item of inventory costing ₹ 20,000 as covered under Ind AS 2 is consumed in the constructionof self-constructed property to be accounted as Property, plant and equipment under Ind AS 16. The cost of such property, plant and equipment other than inventories is ₹ 80,000. Whether Inventory cost needs to be capitalized in the cost of Property, plant and equipment? Find out the cost of PPE and Depreciation thereon.

Answer

Such Inventory needs to be capitalized in the cost of Property, plant and equipment. The useful life of the property is 5 years. The depreciation on such property charged to profit

and loss account is

₹ 20,000 per annum (i.e. 1,00,000/ 5).

Question 5 (capitalization of cost)

The term of an operating lease allows a tenant, XYZ Ltd. to tailor the property to meet its specific needs by building an additional internal wall, but on condition that the tenant returns the property at the end of the lease in its original state. This will entail dismantling the internal wall. XYZ Ltd. incurs a cost of ₹ 25,00,000 on building the wall and present value of estimated cost to dismantle the wall is ₹ 10,00,000. At what value should the leasehold improvements be capitalisedin the books of XYZ Ltd.

Answer

The leasehold improvement is not only the cost of building the wall, but also the cost of restoring the property at the end of the lease. As such both costs i.e., ₹ 35,00,000 are capitalised when the internal wall is built and will be recognised in profit and loss over the useful life of the asset (generally the lease term) as a part of depreciation charge).

Question 6 (Revaluation of PPE)

Venus Ltd. is a large manufacturing group. It owns a considerable number of industrial buildings, such as factories and warehouses, and office buildings in several capital cities. The industrial buildings are located in industrial zones whereas the office buildings are in central business districtsof the cities. Venus's Ltd. management wants to apply the Ind AS 16 revaluation model to subsequent measurement of the office buildings but continue to apply the historical cost model to the industrial buildings. Is this acceptable under Ind AS 16, Property, Plant and Equipment?

Answer

Venus's Ltd. management can apply the revaluation model only to the office buildings.

The office buildings can be clearly distinguished from the industrial buildings in terms of theirfunction, their nature and their general location.

Ind AS 16 permits assets to be revalued on a class-by-class basis.

The different characteristics of the buildings enable them to be classified as different PPE classes. The different measurement models can therefore be applied to these classes for subsequent measurement. All properties within the class of office buildings must therefore be carried at revalued amount. Separate disclosure of the two classes must be given in accordance with para 73 of Ind AS 16.

Question 7 (Revaluation of PPE)

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 buildingfor 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.

Answer

Provided that the transaction has commercial substance, the entity should recognised the private jet at a cost of ₹ 18 million (its fair value) and should recognise a profit on disposal of the land and building of ₹ 5 million, calculated as follow:

	(₹ 000)
Recognition of fair value of asset acquired (15,000 + 3,000)	18,000
Less: Carrying amount of land and building disposed	(10,000)
Cash Paid	(3,000)
Profit on exchange of assets	5,000

The required journal entry is therefore as follow:

Property, Plant and Equipment (Private Jet)	Dr.	18,000	
To Property, Plant and Equipment (Land and Building)			10,000
To Cash			3,000
To Profit on exchange of assets			5,000

Question 8 (Re-estimation of life)

An entity acquired an asset 3 years ago at a cost of ₹ 5 million. The depreciation method adopted for theasset 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 anddetermines 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.

Answer

Change in Depreciation Method shall be accounted for as a change in an accountingestimate 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	₹ 500,000
Year 2	₹ 450,000
Year 3	₹ 405,000
Year 4 to Year 11 (refer W.N.)	₹ 455,625 p.a.

Working Note:

Year	Opening balance of asset (a)	Depreciation @ 10% on (a) (b)	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 years. 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)

Question 9 (Re-estimation of life and change in method of depreciation)

XYZ Ltd. purchased an asset on 1st January, 20X0, for ₹ 1,00,000 and the asset had an estimated useful life of ten years and a residual value of nil. The company has charged depreciation using the straight- line method at ₹ 10,000 per annum. On 1st January, 20X4, the management of XYZ Ltd. Reviews the estimated life and decides that the asset will probably be useful for a further four years and, therefore, the total life is revised to eight years. How should the asset be accounted for remaining years?

Answer

Change in useful economic life of an asset is change in accounting estimate, which is to be applied prospectively, i.e., the depreciation charge will need to be recalculated. On 1st January, 20X4, when the asset's net book value is ₹ 60,000. The company should amend the annual provision for depreciation to charge the unamortised cost (namely, ₹ 60,000) over the revised remaining life of four years. Consequently, it should charge depreciation for the next four years at ₹ 15,000 per annum.

Question 10 (Depreciation)

A Ltd. Purchased an aircraft at a price of ₹6,300 crores that requires major inspection and overhauling every 4 years. The estimated life of the aircraft is 15 years. The aircraft was purchased in 2015 and major inspection and overhauling made in 2019 at a cost of ₹ 100 crores. In 2020 A Ltd. Further incurred repair and maintenance in the engine to raise it capacity by 10% amounting to ₹ 70 crores. One worn out component in the wing was replaced in 2020 at a cost of ₹ 80 crores. The carrying amount of the old component was ₹ 30 crores. Scrap realized ₹ 12

crores.find the amount to be recognized as expense and as asset in 2019 and in 2020 and also show the carrying amount.The aircraft residual value is estimated at ₹ 300 crores.

Solution:

(₹in Crore)

	Expense	Asset	
		Recognised	Carrying amount
In 2018 Depreciation ₹(6,300 - 300)/15Carrying amount	400		4,700 (6300 – 4×400)
In 2019 Depreciation = ₹400 + (₹100/4)Major Inspection overhauling Carrying amount [₹4,700 + ₹100 – ₹425]	425	100	4,375
In 2020			
Depreciation	425		
Repair & Maintenance (Capacity increase) Replacement		70 80	
Old component derecognized loss on disposal of old component ₹(30 – 12)	18	(30)	
Carrying amount (₹4,375 + ₹70 +₹80 –₹30 – ₹437)			4,058

Notes :

1. Depreciation At straight line for 15 years useful life.
2. Major inspection and overhauling capitalized and depreciated at straight line for 4 years.
3. Repair & maintenance and replacement of old component depreciated at straight line for residual life i.e.15–5=10 years.
4. Full depreciation is changed in the year it is recognized.

Question 11 (Depreciation)

X Ltd. Purchased a machine at a price of ₹ 1,200 Lakhs. It paid freight 40 and installation cost ₹ 80 Lakhs. IGSTpaid at 18%. Share of general overhead ascertained for the trial run of the machine ₹ 30 Lakhs. The labour cost anddirect expenses for trial run is ₹ 60 Lakhs. The machine has been put to use on 01.04.2019.

The estimated dismantling cost of the machine at the end of its useful life of 10 years is ₹ 400 Lakhs. Discountingrate to be applied is 5%. [PV estimated at ₹ 246 Lakhs]

The machine requires major over hauling every 2 years at cost of ₹ 26 lakhs. Pass journal entries and accounting treatments for the year 2019-20 and 2020-21.

Solution:

Working note 1: Initial Cost Recognized

Particulars	₹in Lakhs	₹ in Lakhs
Purchase Price	1,200	
Freight	40	
Installation Cost		80
IGST not considered		—
General overhead not considered		—
Labour cost and expense for trial run		60
P.V. of estimated dismantling cost		2,46
Depreciable amount		1,626
Less: Overhauling cost		26 to be depreciated in 2 years
Balance		1,600 to be depreciated in 10 years
Annual depreciation ₹13 + ₹160 = ₹173		

Question 12 (DepreciationA)

Alfa Ltd. Has machinery at cost ₹ 4,800 and provision for depreciation ₹ 1,600 as on 01.04.2018. On that date the remaining life of the machine is 6 years with residual value of ₹ 800. On the same date one componentof the machine is replaced, the price of the new component is ₹ 600 and the cost of the old component was ₹500 with accumulated depreciation ₹ 200. The supplier of the new component took the old component at a fair value of ₹ 360.

On 31.03.2019 the machine is revalued as per company policy at ₹ 5000. On 31.03.2020 an impairment loss of ₹ 900 has been recognized for the machine. Pass journal entries and show the accounting treatments to be made inthe financial statement for the years ending on 31.03.2019, 31.03.2020 and 31.30.2021. Depreciation to be chargedbased on straight line method.

Solution:

Working note-1

Particulars	(₹)	(₹)
On 1.4.2018 : Carrying amount ₹ (4,800 – 1,600)		
Add. Replacement Cost of New Component (600 - Carrying amount of old ₹ 500 – ₹ 200 i.e ₹ 300) [Profit on disposal of old machinery = ₹ 360 – ₹ 300 = ₹ 60]	300	
Carrying amount	3,500	
Depreciation for 2018-2019 : ₹(3,500 – ₹ 800)/6 [Carrying amount – residual value] ÷ Life]	(450)	
On 31.03.2019 Depreciated value		**3,050**
On 31.03.2019 : Revalued at	5,000	
Depreciation for 2019-2020 (₹ 450 + ₹ 1950/5)	(840)	
Depreciated value ₹ (5,000 – 840)	4,160	
Less: Impairment Loss	(900)	
On 31.03.2020 Carrying amount after Impairment		**3,260**
Depreciation. For 2020-2021: ₹ (3,260 – 800)/4		**615**

Note :

(i) 1/5th of Revaluation surplus is to be transferred from Revaluation Surplus other compare (OCI) to Retainedearnings for 2018-19 [as depreciation (1/5th) is realized]

(ii) Impairment loss is charged to P & L a/c but as Revaluation Surplus exists it is charged to Revaluation surpluson 31.03.2020.

Journal

Date	Particulars		Dr. (₹)	Cr. (₹)
01.04.2018	Machinery A/c	Dr.	600	
	To, Supplier A/c			600
	Prov. for Depreciation A/c	Dr.	200	
	Supplier A/c	Dr.	360	
	To, Machinery A/c			500

	To, Profit on Disposal of Machinery A/c			60
31.03.19	Depreciation A/c	Dr.		450
	To, Provision for Depreciation A/c		450	
31.03.19	Machinery A/c	Dr.	100	
	Provision for Depn. A/c	Dr.	1850	
	To, Revaluation Surplus A/c			1950
31.03.20	Depreciation A/c	Dr.	840	
	To, Provision for Depreciation A/c			840
31.03.21	Impairment loss A/c	Dr.	900	
	To, Machinery A/c.			900
	Depreciation A/c	Dr.	615	
	To, Provision for Depreciation A/c			615

Question 1 **(Cost calculation)**

Jupiter Ltd acquires new energy efficient technology that will significantly reduce its energy costsfor manufacturing. Calculate cost to be capitalised on the basis of following details-

	Costs incurred include
Cost of new solar technology	10,00,000
Trade discount provided	(1,00,000)
Training course for staff in new technology	50,000
Initial testing of new technology	35,000
Losses incurred while other parts of plant shut down during testing and training	25,000
Total	**10,10,000**

Answer

	Cost to be capitalised as per Ind AS 38
Cost of new solar technology	10,00,000
Trade discount provided	(1,00,000)
Training course for staff in new technology	-
Initial testing of new technology	35,000
Losses incurred while other parts of plant shut down during testing and training	-
Total	**9,35,000**

Question 2 **Cost calculation**

A Ltd. Purchased a standardised finance software at a list price of ₹ 30,00,000 and paid ₹ 50,000 towards purchase tax which is non-refundable. In addition to this, the entity was granted a trade discount of 5% on the initial list price. A Ltd. incurred cost of ₹ 7,00,000 towards customisation of the software for its intended use. A Ltd. purchased a 5-year maintenance contract with the vendor company of ₹ 2,00,000. At what cost the intangible asset will be recognised?

Answer

In accordance with Ind AS 38, the cost of a separately acquired intangible asset is its purchases price and non-refundable purchase taxes, after deducting trade discounts and rebates and any directly attributable cost of preparing the asset for its intended use.

Therefore, the initial cost of the asset should be:

	Amount (₹)
List price	30,00,000
Less: Trade discount (5%)	(1,50,000)
	28,50,000

Non-refundable purchase tax	50,000
Customisation cost	7,00,000
Total cost	**36,00,000**

The maintenance contract of ₹ 2,00,000 is an expense and therefore should be taken as a prepaid expense and charged to profit and loss over a period of 5 years.

Question 3 **Exchange with another asset**

Sun Ltd acquired a software from Earth Ltd. in exchange for a telecommunication license. The telecommunication license is carried at ₹ 5,00,000 in the books of Sun Ltd. The Software is carried at ₹ 10,000 in the books of the Earth Ltd which is not the fair value.

Advise journal entries in the following situations in the books of Sun Ltd and Earth Ltd:-

1) Fair value of software is ₹ 5,20,000 and fair value of telecommunication license is ₹ 5,00,000.
2) Fair Value of Software is not measureable. However similar Telecommunication license istransacted by another company at ₹ 4,90,000.
3) Neither Fair Value of Software nor Telecommunication license could be reliably measured.

Answer

₹ in '000

Situation	Sun Ltd.	Earth Ltd.
1	Software Dr. 500 To Telecommunication license 500 To Profit on Exchange Nil	Telecom license Dr 520 To Software 10 To Profit on Exchange 510
2	Software Dr. 490 Loss on Exchange Dr. 10 To Telecommunication license 500 Note: The company may first recognise Impairment loss and then pass an entry. The effect is the same as impairmentloss will also be charged to Income Statement.	Telecommunication license Dr. 490 To Software 10 To Profit on Exchange 480
3	Software Dr. 500 To Telecommunication license 500	Telecommunication license Dr. 10 To Software 10

Question 4 **(Expenditure capital or revenue)**

Company 2YZ ltd has provided training to its staff on various new topics like GST, Ind AS etc. to ensure the compliance as per the required law. Can the company recognise such

cost of staff training as intangible asset?

Answer

It is clear that the company will obtain the economic benefits from the work performed by the staff as it increases their efficiency. But it does not have control over them because staff could choose to resign the company at any time.

Hence the company lacks the ability to restrict the access of others to those benefits. Therefore, the staff training cost does not meet the definition of an intangible asset.

Question 5 (Expenditure capital or revenue)

A Ltd. intends to open a new retail store in a new location in the next few weeks. It has spent a substantial sum on a series of television advertisements to promote this new store. It has paid for advertisements costing ₹ 8,00,000 before 31st March, 2018. ₹ 7,00,000 of this sum relates to advertisements shown before 31st March, 2018 and ₹ 1,00,000 to advertisements shown in April, 2018. Since 31st March, 2018, A Ltd. has paid for further advertisements costing ₹ 4,00,000. The accountant charged all these costs as expenses in the year to 31 March 2018. However, CFO of A Ltd. does not want to charge ₹12,00,000 against 2017-2018 profits. He believes that these costs can be carried forward as intangible assets because the company's market research indicates that this new store is likely to be highly successful.

Examine and justify the treatment of these costs of ₹ 12,00,000 in the financial statements for the year ended 31st March, 2018 as per Ind AS.

Answer

Ind AS 38 specifically prohibits recognising advertising expenditure as an intangible asset. Irrespective of success probability in future, such expenses have to be recognized in profit or loss. Therefore, the treatment given by the accountant is correct since such costs should be recognised as expenses.

However, the costs should be recognised on an accruals basis.

Therefore, of the advertisements paid for before 31st March, 2018, ₹ 7,00,000 would be recognised as an expense and ₹ 1,00,000 as a pre-payment in the year ended 31st March 2018.

₹ 4,00,000 cost of advertisements paid for since 31st March, 2018 would be charged as expenses in the year ended 31st March, 2019.

Question 6 (Expenditure capital or revenue)

A Mercury Ltd is preparing its accounts for the year ended 31st March, 2022 and is unsure about how to treat the following items.

1. The company completed a grand marketing and advertising campaign costing ₹ 4.8 lakh. The finance director had authorised this campaign on the basis that it would create ₹ 8 lakh of additional profits over the ne2t three years.

2. A new product was developed during the year. The expenditure totalled ₹ 3 lakh of which ₹1.5 lakh was incurred prior to 30th September, 2021, 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 ₹ 1.4 lakh.

3. Staff participated in a training programme which cost the company ₹ 5 lakh. The training organisation had made a presentation to the directors of the company outlining that incremental profits to the business over the next twelve months would be ₹ 7 lakh.

What amounts should appear as intangible assets in accordance with Ind AS 38 and Ind AS 36 in Mercury's balance sheet as on 31st March, 2022?

Answer

The treatment in Mercury's financials as at 31st March, 2022 will be as follows:

1. Marketing and advertising campaign: No intangible asset will be recognised, because it is not possible to identify future economic benefits that are attributable only due to this campaign. All of the expenditure should be expensed in the statement of profit and loss.

2. New product: Development expenditure appearing in the balance sheet will be valued at ₹ 1.5 lakh as per Ind AS 38. The expenditure prior to the date on which the product becomes technically feasible is recognised in the statement of profit and loss. However, its recoverable amount is also given in the question. Therefore, applying provisions of Ind AS 36, the revised carrying amount on 31st March, 2022 after impairment will be ₹ 1.4 lakh.

3. Training programme: No asset will be recognised, because there is no control of the company over the staff and when staff leaves the benefits of the training, whatever they may be, also departs.

Question 7 (Expenditure capital or revenue)

A 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 ₹ 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, a Pharmacy Ltd. acquired a brand with a fair value of ₹ 3,00,00,000 based on sales revenue. The life of the brand is estimated at 15 years.

3. Spent ₹ 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 ₹ 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, 2021 is ₹ 5,00,00,000.

Balance cost incurred during the financial year 2021-2022 is ₹ 5,00,00,000.

5. It has also commenced developing another drug 'Drug B'. It has incurred ₹ 50,00,000 towards research expenses till 31st March, 2022. The technological feasibility has not yet been established.

How the above transactions will be accounted for in the books of account of 2 Pharmaceutical Ltd?

Answer

A Pharmaceutical Ltd. is advised as under:

1. It should recognise the drug license as an intangible asset, because it is a separate external purchase, separately identifiable asset and considered successful in respect of feasibility and probable future cash inflows.

   The drug license should be recorded at ₹ 1,00,00,000.

2. It should recognise the brand as an intangible asset because it is purchased as part of acquisition and it is separately identifiable. The brand should be amortised over a period of 15 years.

   The brand will be recorded at ₹ 3,00,00,000.

3. The advertisement expenses of ₹ 1,00,00,000 should be expensed off.

4. The development cost incurred during the financial year 2021-2022 should be capitalised. Cost of intangible asset (Drug A) as on 31st March, 2022

Opening cost	₹ 5,00,00,000
Development cost	₹ 5,00,00,000
Total cost	₹ 10,00,00,000

5. Research expenses of ₹ 50,00,000 incurred for developing 'Drug B' should be expensed off since technological feasibility has not yet established.

Question 1

(a) A Ltd. Has a machine whose original cost was ₹45,000. The accumulated depreciation on the machine is ₹ 15,000. Similar machine has recently been sold in the same locality at ₹ 25,000 with selling expenses ₹ 2,000. Management determined the entity specific present value of future cash flows of the machine as ₹ 28,000. Find

(b) Fair value less cost to sell

(c) Recoverable amount

(d) Impairment loss

(e) Carrying amount of the machine after impairment.

Answer:

(a) Fair value less cost to sell = ₹ 25,000 – ₹ 2,000 = ₹ 23,000

(b) Recoverable amount is the higher of the fair value less cost to sell and value in use i.e. higher of ₹ 23,000 and ₹ 28,000 i.e. ₹ 28,000

(c) Impairment loss is the carrying amount before impairment less the recoverable amount = ₹ (45,000 – 15,000) - ₹ 28,000 = ₹ 2,000

(d) Carrying and after impairment = ₹ 30,000 – ₹ 2,000 = ₹ 28,000 (equal to recoverable amt.)

If the machine were revalued and there remains any revaluation profit accumulated balance as OCI under otherequity, that should be used first and then profit and loss a/c will be used to close the impairment loss a/c.

Question 2

Jupiter Ltd, a leading manufacturer of steel is having a furnace, which is carried in the balance sheet on 31st March, 20X1 at ₹ 250 lakh. As at that date the value in use and fair value is ₹ 200 lakh. The cost of disposal is ₹ 13 lakh.

Calculate the Impairment Loss to be recognised in the books of the Company?

Answer

Calculation of Impairment Loss:

Calculation of Impairment Loss	₹ in lakh
Recoverable Amount = Higher of ,	200
Fair Value less Cost of Disposal (200 -13)	187
Or	
Value in Use	200
Impairment Loss = Carrying Amount – Recoverable Amount	
= 250 - 200	50

Question 3

An entity has the following assets with relevant data on the reporting data :(₹ in Lakhs)

Assets	Carrying Amount	Fair value less cost to sell	Value-in-use
A	280	300	250
B	460	400	390
C	220	240	270
D	180	150	170
E	100	80	—

Assets C and D were revalued before. The carrying amounts of revaluation surplus are ₹ 40 Lakhs and ₹ 30 Lakhs respectively. Asset E falls in the cash generating unit consisting of goodwill ₹ 50 Lakhs and intangible asset 90. The fair value less cost to sell of the CGU is ₹ 180 Lakhs and value-in-use is ₹ 170 Lakhs.

Determine impairment loss and revised carrying amount of all the assets stated above. Show the accounting treatment.

Answer:

(₹ in Lakhs)

Asset	Recoverable Amount	Impairment Loss	Revised Carrying Amount
A	300	—	280
B	400	60	400
C	270	—	220
D	170	10 β	170
CGU	180	60	180
Goodwill		50@	NIL
Intangible asset		4.47	85.26
E		5.26	94.74

Working Note:	
CGU consist of :	(₹inlakhs)

Goodwill	50
In-Tangible	90
Asset E	100
Carrying Amount	**240**
Recoverable Amount	180

Difference in Impairment Loss is ₹ 60,00,000.

∴ Impairment loss is charged to P & L a/c except β.

@ : First goodwill is reduced by the impairment loss of the CGU.

& : Next other assets are reduced impairment loss CGU pro-rata.

β : Impairment Loss is charged against revaluation surplus.

Question 4

A Ltd. purchased a machinery of ₹ 100 crore on 1st April, 20X1. The machinery has a useful life of 5 years. It has nil residual value. A Ltd. adopts straight line method of depreciation for depreciating the machinery. Following information has been provided as on 31st March, 20X2:

Financial year	Estimated future cash flows (₹ in crore)
20X2-20X3	15
20X3-20X4	30
20X4-20X5	40
20X5-20X6	10

Discount rate applicable: 10%

Fair value less costs to sell as on 31st March, 20X2: ₹ 70 crore Calculate the impairment loss, if any.

Answer

Value in use of the machinery as on 31st March, 20X2 can be calculated as follows:

Financial year	Estimated cash flows (₹ in crore)	Present value factor @ 10%	Present value
20X2-20X3	15	0.9091	13.64
20X3-20X4	30	0.8264	24.79
20X4-20X5	40	0.7513	30.05

20X5-20X6	10	0.6830	6.83 75.31

The recoverable amount of the machinery is ₹ 75.31 crore (higher of value in use of ₹ 75.31 crore and fair value less costs to sell of ₹ 70 crore). Carrying amount of the machinery is ₹ 80 crore (after providing for one year depreciation @ ₹ 20 crore). Therefore, the impairment loss of ₹ 4.69 crore should be provided in the books.

Question 5

An entity has a machinery on 01.04.2017 with carrying amount of ₹ 28,00,000 after annual depreciation of ₹ 3,00,000 with remaining useful life of 9 years and residual value of ₹ 1,00,000. Depreciation is charged on straight line method. In 31.03.2018 the machine is revalued at ₹ 29,00,000. On 31.03.2020 the machine has fair value less cost to sell ₹ 20,00,000 and value in use ₹ 21,00,000. Show how the transactions would be reflected in the financial statements of the entity as on 31.03.18, 31.03.19, 31.03.20 and 31.03.21.

Answer:

Working Note 1:

Particulars	(₹)
Carrying Amount on 01.04.2017	28,00,000
Less: Depreciation during 2017-18	3,00,000
	25,00,000
Add: Revaluation Profit (₹29,00,000 – ₹25,00,000)	4,00,000
Carrying out on 31-03-2018	29,00,000
Less Depreciation during 2019-2020 = (₹29,00,000 – ₹1,00,000)/8	3,50,000
Carrying and on 31-03-19	25,50,000
Less Depreciation during 2020-2021	3,50,000
Carrying out on 31-03-20	22,00,000
Less Impairment loss (Carrying amt less recoverable amount.# = 2200000 - 2100000)	1,00,000
Carrying amt on 31.03.2020	21,00,000
Less Depreciation during 2020-2021 = (₹21,00,000 – ₹1,00,000)/6	3,33,333
Carrying Amount on 31.3.21	17,66,667

#(Recoverable amount is higher of fair value less cost to sell ₹ 20,00,000 and Value-in-use ₹ 21,00,000)

* : Higher of the fair value less cost to sell and value-in-use

: Carrying Amount — Recoverable amount when carrying amount > Recoverable amount otherwise NIL.

$: Carrying Amount — Impairment loss.

(Amount in ₹)

Statement of Profit & Loss:	31.03.18	31.03.19	31.03.20	31.03.21
Depreciation	(-)3,00,000	(-) 3,50,000	(-) 3,50,000	(-) 3,33,333
Other comprehensive Income:				
Revaluation Profit	+ 4,00,000			
For Annual realization of revaluation Profit through depreciation transfer from Revaluation profit to retained earnings [Note 2]				
Revaluation Profit (OCI)		(-) 50,000	(-) 50,000	(-) 33,333
P & L		+ 50,000	+ 50,000	+ 33,333
Impairment loss charged against revaluation profits			(-) 1,00,000	

(Amount in ₹)

Balance Sheet:	31.03.18	31.03.19	31.03.20	31.03.21
PPE – Machinery	29,00,000	25,50,000	21,00,000	17,66,667
Revaluation Profit under Other equity [Note 3]	4,00,000	3,50,000	2,00,000	1,66,667

Note 2 : Revaluation profit subsequent transfer to P & L 31-03-19 4,00,000 ÷ 8 = ₹50,000

31-03-20 4,00,000 ÷ 8 = ₹50,000

31-03-21 2,00,000 ÷ 6 = ₹33,333

Note 3: Revaluation Profit under Other equity **(Amount in ₹)**

Particulars		(₹)
Revaluation profit (OCI) under other equity carrying amount on 31.03.18		4,00,000
Transfer to Retained Earnings (P & L) for 2018-2019		(50,000)
For 2019-2020		(50,000)
		3,00,000
Less Impairment loss on 31.03.20		1,00,000
Carrying amount on 31.03.20		2,00,000

Less Transfer to P & L		33,333
Carrying amount on 31.03.20		1,66,667

Question 1 (SM)

Whether a change in inventory cost formula is a change in accounting policy or a change in accounting estimate?

Answer

As per Ind AS 8, accounting policies are the specific principles, bases, conventions, rules and practices applied by an entity in preparing and presenting financial statements. Further, paragraph 36(a) of Ind AS 2, 'Inventories', specifically requires disclosure of 'cost formula used' as a part of disclosure of accounting policies adopted in measurement of inventories.

Accordingly, a change in cost formula is a change in accounting policy.

Question 2

Whether an entity can change its accounting policy of subsequent measurement of property, plant and equipment (PPE) from revaluation model to cost model?

Answer

Paragraph 29 of Ind AS 16 provides that an entity shall choose either the cost model or the revaluation model as its accounting policy for subsequent measurement of an entire class of PPE.

A change from revaluation model to cost model for a class of PPE can be made only if it meets the condition specified in Ind AS 8 paragraph 14(b) i.e. the change results in the financial statements providing reliable and more relevant information to the users of financial statements. For example, an unlisted entity planning IPO may change its accounting policy from revaluation model to cost model for some or all classes of PPE to align the entity's accounting policy with that of listed markets participants within that industry so as to enhance the comparability of its financial statements with those of other listed market participants within the industry. Such a change – from revaluation model to cost model is not expected to be frequent.

Where the change in accounting policy from revaluation model to cost model is considered permissible in accordance with Ind AS 8 paragraph 14(b), it shall be accounted for retrospectively, in accordance with Ind AS 8.

Question 3

Entity ABC acquired a building for its administrative purposes and presented the same as property,plant and equipment (PPE) in the financial year 20X1-X2. During the financial year 20X2-X3, itrelocated the office to a new building and leased the said building to a third party. Following the change in the usage of the building, Entity ABC reclassified it from PPE to investment property in the financial year 20X2-X3. Should Entity ABC account for the change as a change in accounting policy?

Answer

Paragraph 16(a) of Ind AS 8 provides that the application of an accounting policy for transactions, other events or conditions that differ in substance from those previously occurring are not changes in accounting policies.

As per Ind AS 16, 'property, plant and equipment' are tangible items that:

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

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

As per Ind AS 40, 'investment property' is property (land or a building—or part of a building—or both) held (by the owner or by the lessee as a right-of-use asset) to earn rentals or for capital appreciation or both, rather than for:

(a) use in the production or supply of goods or services or for administrative purposes; or

(b) sale in the ordinary course of business."

As per the above definitions, whether a building is an item of property, plant and equipment (PPE) or an investment property for an entity depends on the purpose for which it is held by the entity. It is thus possible that due to a change in the purpose for which it is held, a building that was previously classified as an item of property, plant and equipment may warrant reclassification as an investment property, or vice versa. Whether a building is in the nature of PPEor investment property is determined by applying the definitions of these terms from the perspective of that entity. Thus, the classification of a building as an item of property, plant and equipment or as an investment property is not a matter of an accounting policy choice. Accordingly,a change in classification of a building from property, plant and equipment to investment property due to change in the purpose for which it is held by the entity is not a change in an accounting policy.

Question 4 (SM) Whether change in functional currency of an entity represents a change in accounting policy?

Answer

Paragraph 16(a) of Ind AS 8 provides that the application of an accounting policy for transactions, other events or conditions that differ in substance from those previously occurring are not changes in accounting policies.

As per Ind AS 21, 'functional currency' is the currency of the primary economic environment in which the entity operates.

Paragraphs 9-12 of Ind AS 21 list factors to be considered by an entity in determining its functional currency. It is recognised that there may be cases where the functional currency is not obvious. In such cases, Ind AS 21 requires the management to use its judgement to determine the functional currency that most faithfully represents the economic effects of the underlying transactions, eventsand conditions.

Paragraph 13 of Ind AS 21 specifically notes that an entity's functional currency reflects the underlying transactions, events and conditions that are relevant to it. Accordingly, once determined, the functional currency is not changed unless there is a change in those underlying transactions, events and conditions. Thus, functional currency of an entity is not a matter of an accounting policy choice.

In view of the above, a change in functional currency of an entity does not represent a change in accounting policy and Ind AS 8, therefore, does not apply to such a change. Ind AS 21 requires that when there is a change in an entity's functional currency, the entity shall apply the translation procedures applicable to the new functional currency prospectively from the date of the change.

Question 5 Whether an entity is required to disclose the impact of any new Ind AS which is issued but not yeteffective in its financial statements as prepared as per Ind AS?

Answer

Paragraph 30 of Ind AS 8 Accounting Policies, Changes in Accounting Estimates and Errors, states as follows:

"When an entity has not applied a new Ind AS that has been issued but is not yet effective, the entity shall disclose:

(a) this fact; and

(b) known or reasonably estimable information relevant to assessing the possible impact that application of the new Ind AS will have on the entity's financial statements in the period of initial application."

Accordingly, it may be noted that an entity is required to disclose the impact of Ind AS which hasbeen issued but is not yet effective

Question 6

An entity charged off certain expenses as finance costs in its financial statements for the year ended 31st March, 20X1. While preparing annual financial statements for the year ended 31st March, 20X2, management discovered that these expenses should have been classified as other expensesinstead of finance costs. The error occurred because the management inadvertently misinterpreted certain facts. The entity intends to restate the comparative amounts for the prior period presented in which the error occurred (i.e., year ended 31st March, 20X1). Would this reclassification of expenses from finance costs to other expenses in the comparative amounts be considered to becorrection of an error under Ind AS 8? Would the entity need to present a third balance sheet?

Answer

As per paragraph 41 of Ind AS 8, errors can arise in respect of the recognition, measurement, presentation or disclosure of elements of financial statements. Financial statements do not comply with Ind AS if they contain either material errors or immaterial errors made intentionally to achieve a particular presentation of an entity's financial position, financial performance or cash flows. Potential current period errors discovered in that period are corrected before the financial statements are approved for issue. However, material errors are sometimes not discovered until a subsequent period, and these prior period errors are corrected in the comparative information presented in the financial statements for that subsequent period.

In accordance with the above, the reclassification of expenses from finance costs to other expenseswould be considered as correction of an error under Ind AS 8. Accordingly, in the financial statements for the year ended 31st March, 20X2, the comparative amounts for the year ended 31st March, 20X1 would be restated to reflect the correct classification.

Ind AS 1 requires an entity to present a third balance sheet as at the beginning of the preceding period in addition to the minimum comparative financial statements if, inter alia, it makes a retrospective restatement of items in its financial statements and the restatement has a material effect on the information in the balance sheet at the beginning of the preceding period.

In the given case, the retrospective restatement of relevant items in statement of profit and loss has no effect on the information in the balance sheet at the beginning of the preceding period (1st April, 20X0). Therefore, the entity is not required to present a third balance sheet.

Question 7

An entity has presented certain material liabilities as non-current in its financial statements for periods upto 31st March, 20X1. While preparing annual financial statements for the year ended 31st March, 20X2, management discovers that these liabilities should have been classified as current. The management intends to restate the comparative amounts for the prior period presented (i.e., as at 31st March, 20X1). Would this reclassification of liabilities from non-current to current in the comparative amounts be considered to be correction of an error under Ind AS 8? Would the entity need to present a third balance sheet?

