PRACTICE QUESTIONS

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INDIAN ACCOUNTING STANDARD 2: INVENTORIES

Questions

1. On 1 January 20X1 an entity accepted an order for 7,000 custom-made corporate gifts.

   On 3 January 20X1 the entity purchased raw materials to be consumed in the production process for ₹ 5,50,000, including ₹ 50,000 refundable purchase taxes. The purchase price was funded by raising a loan of ₹ 5,55,000 (including ₹ 5,000 loan-raising fees). The loan is secured by the inventories.

   During January 20X1 the entity designed the corporate gifts for the customer.

   Design costs included:

   - cost of external designer = ₹ 7,000; and
   - labour = ₹ 3,000.

   During February 20X1 the entity's production team developed the manufacturing technique and made further modifications necessary to bring the inventories to the conditions specified in the agreement. The following costs were incurred in the testing phase:

   - materials, net of ₹ 3,000 recovered from the sale of the scrapped output = ₹ 21,000
   - labour = ₹ 11,000
   - depreciation of plant used to perform the modifications = ₹ 5,000

   During February 20X1 the entity incurred the following additional costs in manufacturing the customised corporate gifts:

   - consumable stores =₹ 55,000
   - labour = ₹ 65,000
   - depreciation of plant used to manufacture the customised corporate gifts =₹ 15,000

   The customised corporate gifts were ready for sale on 1st March 20X1. No abnormal wastage occurred in the development and manufacture of the corporate gifts.

   Compute the cost of the inventory? Substantiate your answer with appropriate reasons and calculations, wherever required.

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2. A retailer company imported goods at a cost of ₹ 1,30,000 including ₹ 20,000 non-refundable import duties and ₹ 10,000 refundable purchase taxes. The risks and rewards of ownership of the imported goods were transferred to the retailer company upon collection of the goods from the harbour warehouse. The retailer company was required to pay for the goods upon collection. The retailer company incurred ₹ 5,000 to transport the goods to its retail outlet and a further ₹ 2,000 in delivering the goods to its customer. Further selling costs of ₹ 3,000 were incurred in selling the goods.

   State whether delivery charges and selling expenses will form part of the cost of inventory. If not, then why? Also calculate the cost of inventory.

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

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

   Applying the retail method, compute the following:

   (a) Percentage of cost price over retail price;

   (b) Cost of closing inventory;

   (c) Value of cost of sales (at cost); and

   (d) Profit earned during the year on sale of inventory

   Ignore the impact of mark-ups or mark-downs on the selling price.

4. A Ltd. began operations in the year 20X1-20X2. In 20X1-20X2, it incurred the following expenditures on purchasing the raw materials for its product:

   a. Purchase price of the raw materials = ₹ 30,000;

   b. Import duty and other non-refundable purchase taxes = ₹ 8,000;

   c. Refundable purchase taxes = ₹ 1,000;

   d. Freight costs for bringing the goods from the supplier to the factory's storeroom for raw materials = ₹ 3,000;

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e. Costs of unloading the materials into the storeroom for raw materials = ₹ 20; and

f. Packaging = ₹ 2,000.

On 31st March, 20X2, A Ltd. received ₹ 530 volume rebate from a supplier for purchasing more than ₹ 15,000 from the supplier during the year.

A Ltd. incurred the following additional costs in the production run:

i. Salary of the machine workers in the factory = ₹ 5,000;

ii. Salary of factory supervisor = ₹ 3,000;

iii. Depreciation of the factory building and equipment used for production process = ₹ 600;

iv. Consumables used in the production process = ₹ 200;

v. Depreciation of vehicle used to transport the goods from the storeroom for raw materials to the machine floor = ₹ 400;

vi. Factory electricity usage = ₹ 300;

vii. Factory rental = ₹ 1,000; and

viii. Depreciation of the entity's vehicle used by the factory supervisor is ₹ 200.