Answer

As per paragraph 41 of Ind AS, errors can arise in respect of the recognition, measurement, presentation or disclosure of elements of financial statements. Financial statements do not comply with Ind AS if they contain either material errors or immaterial errors made intentionally to achieve a particular presentation of an entity's financial position, financial performance or cash flows. Potential current period errors discovered in that period are corrected before the financial statements are approved for issue. However, material errors are sometimes not discovered until a subsequent period, and these prior period errors are corrected in the comparative information presented in the financial statements for that subsequent period.

In accordance with the above, the reclassification of liabilities from non-current to current wouldbe considered as correction of an error under Ind AS 8. Accordingly, in the financial statements for the year ended 31st March, 20X2, the comparative amounts as at 31st March, 20X1 would be restated to reflect the correct classification.

Ind AS 1 requires an entity to present a third balance sheet as at the beginning of the precedingperiod in addition to the minimum comparative financial statements, if, inter alia, it makes a retrospective restatement of items in its financial statements and the restatement

has a material effect on the information in the balance sheet at the beginning of the preceding period.

Accordingly, the entity should present a third balance sheet as at the beginning of the preceding period, i.e., as at 1st April, 20X0 in addition to the comparatives for the financial year 20X0-X1.

Question 8 ABC Ltd has an investment property with an original cost of ₹ 1,00,000 which it inadvertentlyomitted to depreciate in previous financial statements. The property was acquired on 1st April, 20X1. How should the error be corrected in the financial statements for the year ended 31st March, 20X4, assuming the impact of the same is considered material? The property has a useful life of10 years and is depreciated using straight line method. Estimated residual value at the end of

10 year is Nil. For simplicity, ignore tax effects.

Answer

The error shall be corrected by retrospectively restating the comparatives. A third balance sheet as at the beginning of the earliest period shall also be presented.

Question 9

Is change in the depreciation method for an item of property, plant and equipment a change inaccounting policy or a change in accounting estimate?

Answer

As Paragraphs 60 and 61 of Ind AS 16, Property, Plant and Equipment, the depreciation method used shall reflect the pattern in which the asset's future economic benefits are expected to be consumed by the entity. The depreciation method applied to an asset shall be reviewed at least at each financial year-end and, if there has been a significant change in the expected pattern of consumption of the future economic benefits embodied in the asset, the method shall be changed to reflect the changed pattern. Such a change is accounted for as a change in an accounting estimate in accordance with Ind AS 8.

As per the above, depreciation method for a depreciable asset has to reflect the expected pattern of consumption of future economic benefits embodied in the asset. Determination of depreciation method involves an accounting estimate and thus depreciation method is not a matter of an accounting policy.

Accordingly, Ind AS 16 requires a change in depreciation method to be accounted for as a change in an accounting estimate, i.e., prospectively.

Question 1

X Ltd is commencing a new construction project, which is to be financed by borrowing. The key dates are as follows:

(i) 15th May, 20X1: Loan interest relating to the project starts to be incurred

(ii) 2nd June, 20X1: Technical site planning commences

(iii) 19th June, 20X1: Expenditure on the project started to be incurred

(iv) 18th July, 20X1: Construction work commences Identify commencement date.

Answer

In the above case, the three conditions to be tested for commencement date would be:

Borrowing cost has been incurred on: 15th May, 20X1

Expenditure has been incurred for the asset on: 19th June, 20X1

Activities necessary to prepare asset for its intended use or sale: 2nd June, 20X1

Commencement date would be the date when the above three conditions would be satisfied in all i.e.19th June, 20X1

Question 2

X Limited has a treasury department that arranges funds for all the requirements of the Company including funds for working capital and expansion programs. During the year ended 31st March, 20X2, the Company commenced the construction of a qualifying asset and incurred the following expenses:

Date	Amount (₹)
1st July, 20X1	2,50,000
1st December, 20X1	3,00,000

The details of borrowings and interest thereon are as under:

Particulars	Average Balance (₹)	Interest (₹)
Long term loan @ 10%	10,00,000	1,00,000
Working capital loan	5,00,000	65,000
	15,00,000	1,65,000

Compute the borrowing costs that need to be capitalised.

Answer

The capitalisation rate is:

Total borrowing costs / Weighted average total borrowings: 1,65,000/15,00,000 = 11%

Interest will be capitalised as under:

— On ₹ 2,50,000 @ 11% p.a. for 9 months = ₹ 20,625

— On ₹ 3,00,000 @ 11% p.a. for 4 months = ₹ 11,000

Question 3

Beta Ltd had the following loans in place at the end of 31st March, 20X2:

(Amounts in ₹ 000s)

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.

Answer

Capitalisation rate	$\frac{(18\% \times 1{,}000)}{1{,}000 + 3{,}000} + \frac{(16\% \times 3{,}000)}{1{,}000 + 3{,}000}$	16.5%
Borrowing Costs	(500,000 x 16.5%) + (2,500,000 x16.5% x 3/12)	₹ 1,85,625

Question 4

K Ltd. began construction of a new building at an estimated cost of ₹ 7 lakh on 1st April, 2017. 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, 2017	₹ 1,50,000
August, 2017	₹ 2,00,000
October, 2017	₹ 3,50,000
January, 2018	₹ 1,00,000

The construction of building was completed by 31st January, 2018. 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, 2018.

Answer

(i) Calculation of capitalization rate on borrowings other than specific borrowings

Amount of loan (₹)	**Rate of interest**	**Amount ofinterest (₹)**
7,00,000	12%	= 84,000
9,00,000	11%	= 99,000
16,00,000		1,83,000
Weighted average rate of interest (1,83,000/16,00,000) x 100		= 11.4375%

(i) Computation of borrowing cost to be capitalized for specific borrowings and generalborrowings based on weighted average accumulated expenses

Date of incurrence of expenditure	Amount spent	Financed through	Calculation	₹
1st April, 2017	1,50,000	Specific borrowing	1,50,000 x 9% x 10/12	11,250
1st August, 2017	2,00,000	Specific borrowing	50,000 x 9% x 10/12	3,750
		General borrowing	1,50,000 x 11.4375% x 6/12	8,578.125
1st October, 2017	3,50,000	General borrowing	3,50,000 x 11.4375% x 4/12	13,343.75
1st January, 2018	1,00,000	General borrowing	1,00,000 x 11.4375% x 1/12	953.125
				37,875

Note: Since construction of building started on 1st April, 2017, it is presumed that all the later expenditures on construction of building had been incurred at the beginning of the respectivemonth.

(ii) Total expenses to be capitalized for building

	₹
Cost of building ₹ (1,50,000 + 2,00,000 + 3,50,000 + 1,00,000)	8,00,000
Add: Amount of interest to be capitalized	37,875
	8,37,875

(iii) Journal Entry

Date	Particulars		₹	₹
31.1.2018	Building account	Dr.	8,37,875	
	To Bank account			8,00,0000
	To Interest payable (borrowing cost)			37,875
	(Being expenditure incurred on construction of building and borrowing cost thereon capitalized)			

Note: In the above journal entry, it is assumed that interest amount will be paid at the year end. Hence, entry for interest payable has been passed on 31.1.2018.

Alternatively, following journal entry may be passed if interest is paid on the date of capitalization:

Date	**Particulars**		₹	₹
31.1.2018	Building account	Dr.	8,37,875	
	To Bank account			8,37,875
	(Being expenditure incurred on construction of building and borrowing cost thereon capitalized)			

Question 1 (Calculate Tax Base?)

An asset which cost ₹ 150 has a carrying amount of ₹ 100. Cumulative depreciation for tax purposes is ₹ 90 and the tax rate is 25%. Calculate the tax base.

Answer

The tax base of the asset is ₹ 60 (cost of ₹ 150 less cumulative tax depreciation of ₹ 90). To recover the carrying amount of ₹ 100, the entity must earn taxable income of ₹ 100, but will only be able to deduct tax depreciation of ₹ 60. Consequently, the entity will pay income taxes of ₹ 10 (₹ 40 at 25%) when it recovers the carrying amount of the asset. The difference between the carrying amount of ₹ 100 and the tax base of ₹ 60 is a taxable temporary difference of ₹ 40. Therefore, the entity recognises a deferred tax liability of ₹ 10 (₹ 40 at 25%) representing the income taxes that it will pay when it recovers the carrying amount of the asset.

Question 2

A company measured accounting profit of ₹ 80,000 after charging depreciation of ₹12,000. On interest receivable income tax is levied on cash basis. Included in accounting profit is Interest accrued ₹ 5,000, which is not included in taxable profit of ₹ 67,000. Tax rate is 30%. For tax purpose depreciation admissible is ₹ 20,000. Carrying amount of fixed assets was ₹ 68,000 and tax base of fixed assets ₹60,000 before charging depreciation for the current year. Find:

(i) Carrying amount and tax base of the fixed assets and tax base of Interest accrued at the end of the year.

(ii) Temporary Differences for fixed assets and interest accrued

(iii) current tax expenses and deferred tax expenses

(iv) deferred tax liabilities and deferred tax assets, if any.

Answer: **(Amount in ₹)**

Particulars	Carrying amount	Tax base	Taxable Temporary difference	Current tax	Deferred tax	Deferred tax liabilities	Tax Expense
	(i)	(ii)	(ii)	(iii)	(iii)	(iv)	(v)
Fixed Assets (before depreciation)	68,000	60,000					
Less: Depreciation	12,000	20,000					
Balance	56,000	40,000	16,000		4,800	4,800	
Interest Accrued	5,000	0	5,000		1,500	1,500	

Total			1,000		6,300	6,300	
Taxable Profit			67,000	20,100			
Accounting Profit			80,000				24,000

Question 3

A fixed asset is acquired at ₹1,50,000 with life 5 years, no residual value and Depreciation chargeable at SLM for accounting purpose. For tax purpose depreciation is admissible at ₹ 50,000 for first 3 years only. Show tax consequences for all the years.

Answer: **(Amount in ₹)**

Year	0	1	2	3	4	5	6
a. Fixed Asset	1,50,000						
b. Depreciation		25,000	25,000	25,000	25,000	25,000	25,000
c. Carrying amount	a - b	1,25,000	1,00,000	75,000	50,000	25,000	0
d. Depreciation for tax purpose		50,000	50,000	50,000	0	0	0
e. Tax base	a - d	1,00,000	50,000	0	0	0	0
f. Temporary difference	c - e	25,000	50,000	75,000	50,000	25,000	0
g. Deferred tax liabilities recognised in balance sheet @30% on temporary differences		7,500	15,000	22,500	15,000	7,500	0
h. Deferred tax expense recognised in Statement of Profit and Loss (change in liabilities)	g(t+1) - gt	7,500	7,500	7,500	(7,500)	(7,500)	(7,500)

Question 4

A fixed asset is acquired at ₹1,50,000 with life 5 years, no residual value and Depreciation chargeable at SLM for accounting purpose. For tax purpose depreciation is admissible at ₹ 50,000 for first 3 years only. Show tax consequences for all the years.

Answer: **(Amount in ₹)**

Year	0	1	2	3	4	5	6
a. Fixed Asset	1,50,000						
b. Depreciation		25,000	25,000	25,000	25,000	25,000	25,000
c. Carrying amount	a - b	1,25,000	1,00,000	75,000	50,000	25,000	0

d . Depreciation for tax purpose		50,000	50,000	50,000	0	0	0
e. Tax base	a - d	1,00,000	50,000	0	0	0	0
f. Temporary difference	c - e	25,000	50,000	75,000	50,000	25,000	0
g. Deferred tax liabilities recognised in balance sheet @30% on temporary differences		7,500	15,000	22,500	15,000	7,500	0
h. Deferred tax expense recognised in Statement of Profit and Loss (change in liabilities)	g(t+1) - gt	7,500	7,500	7,500	(7,500)	(7,500)	(7,500)

Question 5

Show the tax expenses for the above case if before depreciation accounting profits are same as before depreciation taxable profits for the years as stated below:

(Amount in ₹)

	0	1	2	3	4	5	6
a. Accounting profits before depreciation	1,50,000	1,80,000	2,00,000	1,60,000	1,90,000	2,20,000	2,40,000

Answer:

Year		1	2	3	4	5	6
a. Accounting profits before depreciation		1,80,000	2,00,000	1,60,000	1,90,000	2,20,000	2,40,000
b. Depreciation		25,000	25,000	25,000	25,000	25,000	25,000
c. Accounting profits	a - b	1,55,000	1,75,000	1,35,000	1,65,000	1,95,000	2,15,000
d. Depreciation for tax purpose		50,000	50,000	50,000	0	0	0
e. Taxable profits	a - d	1,30,000	1,50,000	1,10,000	1,90,000	2,20,000	2,40,000
f. Current tax expenses 30%*e	c - e	39,000	45,000	33,000	57,000	66,000	72,000
g. Deferred tax expense recognised in SOPL	Ah	7,500	7,500	7,500	(7,500)	(7,500)	(7,500)
h. Tax expenses	f + g	46,500	52,500	40,500	49,500	58,500	64,500

Question 6

A company creates provision for Gratuity and Leave encashment and recognises liability of ₹50,000. This is the only difference between taxable profits and accounting profits. The

company measures current tax of ₹ 48,000 at tax rate of 25%. Compute Tan Expenses.

Answer:

Particulars	(₹)
(i) Carrying amount of Liabilities for Gratuity and Leave encashment	50,000
(ii) Tax base (since provision is not admissible for tax purpose)	0
(iii) Temporary difference (i) - (ii)	50,000
(iv) Deferred tax asset 25% × c	12,500
(v) Deferred tax expenses (change in deferred tax asset)	(12,500)
(vi) Current tax expenses (given)	48,000
(vii) Tax expenses (v) + (vi)	35,500

If carrying amount is recoverable and it is greater than tax base, tax is payable in future and there arise deferredtax liability.

If carrying amount is recoverable and it is less than tax base, for loss tax is deductible in future and there arise deferred tax asset.

If carrying amount is payable and it is greater than tax base, tax is deductible in future and there arise deferredtax asset.

Question 7 (Calculate BV & DTL)

A company had purchased an asset at ₹ 1,00,000. Estimated useful life of the asset is 5 years and depreciation rate is 20%. Depreciation rate for tax purposes is 25%. The operating profit is ₹ 1,00,000 for all the 5 years. Tax rate is 30% for the next 5 years. Calculate the Book Value as per financial and tax purposes and then DTL.

Answer

Calculation of the Book Value as per financial and tax purposes.

Financial Accounting: ₹ 000's

Year	1	2	3	4	5
Gross Block	100	100	100	100	100
Accumulated Depreciation	20	40	60	80	100
Carrying Amount	80	60	40	20	0

Tax Accounting: ₹ 000's

Year	1	2	3	4	5
Gross Block	100	100	100	100	100
Accumulated Depreciation	25	50	75	100	100
Carrying Amount	75	50	25	0	0

Calculation of DTL: ₹ 000's

Year	1	2	3	4	5
Carrying Amount	80	60	40	20	0
Tax Base	75	50	25	0	0
Difference	5	10	15	20	0
Deferred Tax Liability (Difference x 30%)	1.5	3	4.5	6	0

Question 8 (Treatment of deferred tax?)

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 ₹ 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.

Answer

The difference of ₹ 10,000 between the carrying value of interest receivable of ₹ 10,000 and its tax base of NIL is a taxable temporary difference.

A Limited has to recognise a deferred tax liability of ₹ 2,500 (₹ 10,000 x 25%) in its financial statements for the reporting period ended on December 31, 20X1.

It will not recognise the deferred tax liability @ 30% because as on December 31, 20X1, this tax rate was neither substantively enacted nor enacted on the reporting date. However, if the effect of this change is material, A Limited should disclose this difference in its financial statements.

Question 1

An enterprise operates through eight segments, namely, A, B, C, D, E, F, G and H. The relevant informationabout these segments is given in the following table

(Amounts in ₹000)

Particulars	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**Total (Segment)**
1. Segment Revenue									
(a) External Sales	-	663	37	25	13	125	50	87	1000
Inter Segment Sales	250	150	75	13	-	-	12	-	500
2. Segment Results Profit/ (Loss)	15	(270)	45	(15)	24	(15)	15	21	
3. Segment Assets	15	5	5	60	3	5	5	2	100

Identify the reportable segments as per Ind AS 108.

Answer : **(₹ in ₹000)**

(a) Segment Revenue Criterion:

Threshold = 10% of total revenue = 10% of (1,000 + 500) = ₹ 150

Reportable Segments are A and B.

(b) Result Criterion:

Threshold = 10% of total profit (₹120) or total loss (₹ 300) – higher of the two = ₹ 30

Reportable Segments are B and C.

(c) Asset Criterion:

Threshold = 10% of total assets = 10% of 100 = ₹10

Reportable Segments are A and D.

Total external revenue of A, B, C and D = Nil + 663+ 37+ 25 = ₹725 which is lower than 75% of total externalrevenue of ₹1000 (i.e., ₹750).

No additional segment has been identified by the management as per their discretion.

It is assumed than the company will select segment F to meet the 75% threshold criteria. Hence the reportable segments are A,B, C, D and F.

Question 2 X Ltd. has identified the following business components.

Segment	Revenue (₹)		Profit (₹)	Assets (₹)
	External	Internal		
Pharma	97,00,000	Nil	20,00,000	55,00,000
FMCG	Nil	4,00,000	2,50,000	25,00,000
Ayurveda	3,00,000	Nil	2,00,000	4,00,000
Others	8,00,000	41,00,000	5,50,000	6,00,000
Total for the entity	1,08,00,000	45,00,000	30,00,000	90,00,000

Which of the segments would be reportable as per the criteria prescribed in Ind AS 108?

Answer

Quantitative thresholds are calculated below:

Segments	Pharma	FMCG	Ayurveda	Others
% segment sales to total sales	63.40	2.61	1.96	32.03
% segment profit to total profits	66.67	8.33	6.67	18.33
% segment assets to total assets	61.11	27.78	4.44	6.67

Segment Pharma would separately reportable since they meet all three size criteria, though any one criteria is required. FMCG segment does not satisfy the revenue and profit test but does satisfythe asset test. So it would be separately reportable. Ayurveda segment does not meet any threshold. It may not be classified as reportable segment.

An entity may combine information about operating segments that do not meet the quantitative thresholds with information about other operating segments that do not meet the quantitative thresholds to produce a reportable segment only if the operating segments have similar economic characteristics and share a majority of the aggregation criteria.

If the total external revenue reported by operating segments constitutes less than 75% of the entity's revenue, additional operating segments should be identified as reportable segments (even if they do not meet the criteria) until at least 75% of the entity's revenue is included in reportablesegments.

Question 3

X Ltd. has identified 4 operating segments for which revenue data is given below:

	External Sale (₹)	Internal Sale (₹)	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 Sales	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 significantcontribution to external revenue in coming years.

Which of the segments would be reportable under the criteria identified in Ind AS 108?

Answer

Threshold amount is ₹ 10,00,000 (₹1,00,00,000 × 10%).

Segment A exceeds the quantitative threshold (₹ 30,00,000 > ₹ 10,00,000) and hence reportable segment.

Segment D exceeds the quantitative threshold (₹ 54,00,000 > ₹ 10,00,000) and hence reportable segment.

Segment B & C do not meet the quantitative threshold amount and may not be classified as reportable segment.

However, the total external revenue generated by these two segments A & D represent only 70% (₹ 35,000/50,000 x 100) of the entity's total external revenue. If the total external revenue reported by operating segments constitutes less than 75% of the entity total external revenue, additional operating segments should be identified as reportable segments until at least 75% of the revenue is included in reportable segments.

In case of X Ltd., it is given that Segment C is a new business unit and management expect this segment to make a significant contribution to external revenue in coming years. In accordance with the requirement of Ind AS 108, X Ltd. designates this start-up segment C as a reportable segment, making the total external revenue attributable to reportable segments 87% (₹ 43,50,000/ 50,00,000 x 100) of total entity revenues.

Question 4

ABC Limited has 5 operating segments namely A, B, C, D and E. The profit/ loss of respective segments for the year ended March 31, 20X1 are as follows:

Segment	Profit/(Loss) (₹ in crore)
A	780
B	1,500
C	(2,300)
D	(4,500)
E	6,000
Total	1,480

Based on the quantitative thresholds, which of the above segments A to E would be considered asreportable segments for the year ending March 31, 20X1?

Answer

With regard to quantitative thresholds to determine reportable segment relevant in context of instant case, paragraph 13(b) of Ind AS 108 may be noted which provides as follows:

"The absolute amount of its reported profit or loss is 10 per cent or more of the greater, in absolute amount, of (i) the combined reported profit of all operating segments that did not report a loss and (ii) the combined reported loss of all operating segments that reported a loss."

In compliance with Ind AS 108, the segment profit/loss of respective segment will be compared with the greater of the following:

(i) All segments in profit, i.e., A, B and E – Total profit ₹ 8,280 crores.

(ii) All segments in loss, i.e., C and D – Total loss ₹ 6,800crores.

Greater of the above – ₹ 8,280 crores.

Based on the above, reportable segments will be determined as follows:

Segment	Profit/(Loss) (₹ in crore)	As absolute % of ₹ 8,280 crore	Reportable segment
A	780	9%	No
B	1,500	18%	Yes
C	(2,300)	28%	Yes
D	(4,500)	54%	Yes
E	6,000	72%	Yes
Total	**1,480**		

Hence B, C, D, E are reportable segments.

Question 1 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	₹ 80,000
Maintenance	₹ 10,000
Total	₹ 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	₹ 85,000
Maintenance	₹ 15,000
Total	₹ 1,00,000

In the given scenario, assuming lessee has not opted the practical expedient, how will the lesseeallocate the consideration to lease and non-lease component?

Answer

The stand-alone price for the lease component represents 85% (i.e., ₹ 85,000 / ₹ 1,00,000) of total estimated stand-alone prices. The lessee allocates the consideration in the contract (i.e., ₹ 90,000), as follows:	
Lease	* ₹ 76,500
Maintenance	** ₹ 13,500
Total	₹ 90,000
* ₹ 90,000 x 85% ** ₹ 90,000 x 15%	

Question 2

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 ₹ 100,000. Lease payments will increase by the rate ofLIBOR 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	100,000
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

Question 3

Lessor Y leases out an equipment (carrying amount ₹ 1,36,000 having 5 years life) to Lessee X for 3 years for annual payment of ₹ 50,000 (at the end of every year) and residual value of ₹50,000, guaranteed by X up to loss of

₹ 30,000. Interest rate implicit is 10%. At the end of the lease the equipment is valued at ₹ 33,000. Show accountingin books of X. Interest rate implicit in lease payments is 10%. At the end of the lease the equipment is valued at ₹33,000. Show accounting of lease classified as finance lease in books of Y. The rate of interest income on the net investment in lease, however, is 19.274%.

Answer :

In books of Lessee X:

At 10% implicit rate of interest the (Right-of-use) ROU Asset and Lease Liability are initially recognised at present value of payments as shown below.

Year	Payments (₹)	Disc. Factor	DCF at 10% (₹)
1	50,000	0.90909091	45,454.55
2	50,000	0.82644628	41,322.31
3	50,000	0.7513148	37,565.74

Year	Payments (₹)	Disc. Factor	DCF at 10% (₹)
3	Guaranteed 30,000	0.7513148	22,539.44
Present value			1,46,882

Lease Liability repayment and interest

Year	Interest (₹)	Payments/remission (₹)	Balance (₹)
0			1,46,882
1	14,688.2	50,000	1,11,570.2
2	11,157.02	50,000	72,727.27
3	7,272.727	50,000	30,000
3	0	17,000 guarantee payments (50,000 – 33,000)	13,000
3	0	13,000 guarantee remissions (30,000 – 17,000)	0

ROU Asset Depreciation for the lease period

Year	Depreciation Straight line (₹)	Balance (₹)
0		1,46,882
1	48,961	97,921
2	48,961	48,960
3	48,960	0

After the commencement date, a lessee shall measure the right-of-use asset applying a cost model, unless itapplies the revaluation model as applied to the particular class of PPE.

To apply a cost model, a lessee shall measure the right-of-use asset at cost: (a) less any accumulated depreciation and any accumulated impairment losses; and (b) adjusted for any remeasurement of the lease liability specified.

A lessee shall **apply the depreciation requirements in Ind AS 16, Property, Plant and Equipment**, indepreciating the right-of-use asset (for the lease term or the useful life based on the lease condition).

Journal

	Particulars		**Dr. (₹)**	**Cr. (₹)**
At inception	ROU Asset A/c	Dr.	1,46,882	
	To, Lease Liability A/c			1,46,882
At the end of Year 1	Interest Expenses A/c	Dr.	14,688	
	To, Lease Liability A/c			14,688
	Lease Liability A/c	Dr.	50,000	
	To, Bank A/c			50,000
	Depreciation A/c To, ROU Asset		48,961	
		Dr.		48,961
At the end of Year 2	Interest Expenses A/c		11,157	
				11,157

	To, Lease Liability A/c	50,000	
	Dr.		50,000
	Lease Liability A/c To, Bank A/c	48,961	
	Dr.		48,961
At the end of Year 3	Depreciation A/c To, ROU Asset	7,273	
	Dr.		7,273
	Interest Expenses A/c	50,000	
	To, Lease Liability A/c		50,000
	Dr.	48,960	
	Lease Liability A/c To, Bank A/c		48,960
	Dr.	30,000	
	Depreciation A/c		17,000
	To, ROU Asset A/c		
	Dr.		13,000
	Lease Liability A/c Dr.		
	To, Bank A/c		
	(₹50,000 – ₹33,000 = ₹17,000, guaranteed up to ₹30,000) To, P&L (liability remission) ##		

if during lease any increase or decrease in liability arises when there exists a balance in ROU, to that extentROU will be debited/credited instead of P&L.

Presented in the Financial Statements:

Balance Sheet

Particulars	At the end of Year 1 (₹)	At the end of Year 2 (₹)	At the end of Year 3 (₹)
ROU Asset	97,921	48,960	0
Lease Liability	1,11,570	72,727	0

Statement of P&L

(Amount in ₹)

		Year 1	Year 2	Year 3
Interest A/c	Dr.	14,688	11,157	7,273
Depreciation A/c	Dr.	48,961	48,961	48,960
Guarantee remission A/c	Cr.			13,000

Statement of Cash Flows

(Amount in ₹)

	Year 1	Year 2	Year 3
Cash used in financing activities	50,000	50,000	50,000
Cash used in financing activities			17,000

I may take up accounting of leases in the books of the lessor in another issue.In the books of Y

Working notes:

(a) present value of lease receivable = ₹1,46,882

(Amount in ₹)

Year	Payments	Disc. Factor	DCF at 10%
1	50,000	0.90909091	45,454.55
2	50,000	0.82644628	41,322.31
3	50,000	0.7513148	37,565.74
3	Guaranteed 30,000	0.7513148	22,539.44
Present value			1,46,882

(b) Deferred selling profits at inception:

Particulars	(₹)
Revenue = Present value of lease receivable	1,46,882
Cost of goods sold = 136000 – 15026 (Carrying amount - Present Value of Unguaranteed residual*)	1,20,974
Deferred selling profits at inception	25,908

*₹20,000 × 0.7513 = ₹15,026

(c) Net Investment in Lease at inception = Present value of lease receivable + P. V. of Unguaranteed residual –Deferred selling profits = ₹ 1,46,882 + ₹ 15,026 – ₹ 25,908 = ₹ 1,36,000 = Carrying amount of the underlyingasset.

(d) Interest income on net investment in lease (19.274%) includes interest on the lease receivable, accretion of the unguaranteed residual value and amortization of deferred selling profit.

Interest Income	(₹)
Net Investment in Lease	1,36,000
Add Interest Income @ 19.274% = ₹ 1,36,000 × 19.274%	26,213
Total	1,62,213
Less Payment	50,000
Balance at the end of year 1	1,12,213

Interest Income	(₹)
Add Interest Income @ 19.274% = ₹1,12,213 × 19.274%	21,628
Total	1,33,841
Less Payment	50,000
Balance at the end of year 2	83,841
Add Interest Income @ 19.274% = ₹83,841 × 19.274%	16,159
Total	1,00,000
Less Payment	50,000
Less Payment for Guaranteed loss borne by Lessee	17,000
Returned at residual value at the end of year 3	33,000

Journal

Date	Particulars		Dr. (₹)	Cr. (₹)
At the inception	Net Investment in Lease A/c	Dr.	1,36,000	
	To, PPE			1,36,000
At the endof year 1	Bank A/c	Dr.	50,000	
	To, Interest Income A/c			26,213
	To, Net Investment in Lease A/c [50,000 – 26,213]			23,787
At the endof year 2	Bank A/c	Dr.	50,000	
	To, Interest Income A/c			21,628
	To, Net Investment in Lease A/c			28,372
At the endof year 3	Bank A/c	Dr.	50,000	
	To, Interest Income A/c			16,159
	To, Net Investment in Lease A/c			33,841
	PPE A/c	Dr.	33,000	
	Bank A/c	Dr.#	17,000	
	To, Net Investment in Lease A/c			50,000

Residual Value = ₹33,000. Loss = ₹50,000 – ₹33,000 = ₹17,000 borne by lessee (guaranteed by lessee up to ₹ 30000)

(Amount in ₹)

P&L	Year 1	Year 2	Year 3
Interest Income	26,213	21,628	16,159

Balance sheet	At inception	At the end of Year 1 (₹)	At the end of Year 2 (₹)	At the end of Year 3 (₹)
Net Investment in Lease	1,36,000	1,12,213	83,841	0
PPE	(1,36,000)			+33,000
Cash				+17,000

Statement of Cash Flows	At the end of Year 1 (₹)	At the end of Year 2 (₹)	At the end of Year 3 (₹)
Cash from investing activities	50,000	50,000	50,000
Cash from investing activities			17,000

Question 1

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 $ = ₹ 60. The fair value of the machinery determined on 31st March, 20X1 is $ 5,500. The exchange rate on 31st March, 20X1 is 1$ = ₹ 65. The payment to overseas supplier done on 31st March 20X2 and the exchange rate on 31st March 20X2 is 1$ = ₹ 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%.

Answer

Journal Entries

(It is assumed that the revaluation method is followed in respect of Plant & Machinery)

Purchase of Machinery on credit basis on 30th January 20X1:

	₹	₹
Machinery A/c (5,000 x $ 60) Dr. To Trade Receivables (Initial transaction will be recorded at exchange rate on the date of transaction)	3,00,000	3,00,000
Machinery A/c (5,000 x $ 60) Dr. To Trade Receivables (Initial transaction will be recorded at exchange rate on thedate of transaction)	3,00,000	3,00,000

Exchange difference arising on translating monetary item on 31st March 20X1:

	₹	₹
Profit & Loss A/c [(5,000 x $ 65) – (5,000 x $ 60)] Dr. To Trade Receivables Machinery A/c Dr. To Revaluation Surplus (OCI) [Being Machinery revalued to USD 5,500; (₹ 60 x (USD 5,500 -USD 5,000)]	25,000	20,000 30,000
Machinery A/c Dr. To Revaluation Surplus (OCI) (Being Machinery measured at the rate on exchange 31-03-20X1 [USD 5,500 x (₹ 65 - ₹60)]	30,000	27,500

Revaluation Surplus (OCI)	Dr.	27,500	
To Deferred Tax Liability			17,250
(DTL created @ of 30% of the total OCIamount)		17,250	

Exchange difference arising on translating monetary item and settlement of creditors on 31st March 20X2:

		₹	₹
Trade Receivables A/c (5,000 x $65)	Dr.	3,25,000	
Profit & loss A/c [(5,000 x ($ 67 -$65)]	Dr.	10,000	
To Bank A/c			3,35,000
Machinery A/c [(5,500 x ($ 67 - $ 65))	Dr.	11,000	
To Profit & loss A/c			11,000

Question 2

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= ₹ 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 = ₹ 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.

Answer

As per Ind AS 21 'The Effects of Changes in Foreign Exchange Rates' the asset and liability wouldinitially be recognised at the rate of exchange in force at the transaction date i.e. 1st January, 2018. Therefore, the amount initially recognised would be ₹ 1,36,00,000 ($ 2,00 000 x ₹ 68).

The liability is a monetary item so it is retranslated using the rate of exchange in force at 31st March, 2018. This makes the closing liability of ₹ 1,30,00,000 ($ 2,00,000 x ₹ 65). The gain on re-translation of ₹ 6,00,000 (₹ 1,36,00,000 – ₹ 1,30,00,000) is recognised in the Statement of profit or loss.

The machine is a non-monetary asset carried at historical cost. Therefore, it continues

to be translated using the rate of ₹ 68 to $ 1.

Depreciation of ₹ 8,50,000 (₹ 1,36,00,000 x ¼ x 3/12) would be charged to profit or loss for the year ended 31st March, 2018.

The closing balance in property, plant and equipment would be ₹ 1,27,50,000 (₹ 1,36,00,000 – ₹8,50,000). This would be shown as a non-current asset in the statement of financial position.

Question 3

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 ₹ 72 per USD and ₹ 75 per USD respectively.

Answer

This is the case of Revenue recognised at a single point in time with multiple payments. As per the guidance given in Appendix B to Ind AS 21:

A Ltd. will recognise a non-monetary contract liability amounting ₹ 1,440 million, by translating USD 20 million at the exchange rate on 1st January, 2018 i.e. ₹ 72 per USD.

A Ltd. will recognise revenue at 31st March, 2018 (that is, the date on which it transfers the goods to the customer).

A Ltd. determines that the date of the transaction for the revenue relating to the advance consideration of USD 20 million is 1st January, 2018. Applying paragraph 22 of Ind AS 21, A Ltd. determines that the date of the transaction for the remainder of the revenue as 31st March, 2018.

On 31st March, 2018, A Ltd. will: derecognise the non-monetary contract liability of USD 20 million and recognise USD 20 million of revenue using the exchange rate as at 1st January, 2018 i.e. ₹ 72 per USD; and recognise revenue and a receivable for the remaining USD 30 million, using the exchange rate on 31st March, 2018 i.e. ₹ 75 per USD. The receivable of USD 30 million is a monetary item, so it should be translated using the closing rate until the receivable is settled.

Question 4 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 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 1.13You are required to :

(i) Translate the statement of financial position of XYZ Global Ltd. into Euro which is ready for consolidation by XYZ Info. (Share capital and opening retained earnings have been pre- calculated.)

(ii)Prepare a working of the cumulative balance of the foreign currency translation reserve as perrelevant Ind AS. (5 Marks)

Answer

Translation of the balances for the purpose of consolidation

	USD	Rate	L$
Property, plant and equipment	50,000	1.13	44,248
Receivables	9,35,000	1.13	8,27,434
Total assets	9,85,000		8,71,682
Issued capital	50,000	—	30,055
Opening retained earnings	28,000	—	15,274
Profit for the year	20,000	1.175	17,021
Accounts payable	8,40,000	1.13	7,43,363
Accrued liabilities	47,000	1.13	41,593
Total equity and liabilities USD	9,85,000		8,47,306
Foreign Currency Translation Reserve (Refer WN-1)			24,376
Total equity and liabilities L$			8,71,682

Working Note

1 **Cumulative balance of the FCTR**

Particulars	Actual translated Amount in L$	Amount (Refer WN-2)	Difference
	A	B	B-A
Issued capital	30,055	44,248	14,193
Opening retained earnings	15,274	24,779	9,505
Profit for the year	17,021	17,699	678
	62,350	86,726	24,376

2 **Translated amount if the same conversion rate is applied to following items as applied on other items**

			Translated amount
Issued capital	50,000	1.13	44,248
Opening retained earnings	28,000	1.13	24,779
Profit for the year	20,000	1.13	17,699
	98,000		86,726

Question 1

ABC Limited granted to its employees, share options with a fair value of ₹ 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?

Answer

Period	Proportion a	Fair value b	To be vested c	Cumulative expenses d= b x c x a	Expenses e = d - previous period d
Period 1	1/3	5,00,000	91%	1,51,667	1,51,667
Period 2	2/3	5,00,000	89%	2,96,667	1,45,000
Period 3	3/3	5,00,000	82%	4,10,000	1,13,333
					4,10,000

Journal Entries

31st March, 20X1			
Employee benefits expenses	Dr.	1,51,667	
To Share based payment reserve (equity)(1/3 of expected vested equity instruments value)			1,51,667
31st March, 20X2 Employee benefits expenses	Dr.	1,45,000	
To Share based payment reserve (equity)(2/3 of expected vested equity instruments value)			1,45,000
31st March, 20X3 Employee benefits expenses	Dr.	1,13,333	
To Share based payment reserve (equity)			1,13,333
(Final vested equity instruments value)		4,10,000	
Share based payment reserve (equity)	Dr.		4,10,000
To Share Capital (re-allocated and issued shares)			

Question 2

Entity X grants 10 shares each to its 1000 employees on the conditions as mentioned below-

- To remain in service & entity's profit after tax (PAT) shall reach to ₹100 million.
- It is expected that PAT should reach to ₹100 million by the end of 3 years.
- Fair value at grant date is ₹ 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?

Answer

Entity's PAT is one of the non-market related condition 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 x 10 x 100 x 97% x 1/3 = 3,23,333
Year-2	1,000 x 10 x 100 x 95% x 2/3 - 3,23,333 = 3,10,000
Year -3	1,000 x 10 x 100 x 93% x 3/3 - 6,33,333 = 2,96,667

Question 3

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 ₹ 95 Cost reduction achieved-

Year 1	12%	Achieved
Year 2	8%	Not expected to vest infuture
Year 3	10%	Achieved
How the expenses would be recorded?		

Answer

It is a non-market related condition. Hence the target to achieve cost reduction would be taken while estimating the number of options to be vested.

Year	Options	Fair value		FV of the options vested
Year 1	10,000	95	1/3	3,16,667
Year 2	10,000	95	0	(3,16,667)
Year 3	10,000	95	3/3	9,50,000

The condition to achieve 10% cost reduction each was not fulfilled in the year 2 and there was no expectation to vest this non-market condition in future as well and hence earlier expense amount was reversed in year 2. Since in the year 3 the non-market condition was again met, hence all suchexpense will be charged to Profit and Loss.

Question 4

Z Ltd. grants 100 share options to each of its 400 employees conditional on their continuing in service for 3 years. Fair value of share option on the grant date is ₹ 30. During year 1, 18 employees leave. The entity revises its estimate of total employee departures over the three-year period from 20 per cent to 16 per cent. During year 2, a further 20 employees leave. The entity revises its estimate of total employee departures over the three-year period from 16 per cent to 13 per cent. During year 3, a further 14 employees leave. All the continuing employees exercised the option to subscribe in the equity shares of ₹ 10 each at ₹ 50 only, when market price stands at ₹ 84. Pass Journal Entries of all the years and show the working.

Answer :

The market price of equity shares subsequent to grant date is considered only when fair value at the grant date isnot reliably measurable. Hence, market price ₹ 84 is not considered.

Calculation of Expenses recognized during the vesting period:

Year	Calculation	Cumulative remuneration expense (₹)	Remuneration expense recognized in each year (₹)
1	400 × 100 × 30 × 84% × 1/3 (Note #)	3,36,000	3,36,0001
2	400 × 100 × 30 × 87% × 2/3 (Note #)	6,96,000	3,60,0002
3	348 × 100 × 30 × 3/3 (Note #)	10,44,0004	3,48,0003

Note #: At the end of year 1, 16% is revised estimated departure, balance 84% is taken for calculation, at the endof year 2, 13% is revised estimated departure, balance 87% is taken for calculation and at the end of year 3, 52 is actual departure, and balance 348 is taken for calculation.

During the vesting period:

In the books of Z Ltd.:

Journal

	Particulars	Dr. (₹)	Cr. (₹)
Year 1	Employee Expenses A/c Dr. To, Share Based Payment Reserve (Other Equity) A/c	3,36,000	3,36,0001
Year 2	Employee Expenses A/c Dr. To, Share Based Payment Reserve (Other Equity) A/c	3,60,000	3,60,0002
Year 3	Employee Expenses A/c Dr. To, Share Based Payment Reserve (Other Equity) A/c	3,48,000	3,48,0003

When shares are actually issued:

Exercise price ₹50; Cash Payment for subscription in shares ₹50. Fair Value of Option granted ₹30. Equity shallbe credited by Exercise price plus option value = ₹(50+30) = ₹80; nominal value ₹10 and Security premium ₹ 70; market price ₹ 84 is not recognised.

In the books of Z Ltd.:

Journal **Dr.** **Cr.**

Particulars		₹ ₹	₹
Bank A/c [348 × 100 × 50]	Dr.	17,40,000	
Share Based Payment Reserve (Other Equity) A/c	Dr.	10,44,0004	
To, Equity Share Capital A/c [348 × 100 × 10]			3,48,000
To, Other Equity (Security Premium) A/c			24,36,000

Now we shall take an illustration where a company grants share appreciation rights (SAR) to employees in consideration of services to be received in future during a 3 years of service.

It is a cash settled share based payment transaction where vesting condition is 3 year service and revision is madein estimate of the number of employees.

Employee expenses are recognized during the vesting period and the liability is measured at fair value at the timeof recognition. When the liability is actually settled by payment of cash, the difference between the carrying valueof liability and actual payment is adjusted through (profit or loss) employee expense.

Question 5

Grant with a non-market performance condition, in which the length of the vesting period varies:

At the beginning of year 1, X Ltd. grants 200 shares each to 400 employees, conditional upon the employees₹ remaining in employment with the company during the vesting period. The shares will vest at the end of year 1 if the entity ₹s earnings increase by more than 15 percent; at the end of year 2 if the entity ₹ s earnings increase by more than an average of 12 per cent per year over the two-year period; and at the end of year 3 if the entity ₹s earningsincrease by more than an average of 10 per cent per year over the three-year period.

The shares have a fair value of ₹40 per share at the start of year 1. No dividends need be considered.

By the end of year 1, the entity ₹s earnings have increased by 13 per cent, and 32 employees left. The entity expects further 30 employees to leave during year 2. By the end of year 2, the entity ₹s earnings have increased byonly 11 per cent and 27 employees left during the year. The entity expects a further 25 employees to leave duringyear 3. By the end of year 3, 22 employees left and the company ₹s earnings increased by (a) 9 percent, (b) 6 percent.

Find the Remunertion expenses to be recognised in each year.

Answer :

The share based payments to be accounted as follows:

Year	Calculation	Cumulative Remuneration Expense (₹)	Remuneration Expense for the Year (₹)
1	338 × 200 × ₹40 × 1/2	13,52,000	13,52,000
2	316 × 200 × ₹40 × 2/3	16,85,333	3,33,333
3 (a)	319 × 200 × ₹40 × 3/3	25,52,000	8,66,667
3 (b)	Not vested	0	-16,85,333

1. At the end of year 1 and year 2 shares were not vested as performance condition is not satisfied. But at the end of year 3 (a) the shares were vested as average increase in earnings was (13+11+9)/3 = 11>10 and (b) the shares were vested as average increase in earnings was (13+11+6)/3 = 10 is not greater than10
2. Revised no. of employees at the end of year 1: 400 – 32 -30 = 338 Revised no. of employees at the end of year 2: 400 – 32 -27- 25 = 316 Revised no. of employees at the end of year 3: 400 – 32 -27 – 22 = 319

(a) **Journal**

Particulars	Yr 1 (₹)		Yr 2 (₹)		Yr 3 (₹)	
	Dr. (₹)	Cr. (₹)	Dr. (₹)	Cr. (₹)	Dr. (₹)	Cr. (₹)
Employee Expenses A/c Dr.	13,52,000		3,33,333		8,66,667	
To, Share Based Payment Reserve(Other equity)A/c		13,52,000		3,33,333		8,66,667

Year 3 Particulars	Dr. (₹)	Cr. (₹)
Share Based Payment Reserve (Other equity)A/c Dr.	25,52,000	
To, Equity Share Capital A/c (10)		6,38,000
To, Security Premium A/c (40-10)		19,14,000

(b)

Particulars	Yr 1 (₹)		Yr 2 (₹)	
Employee Expenses A/c Dr.	13,52,000		3,33,333	
To,Share Based Payment Reserve (Other equity)A/c		13,52,000		3,33,333

Year 3		Dr.	Cr.
Particulars		**(₹)**	**(₹)**
Share based payment reserve (Other equity)	Dr.	16,85,333	
To, Employee Expenses A/c			16,85,333

Question 6

Grant with a performance condition, in which the number of equity instruments varies (Type: Equity settled).

At the beginning of year 1, X Ltd. grants options to 200 employees. The share options will vest at the end of year 3, provided that the employees remain in the entity₹s employment, and provided that revenues of the companyincreases by at least at an average of 8 percent per year. If the per cent of increase is 8 percent and above but below10 per cent per year, each employee will receive 120 share options, if 10 percent and above but below 15 percent each year, each employee will receive 240 share options and if on or above 15 percent, each employee will receive 360 share options. On grant date, X Ltd. estimates that the share options have a fair value of ₹40 per option and also estimates that 16 per cent of employees will leave before the end of year 3.

By the end of year 1, 12 employees have left and the entity still expects that a total of 32 employees will leave by the end of year 3. In year 1, revenue has increased by 12 per cent and the company expects this rate of increaseto continue over the next 2 years. By the end of year 2, a further 10 employees have left, bringing the total to 22 to date. The entity now expects only 5 more employees will leave during year 3, and therefore expects a total of 27 employees will have left during the three-year period. Revenue in year 2 increased by 18 per cent, resulting in an average of 15 per cent over the two years. By the end of year 3, a further 8 employees have left. The revenue increased by an average of 16 per cent per year in the three year period.

Find the Remunertion expenses to be recognised in each year.

Answer :

Year	**Calculation**	**Cumulative Remuneration Expense (₹)**	**Remuneration Expense for the Year (₹)**
1	168 × 240 × 40 × 1/3	5,37,600	5,37,600
2	173 × 360 × 40 × 2/3	16,60,800	11,23,200
3	170 × 360 × 40 × 3/3	24,48,000	7,87,200

Question 7

Grant with a performance condition, in which the exercise price varies (Type: Equity settled, NMCP).

At the beginning of year 1, an entity grants to a senior executive 10,000 share options, conditional upon the executive ₹s remaining in the entity ₹s employment until the end of year 3. The exercise price is ₹40. However, the exercise price drops to ₹30 if the entity₹s earnings increase by at least an average of 10 per cent per year over the three-year period.

On grant date, the entity estimates that the fair value of the share options, with an exercise price of ₹30, is ₹16 per option. If the exercise price is ₹40, the entity estimates that the share options have a fair value of ₹12 per option. During year 1, the entity₹s earnings increased by 12 per cent, and the entity expects that earnings will continue to increase at this rate over the next two years. The entity therefore expects that the earnings target will be achieved, and hence the share options will have an exercise price of ₹30. During year 2, the entity₹s earnings increased by 13 per cent, and the entity continues to expect that the earnings target will be achieved. During year 3, the entity₹s earnings increased by only 3 per cent, and therefore the earnings target was not achieved. The executive completes three years₹ service, and therefore satisfies the service condition. Because the earnings target was not achieved, the 10,000 vested share options have an exercise price of ₹40.

Find the Remunertion expenses to be recognised in each year.

Answer :

The exercise price varies depending on the outcome of a performance condition that is not a market condition, the effect of that performance condition (i.e. the possibility that the exercise price might be ₹40 and the possibility that the exercise price might be ₹30) is not taken into account when estimating the fair value of the share options at grant date. Instead, the entity estimates the fair value of the share options at grant date under each scenario (ie exercise price of ₹40 and exercise price of ₹30) and ultimately revises the transaction amount to reflect the outcome of that performance condition, as illustrated below.

Year	Calculation	Cumulative Remuneration Expense (₹)	Remuneration Expense for the Year (₹)
1	10,000 options × ₹16 × 1/3	53,333	53,333
2	10,000 options × ₹16 × 2/3	1,06,667	53,334
3	10,000 options × ₹12 × 3/3	1,20,000	13,333

Question 8 (Type: Equity settled) For grants of equity instruments with market conditions.

At the beginning of year 1, an entity grants to a senior executive 10,000 share options, conditional upon the executive remaining in the entity₹s employment until the end of year 3. However, the share options cannot be exercised unless the share price has increased from ₹50 at the beginning of year 1 to above ₹65. If the share price isabove ₹65 the share options can be exercised at any time till the end of year 10. The entity applies a binomial optionpricing model, which takes into account the possibility that the share price will exceed ₹65 (and hence the share options become exercisable) and the possibility that the share price will not exceed ₹65 (and hence the options willbe forfeited). It estimates the fair value of the share options with this market condition to be ₹24 per option.

Find the Remunertion expenses to be recognised in each year.

Answer :

The entity expects the executive to complete the three-year service period, and the executive does so, the entityrecognises the following amounts in years 1, 2 and 3:

Year	Calculation	Cumulative Remuneration Expense (₹)	Remuneration expense for the year (₹)
1	10,000 options × ₹24 × 1/3	80,000	80,000
2	10,000 options × ₹24 × 2/3	1,60,000	80,000
3	10,000 options × ₹24 × 3/3	2,40,000	80,000

Question 9 (Type: Cash settled)

PQR Ltd. grants 80 cash share appreciation rights (SARs) to each of its 400 employees, on condition that the employees remain in its employment for the next three years. During year 1, 30 employees leave. The entity estimates that a further 50 will leave during years 2 and 3. During year 2, 40 employees leave and the entity estimates that a further 30 will leave during year 3. During year 3, 40 employees leave. At the end of year 3, all SARs held by the remaining employees vest.

At the end of year 3, 100 employees exercise their SARs, another 120 employees exercise their SARs at the endof year 4 and the remaining employees exercise their SARs at the end of year 5.The fair value of the SARs at the end of each year in which a liability exists and the intrinsic values of the SARsat the date of exercise (which equal the cash paid out) at the end of years 3, 4 and 5 are shown below.

At the end of Year	Fair Value ₹	Intrinsic Value ₹
1	15	
2	16	
3	18	15
4	21	20
5		24

Pass journal entries and show working notes.

Answer :

a. Basis of Calculation

At the end of Year	[Actual]+Estimated reduction in no. of employees	Expense and liability recognized for revised estimated no. of employees at fair value	SAR exercised by actual no. of employees at intrinsic value	Remaining Employees for which liability is carried forward
1	[30] + 50 = 80	320 employees at ₹ 15		
2	[30 + 40] + 30 = 100	300 employees at ₹16		
3	[30 + 40 + 40] = 110	290 employees at ₹18	100 employees at ₹ 15	190
4			120 employees at ₹ 20	70
5			70 employees at ₹ 24	0

b. Calculation of employee expense and liability

Year	Calculation		Annual Expense ₹	Liability at the end ₹
1	(400 – 80) × 80 × 15 × 1/3		1,28,000	$1,28,000_{L1}$
2	(400 – 100) × 80 × 16 × 2/3 – L1		1,28,000	$2,56,000_{L2}$
3	(400 -110 -100) × 80 × 18 – L2	17,600		$2,73,600_{L3}$
	100 × 80 × 15 [expense recognized and paid]	1,20,000		
			1,37,600	
4	(190 – 120) × 80 × 21 – L3	-1,56,000		$1,17,600_{L4}$
	120 × 80 × 20	1,92,000		
			36,000	
5	0 – L4	-1,17,600		0
	70 × 80 × 24	1,34,400		
			16,800	
			4,46,400	

Journal

	Particulars		Dr. (₹)	Cr. (₹)
Year 1	Employee Expenses A/c To, Share Based Payment Laibility A/c (Fair value of SAR recognized)	Dr.	1,28,000	1,28,000
Year 2	Employee Expenses A/c To, Share Based Payment Laibility A/c (Fair Value of SAR recognized and remeasured)	Dr.	1,28,000	1,28,000
Year 3	Employee Expenses A/c To, Share Based Payment Laibility A/c (Fair Value of SAR recognized and remeasured)	Dr.	1,37,600	1,37,600
	Share Based Payment Liability A/c To, Cash A/c (SAR settled for 100 employees)	Dr.	1,20,000	1,20,000
Year 4	Share Based Payment Liability A/cEmployee Expenses A/c To, Cash A/c (SAR settled for 120 employees)	Dr. Dr.	1,56,000 36,000	1,92,000
Year 5	Share Based Payment Liability A/cEmployee Expenses A/c To, Cash A/c (SAR settled for 70 employees)	Dr. Dr.	1,17,600 16,800	1,34,400

Some employee share-based payment arrangements permit the employee to choose whether to receive cash or equity instruments. In this situation, a compound financial instrument has been granted, ie a financial instrument with debt and equity components.

Here is one illustrative problem of share based payment arrangement with compound financial instrument.

Question 10 (Type: Compound Instrument)

On condition of completion of 3 years' service an employee is granted the right to choose either

(i) right to cash payment equal to the value of 3000 shares, or

(ii) 3600 shares with restriction to hold them for 3 years after vesting. The share price (nominal value ₹ 10) at thegrant date is ₹ 60 and after taking the effect of the post-vesting transfer restriction the fair value is estimatedat ₹ 54 per share. At the end of the years 1, 2 and 3 the share price is ₹ 64, ₹68 and ₹ 72 respectively.

At the end of year 3, the employee chooses: (a) the cash alternative; (b) the equity alternative.

Show the necessary workings and pass the journal entries.

Answer :

A brief discussion of the relevant parts of the standard (Ind AS 102) is made before the solution.

When the fair value of equity alternative at the grant date is greater than the fair value of the cash alternative at the grant date, the excess is measured as the fair value of the equity component of the compound financial instrument.

Both the equity component and liability component will be recognized during the vesting period proportionate to the period expired to the total vesting period. Until the liability is settled, the entity shall re-measure the fair value of the liability at the end of each reporting period.

At the end of the vesting period if the employee chooses cash alternative the liability will be paid by cash. If equity alternative is chosen, the liability will be settled by issue of equity. The equity already recognized during the vesting period for the equity component shall remain within the equity.

Working Note 1: Fair value of equity component:

The fair value of the equity alternative = 3600 shares × ₹ 54 per share = ₹ 1,94,400 The fair value of the cash alternative = 3000 shares × ₹ 60 per share = ₹ 1,80,000 The fair value of the equity component = ₹ 1,94,400 –

₹ 1,80,000 = ₹ 14,400

Working Note 2: Expenses, Equity and Liabilities recognized in the years 1, 2, and 3.

Year		Expenses (₹)	Equity (₹)	Liabilities (₹)
1	Liability Component 3000× ₹64 × 1/3	64,000		64,000
	Equity Component 14,400 × 1/3	4,800	4,800	
2	Liability Component 3000 × ₹68 × 2/3 – ₹64,000 = ₹1,36,000 - ₹64,000	72,000		72,000
	Equity Component ₹14,400 × 1/3	4,800	4,800	
3	Liability Component 3000 × ₹72 – ₹1,36,000 = ₹2,16,000 - ₹1,36,000	80,000		80,000
	Equity component ₹14,400×1/3	4,800	4,800	
	Total	2,30,400	14,400	2,16,000

Journal **Dr.** **Cr.**

Year	Particulars		(₹)	(₹)
1	Employee Expenses A/c	Dr.	68,800	
	To, Share Based Payment Reserve (Other equity)A/c			4,800
	To, Share Based Payment Liability A/c			64,000
	(recognition of equity option and cash settlement option)			
2	Employee Expenses A/c	Dr.	76,800	
	To, Share Based Payment Reserve (Other equity) A/c			4,800
	To, Share Based Payment Liability A/c			72,000
	(recognition of equity option and cash settlement option)			
3	Employee Expenses A/c	Dr.	84,800	
	To, Share based payment reserve (Other equity)			4,800
	To, Share based payment liability			80,000
	(recognition of equity option and cash settlement option)			
	(a) Cash alternative:			
	Share based payment liability A/c	Dr.	2,16,000	
	To Cash A/c (settlement in cash)			2,16,000
	(b) Equity alternative:			
	Share based payment liability A/c	Dr.	2,16,000	
	To, Equity Share Capital (₹10 × 3000) A/c			30,000
	To, Security Premium (₹62 × 3000) A/c			1,86,000
	(settlement in equity)			
	Share based payment Reserve	Dr.	14,400	
	To, Equity Share Capital (₹10×600)			6,000
	To, Security Premium (balancing figure)			8,400

Question 11

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 isestimated that the fair value of a SAR is ₹ 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%will be vested only at the end of the 3rd year. Fair Values at the end of each period have been given below:

Fair value of SAR		₹
31st March, 20X1		112
31st March, 20X2		109
31st March, 20X3		114

Pass the Journal entries?

Answer

Period	Fair value a	To be vested b	Cumulative c = a x b x 10,000	Expense d = c - prev. periodc
Start	95	100%	9,50,000	9,50,000
Period 1	112	95%	10,64,000	1,14,000
Period 2	109	92%	10,02,800	(61,200)
Period 3	114	89%	10,14,600	11,800
				10,14,600

Journal Entries

1st April, 20X0			
Employee benefits expenses	Dr.	9,50,000	
To Share based payment liability			9,50,000
(Fair value of the SARrecognized)			
31st March, 20X1			
Employee benefits expenses	Dr.	1,14,000	
To Share based payment liability(Fair value of the SAR re-measured)			1,14,000
31st March, 20X2			
Share based payment liability	Dr.	61,200	
To Employee benefits expenses			61,200
(Fair value of the SAR re-measured & reversed)			

31st March, 20X3			
Employee benefits expenses	Dr.	11,800	
To Share based payment liability			11,800
(Fair value of the SAR recognized)			
Share based payment liability	Dr.	10,14,600	
To Cash			10,14,600
(Settlement of SAR)			

Question 12

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 acondition to keep the shares for 3 years if shares are opted.

Fair values of the shares	**₹**
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.

Answer

	1st January, 20X0	31st December, 20X0	31st December, 20X1
Equity alternative (990 x 212)	2,09,880		
Cash alternative (800 x 213)	1,70,400		
Equity option (2,09,880 – 1,70,400)	39,480		
Cash Option (cumulative) (using period end fair value)		88,000	1,85,600
Equity Option (cumulative)		19,740	39,480
Expense for the period			
Equity option		19,740	19,740
Cash Option		88,000	97,600
Total		1,07,740	1,17,340

Journal Entries

31st December, 20X0		₹	
Employee benefits expenses	Dr.	1,07,740	
To Share based payment reserve (equity)			19,740
To Share based payment liability			88,000
(Recognition of Equity option and cash settlementoption)			
31st December, 20X1			
Employee benefits expenses	Dr.	1,17,340	
To Share based payment reserve (equity)			19,740
To Share based payment liability			97,600
(Recognition of Equity option and cash settlementoption)			
Share based payment liability	Dr.	1,85,600	
To Bank/ Cash (Settlement in cash)			1,85,600

Question 1

Z Ltd. Agrees to sell 200 units of product A to a customer for ₹3,20,000 (₹1,600 per unit). The product A units are transferred over to the customers from 01.01.2019 to 30.06.2019. On 31.03.2020 after transfer of control of 100 units of A, the contract is modified to deliver additional 50 units at the then market price of ₹1,400 per unit to be delivered in following 3 months. Show how the transaction will be accounted in books of Z ltd.

Answer :

During F.Y. 2019-2020 revenue will be recognized for the performance obligation satisfied in regard the identified contract. Although the contract is modified, the modification is accounted as a distinct separate contract with its stand-alone price.

Thus in regard the original contract the transaction price to be allocated to the satisfied performance obligation is(100×₹3,20,000)/200 = ₹ 1,60,000 to be recognized as revenue to be credited to P & L.

In F.Y. 2019-20, on satisfaction of performance obligation of the original contract the balance ₹ 1,60,000 of the transaction price will be recognized as revenue. Further, for the modifications of the contract, treated as another distinct and new contract the transaction price is 50 × ₹ 1,400 = ₹ 70,000 to be recognized as revenue on satisfaction of performance obligation, i.e. on transfer of control of the units in 3 months.

Question 2

On 1.4.2020 the contract is modified to deliver 150 units of A instead of remaining 100 units by 30.6.2020 at ₹ 1,500 per unit. Here additional performances are distinct but additional consideration is not stand-alone selling price; hence, it is modification B.

Answer :

For FY 18-19 revenue recognition is ₹ 1,60,000 for 100 units at ₹ 1,600 p.u.. For 2020-2021:

Unrecognised revenue of the original contract (as if terminated)	Nil
Contract modification 150×₹1,500	₹ 2,25,000
Total	₹ 2,25,000

C: Original contract price of a project was ₹ 50,000 based on estimated 200 production hours at a rate of ₹ 250 per hour. After revenue recognition for 100 hours the contract is modified to increase the required hours by 50 (i)at hourly rate by ₹200; (ii) at hourly rate of ₹ 200 for the remaining hours; (iii)) at hourly rate of ₹ 200 for the total hours required The remaining performance is not distinct in the modified estimate of input hours, hence it is modification C.

(i) at hourly rate of ₹ 200 for 50 hours	Hours	Rate (₹)	(₹)
Original contract	200	250	50,000
Modification	50	200	10,000
Total	250	240	60,000
Revenue recognised (A)	100	250	25,000
Modified recognition (B)	100	240	24,000
Adjustment for past revenue recognition (A – B)			(1,000)
Revenue recognition in future	150	240	36,000

(ii) at hourly rate of ₹ 200 for 150 hours	Hours	Rate (₹)	(₹)
Revenue recognised (A)	100	250	25,000
Modification for remaining hours	150	200	30,000
Total	250	220	55,000
Modified recognition (B)	100	220	22,000
Adjustment for past revenue recognition (A – B)			(3,000)
Revenue recognition in future	150	220	33,000

(iii) at hourly rate of ₹200 for 250 hours	Hours	Rate (₹)	(₹)
Modification for total hours	250	200	50,000
Revenue recognised (A)	100	250	25,000
Modified recognition (B)	100	200	20,000
Adjustment for past revenue recognition (A – B)			(5,000)
Revenue recognition in future	150	200	30,000

Question 3

Determine whether there arise single or multiple performance obligations for the following contracts with customers?

(a) A Ltd. Enter into a contract with a customer for installing a central air-conditioner system including site preparation, assembling of plants and test running the system.

(b) A Ltd. enter into a contract with a customer for installing a central air-conditioning system and a power generating plant for support of the air-conditioning system. However, the power generating unit can also serve other electrical uses and could be acquired from other suppliers separately.

(c) A Ltd. enter into a contract with a customer for installing a power generating plant which includes designingand construction of the plant.

(i) Designing could have been made by any other independent designer. Based on the approved design construction of the plant has to be done.

(ii) Designing and construction are continuously modified during installation.

(d) A Ltd. enter into a contract with a customer for transfer of a software license including its installation, where:

(i) Installation does not modify the software and installation could be done by any other entity.

(ii) Installation is customised to modify the software with additional functionalities.

Answer :

(a) site preparation, assembling of plants and test running are integrated in single performance obligation.

(b) As power generating unit can serve other uses and could be procured from different supplier installationof power generation unit is distinct from installation of air-conditioning system. Hence, there are multiple performance obligations.

(c) (i) Designing and construction are distinct performance obligations.

(ii) They are integrated and bundled into single performance obligation.

(d) (i) Software license transfer and installation are distinct and there are two performance obligations.

(ii) They are integrated and bundled into single performance obligation.

Question 4

On 31.03.2020 A Ltd. enter into a contract with a customer for sale of goods of ₹ 4,000 granting 50% discount voucher to be availed in future purchase up to ₹ 3,000 within 30 days. Ordinarily 10% discount is allowed on sales. Ordinary discount will not be available to avail the 50% discount voucher. There is 60% probability thatthe customer will redeem the discount voucher and the estimated amount of purchase is ₹ 2,000 In April 2020 the discount vouchers are redeemed for purchase of additional goods of ₹ 2,800. Find revenue recognition in 2019-20and in 2020-21.

Answer :

There are two performance obligations one for sale of goods and other for sale of discount vouchers. Theirstandalone prices:

Goods 4000 less 10% ordinary discount	₹ 3,600
Discount Vouchers	₹ 480
Total	₹ 4080

[Value of vouchers = Discount in excess of ordinary rate of 10%× estimated Purchase amount

× probability of purchase = (50 – 10)% × 2000 × 60% = 480]

Transaction price is ₹ 3,600 which is sale price less current discount of 10%. It is to be allocated between performance obligations of goods and discount vouchers proportionately.

Allocation to goods	₹3,600 × (₹3,600/ ₹4,080)	= ₹3,176
Allocation to Discount Voucher	₹3,600 × (480/4,080)	= ₹ 424

Thus in 2019-20 Revenue is recognised for ₹ 3176 only, which is transaction price less future discount. Discount Voucher is carried as a liability at ₹ 424.

In 2020-21 this liability will be cancelled and revenue will be recognised for ₹424, when the discount voucher is redeemed or expired.

The Transaction Price for additional sale is ₹2,800 less 50% discount voucher = ₹ 1,400; Total Revenue recognised is ₹1,400 + ₹ 424 = ₹ 1,824.

Thus we see that ₹ 424 is deducted from revenue of 2019-20 and added to revenue of 2020-21.

Question 5

On 01.08.2020 A Ltd. enter into a contract with a hotel for daily sanitisation of the building for 3 years at ₹ 12,000 per month. The customer receives and consume benefits each day. Determine the revenue to be recognised in 2020-21.

Answer :

It is a series of distinct goods and services constituting a single performance obligation to be satisfied over time and transaction price has to be allocated proportionately to the performance obligation satisfied.

Accordingly, for 8 months @ ₹ 12,000 per month, ₹ 96,000 will be the revenue to be recognised in 2020-21.

Question 6

On 01.01.2020 A Ltd. entered into a contract with B to sell 20 TV sets at a price of ₹ 50,000 per set and the goods were delivered in February, 2020. Determine revenue to be recognised by A in 2019-20 in the following circumstances:

(i) 2 sets found damaged at the time of receiving and returned by B.

(ii) 4 sets found not properly functioning in March, 2020 and they were replaced by A as per terms of warranty.

(iii) It is not a sale but goods sent on consignment and B will sell the TV sets at ₹ 50,000 per set. 12 sets were sold by B.

(iv) It is a contract of sale or return. The TV sets can be returned by B unconditionally within 3 months. The entity expects (a) full return; (b) 50% return

Answer :

(i) Revenue is recognised for 18 sets at ₹ 9,00,000. 2 sets returned to inventory of defective items.

(ii) Revenue is recognised for 20 sets at ₹ 10,00,000 at delivery (assumed warranty is required by law and subsequent replacement is not considered as performance obligation to be satisfied over time and to attract any allocation of contract price).

(iii) Revenue is recognised for 12 sets at ₹ 6,00,000. The other 8 sets are recognised as asset (inventory) at cost.

(iv) (a) No revenue is recognised on delivery as right of the customer to unconditionally return the goods has not expired and full return is expected. The amount received or receivable on delivery of the sets is recognised as a liability and asset (inventory) is recognised for all 20 sets at cost. The performance obligation will be satisfied at the point of time when that right to return will expire and then only revenue will be recognised cancelling the liability.