During 20X1-20X2, A Ltd. incurred the following administrative expenses:

1. Depreciation of the administration building = ₹ 500;

2. Depreciation and maintenance of vehicles used by the administrative staff = ₹ 150; and

3. Salaries of the administrative personnel = ₹ 3,050.

Of the administrative expenses, 20% is attributable to administering the factory. Remaining expenses are attributable, in equal proportion, to the sales and other non-production operations (eg financing, tax and corporate secretarial functions).

In 20X1-20X2, A Ltd. incurred the following selling expenses:

a) Advertising costs = ₹ 300;

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b) Depreciation and maintenance of vehicles used by the sales staff = ₹ 100; and

c) Salaries of the administrative personnel = ₹ 6,000.

Pass necessary journal entries to record the cost of inventory in the books of A Ltd.

5. B Limited has valued its stock held for distribution as free items on claim by customers (on offers) at zero. The customers have a right to claim the free item within 14 days from the date of invoice. If the time limit of 14-day exceeds, the claim is foregone by the customer.

The majority of the free items require online registration by the buyers for participation in the contest conducted by the respective brand which needs to be done by the buyers within 3 days from the date of invoice.

Out of it, a few items under this category were found damaged. The replacement cost of such items would be ₹ 2,50,000.

Determine whether the entity has to book loss of inventory or provide for replacement cost of the goods that need to be given as free items to customers as per the principles of Ind AS.

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

Material = ₹ 200 per unit;

Labour = ₹ 100 per unit;

Variable manufacturing overhead = ₹ 100 per unit;

Fixed factory production overhead =₹ 1,00,00,000;

Fixed factory selling overhead = ₹ 50,00,000;

Variable factory selling overhead = ₹ 150 per unit.

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

7. An entity manufactures a equipment in three stages. There is a market for semi-finished product for each state, but the entity only sells the completed equipment. The following are details of the cost structure of the equipment as at the year-end:

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	Conversion Cost/unit ₹	*Selling price /unit* ₹
Stage 1	170	130
Stage 2 – Incremental cost	35	
	205	195
Stage 3- Incremental cost	62	
	267	275

Required:

Assuming that the selling cost are zero, what is the NRV of the semi-finished product in stage 1 and stage 2 at the year end?

Answers

1. Statement showing computation of inventory cost

Particulars	Amount (₹)	Remarks
Costs of purchase	5,00,000	Purchase price of raw material [purchase price (₹ 5,50,000) less refundable purchase taxes (₹ 50,000)]
Loan-raising fee	–	Included in the measurement of the liability
Costs of purchase	55,000	Purchase price of consumable stores
Costs of conversion	65,000	Direct costs—labour
Production overheads	15,000	Fixed costs—depreciation
Production overheads	10,000	Product design costs and labour cost for specific customer
Other costs	37,000	Refer working note
Borrowing costs		Recognized as an expense in profit or loss
Total cost of inventories	**6,82,000**	

Working Note:

Costs of testing product designed for specific customer:

₹ 21,000 material (i.e. net of the ₹ 3,000 recovered from the sale of the scrapped output) + ₹ 11,000 labour + ₹ 5,000 depreciation.

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2. Calculation of Inventory cost:

Particulars	Amount (₹)
Purchase Price (1,30,000 – 20,000 – 10,000)	1,00,000
Non-refundable import duties	20,000
Transport cost	5,000
Total	**1,25,000**

Note: The cost of purchase excludes the refundable purchase taxes paid on acquisition of the goods as the ₹ 10,000 paid will be refunded to the retailer.

Ind AS 2 specifically exclude selling cost from forming part of cost of inventory. However, selling and distribution costs are generally used as single term because both are related, as selling costs are incurred to effect the sale and the distribution costs are incurred by the seller to complete a sale transaction by making the goods available to the buyer from the point of sale to the point at which the buyer takes possession. Since these costs are not related to bringing the goods to their present location and condition, the same are not included in the cost of inventories. Accordingly, though the word 'distribution costs' is not specifically mentioned in Ind AS 2, these costs would continue to be excluded from the cost of inventories. Therefore, it excludes the selling expenses incurred (i.e., ₹ 2,000 delivery costs and ₹ 3,000 other selling costs).