(b) Revenue will be recognised at ₹ 5,00,000 (50% of delivery) and for balance ₹ 5,00,000, liability will be recognised. Further, asset (inventory) should be recognised for 10 sets at cost.

Question 7

A. On 31.03.2017 X Ltd. Sold goods at a price of ₹ 1,33,100 payable on 31.03.2020. The implicit interest rate is10% p.a. What would be the revenue to be recognized for the year 2016-17, 2017-18, 2018-19 and 2019-20?

Recognition Criteria.

I. There is a contract with the customer in 2016-17.

II. There is a performance obligation–selling goods.

III. Transaction Price is determinable. The sale price is ₹ 1,33,100 payable after 3 yrs. Interest component at 10% pa is included in the price. The revenue to be recognised (₹1,33,100 × 1) ÷ $(1.10)^3$ = ₹1,00,000 in the financial year 2016-17.

IV. Transaction price is fully allocated to the performance obligation.

V. Revenue is recognized as performance obligation is satisfied.

The interest component of ₹ (1,33,100 –1,00,000) = ₹ 33,100 will be recognized as interest income in F.Y.

2017-18 : ₹ 10,000 (10% × ₹1,00,000)

2018-19 : ₹ 11,000 (10% × ₹1,10,000)

2019-20 : ₹ 12,100 (10% × ₹1,21,000)

			Dr.	Cr.
Accounting for the years	**Particulars**		**(₹)**	**(₹)**
16-17	Customer A/c Accrued Interest A/c To, Sales A/c To, Liability for Unearned Interest A/c	Dr. Dr.	1,00,000 33,100	 1,00,000 33,100
17-18	Liability for Unearned Interest A/c To, Interest Income A/c	Dr.	10,000	 10,000
18-19	Liability for Unearned Interest A/c To, Interest Income A/c	Dr.	11,000	 11,000
19-20	Liability for Unearned Interest A/c To, Interest Income	Dr	12,100	 12,100
19-20	Bank a/c To, Customer a/c To, Accrued Interest a/c	Dr.	1,33,100	 1,00,000 33,100

B. On 01.04.2019 X Ltd. Sold goods at a price of ₹ 1,30,000 payable on 31.07.2019. The implicit interest rateis 12% p.a. What would be the revenue to be recognized for the year 2019-20?

Answer :

The financing component for 4 months amounts to ₹ 1,30,000× r/(1+ r) = ₹5,000, [where r = 0.12×4/12
= 0.04] But such financing component is not considered significant as the period is normal credit period.Hence, the entire sale value is recognised as revenue from contract with customer.

C. On 01.04.2019 X Ltd. sold goods at a price of ₹ 1,25,000 plus interest at the rate of 30% pa payable on 31.07. 2019 at the end of normal credit period of 4 months. What would be the revenue to be recognized forthe year 2019-20?

Answer :

Any abnormal interest charged is not considered a financing component of the contract price, rather includedas part of revenue from contract with customer. As the credit period is normal ₹ 1,25,000 plus interest ₹ 10,000 = ₹ 1,35,000 is recognised as revenue from contract with customer.

D. On 31.07.2019 X Ltd. sold goods at a price of ₹ 1,25,000 plus interest at the rate of 30% p.a. payable on 31.07.2020. Normal interest rate is 10% p.a. What would be the revenue to be recognized for the year 2019-20?

Answer :

As the credit period is longer than normal and the rate of interest charged is significantly different from normal, ₹ 1,25,000 plus interest in excess of normal = ₹ 1,25,000 + 20% × ₹ 1,25,000 = ₹ 1,50,000 is recognised as revenue from contract with customer in 2019-20 as the

performance obligation is satisfied bysale of goods. The normal interest for 1 year is recognised as interest income to be distributed for 8 monthsin year 2019-2020 and for 4 months in 2020-2021.

Question 8

On 01.12.2020 A Ltd. enter into a contract with customer to install a system at ₹ 20 lakhs and implement a software by June 2021 at ₹ 80 lakhs plus ₹ 15 lakhs bonus for completing software implementation by April 2021.Initially A Ltd. estimated the contract price at 1 crore for two performance obligations – system installation and software implementation by June 2021.

In March 2021 the company found system installation complete and software implementation 80% complete with confidence to earn bonus of ₹ 15 lakhs by completing implementation by April 2021. Compute revenue to be recognised in 2020-21.

Answer :

Bonus of ₹ 15 Lakhs is the variable consideration considered as change in contract price to be allocated to performance obligation of software implementation and recognised to the extent of performance obligation satisfied over time.

Thus, revenue recognition in 2020-2021:

System installation completed ₹ 20 Lakhs; and

Software implementation 80% completed = (₹ 80 lakhs + ₹ 15 lakhs) × 80% = ₹ 76 lakhs.

Had the software implementation be satisfied at a point in time when completed and control is transferred in April 2021, no revenue would be recognised proportionately in 2020-2021 for software implementation.

Question 9

A Ltd. enter into a contract with a customer for construction of a machine at the site of the customer at ₹ 8 lakhs and for supply of spare parts at ₹ 1.6 lakhs in the next financial year but to hold the spare parts in A Ltd₹s warehouse separately to be delivered to the customer₹s factory as and when required in following 3 financial years for additional consideration of ₹ 20,000 pa. Recognise revenue in the financial years if the contract is duly performed.

Answer :

In the year of contract no revenue is recognised as no performance obligation satisfied.

In the next year ₹8 lakhs is recognised for completing the construction and transfer of control at the point in time. Further ₹ 1.6 lakhs is recognised for supply of spare parts although it is held in warehouse of A Ltd. as custodianas control is transferred.
₹ 20,000 in each of the 3 years next shall be recognised as revenue from custodial services.

Question 1

Yr.	2018	2019	2020	2021	2022	…….
CF (₹)	500	600	700	800	800	continued at 800

(a) Find value of the business on 01-01-2021, given that WACC = 10%.

(b) Find value of the business on 01-01-2020, given that WACC = 10%.

(c) Find value of the business on 01-01-2019, given that WACC = 10%.

Answer :

(a) From the date of valuation all future cash flows are constant at ₹ 800. Thus, in accordance with para 1.6.1 the formula of Continuing value is $V_0 = CF_1/k = V_{1\text{-}1\text{-}21} = CF_{2021}/WACC$ = 800/10% = ₹ 8,000

(b) From the date of valuation future cash flows for 2020 is projected at ₹700 and at the end of the projection period on 01.01.2021 we may apply the formula of Terminal Value which we already found in part (a) at ₹ 8,000. Thus, in accordance with para 1.6.2 the formula of business value is $V_{1\text{-}1\text{-}20}$ = 700/(1.1) + (800/.1)/(1.1) [DCF for 2020 + PV of the Terminal Value] = 7909

(c) From the date of valuation future cash flows for 2019 and 2020 are projected at ₹600 and ₹700 and at the end of the projection period on 01.01.2021 we may apply the formula of Terminal Value which we already found in part (a) at ₹ 8,000. Thus, in accordance with para 1.6.2 the formula of business value is $V_{1\text{-}1\text{-}19}$ = 600/(1.1) 700/(1.1)^2 + (800/.1)/(1.1)^2 [DCF for 2019 and 2020 + PV of the Terminal Value] = ₹7,736 (Approx.)

Workings: **(₹ in Lakh)**

Particulars	**01.01.2019**	**2019**	**2020**	**2021 onwards continued to infinity**
CF		600	700	800
Terminal Value (TV)			8,000	
DCF of 2019	545.45455			
DCF of 2020	578.5124			
PV of TV	6611.5702			
$V_{01\text{-}01\text{-}2019}$	**7735.537**2			

Question 2

Forthcoming Year 1	₹ in Lakh
Data provided:	
EBIT	700
Depreciation	120
Capex	180
Interest	60
Increase in non-cash working capital	100
Debt Capital	3,000

Further information:

Tax rate = t	25%
WACC	10%
No of equity shares	50,00,000

Find:

(a) NOPAT,

(b) CF,

(c) FCFF,

(d) Value of business based on

(i) CF;

(ii) FCFF,

(e) Value of business when growth rate is 5% based on

(i) CF;

(ii) FCFF,

(f) Value per share based on FCFF when growth rate id 5% and

(g) Value per share based on FCFE when constant growth rate is 5%.

Answer : **(₹ in. Lakh)**

(a) NOPAT = EBIT×(1 – t) = 700×(1 - 0.25) = 525

(b) CF = NOPAT + Depreciation - Increase in non-cash working capital = 525 + 120 – 100 = 545

(c) FCFF = CF – Capex = 545 – 180 = 365

(d) Value of business based on

(i) CF:

Value of business = V_0 = Continuing Value = CF/WACC (at constant cash flows assumption)
= 545/ 0.1 = 5450

Value of business based on

(ii) FCFF

Value of business = V_0 = Continuing Value = FCFF/WACC (at constant cash flows assumption)
= 365/0.1 = ₹3,650 Lakhs

(e) (i) Value of business = V_0 = Continuing Value at growth rate of 5% = CF/(k – g) = 545/(0.10 0.05)
= 545/ 0.05 = ₹ 10,900

(ii) Value of business = V_0 = Continuing Value = FCFF/(k – g) = 365/(0.10 – 0.05) = 365/ 0.05
= ₹7,300

(i) CF; (ii) FCFF

(f) Value per share based on FCFF when constant growth rate is 5%

V_0 = ₹7,300;

Equity = V_0 – Debt Capital = ₹7,300 – ₹3,000 = ₹4,300

No. of equity shares = 50 lakhs

Value per share = ₹4,300/50 = ₹ 86

(f) FCFE = FCFF – Interest net of tax + Net Debt Issued = 365 – 80×(1 – 0.25) + (140 – 90) = 355

Value of equity = FCFE/ (Ke – g) = 355/(0.125 – .05) = 355/0.075 = ₹4,733.33

Value per share = Equity/ n = ₹4,733.33/50 = ₹91.67

Question 3

The following a bridged Balance Sheet as on 31st March, 2021 pertains to S Ltd.(₹ in Lakhs)

Liabilities	(₹)	Assets	(₹)
Share Capital:		Goodwill, at cost	420
180lakh Equity shares of ₹10 each,fully paid up	1,800	Other Fixed Assets	11,166
90lakh Equity shares of ₹ 10each, ₹ 8 paid up	720	Current Assets	2,910
150 lakh Equity shares of ₹5 each, fully paid-up	750	Loans and Advances	933
Reserves and Surplus	5,457		
Secured Loans	4,500		
Current Liabilities	1,242		
Provisions	960		
	15,429		**15,429**

You are required to calculate the following for each one of three categories of equity shares appearing in the above-mentioned Balance Sheet:

(i) Intrinsic value on the basis of book values of Assets and Liabilities including goodwill;

(ii) Value per share on the basis of dividend yield. Normal rate of dividend in the concerned industry is 15%, whereas Glorious Ltd. has been paying 20% dividend for the last four years and is expected to maintain it inthe next few years; and

(iii) Value per share on the basis of EPS.

For the year ended 31st March, 2021 the company has earned ₹1,371 lakh as profit after tax, which can be considered to be normal for the company. Average EPS for a fully paid share of ₹10 of a Company in the same industry is ₹2.

Answer :

Calculation of Intrinsic value [Based on book value]

Particulars	₹ in lakhs
Goodwill	420
Fixed Assets	11,166
Current Assets	2,910
Loan Advances	933
Total	15,429
Less: Provision	960
Current liabilities	1,242
Secured loans	4,500
Net Assets available for Equity shareholder	8,727
Add: Notional calls [90 × 2]	180
$\frac{\text{Total Assets}}{\text{Equity Share Capital}} = \frac{₹8,907}{1800+900+750} = \frac{₹8,907}{3,450}$	
Intrinsic value per Rupee	₹2.58
Paid up value ₹10 × 2.58 =	₹25.8
Paid up value ₹8 × 2.58 =	₹20.64
Paid up value ₹5 × 2.58 =	₹12.90

$$Dividend\ Yield = \frac{Dividend\ Rate}{Normal\ rate\ of\ return}$$

Paid – up value ₹10 = $\frac{20\%}{15\%} \times ₹10 = ₹133.33$

$Paid - up\ valu\ ₹10 = \frac{20\%}{15\%} \times ₹8 = ₹10.67$

$Paid - up\ value\ ₹10 = \frac{20\%}{15\%} \times ₹5 = ₹6.67$

(C). **Earningper Rupee of Share Capital** = $\frac{Eaming\ after\ Tax}{Paid-up\ Share\ Capital}$

$= \frac{1,371}{3,270}$ = 0.419

Earning per fully paid shares of ₹10	= 0.419 × ₹10	= ₹ 4.19
Earning per share of ₹10 each,₹8 paid-up	= ₹ 0.419 × ₹8	= ₹ 3.35
Earning per share of ₹5, fully paid-up	= ₹ 0.419 ×5	= ₹2.10
Value of fully paid share of ₹10	= 10	= ₹ 20.95

$Value\ of\ share\ of\ ₹10.₹8\ paid - up$ $= ₹\ \frac{4.19}{2} \times 10$ =₹16.75

Value of fully paid-up share of ₹5 = $₹\frac{4.19}{2} \times 10$ $= ₹10.50.$

Question 4

The following is the Balance Sheet (as on 31st December, 2021) of N Ltd.: (₹ in Lakh)

Liabilities	**(₹)**	**Assets**	**(₹)**
Equity Share Capital:		**Fixed Assets:**	
80,000 Equity shares of ₹10 each fully paid-up	8,00,000	Goodwill	1,00,000
50,000 Equity shares of ₹10 each 8 paid-up	4,00,000	Plant and Machinery	8,00,000
36,000 Equity shares of ₹5 each fully paid-up	1,80,000	Land and Building	10,00,000
30,000 Equity shares of ₹5 each 4 paid-up	1,20,000	Furnitureand Fixtures	1,00,000
		Vehicles	2,00,000
Other Equity:		Investments	3,00,000
General reserve	1,40,000	Current Assets:	

Profit and Loss account	3,50,000	Stock	2,10,000
Non-current liabilities:			
3,000 10% Preference shares of ₹100 each fully paid	3,00,000		
12% debentures	2,00,000	Debtors	1,95,000
15% Term Loan	1,50,000	Prepaid Expenses	40,000
Deposits	1,00,000	Advances	45,000
Current Liabilities:		Cash and Bank balance	2,00,000
Bank Loan	50,000		
Creditors	1,50,000		
Outstanding expenses	20,000		
Provision for tax	2,00,000		
Accrued Preference Dividend	30,000		
	31,90,000		31,90,000

Additional Information:

(1) In 2013 a new machinery costing ₹50,000 was purchased, but wrongly charged to revenue (no rectification

has yet been made for the same).

(2) Stock is overvalued by ₹10,000 in 2016. Debtors are to be reduced by ₹5,000 in 2017, some old furniture (Book value ₹10,000) was disposed of fort ₹6,000.

(3) Fixed assets are worth 5 per cent more than their actual book value. Depreciation on appreciated value of Fixed assets except machinery is not to be considered for valuation of goodwill.

(4) Of the investment 20 per cent is trading and the balance is non-trading. All trade investments are to be valued at 20 per cent below cost. Trade investment were purchased on 1st January, 2017. 50 per cent of thenon-trade investments were acquired on 1st January, 2016 and the rest on January, 2017. A uniform rate of dividend of 10 percent is earned on all investments.

(5) Expected increase in expenditure without commensurate increase in selling price ₹20,000.

(6) Research and Development expenses anticipated in future ₹30,000 per annum.

(7) In a similar business a normal return on capital employed is10%.

(8) Profit (after tax) are as follows:

In 2015 — ₹2,10,000, in 2016 — ₹1,90,000 and in 2017 — ₹2,00,000.

(9) Current income tax rate is 50%, expected income tax rate will be 40%. From the above,

ascertain the intrinsic value for different categories of Equity shares. For this purpose goodwill may be taken as 3 years purchase of super profits. Depreciation is charged on machinery @10% on reducing system.

Answer :

Computation of Value of Shares:

	₹
Value of Net Assets (As computed for Goodwill)	17,72,073
Value of Goodwill [Refer W.N.3]	1,10,406
Non-trade investments	2,40,000
Net Assets available for Equity Shareholders	21,22,479

Computation of Number of Equivalent Equity Shares:

Equity shares	No. of Equivalent Shares
80,000 shares + 50,000 shares = 1,30,000 shares of ₹10 each 1,30,000 × $\frac{10}{10}$	1,30,000
36,000 shares + 30,000 shares = 66,000 shares of ₹5 each 66,000 × $\frac{5}{10}$	33,000
Total Equivalent Equity Shares of ₹10 each	1,63,000

Calculation of intrinsic value of different categories of Equity Shares of N Ltd.

Value of Net Assets = ₹ 21,22,479

Net assets available to deemed fully paid-up Equity Shareholders

= Net Assets as computed above + Notional Cash from partly paid-up shares

= ₹ 21,22,479 + (50,000 × 2 + 30,000 × 1)

= ₹ 21,22,479 + 1,00,000 + 30,000

= ₹ 22,53,479

Computation of intrinsic value per share*

(i) Value of ₹10 fully paid Equity Share = $\frac{22,53,479}{1,63,000} = ₹\ 13.82\ per\ share\ (approx)$

(ii) Value of ₹8 paid-up Equity Share = 13.82 - 2 = ₹11.82 per share (approx.)

(iii) Value of ₹5 fully paid-up Equity Share = $13.21 \times \frac{5}{10} =$ ₹6.91per share (approx.)

(iv) Value of ₹4 paid-up Equity Share = 6.91 – 1 = ₹5.91 per share (approx.)

Working Notes: **1. Calculation of Average Capital Employed**	(₹)	(₹)
Fixed Assets: Plant and Machinery (including ₹36,450 for a Machine charged in 2013)		8,36,450
Land and Building		10,00,000
Furniture & Fixtures (1,00,000 - 4,000)		96,000
Vehicles		2,00,000
		21,32,450
Add : Appreciation @ 5%		1,06.623
		22,39,073

Trade Investment $\left(3{,}00{,}000 \times \frac{20}{100}\right) \times \frac{80}{100}$

Current Assets:			
Stock			2,10,000
Debtors (1,95,000-5,000)			1,90,000
Prepaid Expenses			40,000
Advances			45,000
Cash & Bank Balance			2,00,000
Less : Outside Liabilities:			29,72,073
Accrued Preference Dividend*	30,000		
3,000 10% Preference shares of ₹100 each fully paid*	3,00,000		
12% Debentures	2,00,000		
15% Term Loan	1,50,000		
Deposits	1,00,000		
Bank Loan	50,000		
Creditors	1,50,000		
Outstanding Expenses	20,000		
Provision for Tax	2,00,000		12,00,000
Capital employed at the end of the year i.e. Net Assets			17,72,073
Less: 1 of the current year₹s Accounting Profit after Tax:			
Profit before Tax#	3,80,950		
Less : Tax 40% of ₹3,80,950	1,52,380		
	2,28,570		
50% of ₹2,28,570			1,14,285
Average capital employed			16,57,788

Preference Share Capital and accrued preference dividend are liabilities.

1. **Future Maintainable Profits Statement of Average Profit**

Particulars	**2015 (₹)**	**2016 (₹)**	**2017 (₹)**
Profit after Tax	2,10,000	1,90,000	2,00,000
Profit before Tax (PAT × $\frac{1}{0.50}$)	4,20,000	3,80,000	4,00,000
Add: Capital expenditure charged to revenue Less : Depreciation of the Machinery Dividend on Non-Trade Investments	—	50,000	—
Over-valuation of closing stock	5,000	(4,500)	(4,050)
Add : Overvaluation of opening stock Add: Loss on sale of furniture (Presumed to be extra ordinary items) Less: Provision for debtors	(12,000)	(24,000)	(24,000)
Total profit for the three years	-	(10,000)	—
Average Profit = $\frac{₹\,11,75,450}{3}$	-	-	10,000
Less: Depreciation @ 10% on increase in the value of machinery 8,36,450 × $\frac{5}{100}$ × $\frac{10}{100}$ × ₹ 41,823 × $\frac{10}{100}$ i.e.	-	-	-
Expected increase in expenditure	-	-	4,000
Annual R & D Expenses anticipated in future			(5,000)
Future Maintainable profit before tax Less: Tax @ 40% of 3,37,635 Future Maintainable Profit After Tax	4,53,000	3,41,500	3,80,950
		11,75,450	
		3,91,817	
	4,182		
	20,000		
	30,000	54,182	
		3,37,635	
		1,35,054	
		2,02,581	

3. Computation of Goodwill	
Future Maintainable Profit After Tax	₹ 2,02,581
Less: Normal Profit (10% of ₹16,57,788)	1,65,779
Super Profit	36,802
Value of Goodwill = Super Profit × No. of years ₹ purchase = ₹3,802 × 3	1,10,406

Question 5

Following is the Balance Sheet of Z Ltd. as on 31st March, 2021: (₹ in Lakh)

Liabilities	(₹)	Assets	(₹)
1,00,000 Equity Shares of ₹10 each	10,00,000	Preliminary expenses	5,00,000
10,000 12% Preference Shares of ₹100 each	10,00,000	Goodwill	15,00,000
General Reserve	6,00,000	Buildings Plant	10,00,000
Profit and Loss Account	4,00,000	Investment in 10% Stock	4,80,000
15% Debentures	10,00,000	Stock	6,00,000
Creditors	8,00,000	Stock-in - trade	4,00,000
		Debtors	2,20,000
		Cash	1,00,000
	48,00,000		**48,00,000**

Additional information are given below:

(a) Nominal value of investment is ₹5,00,000 and its market value is ₹5,20,000.

Following assets are revalued:	
(i) Building	32,00,000
(ii) Plant	18,00,000
(iii) Stock-in-trade	4,50,000
(iv) Debtors	3,60,000

(a) Average profit before tax of the company is ₹12,00,000 and 12.50% of the profit is transferred togeneral reserve, rate of taxation being 50%.

(b) Normal dividend expected on equity shares is 8% while fair return on closing capital employed is10%.

(c) Goodwill may be valued at three year₹s purchase of super profits.

(d) Ascertain the value of each equity share under fair value method.

Answer :

1. Calculation of Capital Employed

Assets:	
Buildings	32,00,000
Plant	18,00,000
Stock	4,50,000
Debtors	3,60,000
Cash	1,00,000
	59,10,000
Less: Liabilities:	
Creditors	
10,000 12% Preference Shares of ₹100 each	
Debentures	
Total Capital Employed	

2. Calculation of Acutal Profit

Average Profit before Tax (given)

Less: Income from Investment (5,00,000 × 10%)

Less: Income Tax @ 50%

Preference dividend

Actual Profit

3. Profit for Equity Shareholders

Actual Profit (as calculated above)

Less: Transfer to Reserve @ 12.50%

Profit available to Equity Shareholders.

4. Normal Profit

10% of Capital Employed

= 10% of ₹31,10,000 = ₹3,11,000

5. Super Profit = Actual Profit – Normal Profit

= ₹4,55,000 – ₹3,11,000 = ₹1,44,000

6. Goodwill = ₹1,44,000 × 3 = ₹4,32,000

7. Net Assets for Equity Shareholders

= Capital Employed + Goodwill + Investment

= ₹31,10,000 + ₹4,32,000 + ₹4,80,000

= ₹40,22,000

Value per share (Based on Intrinsic Value Method)

$$\frac{₹\ 40,82,000}{1,00,000\ \text{Shares}} = ₹\ 40.22$$

Value per share (Based on Yield Method)

$$\text{Yield on Equity Share} = \frac{\text{Profit for Equity Shareholders}}{\text{Equity Share Capital}} = 100$$

$$= \frac{₹\ 3,98,125}{10,00,000} \times 100 = 39.81\%$$

$$\text{Value per share} = \frac{38.31}{8} \times 10 = ₹\ 49.77$$

Value of Equity Share Under Fair Value Method

$$= \frac{\text{Intrusic value + yield value}}{2} = \frac{40.22 + 49.77}{2} = ₹\ 44/36\ (\text{approx.}).$$

Question 6

The Balance Sheet of Q Limited as on 31.12.2021 is as follows : (₹ in Lakh)

Liabilities	(₹)	Assets	(₹)
1,00,000 Equity shares of ₹10 each fully paid-up	10	Goodwill	5
1,00,000 equity shares of ₹6 each fully paid-up	6	Fixed Assets	15
Reserves & Surplus	2	Other Tangible Assets	5
Liabilities	10	Intangible Assets	
		(Market Value)	3
		Misc. Expenditure to the extent	
	28		**28**

Fixed assets are worth ₹24 lakhs. Other tangible assets are valued at ₹3 lakhs. The company is expected to settle the disputed bonus claim of ₹1 lakh, not provided for in the accounts. Goodwill appearing in the Balance Sheet is purchased goodwill. It is considered reasonable to increase the value of goodwill by an amount equal to average of the book value and a valuation made at 3 years purchase of average super profit for the last 4 years.

After tax profits and dividend rates were as follows:

Year	PAT (in lakhs) %	Dividend
2014	3.00	11
2015	3.50	12
2016	4.00	13
2017	4.10	14

Normal expectation in the industry to which the company belongs to is 10%. Kamalesh holds 20,000 equity shares of ₹10 each fully paid up and 10,000 equity shares of ₹4 each fully paid up. He wants to sell away his holdings.

(i) Determine the break-up value and market value of both kinds of shares.

(ii) What should be the fair value of shares, if controlling interest is being sold?

Note : Make necessary assumptions, wherever required.

Answer :

(i) Break up value of ₹1 of share capital = $\frac{\text{Net assets available for shareholder}}{\text{Total share capital}}$

$$= \frac{₹\ 28.98\ lakhs}{₹\ 16.00\ lakhs} = ₹\ 1.81$$

Breakup value of ₹10 paid up share = 2.07 × 10 = ₹ 18.10 Breakup value of ₹ 6 paid up share = 2.07 × 6 = ₹ 10.86

Market value of shares

$$\text{Average dividend} = \frac{11\% \times 12\% \times 13\% \times 14\%}{4} = 12.5\%$$

$$\text{Market value of ₹ 10 paid up share} = \frac{12.5\%}{10\%} \times 10 = ₹12.50$$

$$\text{market value of ₹ 6 paid up share} = \frac{12.5\%}{10\%} \times 4 = ₹\ 7.50$$

ii. Breakup value of share will remain as before even if the controlling interest is being sold. But the market value of share will be different as the controlling interest would enable the declaration of dividend upto the limit of disposable profit.

$$\frac{Average\ Profit}{Paid\ up\ value\ of\ shares} \times 100 = \frac{₹3.4\ lakhs}{₹16\ lakhs} \times 100 = 21.25\%$$

Market value of shares:

$$\text{Fort 10 paid up share} = \frac{21.25\%}{10\%} \times 10 = 21.25$$

$$\text{For 6 paid up share} = \frac{21.25\%}{10\%} \times 10 \times 10 \times 6 = 12.75$$

$$\text{For value of shares} = \frac{\text{Break up value + Market value}}{2}$$

$$\text{Fair value of ₹10 paid up share} = \frac{18.10 + 21.25}{2} = 19.68$$

$$\text{Fair value of ₹ 6 paid up share} = \frac{18.10 + 12.75}{2} = 11.81$$

Working Notes: **(₹ in lakh)**

	Particulars		(₹)
1	**Calculation of average capital employed**		
	Fixed assets		24.00
	Other tangible assets		3.00
	Intangible assets		3.00
	Less: Liabilities	10	30.00
	Bonus	1	(11.00)
	Net assets (excluding goodwill/Closing capital employed)		19.00
	Less: ½ of profits [½ (4.10 - 1.0 (i.e. Disputed Bonus)]		(1.55)
	Average Capital Employed		17.45
2.	**Calculation of average super profit for 4 years**		
	Average profit = ¼ [3+3.5+4+4.1 - 1.0(i.e. Bonus)] = ¼ × 13.60		3.400
	Less: Normal Profit 10% of ₹17.45 lakhs		(1.745)
	Super Profit		1.655
3.	**Calculation of goodwill [See Assumption below]**		
	3 years₹ purchase of average super profit		
	= 3 ×1.655 = ₹4.965 lakhs		
	Increase in value of goodwill = ½ (Book value + 3 years super profit)		
	= ½ (5+ 4.965) = ₹4.9825 lakhs		
	Net assets as valued in W.N. 1 including book value of goodwill Add: Goodwill as per the balance sheet	5.00	19.00
	Add: Increase in goodwill (rounded off)	**4.98**	**9.98**
	Net Assets available for shareholders.		28.98

Note: Tax effect on disputed bonus and corporate dividend tax has been ignored.

Assumption: Goodwill has been calculated on the basis of average capital employed. Alternatively it may be calculated on the basis of closing capital employed. Accordingly, the closing capital employed will be ₹19lakhs, super profit will be ₹1.5 lakhs, increase in the value of goodwill will be ₹4.75 lakhs and net assets available for shareholders will be ₹28.75 lakhs. In such a case, the break-up value of ₹1of share capital will be ₹1.80 (insteadof 1.81)

Question 13

X Ltd. has EPS ₹ 12 and no. of shares 1000. Its CF ₹ 15,000 and Sales ₹ 80,000. Find value per share of X Ltd.based on the data of similar other companies as provided below:

Companies	PAT (₹)	CF (₹)	Sales (₹)	MC (₹)
A	20,000	25,000	1,20,000	1,50,000
B	16,000	20,000	1,40,000	1,75,000
C	25,000	32,000	1,60,000	2,00,000
D	18,000	24,000	1,44,000	1,92,000

Answer :

PAT of X Ltd. = EPS × No. of shares = 12 × 1000 = 12000

For the 4 companies in the peer group Relatives are computed as MC/ Base Value

For PAT as base value M1 is the multiple.For CF as base value M2 is the multiple. For Sales as base value M3 is the multiple.

Comparator is the average value of the multiples for the 4 companies.

Value of equity of X for each base = Base Value of X × Comparator

					Multiples		
Companies	PAT(₹)	CF(₹)	Sales(₹)	MC (₹)	M1 =MC/ PAT	M2=MC/ CF	M3 = MC/ Sales
A	20,000	25,000	1,20,000	1,50,000	7.5	6	1.25
B	16,000	20,000	1,40,000	1,75,000	10.9375	8.75	1.25
C	25,000	32,000	1,60,000	2,00,000	8	6.25	1.25
D	18,000	24,000	1,44,000	1,92,000	10.66667	8	1.333333
				Comparator	9.276042	7.25	1.270833
			Base of X		PAT	CF	Sales
			Base Value of X ₹		12,000	15,000	80,000
			Value of equity of X ₹		1,11,312.5	1,08,750	1,01,666.7
			No. of equity shares		1000	1000	1000
Value per share based on Base value ₹					111.3125	108.75	101.6667
Average Value per share of X ₹				107.243056			

Question 1

XY Ltd, a partnership firm, earned profits during the past 5 years as follows:

Year	2017	2018	2019	2020	2021
Profits (₹)	27,000	36,000	37,200	42,000	46,800

Determine the value of goodwill in each of the following independent cases:

Case (a): It was decided to value the Goodwill on the basis of 2 years₹ purchase of average profit of last five years.

Case (b): It was decided to value the Goodwill on the basis of $3\frac{1}{2}$ years₹ purchase of average profit of last five years after giving weights of 1, 2, 3, 6 and 8 to the profits chronologically.

Case (c): It was decided to value the Goodwill on the basis of 3 years₹ purchase of weighted average profit of last five years giving maximum weightage to the recent results.

Case (d): It was decided to value the Goodwill on the basis of $2\frac{1}{2}$ years₹ purchase of simple average profit of last five years. In this regard the following were observed:

(i) an abnormal loss of ₹ 1,800 was charged against the profit of 2019;

(ii) Profit of 2014 included a non-recurring receipt of ₹ 2,500.

(iii) closing stock of 2015 was over-valued by ₹ 2,400.

Answer :

Case (a):

$$Average\ Profit = \frac{₹27,000 + ₹36,000 + ₹37,000 + ₹42,000 + ₹46,800}{5} = ₹37,800$$

∴ Value of Goodwill= ₹ 37,800 × 2 years₹ purchase = ₹ 75,600

Case (b):

$$\text{Weighted average profit} = \frac{(₹\ 27,000 \times 1) + (₹\ 36,000 \times 2) + (₹\ 37,200 \times 3) + (₹\ 42,000 \times 6) + (₹\ 46,800 \times 8)}{1 + 2 + 3 + 6 + 8}$$

= ₹ 41,850

∴ Value of Goodwill = ₹ 41,850 × $3\frac{1}{2}$ years₹ purchase = ₹ 1,46,475

Case (c):

$$\text{Weighted average profit} = \frac{(₹\,27{,}000 \times 1) + (₹\,36{,}000 \times 2) + (₹\,37{,}200 \times 3) + (₹\,42{,}000 \times 4) + (₹\,46{,}800 \times 5)}{1 + 2 + 3 + 4 + 5}$$

$$= ₹\,40{,}840$$

$\therefore$ Value of Goodwill = ₹ 40,840 × 3 years₹ purchase = ₹ 1,22,520

Case (d):

For valuation of goodwill under simple average method, average profit of last few years is to be multiplied by number of year of purchase. Here, the term ₹profit₹ refers to ₹Future Maintainable

Profits₹ that the entity can expect to earn in the future. For determining such maintainable profit, past profits are required to be adjusted/ modified for any abnormal or non-recurring items (whether gain or loss), which are not expected to arise in the future under normal circumstances.