3. Table showing application of Retail method for calculation of the goods sold during the year and unsold inventory

S. No.	*Particulars*		₹
	Cost price of goods	6,250 + 19,500	25,750
	Retail price of goods	8,000 + 34,000	42,000
(a)	Cost percentage of retail price	25,750 / 42,000	61%
(b)	Closing inventory (at cost)	23,000 x 61%	14,030
(c)	Cost of sales for the period	[(6,250 + 19,500) - 14,030]	11,720
	Sales for the period		19,000
(d)	Profit earned on sale of goods during the year	19,000 – 11,720	7,280

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4. **Journal Entries for the year 20X1-20X2**

		₹	₹
Inventory A/c (W.N.1)	Dr.	42,490	
To Bank A/c			42,490
(To recognise the cost of raw materials purchased)			
Inventory A/c (W.N.2)	Dr.	11,240	
To Bank A/c (cost of direct labour)			5,000
To Property, plant and equipment (accumulated depreciation-factory equipment)			600
To Property, plant and equipment (accumulated depreciation-raw-materials delivery vehicle)			400
To Bank A/c (cost of electricity used)			300
To Property, plant and equipment (accumulated depreciation-factory supervisor's vehicle)			200
To Bank A/c (factory management's salaries)			3,000
To Bank A/c (factory rental)			1,000
To Bank A/c (administrative salaries attributable to the factory)			610
To Property, plant and equipment (attributable portion of accumulated depreciation-administration building)			100
To Property, plant and equipment (attributable portion of accumulated depreciation-administration vehicles)			30
(To recognise the costs of conversion)			
Inventory A/c (W.N.2)	Dr.	200	
To Inventory A/c (consumable stores)			200
(To recognise the costs of consumable stores inventory consumed)			

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The total cost of inventories = Costs of purchase + Costs of conversion

= ₹ 42,490 + ₹ 11,240 + ₹ 200 = ₹ 53,930

Working Notes:

1. Computation of costs of purchase

Description	₹
Purchase price	30,000
Import duty and other non-refundable purchase taxes	8,000
Freight costs for bringing the goods to the factory storeroom	3,000
Cost of unloading the raw materials into the storeroom	20
Packaging	2,000
Less: Trade discounts, rebates and subsidies	(530)
Cost of purchase	42,490

Note: Refundable taxes do not form part of the cost of inventories.

2. Computation of costs of conversion

Description	₹
Direct labour	5,000
Fixed production overheads	
Depreciation and maintenance of factory equipment	600
Depreciation of vehicle used for transporting the goods	400
Depreciation of vehicle used by factory supervisor	200
Factory electricity usage	300
Factory management supervisor's salary	3,000
Factory rental	1,000
Other costs of administering the factory	
20% of depreciation of administration building	100
20% of depreciation of administration vehicles	30
20% of administrative staff costs	610
Variable production overheads	
Indirect material—consumables	200
Cost of conversion	**11,440**

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5. Ind AS 2 deals with write-off in value of inventory. The stock of free items is valued at zero by the company. The question of "Loss of Inventory ₹ 2,50,000" does not arise as the claim of free stock is subject to various conditions like claim within 14 days, online registration within 3 days, etc. which are all contingent in nature.

A provision shall be recognised when:

(a) an entity has a present obligation (legal or constructive) as a result of a past event;

(b) it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation; and

(c) a reliable estimate can be made of the amount of the obligation.

If these conditions are met, provision shall be recognised.

Here, provision is to be made for goods to be distributed because sale took place in the reporting year and assuming that the registration for the contest are received whereby there is a high probability that the customer can claim the free items within 14 days from the date of invoice. Further, a reliable estimate of the claim of ₹ 2,50,000 can be made. Hence provision of ₹ 2,50,000 is to be made for in the reporting year's financial statements.

Further, on expiry of the time period, where claim had not been made by the customers, reversal of provision will be done in the next financial year.

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

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

Fixed overheads are absorbed based on normally capacity level, i.e., 1,00,000 units, rather than on the basis of actual production, i.e., 50,000 units. Therefore, fixed manufacturing overhead on 50,000 units, will be absorbed as inventory value. The remaining fixed manufacturing overhead ₹ 50,00,000 (1,00,00,000 - 50,00,000) will be charged to P&L.

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

7. No impact for lower of cost and NRV provision is made at stage 1 and stage 2 because the final equipment will be sold at a profit. The profit margin on the estimated cost of completion should, therefore, be considered when calculating the net realisable value of work in progress if the entity has the ability to dispose of the finished product at a price that exceeds the production cost. The net realisable value of the semi-finished product at stage 1 is:

	₹
Selling price of completed product	275
Less: Stage 3 conversion costs	(62)
Less: Stage 2 conversion costs	(35)
Net realisable value at stage1	178

At stage 1, inventory will be valued at ₹ 170 (lower of cost i.e. ₹ 170 and NRV i.e. ₹ 178). The inventory at stage 1 will be valued at ₹ 170, though the selling price at stage 1 is ₹ 130.

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INDIAN ACCOUNTING STANDARD 16: PROPERTY, PLANT AND EQUIPMENT

Questions

1. Mr. X, is the financial controller of ABC Ltd., a listed entity which prepares consolidated financial statements in accordance with Ind AS. Mr. X has recently produced the final draft of the financial statements of ABC Ltd. for the year ended 31st March, 20X1 to the managing director Mr. Y for approval. Mr. Y, who is not an accountant, had raised following query from Mr. X after going through the draft financial statements:

   The notes to the financial statements state that plant and equipment is held under the 'cost model'. However, property which is owner occupied is revalued annually to fair value. Changes in fair value are sometimes reported in profit or loss but usually in 'other comprehensive income'. Also, the amount of depreciation charged on plant and equipment as a percentage of its carrying amount is much higher than for owner occupied property. Another note states that property owned by ABC Ltd. but rent out to others is depreciated annually and not fair valued. Mr. Y is of the opinion that there is no consistent treatment of PPE items in the accounts.

   Advise the finance controller for resolving the query of the managing director?

2. Company X performed a revaluation of all of its plant and machinery at the beginning of 20X1. The following information relates to one of the machinery:

	Amount ('000)
Gross carrying amount	₹ 200
Accumulated depreciation (straight-line method)	(₹ 80)
Net carrying amount	₹ 120
Fair value	₹ 150

   The useful life of the machinery is 10 years and the company uses Straight line method of depreciation. The revaluation was performed at the end of 4 years.

   Advise how should the company account for revaluation of plant and machinery and depreciation subsequent to revaluation. Support your answer with journal entries.

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3. An entity has the following items of property, plant and equipment:

- Property A — a vacant plot of land on which it intends to construct its new administration headquarters;
- Property B — a plot of land that it operates as a landfill site;
- Property C — a plot of land on which its existing administration headquarters are built;
- Property D — a plot of land on which its direct sales office is built;
- Properties E1–E10 — ten separate retail outlets and the land on which they are built;
- Equipment A — computer systems at its headquarters and direct sales office that are integrated with the point of sale computer systems in the retail outlets;
- Equipment B — point of sale computer systems in each of its retail outlets;
- Furniture and fittings in its administrative headquarters and its sales office;
- Shop fixtures and fittings in its retail outlets.

Determine the classes of property, plant and equipment for disclosure by the entity?