In this case,

Profit of 2019 = Profit (as given) + Abnormal loss sustained in 2019 (which cannot be expected to occur in future)

= ₹ 37,200 + ₹ 1,800 = ₹ 39,000

Profit of 2020 = Profit (as given) – Non-recurring receipt of 2020 (which cannot be expected to occur in future)

= ₹ 42,000 – ₹ 2,500 = ₹ 39,500

Profit of 2021 = Profit (as given) – Overvaluation of closing stock (rectification of profit)

= ₹ 46,800 – ₹ 2,400 = ₹ 44,400

$$\text{Simple Average profit} = \frac{₹\,27{,}000 + ₹\,36{,}000 + ₹\,39{,}000 + ₹\,39{,}500 + ₹\,44{,}400}{5} = ₹\,37{,}180$$

$\therefore$ Value of Goodwill = ₹ 37,180 × $2\frac{1}{2}$ years₹ purchase = ₹ 92,950

Question 2

XY Ltd, a partnership firm, earned profits during the past 4 years as follows:

Year	2018	2019	2020	2021
Profits (₹)	42,000	46,000	52,000	46,500

Firm has total assets worth ₹ 82,000 and its current liability includes only creditors of ₹

12,800. The normal rate

return is 10%. Determine the value of goodwill on the basis of 2½ year₹s purchase of super profits.

Answer :

Average Future Maintainable Profit = $\frac{₹42,000 + ₹46,000 + ₹52,000 + ₹46,500}{4}$ = ₹ 46,625

Here, Capital employed = Total assets – Current Liabilities = ₹ 82,000 – ₹ 12,800 = ₹ 69,200

Normal profit = Capital employed × Normal rate of return = ₹ 69,200 × 10% = ₹ 6,920

∴ Super profit = Average Future Maintainable Profit – Normal profit

= ₹ 46,625 – ₹ 6,920 = ₹ 39,705

∴ Value of Goodwill = ₹ 39,705 × 2½ years₹ purchase = ₹ 99,263 (approx.)

Annuity Method:

⊙ This method of goodwill valuation considers the ₹time value of money₹.

⊙ Under this method, Value of Goodwill = Super Profit × Annuity Value

Student Note:

The different variables which influence the valuation of goodwill under ₹Super Profit method₹ are:

Super Profit: It refers to the excess profit earned by the entity over the normal profit that should be earnedby a similar firm in the industry.

Annuity: Annuity refers to a series of continuous cash flows (either cash inflows or cash outflows) of equalamount that occur in every period, over a specified period of time.

Annuity Value: It is determined either from the Annuity Table or may be ascertained from the followingformula:

Annuity Value = $\frac{(1-r)n}{r(1-r)n}$ $Wher, r = Rate\ of\ interest\ per\ period, and\ n = Number\ of\ periods$

Question 3

From the following particulars you are required to determine value of goodwill of ABX Ltd.

Super Profit (Computed)	: ₹ 4,50,000
Normal rate of return	: 12%
Present value of annuity of ₹1 for 4 years @ 12%	: 3.0374

Answer :

Value of goodwill = Super profit × P.V of Annuity of ₹ 1for 4 years @ 12%

= ₹ 4,50,000 × 3.0374 = ₹ 13,66,830

Question 4

The following details relate to M/s XYZ, a firm:

Average profit of last four years : ₹ 7,00,000

Average capital employed by the firm : ₹ 55,00,000

Normal rate of return : 10%

Present value of annuity of ₹1 for 4 years @ 10% : 3.1699

Determine the value of goodwill on the basis of annuity of super profit.

Answer :

Super Profit = Average Future Maintainable Profit – Normal Profit

= Average Future Maintainable Profit – (Average Capital Employed X Normal rate of return)

= ₹ 7,00,000 – (₹ 55,00,000 × 10%)

= ₹ 1,50,000

∴ Value of goodwill = Super profit × P.V of Annuity of ₹ 1for 4 years @ 10%

= ₹ 1,50,000 × 3.1699 = ₹ 4,75,485

Question 5

The following is the Balance Sheet of K Ltd. as on 31st March, 2021:

Balance Sheet **(₹ in Lakh)**

Liabilities	**(₹)**	**Assets**	**(₹)**
3,00,000 Equity shares of ₹10 each	30,00,000	Goodwill	3,00,000
fully paid 12.5% Redeemable preference shares of ₹100 each fully paid	19,00,000	Building	20,00,000
		Plant & Machinery	22,00,000
General Reserve	15,00,000	Furniture	10,00,000
Profit & Loss A/c	3,00,000	Investments	16,00,000
Secured Loan	10,00,000	Stock	12,00,000

Creditors	30,00,000	Debtors	20,00,000
		Bank Balance	4,00,000
	1,07,00,000		**1,07,00,000**

Additional Information:

(i) Fixed assets are worth 20% more than book value. Stock is overvalued by ₹1,00,000. Debtors are to be reduced by ₹40,000. Trade investments, which constitute 10% of the total investments are to be valued at10% below cost.

(ii) Trade investments were purchased on 1.4.2020. 50% of non-trade investments were purchased on 1.4.2016and the rest on 1.4.2020. Non-trade investments yielded 15% return on cost.

(iii) In 2019-2020 Furniture with a book value of ₹1,00,000 was sold for ₹50,000. This loss should be treated as
non- recurring or extraordinary item for the purpose of calculating adjusted average profit.

(iv) In 2018-2019 new machinery costing ₹2,00,000 was purchased, but wrongly charged to revenue. This
amount should be adjusted taking depreciation at 10% on reducing value method.

(v) Return on capital employed is 20% in similar business.

(vi) Goodwill is to be valued at two years purchase of super profits based on simple average profits of last four years.

Profits of last four years are as under:

Year	(₹)
2017-2018	13,00,000
2018-2019	14,00,000
2019-2020	16,00,000
2020-2021	18,00,000

(i) It is assumed that preference dividend has been paid till date.

(ii) Depreciation on the overall increased value of assets (worth 20% more than book value) need not be considered. Depreciation on the additional value of only plant and machinery to be considered taking depreciation at 10% on reducing value method while calculating average adjusted profit.

Find out the intrinsic value of the equity share. Ignore income tax and dividend tax.

Answer :

1. Calculation of Goodwill

(ii) Capital Employed

Particulars	(₹)	(₹)
Fixed assets:		
Building	20,00,000	
Plant and machinery (₹22,00,000 + ₹1,45,800)	23,45,800	
Furniture	10,00,000	
	53,45,800	
Add: 20% Appreciation	10,69,160	
	64,14,960	
Trade investments (₹16,00,000 × 10% × 90%)	1,44,000	
Debtors (₹20,00,000 - ₹40,000)	19,60,000	
Stock (₹12,00,000 - ₹1,00,000)	11,00,000	
Bank Balance	4,00,000	1,00,18,960
Less: Outside liabilities:		
Redeemable preference shares of ₹100 each fully paid	19,00,000	
Secured Loan	10,00,000	
Creditors	30,00,000	(59,00,000)
Capital employed		41,18,960

(iii) Future Maintainable Profit

Calculation of Average Adjusted Profit

Particulars	2017-2018 (₹)	2018-2019 (₹)	2019-2020 (₹)	2020- 2021 (₹)
Profit	13,00,000	14,00,000	16,00,000	18,00,000
Add: Capital Expenditure of Machinery charged to revenue		2,00,000		
Loss on sale of furniture			50,000	
	13,00,000	**16,00,000**	**16,50,000**	**18,00,000**

Less: Depreciation on machinery		(20,000)	(18,000)	(16,200)
Income from non-trade investments (W.N.2)			(1,08,000)	(2,16,000)
Reduction in the value of stock				(1,00,000)
Bad debts				(40,000)
Adjusted Profit	13,00,000	15,80,000	15,24,000	14,27,800
Total adjusted profit for four years				58,31,800
Average profit (₹ 58,31,800/4)				14,57,950
Less: Depreciation at 10% on Additional Value of Machinery				
(22,00,000 + 1,45,800) × 20% × 10%				(46,916)
Average Adjusted Profit				14,11,034

(iv) Normal Profit 20% on Capital Employed, i.e. 20% on ₹ 41,18,960 = ₹ 8,23,792

(v) Super Profit = Average Adjusted profit – Normal profit

= ₹ 14,11,034 – ₹ 8,23,792 = ₹ 5,87,242

(vi) Goodwill

= 2 years purchase of super profit

= ₹ 5,87,242 × 2 = ₹ 11,74,484

2. Trade investments = ₹16,00,000 × 10% × 90% = ₹ 1,44,000

Non-trade investment = ₹ 16,00,000 – ₹ 1,60,000 = ₹ 14,40,000

Non- trade investment purchased on 1.4.2016 = 50% of ₹ 14,40,000 = ₹ 7,20,00

Non- trade investment purchased on 1.4.2020 = ₹ 14,40,000 - ₹7,20,0 = ₹ 7,20,00

Income from non-trade investment:

In the year 2017-2018 : 7,20,000 × 15% = ₹ 1,08,000

In the year 2018-2019 : 7,20,000 × 15% = ₹ 1,08,000

7,20,000 × 15% = ₹ 1,08,000

= ₹ 2,16,000

Calculation of Intrinsic Value of Equity Shares of K Ltd.

Net Assets available for Equity Shareholders.

Particulars	**(₹)**	**(₹)**	**(₹)**
Goodwill (W.N.1)			11,74,484
Sundry fixed assets			64,14,960
Trade and non-trade investments			15,84,000
(₹ 1,44,000 + ₹ 14,40,000)			
Debtors			19,60,000
Stock			11,00,000
Bank balance			4,00,000
Total Assets			1,26,33,444
Less: Outside liabilities			
Redeemable preference shares of ₹ 100 each fully paid	19,00,000		
Secured loan	10,00,000		
Creditors	30,00,000	59,00,000	
			(59,00,000)
Net assets available for equity shareholders			67,33,444

$$\text{Value of a equity shares} = \frac{\text{Net Assets available to Equity Shareholders}}{\text{Number of Equity Shares}}$$

$$= \frac{₹\ 67,33,444}{3,\ 00,000} = ₹\ 22.44 \text{ (approx.)}$$

Question 1

G Ltd. issued 6% Debenture of total ₹ 10,00,000 on 01.04.2017 repayable on 31. 03.2022. The debenture holdershave right to receive equity shares of face value of ₹ 4,00,000 at maturity as alternative to repayment in cash. Therequired rate of return is 10%. How the transaction will be recognised, measured and presented in 2017-2018?

Answer :

Debentures were issued with embedded derivative of option to convert them into shares. Equity is recognisedand measured at the value of the embedded option. Liability is recognised at the present value of future cash flows.

Workings:

Present Value of Liability

Year	Cash Flows (₹)	Discounting Rate	DCF (₹)
1	**60,000**	0.909	54,545
2	**60,000**	0.826	49,587
3	**60,000**	0.751	45,079
4	**60,000**	0.603	40,981
5	**10,60,000**		6,58,177
Total			**8,48,369**

Equity will be recognised and presented as Option to acquire shares under other equity in balance sheet mea-sured at the difference between issue price and the present value of liability. Equity = ₹10,00,000 – ₹8,48,369 = ₹1,51,631.

Finance cost recognised and presented in statement of P & L = 10% × ₹8,48,369 = ₹ 84,837.

Financial liabilities will be recognised and presented as debenture in balance sheet measured at present value of future cash flows discounted at 10% pa. plus accrued interest

= ₹ 8,48,369 + ₹84,837 – ₹60,000 = ₹ 8,73,206.

[At maturity if conversion into shares are opted]

		Dr.	Cr.
Particulars		**(₹)**	**(₹)**
Debenture A/c	Dr.	10,00,000	
To, Equity Share Capital A/c			4,00,000
To, Security Premium A/c			6,00,000

Question 2

X ltd. Granted a loan to Y ltd amounting to ₹ 40 lakhs repayable in 2 years at ₹ 46 lakhs. However, due to eco- nomic recession after 1 year the repayable amount has been revised at ₹ 44 lakhs. Effective annual interest rate forsuch a loan is determined at 6% pa. The loan processing cost was ₹ 2 lakhs. X Ltd ₹s accountant suggested to

(i) Charge processing cost to the first-year profit and loss A/c.

(ii) To credit ₹ 4 Lakhs as interest income in the second-year profit and loss a/c.

(iii) To carry loan a/c in the first-year balance sheet at ₹ 40 lakhs. Your advice is solicited.

Answer:

(i) Processing cost should be added to the carrying value of the loan (i.e. ₹40 Lakhs +₹ 2 Lakhs = ₹ 42 lakhs),and not be charged to P & L.

(ii) In year 1 interest should be credited to P & L at 6% in ₹ 42 lakhs = ₹ 2.52 lakhs.

(iii) The Carrying Amount of the loan at the end of year 1 = ₹ 42 lakhs + ₹ 2.52 lakhs = ₹44.52 lakhs. But sincethe Repayable Amount at the end of year 2 is revised at ₹ 44 lakhs, the recoverable amount at the end of year 1 is the present value = ₹44 lakh/1.06 = ₹ 41.51 (approx.) lakhs.

Thus the carrying amount shall be brought down to ₹ 41.51 lakhs only, the difference being impairment lossunder Ind AS 36 ₹(44.52 – 41.51) Lakhs = ₹ 3.01 Lakh to be charged to Profit and Loss Statement.

In year 2, interest shall be credited to Profit and Loss Statement ₹ (41.51 × 6) ÷ 2.49 lakh and the carryingamount of loan = ₹ 41.51 Lakhs + ₹ 2.49 Lakhs = ₹ 44 Lakhs that should be repaid at the end of year 2.

Question 3

A Company invested in Equity shares of another entity on 15th March for 10,000. Transaction Cost = 200 (not included in ₹ 10,000). Fair Value on Balance Sheet date i.e., 31st March, 2015=12,000. Pass nec- essary Journal Entries if the financial asset is classified as

a) FVTPL;

b) FVTOCI;

Answer

As per Ind AS 109, transaction costs related to a financial asset or liability which is classified and measured at FVTPL should be transferred to P&L and related to other classification, it should be added in case of financial asset and should be deducted from financial liability.

Financial asset accounted as FVTPL

Date	Particulars	Dr	Cr
15/3/2015	Investment A/C	10,000	
	Transaction cost A/c	200	
	To Bank		10,200
31/3/2015	Investment A/C	2,000	
	To fair value gain A/C		2,000
31/3/2015	P&L A/C	200	
	To Transaction cost A/c		200
31/3/2015	fair value gain A/C	2,000	
	To P&L A/C		2,000

Financial asset accounted as FVTPL

Date	Particulars	Dr	Cr
15/3/2015	Investment A/C	10,200	
	To Bank		10,200
31/3/2015	Investment A/C	1,800	
	To fair value gain A/C		1,800
31/3/2015	fair value gain A/C	1,800	
	To OCI A/C		1,800
31/3/2015	OCI A/C	1,800	
	To fair value reserve A/C		1,800

Question 1

While closing its books of accounts on 31stMarch, a NBFC has its advances classified as follows-

Particulars	₹ Lakhs	Particulars	₹ Lakhs
Standard Assets	8,400	Unsecured Portion of Doubtful Debts	87
Sub-Standard Assets	910	Loss Assets	24
Secured Portions of Doubtful Debts:			
- Up to one year	160		
- One year to three years	70		
- more than three years	20		

Calculate the amount of provision which must be made against the advances.

Answer :

Particulars	Loan (₹ Lakhs)	Provision (%)	Provision (₹Lakhs)
Standard Assets	8,400	0.40	33.6
Sub- Standard Assets	910	10%	91
Secured Portions of Doubtful Debts:			
- Up to one year	160	20%	32
- 1 year to 2 years	70	30%	21
- more than three years	20	50%	10
Unsecured Portions of Doubtful Assets	87	100%	87
Loss Assets	24	100%	24
Total			**298.6**

Note: Percentage of provision for Standard Asset is 0.25 as per Non-Banking Financial Company - Non Systemicaliy Important Non-Deposit taking Company.

Question 2

While closing its books of account on March 31 of a financial year, a Non-banking Finance company has itsadvances classified as follows:

Particulars	₹ Lakhs
Standard Assets	16,800
Standard Assets	1,340
Secured Positions of Doubtful Debts:	
- Up to one year	320
- one year to three years	90
- more than three years	30
Unsecured Portions of Doubtful debts	97
Loss Assets	48

Calculate the amount of provision which must be made against the advances.

Answer :

Particulars	Loan (₹ Lakhs)	Provision (%)	Provision (₹Lakhs)
Standard Assets	16,800	0.40	67.2
Sub Standard Assets	1,340	10%	134
Secured Portion of Doubtful Debts:			
- Up to one year	320	20%	64
- 1 year to 2 years	90	30%	27
- more than 3 years	30	50%	15
Unsecured Portion of Doubtful debts	97	100%	97
Loss Assets	48	100%	48
Total			**452.4**

Question 3

While closing its books of accounts on 31st March, a NBFC has its advances classified as follows:

Particulars	₹ Lakhs
Standard Assets	10,000
Sub Standard Assets	1,000
Secured Positions of Doubtful Debts:	
- Up to one year	160
- one year to three years	70
- more than three years	20
Unsecured Portions of Doubtful debts	90
Loss Assets	30

Calculate the amount of provision which must be made against the advances.

Answer :

Particulars	Loan (₹ Lakhs)	Provision (%)	Provision (₹ Lakhs)
Standard Assets	10.000	0.40	40
Sub-Standard Assets	1,000	10%	100
Secured Portions of Doubtful Debts:			
- Up to one year	160	20%	32
- 1 year to 2 years	70	30%	21
- more than three years	20	50%	10
Unsecured Portions of Doubtful Assets	90	100%	90
Loss Assets	30	100%	30
Total			**323**

Question 4

Samvedan Ltd. is a non-banking finance company. It accepts public deposit and also deals in the hire purchase)business. It provides you with the following information regarding major hire purchase deals as on 31.3.19. few machines were sold on hire-purchase basis. The hire purchase price was set as ₹ 100 lakhs as against cash price of

₹ 80 lakhs. The amount was payable as ₹ 20 lakhs down payment and balance in 5 equal installments. The Hire- vendor collected first installment as on 31.3.20, but could not collect the second installment which was due on

31.3.21. the company was finalizing accounts for the year ending 31.3.21. till 15.5.21, the date on which the Boardof Directors signed the accounts, the second installment was not collected. Presume IRR to be 10.42%.

Required:

(i) What should be the principal outstanding on 1.4.20? Should the company recognise finance charge for theyear 2020-21 as income?

(ii) What should be the net book value of assets as on 31.3.21 so far Samvedan Ltd. is concerned as per NBFCprudential norms requirement for provisioning?

(iii) What should be the amount of provision to be made as per prudential norms for NBFC laid down by RBI?

Answer :

(i) Since, the hire-purchaser paid the first installment due of 31.3.20, the notional principal outstanding on01.04.2020 was ₹ 50.25 lakhs. [WN: I]

In the year ended 31.3.21, the installment due of ₹ 16 lakhs has not been received. However, it was due on 31.3.21 i.e. on the Balance Sheet date, and therefore, it will be classified as Standard Asset. Samvedan Ltd. will recognise ₹ 5.24 lakhs as interest income included in that due installment.

(ii) The net book value of the assets as on 31.3.2020

Particulars	₹ Lakhs
Overdue installment	16
Installments not due (₹ 16 lakhs × 3)	48

Particulars	₹ Lakhs
	64
Less: finance charge not matured and not credited to P/L A/c [4.11 + 2.88 + 1.52]	(8.51)
	55.49
Less: Provision as per NBFC prudential norms	7.49
∴ Net Book Value of assets for Samvedan Ltd.	48.00

(i) Amount of Provision

Particulars	₹ Lakhs
Overdue installment	16
Installments not due (₹ 16 lakhs × 3)	48
	64
Less: finance charge not matured and not credited to P/L A/c [4.11 + 2.88 + 1.52]	(8.51)
	55.49
Less: Depreciated value (Cash Price Less Depreciation for 2 years on SLM @ 20%)	48
Provision as per NBFC prudential norms	7.49

Since, the installment of ₹ 16 lakhs not paid, was due on 31.03.2016 only, the asset is classified as standardasset. therefore, no additional provision has been made for it.

Workings:

It is necessary to segregate the installments into principal outstanding and interest components by using IRR@10.42%

Time	Opening outstanding amount (a)	Cash flow (b)	Interest @ 10.42% (c) = (a) × 10.42%	Principal repayment (d)= (b) –(c)	Closing outstanding (e) =(a) – (d)
31.3.19	80	20	—	20	60
31.3.20	60	16	6.25	9.75	50.25
31.3.21	50.25	16	5.24	10.76	39.49
31.3.22	39.49	16	4.11	11.89	27.6
31.3.23	27.6	16	2.88	13.12	14.48
31.3.24	14.48	16	1.52	14.48	0

Goodwill or Gain on Bargain

Question -1

ABC Ltd. acquires 100% of XYZ Ltd. for Rs.9,60,000. Fair Value (FV) of B's net assets at time of acquisition amounts Rs.8,00,000.

Required:

1. Calculate Goodwill.
2. Journal Entries in the books of A.

Answer:

	Rs
100% of Net Identifiable Assets (NIFA)	8,00,000
Less: NCI	-
Share of ABC Ltd in NIFA	8,00,000
Less: Consideration	9,60,000
Goodwill (Consideration More than Share of Acquirer in NIFA)	1,60,000

Entry:

Identifiable Net Assets	Dr.	8,00,000	
Goodwill (Balancing figure)	Dr.	1,60,000	
To Cash			9,60,000
To NCI			-

Question - 2

On March 31, 2023, K Ltd. acquired R Ltd. K Ltd. issued 60,000 equity shares (Rs.10 parvalue) that were trading at Rs.240 on March 31. The book value of R Ltd.'s net assets was Rs.72,00,000 on March 31. The fair value of net assets was assessed at Rs.1,35,00,000.

Show acquisition journal entry under Ind AS 103.Detailed

Answer:

	Rs
100% of FV of Net Identifiable Assets (NIFA)	1,35,00,000
Less: NCI	-
Share of Acquirer in NIFA	1,35,00,000
Less: Consideration 60,000 Shares of Rs. 240 each	1,44,00,000
Goodwill (Consideration More than Share of Acquirer inNIFA)	9,00,000

Entry:

Identifiable Net Assets	Dr.	1,35,00,000	
Goodwill (Balancing figure)	Dr.	9,00,000	
To Capital a/c			6,00,000
To Additional capital A/c / Premium A/c			1,38,00,000

Question - 3

A Ltd. acquires 80% of B Ltd. for Rs.9,60,000 paid by equity at par. Fair Value (FV) of B's net assets at time of acquisition amounts Rs.8,00,000. Required:

1. Calculate Non-Controlling-Interest (NCI) and Goodwill.
2. Journal Entries in the books of A.

Answer :

a. NCI on Proportionate Share in Net assets Basis:

	Rs
100% of FV of Net Identifiable Assets (NIFA)	8,00,000
Less: NCI 20% of Rs. 8,00,000	1,60,000
Share of Acquirer in NIFA	6,40,000
Less: Consideration	9,60,000
Goodwill (Consideration More than Share of Acquirer in NIFA)	3,20,000

b. NCI on Fair Value basis

FV of NCI = Rs.9,60,000 × (20%/80%) = Rs.2,40,000

	Rs
100% of FV of Net Identifiable Assets (NIFA)	8,00,000
Less: NCI on Fair Value Basis	2,40,000
Share of Acquirer in NIFA	5,60,000
Less: Consideration	9,60,000
Goodwill (Consideration More than Share of Acquirer in NIFA)	4,00,000

Entry:

Identifiable Net Assets	Dr.	8,00,000	
Goodwill (Balancing figure)	Dr.	4,00,000	
To Capital A/c			9,60,000
To NCI A/c			2,40,000

Question - 4

Z Ltd. acquired a 60% interest in P Ltd. on January 1, 2023. Z Ltd. paid Rs.700 Lakhs in cashfor their interest in P Ltd. The fair value of P Ltd.'s assets is Rs.1,800 Lakhs, and the fair value of its liabilities is Rs.900 Lakhs. Provide the journal entry for the acquisition using Ind AS, assuming that P Ltd. does not wish to report the NCI at fair value.

Answer:

a. NCI on Proportionate Share in Net assets Basis:

	Rs
100% of FV of Net Identifiable Assets (NIFA)	900
Less: NCI 40% of Rs. 900	360
Share of Acquirer in NIFA	540
Less: Consideration	9,60,000
Goodwill (Consideration More than Share of Acquirer in NIFA)	160

b. NCI on Fair Value basis

FV of NCI = For 60% Consideration is 700

Therefore, for 100% Consideration would be $\frac{100 \times 700}{60}$ = 1,166.67

Thus , NCI at Fair Value will be = 40% of 1,167.67 = 466.67

	Rs
100% of FV of Net Identifiable Assets (NIFA) (1800 -900)	900
Less: NCI on Fair Value Basis	467
Share of Acquirer in NIFA	433
Less: Consideration	900
Goodwill (Consideration More than Share of Acquirer inNIFA)	467

Identifiable Assets	Dr.	1,800	
Goodwill (Balancing figure)	Dr.	467	
To, Liabilities			900
To Capital A/c			900
To NCI A/c			900

Question - 5

On 1 January 2023 M Ltd. acquires 80 per cent of the equity interests of P Ltd in exchange of cash of Rs.250. The identifiable assets are measured at Rs.350 and the liabilities assumedare measured at Rs.50. The fair value of the 20 percent Non-controlling interest in P is Rs.43.

Answer :

Amount of the identifiable net assets acquired	(Rs.350 – Rs.50)	Rs.300
Less: NCI at FV (given)		Rs.43
Share of Acquirer in NIFA		Rs.257
Less: Consideration		Rs. 250
Gain on bargain purchase		Rs.7

M would record its acquisition of P in its consolidated financial statements as follows:

Identifiable Assets	Dr.	350	
To, Liabilities			50
To Cash A/c			250
To NCI A/c			43
To Gain on Bargain Purchase			7

The gain on bargain purchase will be recognised in other comprehensive income andaccumulated in equity as Capital Reserve.

Question - 6

On 1 January 2023 Hansa Ltd. acquires 70 percent of the equity interests of Nainital orchards Ltd in exchange of cash consideration of Rs.700 Lakhs. The identifiable assets aremeasured at Rs.1,500 and the liabilities assumed are measured at Rs.600.

Calculate:

1. NCI at Fair Value & GW
2. NCI on Proportionate net assets basis and GW

Answer :

NCI on Fair Value Basis:

Amount of the identifiable net assets acquired	(Rs.1,500 – Rs.600)	Rs.900
Less: NCI at FV (30 x 700/70)		Rs.300
Share of Acquirer in NIFA		Rs.600
Less: Consideration		Rs. 700
Goodwill (groups GW)		Rs.100

Hansa Limited shall record its acquisition of Nainital Limited in its consolidated financial statements as follows:

Identifiable Assets	Dr.	1,500	
Goodwill	Dr.	100	
To, Liabilities			600
To Cash A/c - Consideration			700
To NCI A/c at FV			300

2. NCI on Proportionate net assets basis and GW30% of (1,500 - 600) = 270 Lakhs

Goodwill = Net Assets 900 lakhs - NCI share 270 = Share of Acquirer in NA of Acquiree 630 less Consideration 700 = 70 Lakhs (Parents share of GW)

Question - 7

C Ltd acquires 60% share in D Ltd. for cash payment of Rs.2,00,000. The fair value of non-controlling interest is Rs.1,00,000. This amount was determined with reference of market price of D's ordinary shares before the acquisition date.

Calculate NCI and goodwill following:

(i) Fair Value approach and 'Proportionate share of identified net asset in acquiree approach',if the aggregate value of D's identifiable net assets is Rs.2,40,000;

(ii) Fair Value approach and 'Proportionate share of identified net asset in acquiree approach' when on the acquisition date, the aggregate value of D's identifiable net assets is Rs. 3,30,000.

Answer:

	Part 1 : a	Part 1 : b	Part 2 : a	Part 2 : b
Net Assets	2,40,000	2,40,000	3,30,000	3,30,000
NCI	1,00,000 (FV)	96,000 40% × 2,40,000	1,00,000	1,32,000 40% × 3,30,000
	1,40,000	1,44,000	2,30,000	30,000
Consideration	2,00,000	2,00,000	2,00,000	
Goodwill	60,000	56,000	-	2,000
Gain on Bargain Purchase	-	-	30,000	-

Key Note:

Under Ind AS 103, Goodwill is not amortized but tested for annual impairment in accordance with Ind AS 36.

Question - 8

Measurement of NCI - Fair Value and Proportionate Share Method

W1 Ltd acquires S1 Ltd by purchasing 60% of its Equity for Rs.15 Lakh in cash. The Fair Valueof NCI is determined as Rs.10 Lakh. The Net Aggregate Value of Identifiable Assets and Liabilities, as measured in accordance with Ind AS 103 is determined as Rs.5 Lakh. How much Goodwill is recognized based on two measurement bases of NCI?

Answer :

A. NCI is measured at Fair Value: (Full Goodwill Method)

W1 Ltd decides to measure NCI at Fair Value rather than at its Share of Identifiable Net Assets. The Fair Value of NCI is determined as Rs.10 Lakh (given in the question), which is the same as the Fair Value on a per-share basis of the purchased interest. The Acquirer recognizes at the acquisition date—(a) 100% of the Identifiable Net Assets, (b) NCI at FairValue, and (c)Goodwill. The Journal Entry recorded on the acquisition date for the 60% Interest acquired is as follows:

Identifiable Net Assets	Dr.	5	
Goodwill (Balancing figure)	Dr.	20	
To Cash			15
To NCI			10

Where NCI is measured at Fair Value as per Ind AS 103, Goodwill recognized represents the Group's Goodwill.

			30,000
			1,86,000
	Share based payment Reserve Dr.	14,400	
	To, Equity Share Capital (₹10×600)		6,000
	To, Security Premium (balancing figure)		8,400

Question – 9 (Contingent consideration)

D Ltd. has acquired 100% of the equity of F Ltd. on March 31, 2021. The purchase consideration comprises of animmediate payment of ₹10 lakhs and two further payments of ₹1.21 lakhs if the Return on Equity exceeds 20% ineach of the subsequent two financial years. A discount rate of 10% is used. Compute the value of total considerationat the acquisition date.

Answer :

Particulars	₹ ₹ in Lakhs
Immediate cash payment	10.00
Fair value of contingent consideration [1.21/1.1 +1.21/$(1.1)^2$]	2.10
Total purchase consideration	12.10

Question – 10 (Contingent Liability)

Z Ltd. acquired C Ltd. on April 1, 2021. For a lawsuit contingency C Ltd. has a present obligation as on April 1, 2021 and the fair value of the obligation can be reliably measured as ₹50,000. As of the acquisition date it is not believed that an out flow of cash or other assets will be required to settle this matter. What amount should be recorded by Z Ltd. under Ind AS for this contingent liability of C Ltd.?

Answer:

Contingent liabilities of the Acquiree are recognized as of the acquisition date if there is a present obligation (even if it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation, contrary to Ind AS 37) and the fair value of the obligation can be measured reliably. Hence, a liability of ₹50,000 would be recorded by Z.

Question – 11 (Take over)

On March 31, 2021, P Ltd acquired Q Ltd. by issue of 3,00,000 equity shares (₹ 10) that were trading at ₹ 16 on March 31.

The summarized Balance Sheets of the companies as at March 31, 2021 (before acquisition): [Amount in ₹]

	(Book Value)		(Market Value)	
	P Ltd.	Q Ltd.	P Ltd.	Q Ltd.
Net Assets	80,00,000	42,00,000	110,00,0000	45,00,000
Equity Sh. Cap	60,00,000	25,00,000		
Other Equity	20,00,000	17,00,000		

Show acquisition journal entry under Ind AS 103 and summarized balance sheet after business combination. Also show the necessary accounting in the books of the Acquiree.

Answer :

Purchase consideration (at fair value) = 3,00,000×₹16 = ₹ 48,00,000; FV of Net Assets ₹

45,00,000Goodwill = Consideration – Net Assets = ₹ (48,00,000 – 45,00,000) = ₹ 3,00,000.

Journal (individual set of P Ltd.)

Particulars		Dr. (₹)	Cr. (₹)
Net Assets A/c	Dr.	45,00,000	
Goodwill A/c	Dr.	3,00,000	
To, Consideration A/c			48,00,000
Consideration A/c	Dr.	48,00,000	
To, Equity Share Capital A/c			30,00,000
To, Security Premium A/c			18,00,000

Summarized Individual Balance sheet of K Ltd. as at March 31 (Post-acquisition)

Workings:

	(₹)	(₹)
Net Assets:		
Carrying amount of Acquirer P Ltd.	80,00,000	
Fair Value of Acquiree Q Ltd.	45,00,000	
		125,00,000
Goodwill		3,00,000
Total Net Assets		1,28,00,000
Equity:		
Equity Share Capital		
Existing	60,00,000	
Issue for consideration	30,00,000	
		90,00,000
Other Equity:		
Carrying amount	20,00,000	
Security Premium (on issue of shares)	18,00,000	
		38,00,000
Total Equity		**1,28,00,000**

No consolidated or separate set is required.