4. Heaven Ltd. had purchased a machinery on 1.4.2X01 for ₹ 30,00,000, which is reflected in its books at written down value of ₹ 17,50,000 on 1.4.2X06. The company has estimated an upward revaluation of 10% on 1.4.2X06 to arrive at the fair value of the asset. Heaven Ltd. availed the option given by Ind AS of transferring some of the surplus as the asset is used by an enterprise.

On 1.4.2X08, the machinery was revalued downward by 15% and the company also re-estimated the machinery's remaining life to be 8 years. On 31.3.2X10 the machinery was sold for ₹ 9,35,000. The company charges depreciation on straight line method.

Prepare machinery account in the books of Heaven Ltd. over its useful life to record the above transactions.

5. On 1st January, 20X1 an entity purchased an item of equipment for ₹ 600,000, including ₹ 50,000 refundable purchase taxes. The purchase price was funded by raising a loan of ₹ 605,000. In addition, the entity has to pay ₹ 5,000 in loan raising fees to the Bank. The loan is secured against the equipment.

In January 20X1 the entity incurred costs of ₹ 20,000 in transporting the equipment to the entity's site and ₹ 100,000 in installing the equipment at the site. At the end of the equipment's 10-year useful life the entity is required to dismantle the equipment and restore

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the building housing the equipment. The present value of the cost of dismantling the equipment and restoring the building is estimated to be ₹ 100,000.

In January 20X1 the entity's engineer incurred the following costs in modifying the equipment so that it can produce the products manufactured by the entity:

- Materials – ₹ 55,000
- Labour – ₹ 65,000
- Depreciation of plant and equipment used to perform the modifications – ₹ 15,000

In January 20X1, the entity's production staff were trained in how to operate the new item of equipment. Training costs included:

- Cost of an expert external instructor – ₹ 7,000
- Labour – ₹ 3,000

In February 20X1 the entity's production team tested the equipment and the engineering team made further modifications necessary to get the equipment to function as intended by management. The following costs were incurred in the testing phase:

- Materials, net of ₹ 3,000 recovered from the sale of the scrapped output – ₹ 21,000
- Labour – ₹ 16,000

The equipment was ready for use on 1st March, 20X1. However, because of low initial order levels the entity incurred a loss of ₹ 23,000 on operating the equipment during March. Thereafter the equipment operated profitably.

What is the cost of the equipment at initial recognition?

6. Company A incurred ₹ 20,000 as cost for restoring the site on which the item of PPE was located. This item was used for manufacturing goods and the requirement for restoring will arise due to manufacturing of goods.

   What will the treatment of this ₹ 20,000 in the books of Company A? Analyse on the basis of the provisions of relevant Ind AS.

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

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

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

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8. On 1st October, 20X1, XY Ltd. completed the construction of a power generating facility. The total construction cost was ₹ 2 crore. The facility was capable of being used from 1st October, 20X1 but XY Ltd. did not bring the facility into use until 1st January, 20X2. The estimated useful life of the facility at 1st October, 20X1 was 40 years.

   Under legal regulations in the jurisdiction in which XY Ltd. operates, there are no requirements to restore the land on which power generating facilities stand to its original state at the end of the useful life of the facility. However, XY Ltd. has a reputation for conducting its business in an environmentally friendly way and has previously chosen to restore similar land even in the absence of such legal requirements. The directors of XY Ltd. estimated that the cost of restoring the land in 40 years' time (based on prices prevailing at that time) would be ₹ 1 crore. A relevant annual discount rate to use in any discounting calculations is 5%. When the annual discount rate is 5%, the present value of ₹ 1 receivable in 40 years' time is approximately 0.142.

   Explain and show how the above event would be reported in the financial statements of XY Ltd. for the year ended 31st March, 20X1. Ignore comments on potential future reclassification issues.

9. Entity X has a warehouse which is closer to factory of Entity Y and vice versa. The factories are located in the same vicinity. Entity X and Entity Y agree to exchange their warehouses. The carrying value of warehouse of Entity X is ₹ 1,00,000 and its fair value is ₹ 1,25,000. It exchanges its warehouse with that of Entity Y, the fair value of which is ₹ 1,20,000. It also receives cash amounting to ₹ 5,000.