In books of Q:

Accounts are closed through Realisation Account

		Dr.	Cr.
Particulars		**(₹)**	**(₹)**
Realisation A/c	Dr.	42,00,000	
To, Net Assets A/c			42,00,000
Equity Shares in K Ltd. A/c	Dr.	48,00,000	
To, Realisation A/c			48,00,000
Realisation A/c	Dr.	6,00,000	
To, Equity Shareholders₹ A/c			6,00,000

Particulars		**(₹)**	**(₹)**
Equity Share Capital A/c	Dr.	25,00,000	
Other Equity A/c	Dr.	17,00,000	
To, Equity Shareholders₹ A/c			42,00,000
Equity Shareholders₹ A/c	Dr.	48,00,000	
To, equity Shares in K Ltd.			48,00,000

Dr. **Realisation Account** **Cr.**

Particulars	**(₹)**	**Particulars**	**(₹)**
Net Assets A/c	42,00,000	Equity Shares in P A/c	48,00,000
Equity Shareholders₹ A/c	6,00,000		
	48,00,000		48,00,000

Dr Equity Shareholders₹ Account Cr.

Particulars	**(₹)**	**Particulars**	**(₹)**
Equity Shares in P Ltd. A/c	48,00,000	Equity Share Capital A/c	25,00,000
		Other Equity A/c	17,00,000
		Realisation A/c	6,00,000
	48,00,000		**48,00,000**

Now, what changes take place in accounting in the books of the Acquirer and the Acquiree if the followingchanges take place:

a. P Ltd acquired 100% shares of Q Ltd.

b. P Ltd acquired 80% shares of Q Ltd.

[for guidance you may also follow the solutions in illustration 1(b) and 1(c)]

Question - 12 (Amalgamation)

On March 31, 201X, A Ltd and B Ltd. were amalgamated into C Ltd., control of the businesses lying withthe same parties as before. C Ltd. issued 80,000 equity shares to A Ltd. and 75,000 equity shares to B Ltd. atthe nominal value of ₹10 per share. The book value of A Ltd.₹s net assets was ₹12,00,000, Equity Share Capital ₹ 5,00,000 and Other Equity ₹7,00,000 on March 31. The fair value of net assets of A Ltd. was assessed at ₹16,00,000. The book value of B Ltd.₹s net assets was ₹10,00,000, Equity share capital ₹4,00,000 and Other Equity ₹6,00,000 on March 31. The fair value of net assets of B Ltd. was assessed at ₹15,00,000.Show journal entries complying Ind AS.

Answer :

It is a transaction of Business Combination Under Common Control under Ind AS 103 Appendix C, where control lies with the same parties before and after the transaction.

Pooling of Interest method will be applied. Consideration is measured only at nominal value of shares. Differenceof consideration and other equity carried, with net assets be recognized as Goodwill or Capital Reserve. Net assetsand Other Equity of the transferee company will be carried at book value.

Workings:				
Consideration to A Ltd.	= 80,000 × ₹10	=	₹	8,00,000
Consideration to B Ltd.	= 75,000 ×₹10	=	₹	7,50,000
Total Consideration		=	₹	15,50,000
Other Equity of A Ltd. and B Ltd.	= ₹7,00,000 + ₹6,00,000	=	₹	13,00,000
Total Net assets	= ₹12,00,000 + ₹10,00,000	=	₹	22,00,000
Goodwill	= ₹15,50,000 + ₹9,00,000	=	₹	6,50,000

Journal in books of C Ltd.

Particulars		Dr. (₹)	Cr. (₹)
Net Assets of A Ltd.A/c	Dr.	12,00,000	
Net Assets of B Ltd.A/c	Dr.	10,00,000	
Goodwill A/c	Dr.	6,50,000	
To, Consideration A/c (₹8,00,000 + ₹7,50,000)			15,50,000
To, Other Equity A/c (₹7,00,000 + ₹6,00,000)			13,00,000
Consideration A/c		15,50,000	
To, Equity Share Capital A/c	Dr.		15,50,000

Question – 13 (External Reconstruction)

On March 31, 201X, A Ltd externally reconstructed into B Ltd. B Ltd. issued 80,000 equity shares at the nominalvalue of ₹ 10 per share. The book value of A Ltd.₹s net assets was ₹12,00,000 on March 31. The fair value of net assets was assessed at ₹15,00,000.

Show journal entries complying Ind AS.

Answer:

It is a transaction of Business Combination Under Common Control under Ind AS 103 Appendix C, where control lies with the same parties before and after the transaction.

Pooling of Interest method will be applied. Consideration is measured only at nominal value of shares, Differenceof consideration and carried amount of Other Equity with the net assets will be recognized as Goodwill or CapitalReserve. Net assets and Other Equity of the transferee company will be carried at book value.

Workings:

Consideration = 80000 ×₹10 = ₹8,00,000

Goodwill = ₹8,00,000 +₹6,00,000 -₹12,00,000 = ₹2,00,000

Journal in books of B Ltd.: Dr. Cr.

Particulars		(₹)	(₹)
Net Assets A/c	Dr.	12,00,000	
Goodwill A/c	Dr.	2,00,000	
To, Consideration A/c			8,00000
To, Other Equity A/c			6,00,000
Consideration A/c	Dr.	8,00,000	
To, Equity Share Capital A/c			8,00,000

Question – 14 (Reverse Acquisition)

Suppose, Entity A acquires 80% shares of Entity B and satisfies the consideration by issue of three shares ofEntity A for every share of Entity B. Market price of ₹10 share of Entity A is ₹25.

The summarized Balance Sheets:

Particulars	A (₹)	B (₹)
Net Assets	30,000	20,000
Equity	30,000	20,000
No. of Equity Shares	1000	750

Is it a reverse acquisition?

Answer:

80% of 750 = 600 shares of Entity B are acquired and Entity A issues 600 × 3 = 1800 shares to Entity B. Now, shareholders of Entity A hold 1000 shares and shares holders of Entity B hold 1800 shares effectively, the group is controlled by Entity B. This is a case of reverse acquisition. In such case accounting will be done in books of Entity A, the legal acquirer, but it would be assumed that Entity B is the accounting acquirer and accordingly assets and liabilities of Entity A would be identified and effective consideration would be calculated.

In case of amalgamation also ₹reverse acquisition₹ may take place when it is indicated that after Entity A and Entity B amalgamated into Entity C, shareholders of Entity B would control Entity C. Although Entity C is the legal acquirer, in the books recording will be done assuming that Entity B is the acquirer. Thus de facto acquirer is considered the accounting acquirer and de juri acquirer is the legal acquirer.

Now, I shall take up illustrations.
In illustration 1, it is application of pooling of interest method for a transaction of demerger indentified as business combination under common control as per Ind AS 103, Appendix C.

Question - 15 (Reverse Acquisition)
Reverse Acquisition takes place as H Ltd. acquires 100% equity shares of S Ltd on 31.03.2021. From the following data pass journal entries and prepare consolidated and separate Balance Sheet in the books of H Ltd.

[₹ in Lakhs]

Particulars	**H Ltd. (₹)**	**S Ltd. (₹)**
Non-current Assets	2,000	3,000
Current Assets	1,000	1,000
Total	3,000	4,000
Equity Share Capital H: 100 shares; S: 80 shares	1,000	800
Other Equity	500	1,600
Non-current Liabilities	700	1,200
Current Liabilities	800	400
Total	3,000	4,000

H Ltd. and S Ltd. shares are quoted at ₹ 20 and ₹ 50 respectively on 31.03.2021. H Ltd. issues shares in exchangeratio based on quoted price. Fair Value of NC asset of H ₹2,400, S ₹3,200.

Answer:

I. It is a business combination. H Ltd. issues 2.5 shares for every one share of S Ltd. (50/20). Thus 200 shares(80 × 2.5) of H Ltd. are issued to owners of S Ltd., who become 2/3 rd owner of the group interest (200 outof total 300 shares, 100 shares belonging to the owners of H Ltd.). For accounting purpose, the subsidiary company S Ltd., (holding 2/3 rd of the group interest) the legal acquiree is considered as the accounting acquirer. It is a reverse acquisition. As 100% shares of S Ltd. are acquired there is no non-controlling interest.

II. Consideration transferred:

Of the group 100 shares are held by owners of H Ltd. and 200 shares are held by owners of S Ltd. Effectiveconsideration from the view point of accounting acquirer S Ltd. is the fair value of 100 shares held by H = 20×₹100 = ₹2,000 , which is equivalent to 40 shares of S Ltd. at ₹ 50. In the consolidated set maintained byH Ltd., recording will be made as if S Ltd. is acquiring H Ltd. Thus, net assets of H Ltd. will be recognisedat fair value and net assets and equity of S Ltd. will be recognised at carrying amount.

III. Goodwill:	**(₹) in Lakhs**
Net Assets of H identified ₹(2,400 + 1,000 - 700 - 800)	1,900
Consideration transferred	2,000
Goodwill ₹(2,000 – 1,500)	100

IV. Journal assuming S Ltd. as the Accounting acquirer :

Particulars		**Dr. (₹ in Lakhs)**	**Cr. (₹ in Lakhs)**
Non-Current Assets A/c	Dr.	2,400	
Current Assets A/c	Dr.	1,000	
Goodwill A/c	Dr.	100	
To, Non-current Liabilities A/c			700
To, Current Liabilities A/c			800
To, Consideration A/c			2,000
Consideration A/c	Dr.	2,000	
To, Equity Share Capital A/c			2,000

V. Consolidated Balance Sheet on 31-03-2021 (in books of H Ltd.) (₹ in Lakhs)

Particulars	**Separate (₹)**	**Consolidated (Bk Value of S + FV of H Ltd.) (₹)**
Non-current Assets	2,000	5,400
Goodwill		100
Financial asset – Investment	2,000	
Current Assets	1,000	2,000
Total	**5,000**	**7,500**

Particulars	Separate (₹)	Consolidated (Bk Value of S + FV of H Ltd.) (₹)
Equity Share Capital – 300 shares of H Ltd. (Carrying amount of S Ltd. + Issue by H Ltd. = 800 +2000)	3,000	2,800
Other Equity	500	1,600
Non-Current Liabilities	700	1,900
Current Liabilities	800	1,200
Total	5,000	7,500

* Equity structure i.e. Number of shares reflects the legal parent H Ltd, although amount of equity is the carrying value of S plus purchase consideration by issue of shares.

[**Note:** There is mismatch between the number of shares and the Balance Sheet amount if nominal value is considered. This is maintained in the standard without any explanation.]

Question - 16 (Amalgamation: Reverse acquisition)

DA Ltd. and TA Ltd. were amalgamated to form a new company DATA Ltd. on 31.03.2021 who issued requisite number of equity shares of ₹10 to take over the businesses of DA Ltd. and TA Ltd.. The abstract of balance sheets of the companies on 31.03.2021: (₹ in Lakhs)

Particulars	DA Ltd.	TA Ltd.
PPE	7,500	8,000
Financial Assets	800	500
Current Assets	4,700	6,500
Equity Share Capital	6,000	10,000
Other Equity	3,000	1,000
Borrowings	2,000	3,000
Current Liabilities	2,000	1,000

Fair value of the following items is given: (₹ in Lakhs)

Particulars	DA Ltd.	TA Ltd.
PPE	8,000	6,000
Current Assets	5,000	7,000
Fair Value of Business	7,500	15,000

However the control of DATA Ltd. is taken by the management of TA Ltd.

Show the merged balance sheet.

TA Ltd. having the control over DATA Ltd., it is considered a reverse acquisition and in the merged balancesheet, assets and liabilities of TA Ltd. would be shown at carrying amount.

(₹ in Lakhs)

	DA Ltd.	TA Ltd.
Fair Value of Business	7,500	15,000
Share of each company in the merged company	1/3	2/3

Fair value per share of TA Ltd. = ₹15,000/1000 = ₹15

Consideration payable by TA Ltd. to DA Ltd. is ₹ 7,500/15 = 500 lakh shares

Or, No. of shares held by TA Ltd. for 2/3 share in DATA Ltd. = 1000 lakh shares; no. of shares to be issued toDA for 1/3 share = 500.

Thus total consideration = 500 lakh shares of ₹ 10 each at ₹ 5 premium = ₹7,500.

(₹ in Lakhs)

Particulars	Note	(₹)
Assets		
Non Current Assets		
PPE (8000 + 8000)		16,000
Financial Assets		1,300
Current Assets (5000 + 6500)		11,500
Total		28,800
Equity and Liabilities		
Equity		
Equity Share Capital 1500 (1000 + 500) lakh shares of ₹ 10		15,000
Other Equity	Note 1	5,800
Borrowings		5,000
Current Liabilities		3,000
Total		**28,800**

Note 1:

Particulars	₹
PPE	8,000
Financial Assets	800
Current Assets	5,000
	13,800
Borrowings	2,000
Current Liabilities	2,000
	4,000
Net Assets	9,800
Consideration	7,500
Gain on Bargain Purchase	2,300

Other Equity = Other Equity of TA + Gain on Bargain Purchase + security premium= ₹(1,000+2,300+2,500) = ₹5,800

Question - 17 (Demerger : Business Combination under Common Control)

Z Ltd has two divisions X and Y. On 31.03.2021 the division-wise extract of the balance sheet was:

(₹ in Crores)

	X	Y	Total
PPF	350	600	950
Prov. for Depr.	(300)	(400)	(700)
Current assets	300	400	700
	350	600	950
Equity share capital (₹ 10 per share)	50	—	50
Other Equity	250	(150)	100
Borrowing		360	360
Current Liabilities	50	390	440
	350	600	950

Q Ltd, a new company is formed to take over division Y by issue of 1 crore equity shares of ₹ 10 at a premium of ₹ 15 per share to (i) the shareholders of Z ltd (ii) to Z Ltd.

Pass journal entries and prepare balance sheet after reconstruction in the books of both Z Ltd and Q Ltd (a) basedon (i) above and (b)) based on (ii) above.

Answer :

As the control of division Y was with the shareholders of Z Ltd before the demerger and after division Y is takenover by Q Ltd the control of Q Ltd is still lying with the same shareholders of Z Ltd, this is a transaction identifiedas business combination under common control, where the transferee is Q Ltd. and the transferor is Z Ltd. Poolingof interest is the method of accounting to be applied.

Z Ltd. shall close all its accounts for division Y and Q Ltd will record all the assets and liabilities at carrying amount (as in the books of the transferor). The equity share capital will be recorded at nominal value only. Consideration inexcess of equity share capital will be recorded as goodwill (Capital reserve in case of deficiency). The other equityshall be cancelled in the books of transferor and shall be carried by the transferee in the same form is which they appeared in the financial statements of the transferor.

In the given problem the consideration is settled by issue of equity shares at a premium. Under pooling of interestmethod of accounting, only nominal value will be considered (the accounting of both the transferor and transfers will remain unaffected for ignoring the share premium altogether).

(a) When shares are issued to shareholders of Z Ltd

Journal in the books of Z Ltd. Dr. Cr.

Particulars		**(₹ in Crore)**	**(₹ in Crore)**
Borrowing A/c	Dr.	360	
Current Liabilities A/c	Dr.	390	
Prevision for Depn. A/c	Dr.	400	
To, PPE A/c			600
To, Current Assets A/c			400
To, Other Equity A/c			150

(Assets liabilities and other equity are closed, and consideration 10 is not accounted being received by the shareholders directly)

Balance sheet of Z Ltd. after reconstructions (₹ in Crore)

	Note	**Amount**
Assets		
Non-current assets		
PPE		50
Current assets		300
Total		350
Equity and Liabilities		

Equity		
Equity share capital		50
Other Equity		250
Liabilities		
Current Liabilities		50
Total		350

Journal in books of Q Ltd

Particulars		Dr. (₹ in Crore)	Cr. (₹ in Crore)
PPE A/c	Dr.	200	
Current Assets A/c	Dr.	400	
Other Equity + A/c	Dr.	150	
Goodwill 1 A/c	Dr.	10	
To, Borrowing A/c			360
To, Current liabilities A/c			390
To, Consideration A/c			10
(+Other equity recognized) Consideration A/c	Dr.	10	
To, Equity Share Capital A/c			10

Balance Sheet of Q Ltd.

	Note	Amount(₹in Crore)
Assets		
Non-current assets		
PPE		200
Goodwill1		10
Current Assets		400
Total		610
Equity and Liabilities		
Equity		
Equity share capital		10
Other Equity (*preserved in the same form of thetransferor)		(150)
Liabilities		
Borrowings		360
Current Liabilities		390
Total		**610**

[1] Goodwill is the excess of the amount recorded as share capital issued over the share capital of the transferor.Here Y Division share capital is Zero. Hence, Goodwill = ₹(10 – 0) crore = ₹10 crore.

(a) For shares issued to Z Ltd

When shares issued by Q Ltd. are received by Z Ltd. in Z Ltd₹s accounts investment is recognized.

Journal of Z Ltd Dr. Cr.

Particulars		(₹ in Crore)	(₹ in Crore)
Borrowing A/c	Dr.	360	
Current Liabilities A/c	Dr.	390	
Prevision for Depn. A/c	Dr.	400	
Investment A/c	Dr.	10	
			600
To, PPE A/c			400
To, Current Assets A/c			150
To, Other Equity A/c			10*
To, Reconstruction A/c (Profit transferred to Other Equity)			

Z Ltd. Balance Sheet After Reconstructions

	Note	Amount(₹in Crore)
Assets		
Non-current assets		
PPE		50
Financial asset-Investment		10
Current Assets		300
Total		360
Equity and Liabilities		
Equity		
Equity share capital		50
Other Equity (250 + 10*)		260
Liabilities		
Current Liabilities		50
Total		**360**

The recording in the books of Q Ltd will remain same as is (a).

Question – 18 (Amalgamation: Business combination under common control)

DA Ltd. and TA Ltd. were amalgamated to form a new company DATA Ltd. on 31.03.2021 who issued requisite number of equity shares of ₹ 10 to take over the businesses of DA and TA. The abstract of balance sheets of thecompanies on 31.03.2021: (₹ in Lakhs)

Particulars	DA Ltd.	TA Ltd.	DATA Ltd.
PPE	7,500	8,000	15,500
Financial Assets	800	500	1,300
Current Assets	4,700	6,500	11,200
Equity Share Capital	6,000	8,000	14,000
Other Equity	3,000	3,000	6,000
Borrowings	2,000	3,000	5,000
Current Liabilities	2,000	1,000	3,000

Pass journal entries in the books of DA, TA and DATA Ltd. and show balance sheet abstract after merger.

Answer :

The combining entities or businesses are ultimately controlled by the same party or parties both before and afterthe business combination. It is a business combination under common control, and pooling of interest method of accounting is be followed.

WN 1. Carrying amount after merger: (₹ ₹ in Lakhs)

Particulars	DA Ltd.	TA Ltd.	DATA Ltd.
PPE	7,500	8,000	15,500
Financial Assets	800	500	1,300
Current Assets	4,700	6,500	11,200
Equity Share Capital	6,000	8,000	14,000
Other Equity	3,000	3,000	6,000
Borrowings	2,000	3,000	5,000
Current Liabilities	2,000	1,000	3,000

WN 2. Purchase consideration: (₹ in Lakhs)

Particulars	DA Ltd.	TA Ltd.	DATA Ltd.
Equity Share Capital	6,000	8,000	14,000
Other Equity	3,000	3,000	6,000
Equity	9,000	11,000	20,000
Share	9/20	11/20	20/20

Particulars	DA Ltd.	TA Ltd.	DATA Ltd.
Purchase consideration	(9/20)×14,000 = 6,300	(11/20)×14,000 = 7,700	14,000

Journal in the books of transferor company DA Ltd.

Particulars		Dr. (₹)	Cr. (₹)
Current Liabilities A/c	Dr.	2,000	
Borrowings A/c	Dr.	2,000	
Realisation A/c	Dr.	9,000	
To, PEE A/c			7,500
To, Current Assets A/c			4,700
To, Financial Assets A/c			800
(Transferred to Realisation A/c)			
Shares in DATA Ltd. A/c	Dr.	6,300	
To, Realisation A/c			6,300
(Consideration)			
Equity Shareholders A/c	Dr.	2,700	
To, Realisation A/c			2,700
(Loss on Realisation)			
Equity Share Capital A/c	Dr.	6,000	
Other Equity A/c	Dr.	3,000	
To, Equity Shareholders A/c			9,000
Equity Shareholders A/c	Dr.	6,300	
To, Shares in DATA Ltd.A/c			6,300

Journal in the books of transferor company TA Ltd.

Particulars		Dr. (₹)	Cr. (₹)
Current Liabilities A/c	Dr.	1,000	
Borrowings A/c	Dr.	3,000	
Realisation A/c	Dr.	11,000	
To, PPE A/c			8,000
To, Current Assets A/c			6,500
To, Financial Assets A/c			500
(Transferred to Realisation A/c)		7,700	
Shares in DATA Ltd. A/c	Dr.		7,700
To, Realisation A/c			
(Consideration)		3,300	
Equity Shareholders A/c	Dr.		3,300
To, Realisation A/c			
(Loss on Realisation)		8,000	
Equity Share Capital A/c	Dr.	3,000	
Other Equity A/c	Dr.		11,000
To, Equity Shareholders A/c		7,700	
Equity Shareholders A/c	Dr.		7,700
To, Shares in DATA Ltd.A/c			

In the books of Transferee company DATA Ltd.

Journal

Particulars		Dr. (₹)	Cr. (₹)
PPE A/c	Dr.	15,500	
Current Assets A/c	Dr.	11,200	
Financial Assets A/c	Dr.	1,300	
To, Consideration A/c			14,000
To, Borrowings A/c			5,000
To, Current Liabilities A/c			3,000
To, Other Equity*			6,000
Consideration A/c	Dr.	14,000	
To, Equity Share Capital A/c			14,000

Balance sheet abstract of DATA Ltd. as at 31.03.2021

Particulars	₹ ₹ in lakh
PPE	15,500
Financial Assets	1,300
Current Assets	11,200
Total	28,000
Equity Share Capital	14,000
Other Equity	6,000
Borrowings	5,000
Current Liabilities	3,000
Total	28,000

Chain Holding

Question – 19 Pass journal entries for business combination in the books of P Ltd. from the following particulars:

Summarised Balance Sheet as at 31-03-2021 (₹ in Lakhs)

	P	Q	R
PPE	400	500	320
Current Assets:			
Inventory	250	80	60
Trade Receivables	280	120	200
Bills Receivables		70	50
Cash and Bank	180	50	60
Total Assets	1110	820	690
Equity and Liabilities			
E. Share Cap (₹ 10)	450	500	300
Other Equity	260	160	120
Current Liabilities			
Trade Payables	300	300	200
Bills Payables	100	90	70
Total	**1110**	**1050**	**690**

P Ltd. acquired 80% shares of Q Ltd. at a consideration of 480 and Q Ltd. acquired 75% shares

of R Ltd. at a consideration of 300 on 01-04-2021. NCI is measured at fair value.

Fair value as at acquisition: (₹ in lakhs)

	P	Q	R
PPE	700	600	400
Current Assets:			
Inventory	240	80	60
Trade Receivables	250	120	180
Bills Receivables		70	50
Current Liabilities			
Trade Payables	300	300	170
Bills Payables	100	90	70

Answer :

Workings:

I. Share of parent and NCI

Share of P in Q = 80% NCI in Q = 20%

Share of Q in R = 75%

Share of Group in R = 80%*75% = 60%

NCI in R = 40%

II. Net Assets on acquisition at fair value (₹ in lakhs)

	Q	R	Total
PPE	600	400	1000
Inventory	80	60	140
Trade Receivables	120	180	300
Cash and Bank	50	60	110
Bills Receivables	70	50	120
Total Assets	920	750	1670
Trade Payables	300	170	470
Bills Payables	90	70	160
Total Liabilities	390	240	630
Net Assets at fair value	530	510	1040

III. NCI at FV.

NCI of R = [Consideration × (NCI share/Intermediate Parent Share)] = 300 × 40% / 75% = 160

NCI Q = [Consideration × (NCI share/Parent Share)] = 480 × 20% / 80% = 120

Less: Included in NCI of R (20% of 300)	60	60
Total NCI		220

IV. Goodwill/ Bargain Purchase

	(₹)
a. Net Assets	1040
b. Consideration	480
c. NCI	220
Gain on Bargain Purchase [a – (b + c)]	340

Journal in consolidated set of P Ltd.

		Dr. (₹)	Cr. (₹)
PPE	Dr.	1,000	480
Inventory	Dr.	140	470
Trade Receivables	Dr.	300	160
Bills Receivables	Dr.	120	220
Cash and Bank	Dr.	110	340
To, Consideration			
To, Trade Payables			
To, Bills Payables			
To, NCI			
To, Capital Reserve (Gain on Bargain Purchase)			

In separate set:

		Dr.	Cr.
Investment in shares of Q Ltd	Dr.	480	
To, Consideration			480

Question – 20 (Internal Reconstruction)

The following is the Balance Sheet as at 31st March, 2017 of Hopefull Ltd.

Liabilities	(₹)	Assets	(₹)
Share Capital:		Fixed Assets (including goodwill of ₹1,00,000)	11,80,000
8,500 Equity Shares of ₹100 each fully paid up	8,50,000	Investments	40,000
4,000 Cumulative Preference Shares of ₹ 100 each fully paid up	4,00,000	Stock in Trade	2,75,000
Securities Premium	20,000	Trade Debtors	1,50,000
General Reserve	60,000	Bank Balances	65,000
Trade Creditors	3,80,000		
	17,10,000		**17,10,000**

Contingent liability: Preference Dividends in arrears ₹ 60,000.

The Board of Directors of the company decided upon the following scheme of reconstructions, which was dulyapproved by all concerned and put into effect from 1st April, 2017.

The Preference Shares are to be converted into 12% unsecured debentures of ₹ 100 each with regard to 70% of the dues (inducing arrears of dividends) and for the balance Equity Shares of ₹ 50 paid up would

be issued. The authorized Capital of the company permitted the issue of additional shares.

(i) Equity Shares would be reduced to share of ₹ 50 each paid up.

(ii) Since goodwill has no value, the same is to be written of the fully.

(iii) The market value of investments are to be reflected at ₹60,000.

(iv) Obsolete items in Stock of ₹ 75,000 are to be written off. Bad Debts to the. extent of 5% of the tot debtorswould be provided for. Fixed assets to be written down by ₹ 1,80,000.

The company carried on trading, for six months upto 30th September 2017, and made a net profit of ₹1,00,000 after writing off depreciation at 25% p.a. on the revised value of fixed assets. The half yearly working resulted in an increase of Sundry Debtors by ₹80,000, stock by ₹70,000 and Cash by ₹ 50,000.

You are required to show the Journal

Answer :

Books of Hopeful Ltd.

Journal Dr. Cr.

Particulars		(₹)	(₹)
Cumulative Preference Share Capital A/c	Dr.	4.00.000	
Capital Reduction A/c	Dr.	60,000	
To, Cumulative Preference Shareholders A/c			4,60,000
(Being Cumulative preference shares and Preference Shareholders A/c)			
Cumulative Preference Shareholders A/c	Dr.	4,60,000	
To, 12% Unsecured Debentures A/c			3,22,000
To, Equity Share Capital A/c			1,18,000
(Being the issue of 12% Unsecured Debentures and 2,760 Equity Shares of ₹ 100 each issued as ₹ 50 paid up)			
Equity Share Capital A/c	Dr.	4,25,000	
To, Capital Reduction A/c			4,25,000
(Being the entry for reducing every share of ₹ 100 each as ₹ 50 fully paidup, 8,500 Equity shares)			
Investments A/c	Dr.	20,000	
Capital Reduction A/c (Balancing figure)	Dr.	3,42,500	
To, Goodwill A/c			1,00,000
To, Stock A/c			75,000
To, Fixed Assets A/c			1,80,000
To, Provision for Doubtful Debts A/c			7,500
(Being the change in value of assets)			
Capital Reduction A/c	Dr.	22,500	
To, Capital Reserve A/c			22,500
(Being transfer of Capital Reduction A/c balance to Capital Reserve)			

Balance Sheet of Hopeful Ltd. as at 30.09.2021

Particulars	Note No.	₹ (in Lakh)
I. Assets		
Non Current Assets		
PPE	3	7,87,500
Other Non Current Assets		60,000
2. Current Assets		6,07,500
Total		14,55,000
II. Equity and Liabilities		
1. Equity		
(a) Equity Share Capital	1	5,63,000
(b) Other Equity	2	2,02,500
2. Non Current Liabilities		
12% Unsecured Debenture		3,22,000
Current Liabilities		3,67,500
Total		14,55,000

Note - 1:	Equity Share Capital As on 30th September 2021		(₹)	(₹)
	Authorized, issued subscribed and paid up capital 11,260 equity shares of ₹50 each			5,63,000
Note - 2:	Other Equity As on 30th September 20121			
	Securities Premium			20,000
	Capital Reserve			22,500
	General Reserve			60,000
	Profit and Loss A/c			1,00,000
	Total			2,02,500
Note - 3:	PPE As on 30th September 2021			
	PPE		9,00,000	
	Less: Depreciation		1,12,500	7,87,500
Note - 4:	Current Assets As on 30th September 2021			
	Stock in trade	(2,75,000-75,000 + 70,000)		2,70,000
	Trade Receivables		2,300,00	
	Less: Provision for doubtful debt		7,500	2,22,500
	Cash and Bank Balance			1,15,000
Total				**6,07,500**

Question 1

Company P Ltd. (a listed company) invests in shares of company Q Ltd. on 01.04.2020 at a cost of ₹66,000, paid by cash. During the financial year 2020-2021, Q made profits of ₹20000 and other comprehensive income of ₹10,000. The following alternative scenarios are presented:

I. Investment entails 25% voting power and significant influence over Q.

II. P does have joint control of Q, a joint venture.

III. Investment entails significant influence over Q, which is a Joint Venture and P does not have joint control of Q.

IV. P does not have significant influence over Q.

V. P does not have joint control of or significant influence over Q, which is a joint venture. For each of the cases I, II , III, IV and V:

(a) State whether for the investment in shares of Q, P requires preparation of consolidated financial state mantesand separate financial statements.

(b) Pass the journal entries in books of P at the time of purchase of shares.

(c) Show the relevant accounting treatment at the end of the year for

(i) consolidated financial statements,

(ii) separate financial statements and

(iii) Individual financial statements of P.

Solution:

(a) In cases I, II and III, P Ltd. requires preparation of consolidated financial statements for its investment in QLtd.

In case I, Q is an Associate because P has significant influence in Q by virtue of its 25% voting power. In caseII, Q is a joint venture in which P has joint control.

In case III, Q is a joint venture in which P does not have joint control, but has significant influence. For eachof the above cases, Ind AS 28 requires that accounting for investment in associate or in joint venture (having joint control or significant influence) should be made under equity method in the consolidated financial statement.

Ind AS 28 also requires P the investor company to prepare separate financial statement as per Ind AS 27. For cases IV and V, P requires preparation of Individual financial statements.

(b) Journal Entry on 01.04.2020 for cases I, II and III for both Consolidated and separate financial statements:

Particulars		Dr. (₹)	Cr. (₹)
Investment A/c	Dr.	66,000	
To, Cash A/c			66,000

Journal Entry for cases IV and V: As per Ind AS 109 for Individual financial statements. At initial measurement:

Particulars		Dr. (₹)	Cr. (₹)
Investment A/c	Dr.	66,000	
To, Cash A/c			66,000

(c) Journal Entry on 31-03-2018 for cases I, II and III:

There will be two sets of accounting at the end the year, one

(i) for consolidated accounts and the other

(ii) for separate financial statements.

(iii) For consolidated accounts Ind AS 28 requires the recognition of investment by equity method.

Particulars	Dr. (₹)	Cr. (₹)
Investment A/c	7,500	
To Profit and Loss A/c		5,000
To Other Comprehensive Income A/c		2,500

Working Note: Change in investee's Net Assets = ₹20,000 +₹10,000 = ₹30,000; Share of P = 25% of ₹30,000 = ₹7,500.

Investor's Profit or loss includes 25% of ₹20,000 = ₹5,000 and other comprehensive income includes 25% of ₹10,000 = ₹2,500.

(iv) At the yearend for the separate financial statements of P, Investment is valued at cost at ₹ 66,000 or at a value as per Ind AS 109.

(d) Note: There will be no individual financial statement of P for cases I, II and III.

(e) For cases IV and V: Investment shall be valued as per Ind AS 109 in Individual financial statements. There will be no consolidated and no separate financial statement .

Dividend received from subsidiary companies

Question 2

CAAS Ltd. purchased 80% shares of NRC Ltd. on 1st April, 2019 for Rs.1,40,000. The issued capital of NRC Ltd., on 1st April, 2019 was Rs.1,00,000 and the balance in the statement of Profit & Loss was Rs.60,000.

For the year ending on 31st March, 2020, NRC Ltd. has earned a profit of Rs.20,000 and later on, itdeclared and paid a dividend of Rs.30,000 for the last year.

Dividend was credited to PL Account by NRC Ltd

Limited Pass entries:

Solution

CAAS Ltd.'s share of dividend = Rs.30,000 × 80% = Rs.24,000Dividend wrongly credited to P & L AccountShould have been credited to Investment a/c (Consideration)

Rectification Entry :

P/L a/c Dr. 24,000

To, Investment A/c 24,000

Question 3

Suppose in the above case if dividend would have been correctly recorded.

Solution:

There would be no need to pass the rectification entry

Elimination of intra-group profit on sale of assets by a subsidiary to its parent

Question 4

A parent owns 60% of a subsidiary. The subsidiary sells some inventory to the parent for Rs.35,000 and makes a profit of Rs.15,000 on the sale. The inventory is in the parent's balance sheet at the year end.

Solution

It is an upstream transaction . 100% of the unrealized profit shall be eliminated from Inventories in CFS on consolidation. The inventory will, therefore, be carried in the group's balance sheet at Rs.20,000 (Rs.35,000 - Rs.15,000).

Also , 60% of URP shall be subtracted from Consolidated P/L and40% of URP shall be subtracted from NCI balance

The double entry on consolidation is as follows:

		Rs. '000	Rs. '000
Revenue	Dr	35	
To Cost of sales			20
To Inventory			15

Question 5

In the above illustration, assume that it is the parent that makes the sale. The parent owns 60% of a subsidiary. The parent sells some inventory to the subsidiary forRs.35,000 and makes a profit of Rs.15,000. On the sale the inventory is in the subsidiary's balance sheet at the year end.

Solution

It is a downstream transaction . 100% of the unrealized profit shall be eliminated from Inventories in CFS on consolidation. The inventory will, therefore, be carried in the group's balance sheet at Rs.20,000 (Rs.35,000 - Rs.15,000).

Also , 100% of URP shall be subtracted from Consolidated P/L .

The double entry on consolidation is follows:		Rs. '000	Rs. '000
Revenue A/c	Dr	35	
To Cost of sales A/c			20
To Inventory A/c			15

Question 6

A Ltd, a parent company sold goods costing Rs.200 lakh to its 80% subsidiary B Ltd. at Rs.240 lakh.50% of these goods are lying at its stock. B Ltd. has measured this inventory at cost i.e. at Rs.240 lakh. Show the necessary adjustment in the consolidated financial statements (CFS). Assume 30% tax rate.

Solution

Parent sells 200 lakhs worth of inventory to Subsidiary at 240 lakhs. So Profit margin on sales is 40/240Out of 240 lakhs worth of inventory, 50% that is 120 lakhs is still in stock of Subsidiary. URP shall be 120 x 40 / 240 = 20 lakhs.

It is a downstream transaction . 100% of the unrealized profit shall be eliminated from Inventories in CFS on consolidation.Also, 100% of URP shall be subtracted from Consolidated P/L.

Question 7

R-5 Ltd., a parent company purchased goods costing Rs.100 lakh from its 80% subsidiary S-5 Ltd. atRs.120 lakh. 50% of these goods are lying at the go down. R-5 Ltd. has measured this

inventory at cost i.e. at Rs.60 lakh. Show the necessary adjustment in the consolidated financial statements (CFS).

Solution

It is an upstream transaction. Goods sold by S5 = Rs. 120 lakhsCost is 100Lakhs.

Therefore, Margin on Sales = 20/120

50% of 120 lakhs is still in stock = 60 lakhs

URP = 60 lakhs x 20/120 = 10 lakhs

100% of the unrealized profit shall be eliminated from Inventories in CFS on consolidation.

Also, 80% of URP shall be subtracted from Consolidated P/L and

20% of URP shall be subtracted from NCI balance

Question 8

Company P Ltd. (a listed company) acquires 60% shares in company Q Ltd. on 01.04.17 at a cost of (₹ in Lakhs) 138, paid by issue of shares of ₹ 10 at par. The abstract of balance sheets of Q (along with fair values at theacquisition date) and P at the beginning and at the end of the year are as follows:

(₹ in Lakhs)

Particulars	Q Ltd.			P Ltd.	
	1-4-2021 Book Value	1-4-2021 Fair Value	31-3-2022 Book Value	1-4-2021	31-3-2022
PPE	175	200	190	276	300
Investment in Q				138	138
Other Non-current Financial Assets	80	60	70	100	120
Inventories	45	48	50	68	80
Total assets	300		310	582	638
Equity Share Capital	130		130	338	338
Other Equity	80		90	120	150
Borrowings	60	60	64	80	100
Trade Payables	30	28	26	44	50
Total of Equity and Liabilities	300		310	582	638

Prepare consolidated balance sheet of P Ltd on 31.3.2022 based on Ind AS 110.

Solution:

Abstract of Consolidated balance sheet of P Ltd. and its subsidiary Q Ltd. as at 31.3.22

(₹in Lakhs)

Particulars	Working	(₹)
Assets:		
PPE	300+215	515
Goodwill		10
Financial Assets	120+50	170
Inventories	80+50	130
Total Assets		**825**
Equity and Liabilities :		
Equity Share Capital		338
Other Equity		153
NCI		94
Liabilities:		
Borrowings	100+64	164
Trade Payables	50+26	76
Total of Equity and Liabilities		**825**

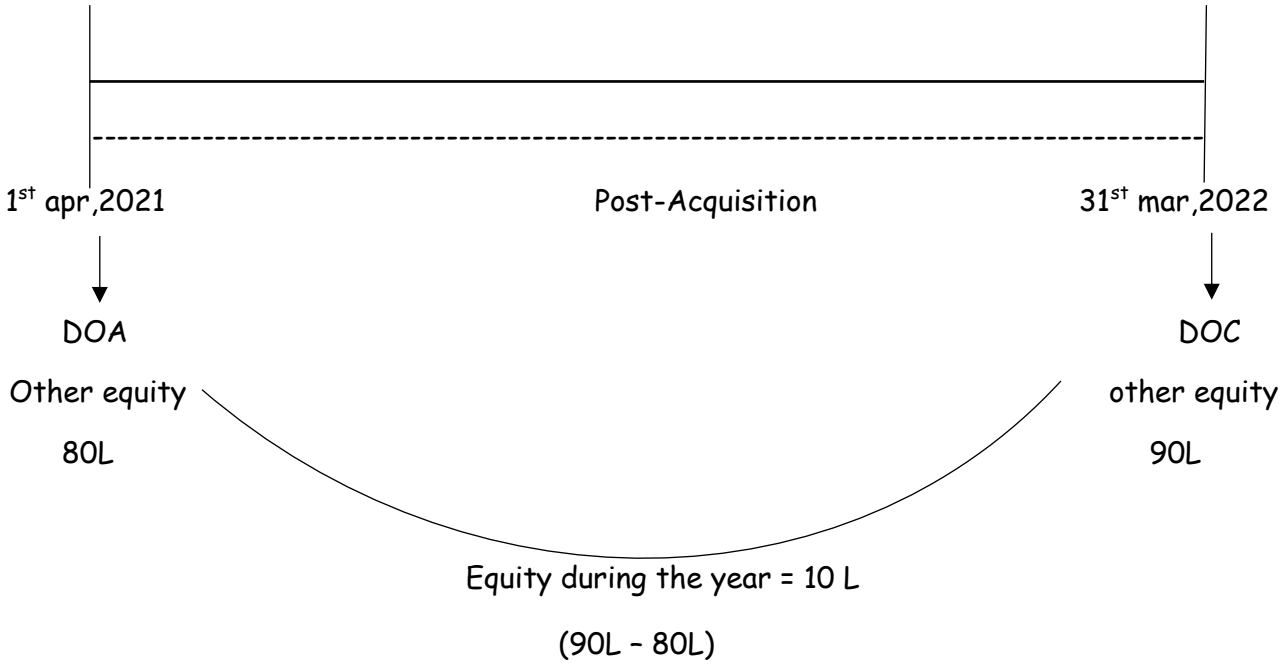
Solution:

Acquired 60% shares

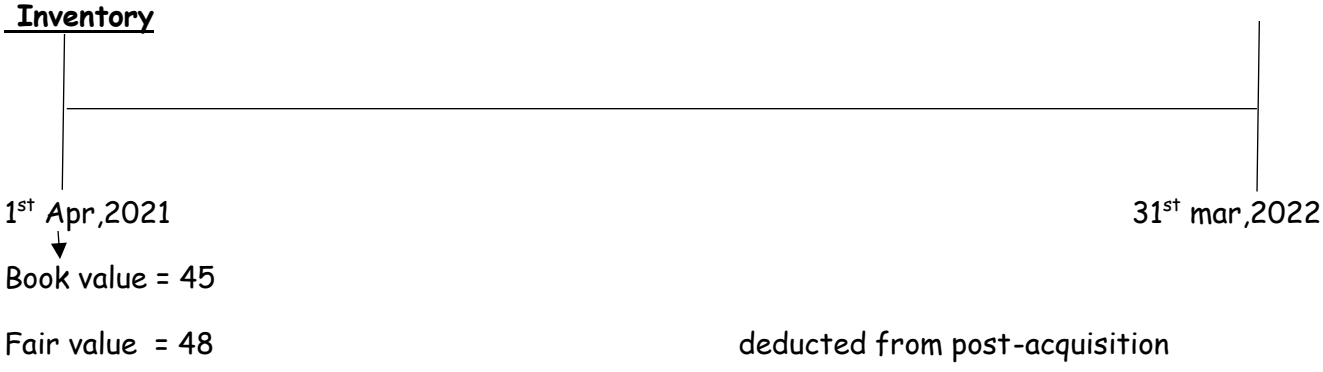
P Ltd. ——————————————— Q Ltd

PC = 138 lakhs (normal value)

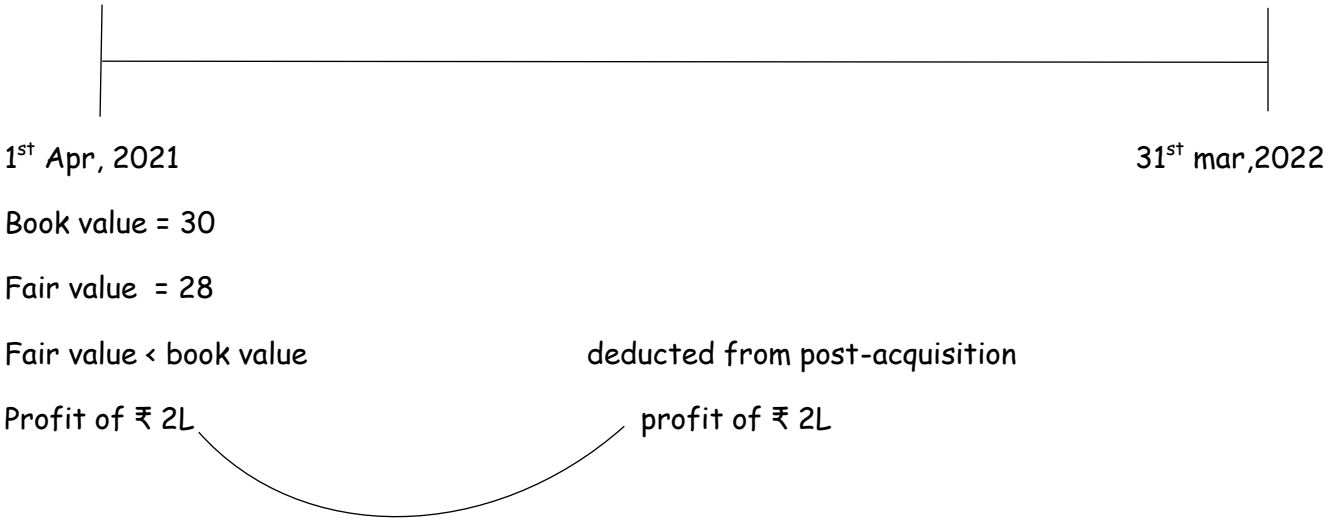
NCI = 40%



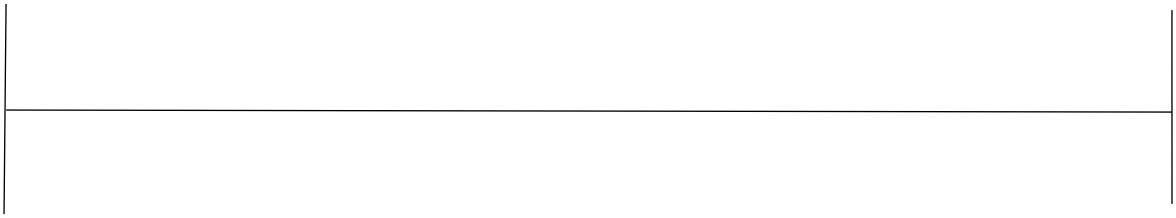
Inventory



Trade payables



PPE



1st Apr,2021 31st mar,2022

Book value = 175

Fair value = 200

Fair value > book value

Profit of ₹ 25L

Added to Pre-acquisition Profit	Added to PPE as at 31st mar, 2022 in consolidated B.S

Other non – current financial asset

1st Apr 2021 31st mar, 2022

Books value = 80L

Fair value = 60L

Fair value < book value

Loss of ₹ 20L

Deducted from Pre-acquisition Profit of ₹ 20L	Deducted from other non- current financial asset of ₹ 20L In consolidated B.S

WN-1: - calculation of fair value of net assets of Q ltd as on 1st Apr, 2021

PPE	200
Other non-current financial assets	60
Inventories	48
Total assets	**308**
Less; -	
Borrowing	(60)
Trade payables	(28)
Net assets at fair value	**220**

WN-2: - calculation of NCI of fair value

NCI $= \frac{138L}{60\%} \times 40\%$

$= 92L$

WN-3: - calculation of goodwill (or) gain on bargain

Purchase consideration (60%)	138L
(+) NCI (40%)	92L
(-) Net assets at fair value (100%)	(220L)
Good will	**10L**

WN-4:- calculation of post-acquisition profit of Q Ltd

Other equity during the year	10 L
Less;- increase in fair value of inventory as on 1st Apr,2021	(3L)
Less;- decrease in trade payables as on 1st Apr, 2021	(2L)
Post-acquisition period profit of Q Ltd	**5L**
Parent CO. share (5L x 60%)	3L
NCI share (5Lx40%)	2L

WN-5:- calculation of other equity of p ltd as at 31st mar, 2022

Other equity of p ltd in B.S	150L
(+)parent CO. share in Q ltd	3L
Total other equity.	**153L**

WN-6:- calculation of NCI as on 31st mar, 2022,

NCI as on 1st Apr,2021	92L
(+) NCI share of profit in Q ltd	2L
NCI as on 31st mar,2022	**94L**

Consolidated balance sheet of p ltd as on 31st mar,2022	
I ASSETS	
PPE (300 + 190 +25)	515
Goodwill (NN-3)	10
Other non-current financial asset (120+70-20)	170
Inventory (80+50)	130
	825
II EQUITY & LIABILITIES	
Equity share capital	338
Other equity (NN) -5)	153
NCI (WN – 6)	94
Liabilities	
Borrowings (100+64)	164
Trade payables (50+26)	76
	825

Illustration 9

Company P Ltd. (P) acquires 80% shares of company S Ltd. (S) on 1.10.2020 by issue of equity shares at total Fair Value of ₹440 Lakhs, total paid up value ₹100 Lakhs. Non-Controlling Interest (NCI) should be measured at proportionate Net Assets. The total comprehensive income of P and S in the year ending on 31.3.2021 amounted to ₹120 Lakhs and ₹140 Lakhs respectively. The extracts from balance sheets at book values and at fair values at the date of acquisition and at 31.03.2021 are stated below.

(₹in Lakhs)

Particulars	On 1.10.2020			On 31.3.2021	
	P	S	FV of S	P	S
PPE	680	440	700	720	500
Investment in Shares of Q				440	
Current Assets	420	360	320	500	400
Total Assets	1,100	800		1,660	900
Current Liability	300	200	200	340	220
Noncurrent Liability	300	300	300	320	310
Total Liabilities	600	500		660	530
Net assets at Fair Value			520		

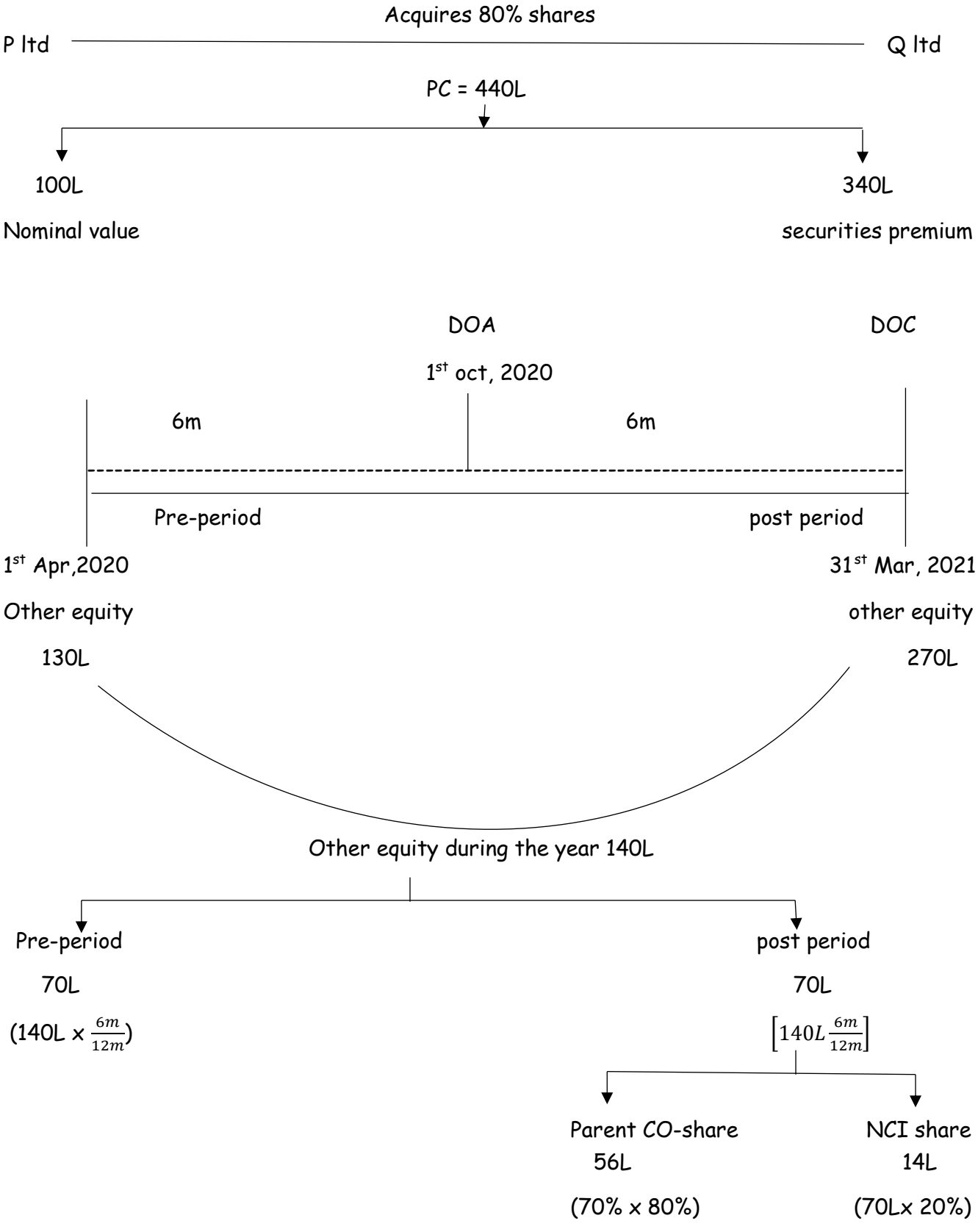
Equity structure of the companies:

(₹ in Lakhs)

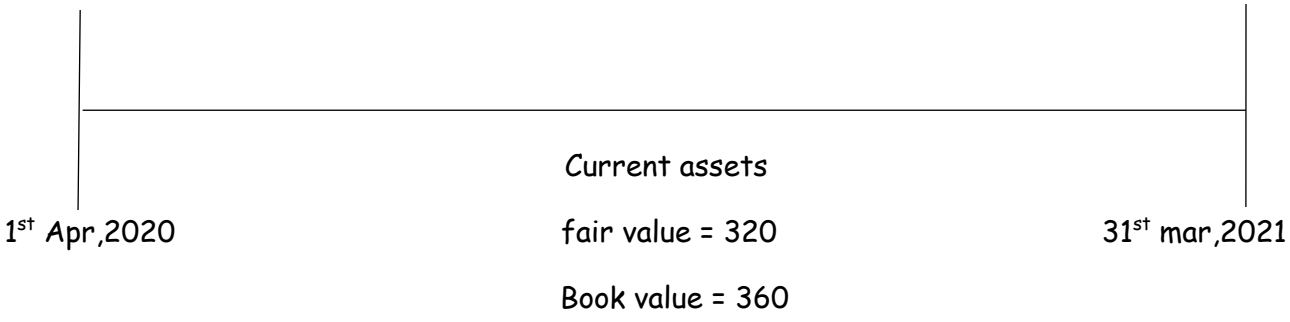
	P Ltd.		S Ltd.	
	On 01.04.2020	On 31.03.2021	On 01.04.2020	On 31.03.2021
Equity Share Capital	200	300	100	100
Other Equity	240	700	130	270

Prepare CBS on 01.10.2020 and on 31.03.2021.

Solution:


Acquires 80% shares
P ltd
Q ltd
PC = 440L
100L
Nominal value
340L
securities premium
DOA
1st oct, 2020
DOC
6m
6m
Pre-period
post period
1st Apr,2020
Other equity
130L
31st Mar, 2021
other equity
270L
Other equity during the year 140L
Pre-period
70L
(140L x 6m/12m)
post period
70L
[140L 6m/12m]
Parent CO-share
56L
(70% x 80%)
NCI share
14L
(70Lx 20%)

Current asset

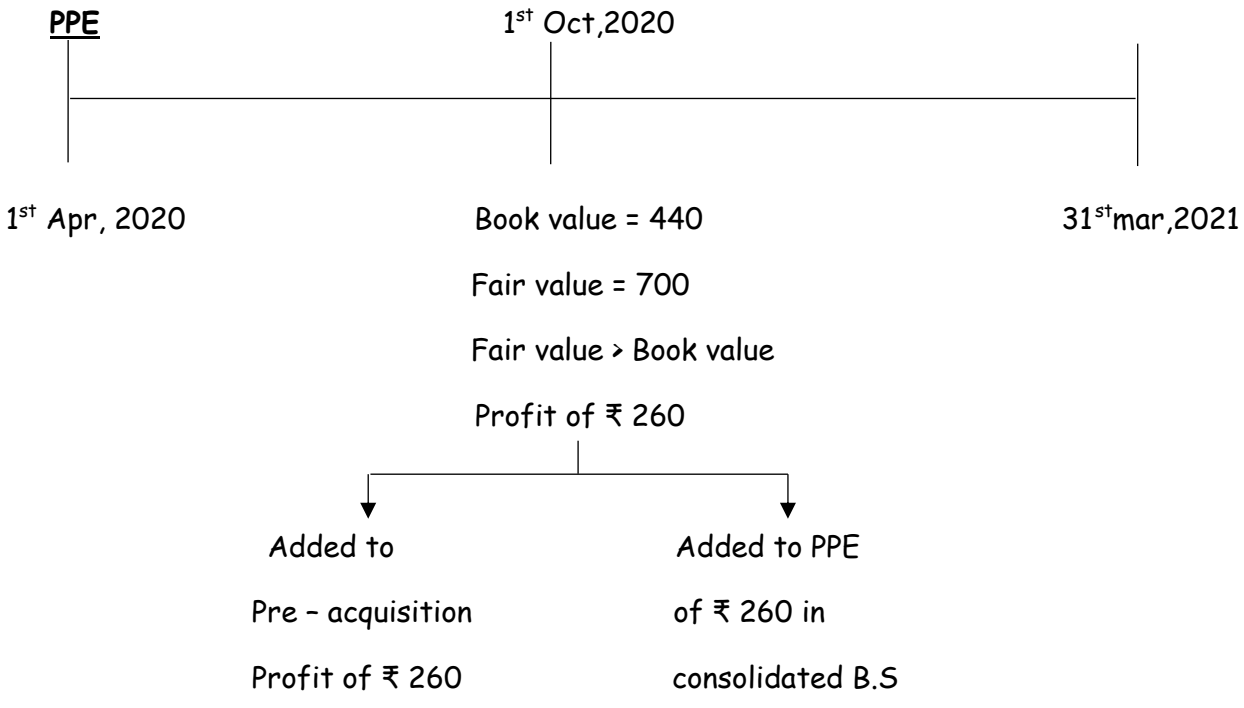


Fair value < book value

Loss of ₹ 40L added to post acquisition profit

Parent CO. share	NCI share
32L	8L
(40Lx80%)	(40L x 20%)

PPE



Fair value > Book value

Profit of ₹ 260

Added to Pre – acquisition Profit of ₹ 260	Added to PPE of ₹ 260 in consolidated B.S

WN-1: - calculation of fair value of not assets of Q ltd as on 1st Oct, 2020.

	(₹ in lakhs)
PPE	700
Current assets	320
Total	**1020**
Less;- current liabilities	(200)
Non- current liabilities	(300)
Net assets at fair value	**520**

WN-2: - calculation of NCI as on 1st Oct, 2020 (proportionate net assets method)

(₹ in lakhs)

NCI = net assets x NCI %
= 520 x 20%
= 104

WN-3: - calculation of good will or gain on bargain

	₹ in lakhs
Purchase consideration	440
Add; NCI	104
Less; Net assets at fair value Good will	(520)
	24

WN-4: - calculation of other equity of P ltd as on 31st mar, 2021

Other equity of P ltd in B.S on 31st mar, 2021	700
P ltd share in S ltd post-acquisition profits (56+32)	88
	788

WN-5:- calculation of NCI as at 31st Mar, 2021 (₹ in lakhs)

NCI as on 1st Oct, 2021	104
Add;-NCI share in S ltd post-acquisition Profit (14L +8L)	22
	126

Consolidated balance sheet of P ltd as on 1st Oct,2020	
I ASSETS	
PPE (680+700)	1380
Goodwill	24
Current assets (420+320)	740
Total	**2144**
II EQUITY & LIABILITIES	
Equity share capital (200+100)	300
Other equity (240 + 340 + 60)	640
NCI (WN – 2)	104
Non-current liabilities (300 + 300)	600
Current liabilities (300 + 200)	500
Total	**2144**

Consolidated balance sheet of P ltd as on 31st Mar,2021	
	(₹ in lakhs)
I ASSETS	
PPE (720 + 500 + 260)	1480
Goodwill	24
Current assets (500 + 400 – 40 +40)	900
Total	**2404**
II EQUITY & LIABILITIES	
Equity share capital	300
Other equity (WN – 4)	788
NCI (WN – 5)	126
Non-current liabilities (320 + 310)	630
Current liabilities (340 + 220)	560
	2404

Illustration 10

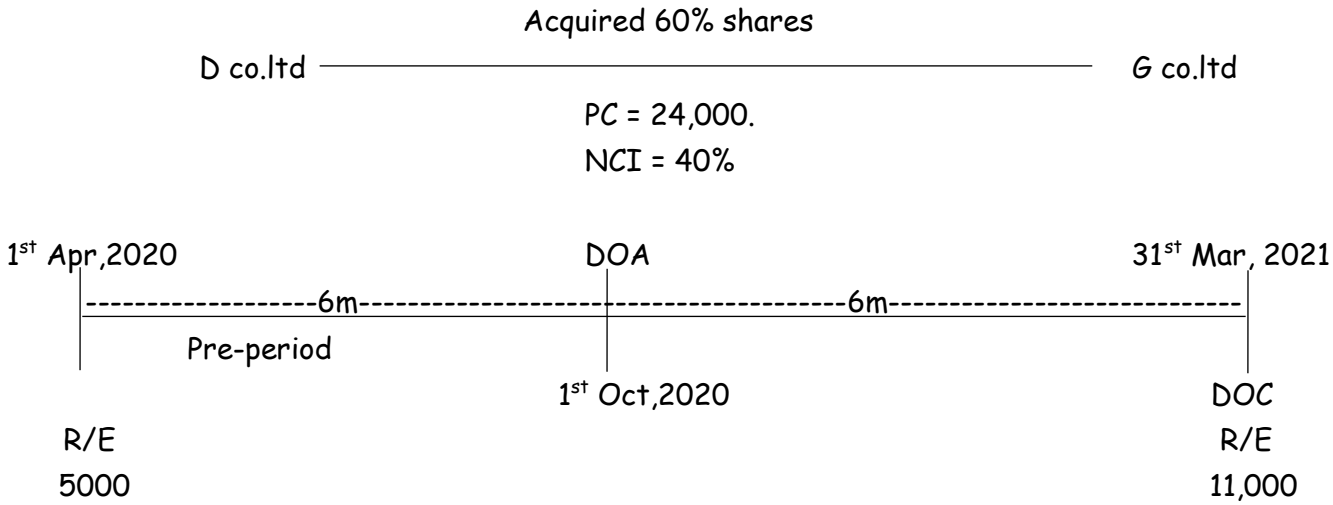
D Co. Ltd acquired 60% shares of G Co. Ltd. on 1st October 2020. The Retained Earnings balance of G on 01.04.2020 was ₹ 5,000. G declared dividend for 2020-2021 ₹ 6,000 (accounted in books of G but not accounted in books of D).

The abstracts from balance sheets of D and G as at 31.03.2021 are: (Amount in ₹)

Particulars	D		G	
PPE		60,000		30,000
Investments: Shares in G		24,000		
Current Assets		20,000		16,000
Total Assets		1,04,000		46,000
Equity Shares		50,000		25,000
Other Equity (Retained Earnings)		25,000		11,000
Current Liabilities		29,000		10,000
Total of Equity and Liabilities		1,04,000		46,000

Required: Separate and Consolidated Balance sheet as at 31.03.2021

Solution:



Retained earnings Earning during	= 6000
The year (11000 – 5000)	
Add;- Divided declared by	= 6000
G co. ltd during the year	
Total profit during the year.	12,000

Pre-period
6000
$(12000 \times \frac{6m}{12m})$

post period
6000
$\left(12{,}000 \times \frac{6m}{12m}\right)$

Parent Co. share	NCI share
3,600	2,400
(6000 x 60%)	(6000x40%)

Total pre – acquisition profit (5000 + 6000) = 11,000

Post-acquisition profits = 6,000

Parent Co. share 3,600

NCI share 2,400

WN-1: - calculation of fair value of net assets of G co. ltd as on 1st Oct,2020

Equity share capital	25,000
Add;- pre – acquisition retained earning	11,000
Fair value of net assets	36,000

WN-2: - calculation of NCI as on 1st Oct,2020

Purchase consideration (60%)	= 24,000
NCI (40%) $\left[\frac{24,000}{60\%} \times 40\%\right]$	= 16,000

WN-3: - calculation of goodwill or gain on bargain

Purchase consideration	= 24,000
Add;- NCI	= 16,000
Less;- fair value of net assets	(36,000)
Goodwill	4,000

WN-4: - calculation of other equity of D co. ltd as on 31st Mar,2021

Other equity of D co. ltd	25,000
Add;- parent Co. share in retained Earning of G Co. ltd	3,600
Total other equity	28,600

In separate FS

Other equity of D Co. ltd	25,000
Add;- post acquisition period dividend Declared by G co ltd $\left\{(6000 \times 60\%) \times \frac{6m}{12m}\right\}$	1,800
Total	26,800

WN-5: - calculation of NCI as on 31st Mar,2021

NCI as on 1st Oct,2020	16,000
Add;- NCI share in retained earnings of G co. ltd	2,400
Less;- NCI share of dividend declared by G co. ltd (600 x 40%)	(2,400)
Total NCI	16,000

Consolidated balance sheet and separate balance sheet of D co. ltd as at 31st Mar,2021		
Particulars	**separates**	**consolidation**
I ASSETS		
PPE	60,000	90,000
Investment (24,000 – 1800)	22,200	
Goodwill (WN- 3)		4,000
Current assets	23,600	36,000
Total	1,05,800	1,30,000
II EQUITY & LIABILITIES		
Equity share capital	50,000	50,000
Other equity (WN – 4)	26,800	28,600
NCI		16,000
Current liabilities	29,000	35,400
	1,05,800	**1,30,000**

- Pre – acquisition period dividend should be deduction from cost
  Pre-acquisition dividend 1800
  $\left\{(6000 \times 60\%) \times \frac{6m}{12m}\right\}$
- Current liabilities in consolidated B.S = 35,400
  [(29,000 + (10,000 – 3,600)]
- Current asset in separate B.S is
  20,000 + 3,600 of dividend

Illustration 11

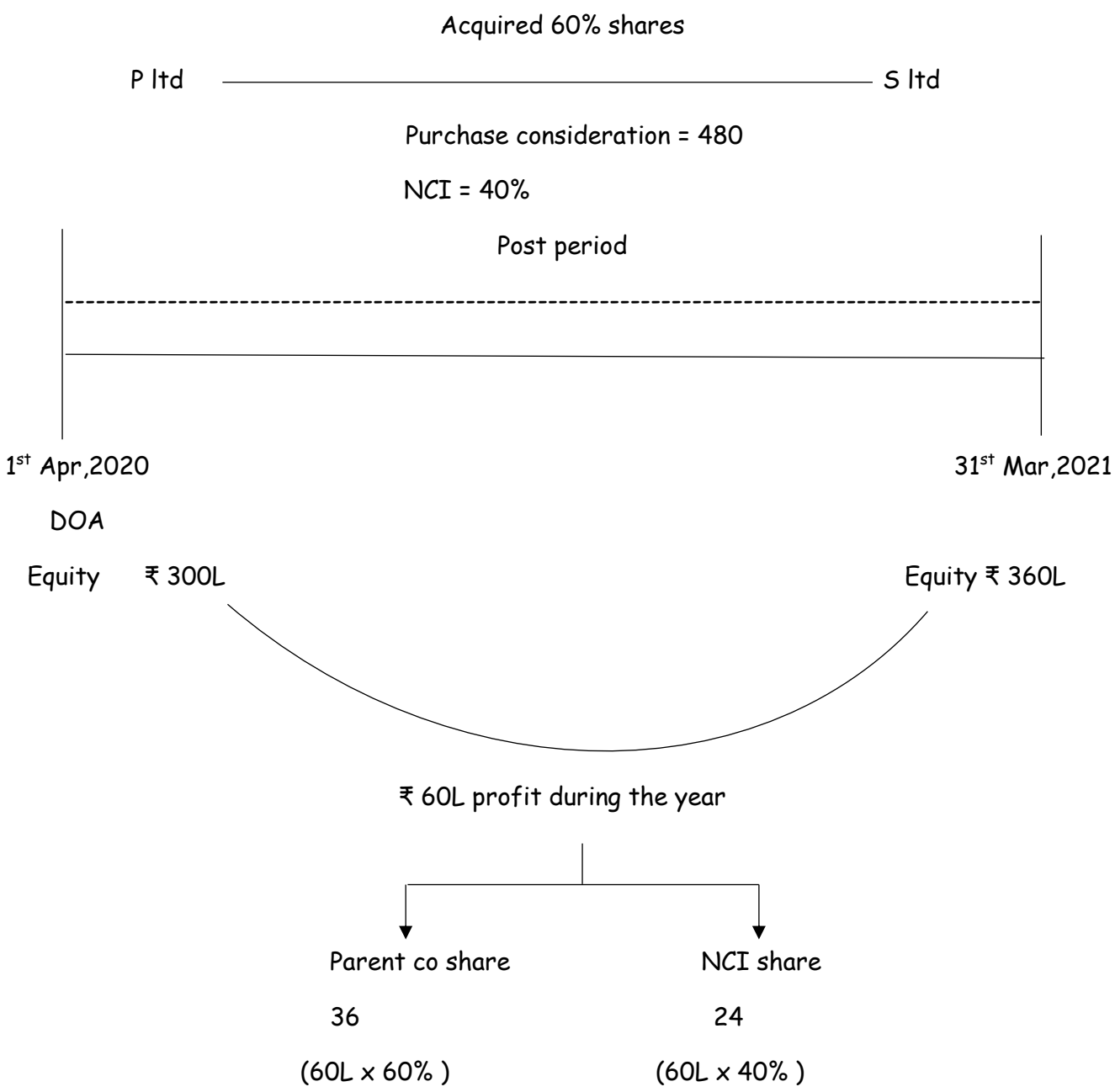
The financial data of the companies P and S at 31.03.2020 and at 31.03.2021 are stated below.

(₹ in Lakhs)

Particulars	On 31.03.2020		On 31-3-2021	
	S (Individual B/S) (₹)	Fair Value of S (₹)	P (Separate B/S) (₹)	S (Individual B/S) (₹)
PPE	480	700	750	500
Investment in S (60% shares acquiredon 01.04.2020 by issue of Equity)			480	
CA	350	300	540	400
			1,770	900
Equity	300		1,070	360
Non-current Liability	300	310	360	330
Current Liability	230	200	340	210
			1,770	900

Prepare Consolidated Balance Sheet.

Solution:



Note :- It is assumed that no fresh issue of shares made during the year.

PPE

1st Apr,2020 31st Mar,2021

Book value = 480

Fair value = 700

Fair value > book value

Profit of ₹ 220

Added to Pre-acquisition Profit

added to PPE of ₹ 220 while preparation of consolidated B.S.

Current assets

1st Apr,2021 31st Mar,2022

Book value = 350

Fair value = 300

Fair value < book value loss of ₹50L

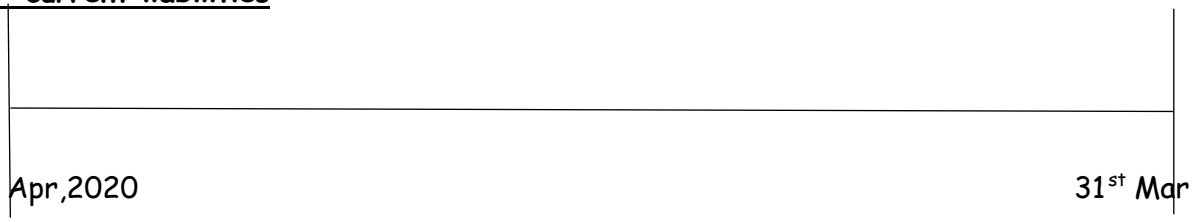
Added to post acquisition profit pf ₹50L

Parent co. 30

NCI 20

Note ;- It is assumed that current assets is fully inventory & it is sold in the current year.

Non – current liabilities



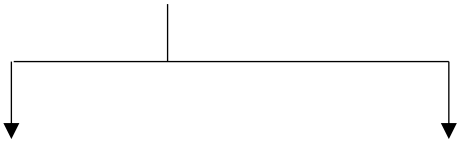
1st Apr,2020 31st Mar,202

Fair value = ₹ 310L

Book value = ₹ 300L

Fair value > book value

Loss of ₹ 10L



Deduct ₹ 10L from Pre – acquisition Profit

deduct ₹ 10L from non-current liabilities in consolidated B.S

Current liabilities

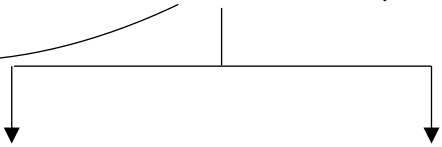
1st Apr,2020 31st Mar,2021

Fair value = ₹ 200L

Book value = ₹ 230L

Fair value < book value profit of ₹ 30L

deduct ₹ 30L from post-acquisition profit



Parent co. NCI

18 12

WN-1: - calculation of net assets of S ltd as on 1st Apr,2020

	PPE	700
	CA	300
	Total assets	1,000
Less;-	Non -current liabilities	(310)
	Current liabilities	(200)
	Net assets at fair value	490

WN-2: - calculation of NCI as on 1st Apr,2021

Purchase consideration (60%)	= 480
NCI (40%)	= 320

Note ;- NCI can be calculated in proportionate share method also then the value of NCI is 196

(490 x 40%)

WN-3: - calculation of goodwill (or) gain on bargain

	purchase consideration	480
Add;-	NCI	320
Less;-	Net – assets at fair value	(490)
	Goodwill	310

WN-4: - calculation of consolidated equity of P ltd as on 31st Mar,2021

	Equity of P ltd in B.S	1070
Add;-	parent co. share in other equity of S ltd (36 + 30 – 18)	48
	Total other equity	1,118

WN-5: - calculation of NCI as at 31st Mar,2021

	NCI as on 1st Apr,2020	320
Add;-	NCI share in post-acquisition	32
	Profit of S ltd (24+20-12)	
	Total NCI as at 31st Mar,2021	352

Consolidated balance sheet of P ltd as of 31st mar,2021	
I ASSETS	
PPE (750 + 500 + 220)	1470
Goodwill	310
Current assets (540 + 400)	940
	2,720
II EQUITY & LIABILITIES	
Equity share capital	1,118
NCI	352
Non – current liabilities (360 + 330 + 10)	700
Current liabilities (340 + 210)	550
	2,720

Illustration 12

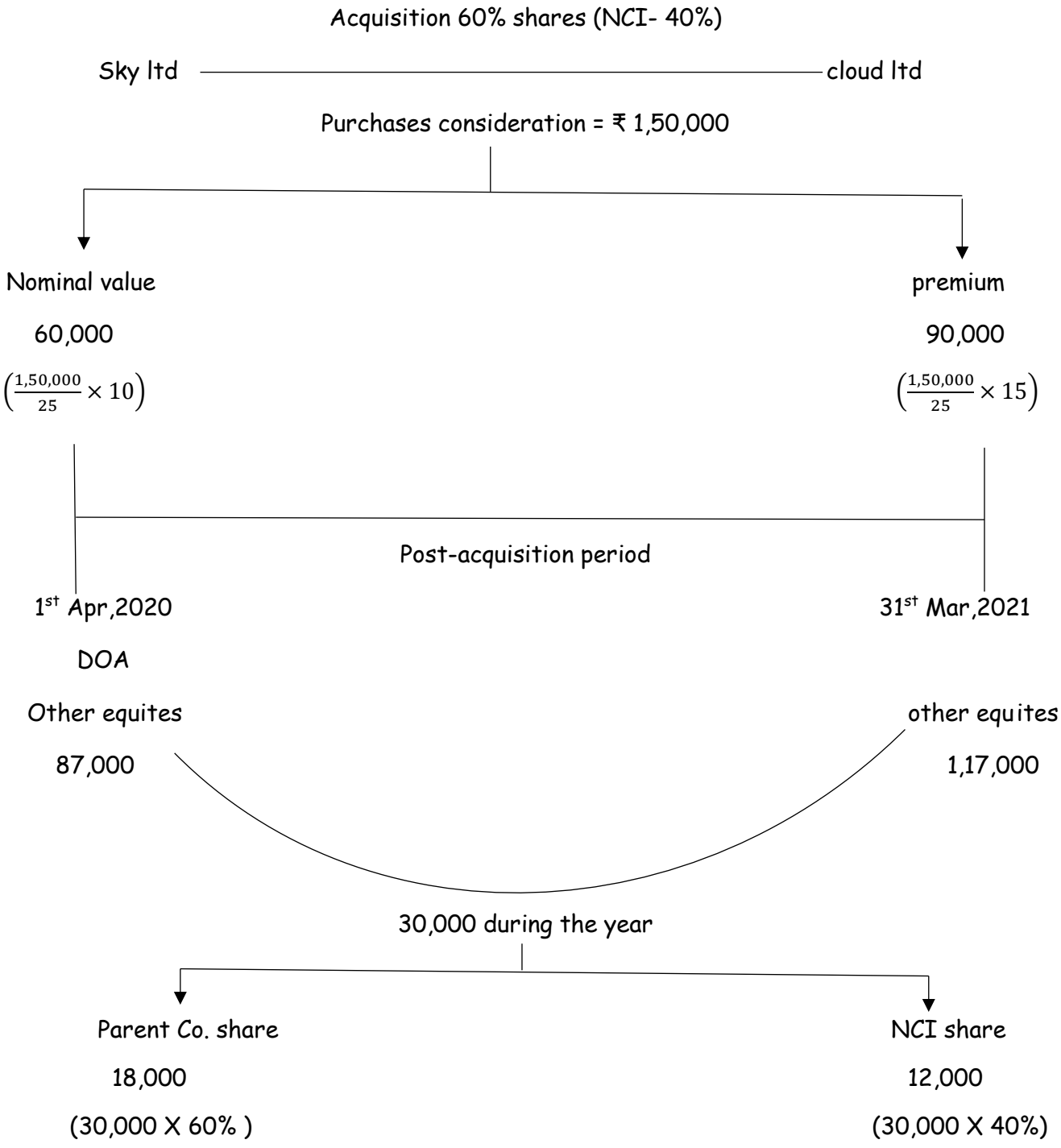
Company Sky Ltd. (a listed company) acquires 60% shares in company Cloud Ltd. on 01.04.2020 at a cost of ₹1,50,000, paid by issue of shares of ₹ 10 (Market Price ₹ 25). The abstract of balance sheets of Cloud (along withfair values at the acquisition date) and Sky at the end of the year 2019-2020 and 2020- 2021 are as follows:

Particulars	Cloud (₹Lakhs)			Sky (₹Lakhs)	
	31.03.2020 Book Value	31.03.2020 Fair Value	31.03.2021 Book Value	31.03.2020	31.03.2021
PPE	1,94,000	2,10,000	2,06,000	2,80,000	3,00,000
Investment in Q					1,50,000
Inventories	45,000	54,000	58,000	74,000	80,000
Financial Assets	88,000	50,000	98,000	1,00,000	1,20,000
Total Assets	**3,27,000**		**3,62,000**	**4,54,000**	**6,50,000**
Equity Share Capital	1,50,000		1,50,000	2,00,000	2,60,000
Other Equity	87,000		1,17,000	1,20,000	2,40,000
Borrowings	60,000	60,000	64,000	90,000	1,00,000
Trade Payables	30,000	25,000	31,000	44,000	50,000
Total	**3,27,000**		**3,62,000**	**4,54,000**	**6,50,000**

(a) Pass journal entries in consolidated accounts of P and show consolidated balance sheet on 1.04.2020 basedon Ind AS 103 and Ind AS 110 and separate balance sheet of P on 1.04.2020 based on Ind AS 27.

(b) Prepare consolidated balance sheet of P on 31.03.2021 based on Ind AS 110.

Solution:



PPE

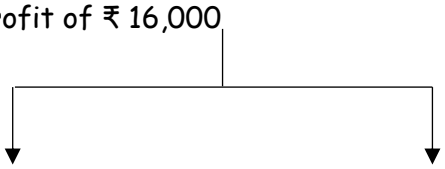
1st Apr,2020 31st Mar,20221

Fair value = 1,94,000

Book value = 2,10,000

Fair value > book value

Profit of ₹ 16,000



Added to Pre – acquisition Profit of ₹ 16,000.

added to PPE of ₹ 16,000 in consolidated. B.S

Financial Asset

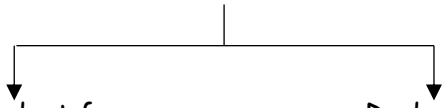
1st Apr,2020 31st Mar,2021

Fair value = 50,000

Book value = 88,000

Fair value < book value

Loss of ₹ 38,000



Deduct from pre-acquisition profit

Deduct from financial assets in consolidated B.S.

- It is assumed that financial asset is non – current asset

Inventories

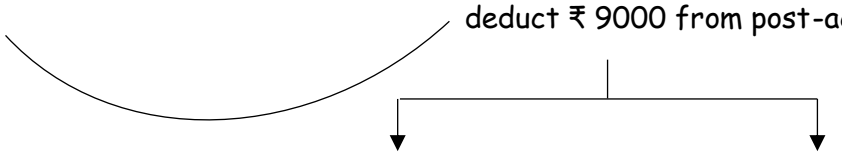
1st Apr,2020 31st Mar,2021

Fair value = 54,000

Book value = 45,000

Fair value > Book value

Profit of ₹ 9,000 deduct ₹ 9000 from post-acquisition profit



Parent co.5,400 NCI 3,600

- It is assumed that inventory is sold during the year

Trade payables

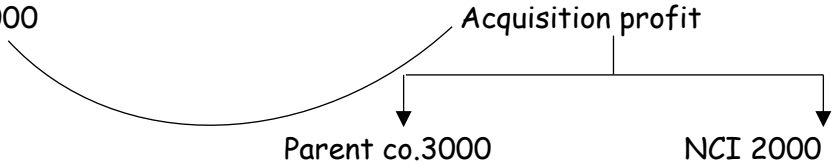
1st Apr,2020 31st Mar,2021

Fair value = 25,000

Book value = 30,000

Fair value < book vale

Profit of ₹ 5000 Deduct ₹ 5000 from post Acquisition profit



Parent co.3000 NCI 2000

- It is assumed that trade payables discharged during the year

WN-1: - calculation of fair value of net assets of cloud ltd as on 1st Apr,2020

PPE	2,10,000
Inventories	54,000
Financial assets	50,000
Total assets	3,14,000
Less;- borrowings	(60,000)
Trade payables	(25,000)
Net assets at fair value	2,29,000

WN-2: - calculation of NCI as on 1st Apr,2020 (fair value method)

Purchase consideration (60%) = 1,50,000

NCI = 1,00,000

$\left(\frac{1,50,000}{60\%} \times 40\%\right)$

WN-3: - calculation of goodwill or gain on bargain

Purchase consideration	= 1,50,000
Add;- NCI	= 1,00,000
Less;- Net assets at fair value	= (2,29,000)
Goodwill	21,000

WN-4: - calculation of other equity of sky ltd as at 31st Mar,2021

Other equity of sky ltd in B.S	2,40,000
Add;- parent Co. share in post-acquisition profits (18,000 – 5,400 -3,000)	9,600
Other equity as at 31st Mar,2021	2,49,600

WN-5: - calculation of NCI as at 31st Mar, 2021

NCI as at 1st Apr,2020	1,00,000
Add;- NCI share in post-acquisition Profit of cloud ltd (12,000 – 3,600 – 2,000)	6,400
NCI as at 31st Mar,2021	1,06,400

In the books of Sky ltd Journal entries (1st Apr,2020)

1.	PPE A/c	Dr	2,10,000	
	Inventories A/c	Dr	54,000	
	Financial asset A/c	Dr	50,000	
	Goodwill A/c (WN – 3)	Dr	21,000	
	To purchase consideration A/c			1,50,000
	To NCI A/c (WN – 2)			1,00,000
	To Borrowing A/c			60,000
	To Trade payable A/c			25,000
2.	Purchase consideration A/c	Dr	1,50,000	
	To equity share capital A/c			60,000
	To securities premium A/c			90,000

Consolidated balance sheet and separate balance sheet of sky ltd as on 1st Apr,2020

Particulars	**consolidated**	**separate**
PPE	4,90,000	2,80,000
Goodwill	21,000	
Investment on cloud		1,50,000
Inventories	1,28,000	74,000
Financial assets	1,50,000	1,00,000
	7,89,000	**6,04,000**
Equity & liabilities		
Equity share capital	2,60,000	2,60,000
Other equity (1,20,000 + 90,000)	2,10,000	2,10,000
NCI	1,00,000	
Borrowings	1,50,000	90,000
Trade payables	69,000	44,000
	7,89,000	**6,04,000**

Consolidated balance sheet & separate balance sheet as on 31st Mar,2021		
Particulars	Consolidated	Separate
Assets		
PPE (3,00,000 + 2,06,000 + 16,000)	5,22,000	3,00,000
Goodwill	21,000	
Investment		1,50,000

Inventory (58,000 + 80,000)	1,38,000	80,000
Financial asset	1,80,000	1,20,000
(1,20,000+98,000-38,000)		
	8,61,000	**6,50,000**
EQUITY & LIABILITIES		
Equity share capital	2,60,000	2,60,000
Other equity (WN – 4)	2,49,600	2,40,000
NCI (WN – 5)	1,06,400	
Borrowing (64,000 + 1,00,000)	1,64,000	1,00,000
Trade payable (31,000 + 50,000)	81,000	50,000
	8,61,000	**6,50,000**

Illustration 13

P acquires 60% shares in Q on 01.10. 2020 at ₹30,000. Q makes profits 20000 in the year 2020-21 and declared dividend 9000. NCI is valued at proportionate net assets. Abstracts of Separate Balance Sheet of P (Dividend from subsidiary not accounted) and Individual Balance Sheet of Q as at 31-03- 2021: **(₹ Lakhs)**

	P	**Q**
PPE	50,000	30,000
Investment in shares of Q at cost	30,000	
Current Assets	20,000	28,000
	1,00,000	58,000
Equity Share Capital (₹10)	60,000	25,000
Other Equity	25,000	15,000
Current Liabilities		
Trade Payables	15,000	9,000
Dividend Payable		9,000
	1,00,000	58,000

Show Consolidated Balance Sheet and Separate Balance Sheet of P.

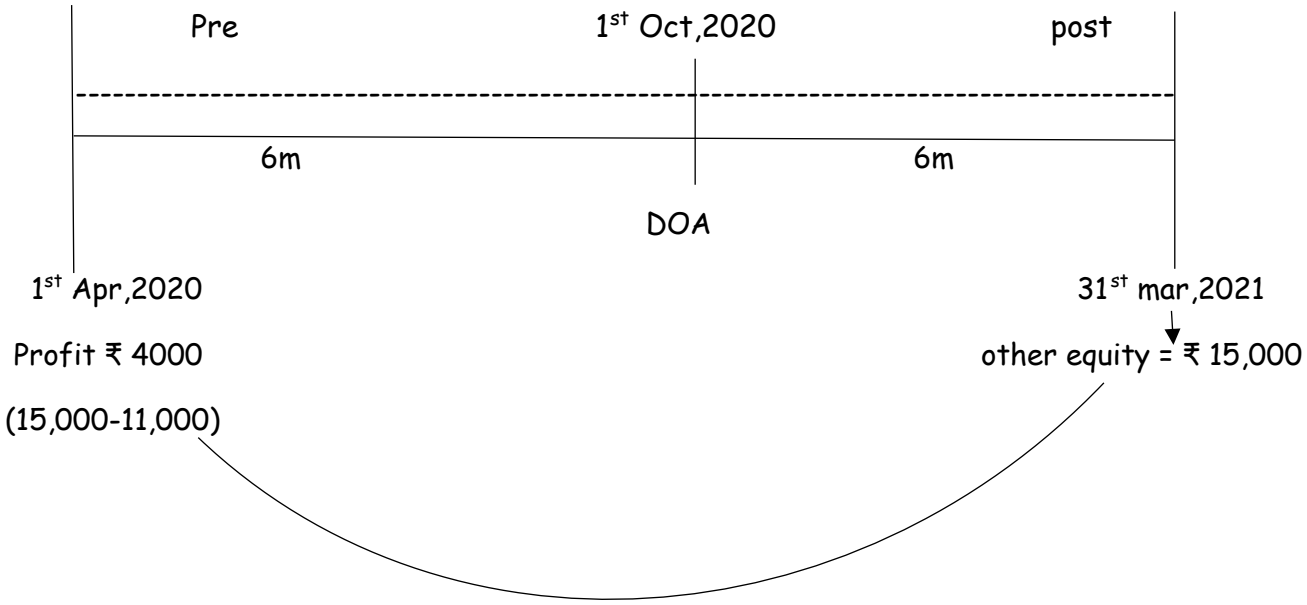
Solution:

Acquisition 60% shares

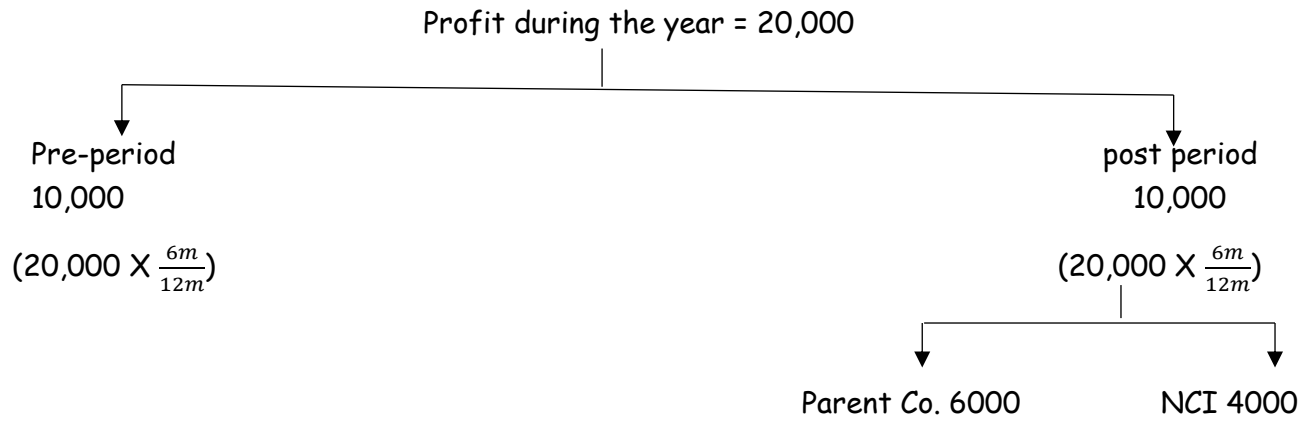
P ltd ——————————————— Q ltd

Purchase consideration = ₹ 30,000

NCI = 40%



Profit during the year	20,000
(-) Dividend	(9,000)
Profit after dividend	11,000



Total pre-period profit = ₹ 14,000.

(10,000 + 4,000)

WN-1: - calculation of net assets at FairValue of Q ltd as on 1st Oct,2020

Equity share capital	25,000
Add;- pre – acquisition profit	14,000
Net assets at fair value	39,000

WN-2: - calculation of NCI as at 1st Oct,2020 (proportionate net assets method)

Total net assets (100%)	39,000
NCI (39,000 X 40%)	15,600

WN-3: - calculation of goodwill or gain on bargain

purchase consideration	30,000
Add;- NCI	15,600
Less;- net assets at fair value	(39,000)
Goodwill	6,600

WN-4: - calculation of other equity of P ltd as at 31st mar,2021

Other equity of P ltd in B.S	25,000
Add;- parent Co. share of other equity in Q ltd	6,000
	31,000

WN-5:- calculation of NCI as at 31st mar, 2021

NCI as at 1st oct,2020	15,600
Add;- NCI share in Q ltd post-acquisition profit	4,000
Less;-dividend declared by Q ltd (9,000 40%)	(3,600)
NCI as at 31st mar,2021	**16,000**

Consolidated balance sheet & separate balance sheet of P ltd as on 31st Mar,2021		
Particulars	**Consolidated**	**Separate**
I ASSETS		
PPE (50,000 + 30,000)	80,000	50,000
Goodwill (WN – 3)	6,600	-
Investment in Q ltd (30,000 – 2,700 pre-acquisition dividend		27,300
Current assets (20,000 + 5,400)	48,000	25,400
	1,34,600	**1,02,700**

II EQUITY & LIABILITIES		
Equity share capital	60,000	60,000
Other equity (WN – 4) (25,000 + 2,700 post-acquisition dividend	31,000	27,700
NCI (WN – 5)	16,000	
Current liabilities		
Trade payable (15,000 + 9,000)	24,000	15,000
Dividend payable (to the extent of NCI)	3,600	
	1,34,600	**1,02,700**

Illustration 14

Prepare Consolidated Balance Sheet (CBS) of a group of P Ltd., Q Ltd. and R Ltd. for which the abstracts of Balance sheets on 31.03.2021 are given below.

Particulars	**P**	**Q**	**R**
PPE	400	500	320
Investment in Q (80%)	480		
Investment in R (75%)		300	
Current Assets:			
Inventory	250	80	60
Trade Receivables	280	120	200
Bills Receivables	70		50
Cash and Bank	180	50	60
Total Assets	1,660	1,050	690
Equity and Liabilities			
Equity Share Cap (₹ 10)	600	500	300
Other Equity	460	160	120
Current Liabilities			
Trade Payables	500	250	200
Dividend Payable		50	
Bills Payables	100	90	70
Total	1,660	1,050	690

Control was acquired on 01.10.2020 when fair value of PPE was in excess of carrying amount by Q: 50 and R: 30 On 01.04.2020 the balances of Other Equity were Q : 100 and R : 50 NCI is measured at fair value.Inventory of Q included 16 purchased from R at cost plus 33.33%. Bills Receivables of R includes 30 from P and Bills Receivables of R includes 40 from Q.

Solution:

P ltd — Acquisition 80% shares → Q ltd

PC = 480%L

NCI = 20%

Q ltd — Acquisition 75% shares → R ltd

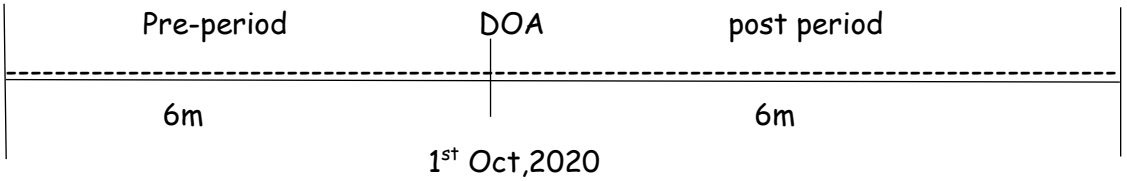
PC = 300L

NCI to Q ltd = 25%

100 % share of R ltd

- 75% acquired by Q ltd
  - Control acquired by P: 60 (75 X 80%)
  - NCI: 15 (75 X20%)
- 25 %NCI

Other equity of Q



1st Apr,2020
Balance = ₹ 100L

31st mar,2021
balance = ₹ 160L

During the year = ₹ 60L

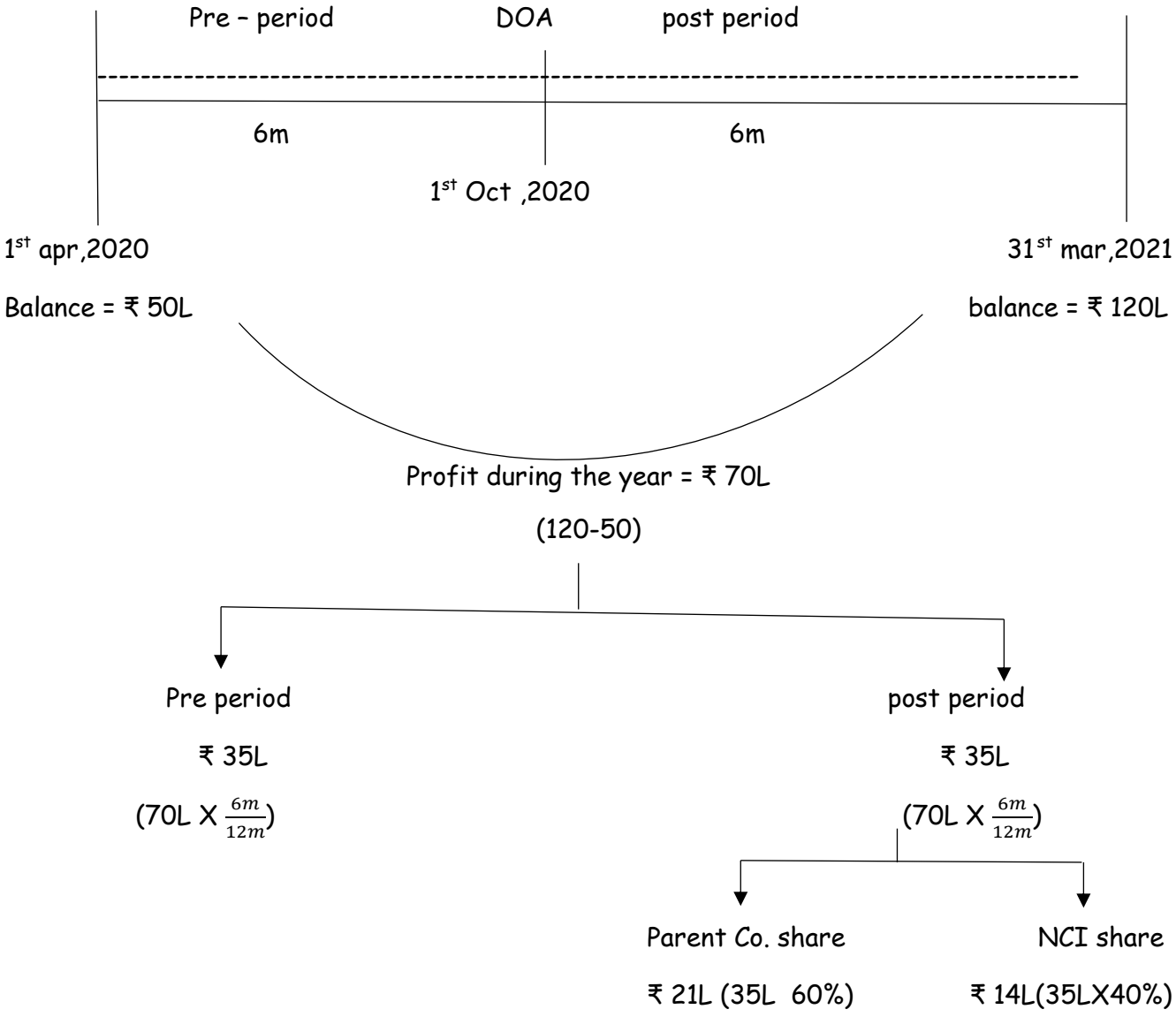
(160-100)

Add;- dividend declared = ₹ 50L

Profit during the year = 110L

- Pre-period: 55L (110L X $\frac{6m}{12m}$)
- post period: ₹55L $\left(110L\frac{6m}{12m}\right)$
  - Parent Co. share: ₹ 44L (55L 80%)
  - NCI share: ₹ 11L (55L X 20%)

Other equity of R



WN-1: - calculation of net assets of Q ltd & R ltd at fair value as on 1st Oct, 2020

Particulars	Q ltd	R ltd
Equity share capital	500	300
Pre – acquisition profit {(100 + 55) Q } {(50 + 35)R}	155	85
Revaluation profit	50	30

Total net assets at fair value	**705**	**415**

WN-2: -calculation of NCI as on 1st Oct,2020 (fair value method)

Q - $\frac{₹\ 480L}{80\%} \times 20\%$ = ₹ 120L

R - $\frac{₹\ 300L}{75\%} \times 40\%$ = ₹ 160L

WN-3: - calculation of goodwill or gain on bargain

	Q ltd	R ltd
purchase consideration	480	300
less;- consideration of 20% included		(60)
add;- NCI	120	160
less;- net assets at fair value	705	415
gain on bargain	**105**	**15**

WN-4: - calculation of other equity of P ltd as at 31st mar,2021

Other equity of P ltd in B.S		460
Add;- parent co. share in Q ltd reserves & surplus		44
Add;- parent co. share in R ltd reserves & surplus (21-4)	17	
Add;- gain on bargain other equity		120
		641

- Unrealised profit of ₹ 4L included in inventory of Q sold by R should be excluded

$\left(16L\frac{33.33}{133.33}\right)$

WN-5: - calculation of NCI as at 31st mar,2021

	Q ltd	R ltd
NCI as at 1st oct, 2020	120	160
Add;- NCI share in post-acquisition profit	11	14
less;- NCI share in investment	(60)	
less;- dividend payable	(10)	
	61	**174**

Consolidated balance sheet of P ltd as at 31st mar,2021	
I ASSETS	
PPE (400 + 500 + 320 + 50 + 30)	1,300
Current assets	
Inventory(250+80+60-4)	386
Trade receivable (280 + 120 + 200)	600
Bills receivables (70 + 50 – 30 + 40)	50
Cash & bank (180 + 50 + 60)	290
	2,626
II EQUITY & LIABILITIES	
Equity share capital	600
Other equity (WN – 4)	641
NCI (WN – 5)	235
Current liabilities	
Trade payable (500 + 250 + 200)	950
Dividend payable	10
Bills payable (100 + 90 + 70 – 30 – 40)	190
	2,626