   How should Entity X account for the exchange of warehouses?

10. A Ltd. exchanges car X with a book value of ₹ 13,000 and a fair value of ₹ 13,250 for cash of ₹ 150 and car Y which has a fair value of ₹ 13,100. The transaction lacks commercial substance, because the entity's cash flows are not expected to change as a result of the exchange; in other words, the entity is in the same position as it was before the transaction.

    State the value at which Car Y should be recognized in the books of A Ltd.

Answers

1. Ongoing through the query raised by the Managing Director Mr. Y, the financial controller Mr. X explained the notes and reasons for their disclosures as follows:

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The accounting treatment of most tangible non-current assets is governed by Ind AS 16 'Property, Plant and Equipment'. Ind AS 16 states that the accounting treatment of PPE is determined on a class by class basis. For this purpose, property and plant would be regarded as separate classes. Ind AS 16 requires that PPE is measured using either the cost model or the revaluation model. This model is applied on a class by class basis and must be applied consistently within a class. Ind AS 16 states that when the revaluation model applies, surpluses are recorded in other comprehensive income, unless they are cancelling out a deficit which has previously been reported in profit or loss, in which case it is reported in profit or loss. Where the revaluation results in a deficit, then such deficits are reported in profit or loss, unless they are cancelling out a surplus which has previously been reported in other comprehensive income, in which case they are reported in other comprehensive income.

According to Ind AS 16, all assets having a finite useful life should be depreciated over that life. Where property is concerned, the only depreciable element of the property is the buildings element, since land normally has an indefinite life. The estimated useful life of a building tends to be much longer than for plant. These two reasons together explain why the depreciation charge of a property as a percentage of its carrying amount tends to be much lower than for plant.

Properties which are held for investment purposes are not accounted for under Ind AS 16, but under Ind AS 40 'Investment Property'. As per Ind AS 40, investment properties should be accounted for under a cost model. ABC Ltd. had applied the cost model and thus our investment properties are treated differently from the owner-occupied property.

2. According to paragraph 35 of Ind AS 16, when an item of property, plant and equipment is revalued, the carrying amount of that asset is adjusted to the revalued amount. At the date of the revaluation, the asset is treated in one of the following ways:

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

In such a situation, the revised carrying amount of the machinery will be as follows:

Gross carrying amount	₹ 250	[(200/120) x 150]
Net carrying amount	₹ 150	
Accumulated depreciation	₹ 100	(₹ 250 – ₹ 150)

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Journal Entry

Plant and Machinery (Gross Block)	Dr.	₹ 50	
To Accumulated Depreciation			₹ 20
To Revaluation Reserve			₹ 30

Depreciation subsequent to revaluation

Since the Gross Block has been restated, the depreciation charge will be ₹ 25 per annum (₹ 250/10 years).

Journal Entry

Depreciation	Dr.	₹ 25 p.a.	
To Accumulated Depreciation			₹ 25 p.a.

(b) The accumulated depreciation is eliminated against the gross carrying amount of the asset.

The amount of the adjustment of accumulated depreciation forms part of the increase or decrease in carrying amount that is accounted for in accordance with the paragraphs 39 and 40 of Ind AS 16.

In this case, the gross carrying amount is restated to ₹ 150 to reflect the fair value and accumulated depreciation is set at zero.

Journal Entry

Accumulated Depreciation	Dr.	₹ 80	
To Plant and Machinery (Gross Block)			₹ 80
Plant and Machinery (Gross Block)	Dr.	₹ 30	
To Revaluation Reserve			₹ 30

Depreciation subsequent to revaluation

Since the revalued amount is the revised gross block, the useful life to be considered is the remaining useful life of the asset which results in the same depreciation charge of ₹ 25 per annum as per Option A (₹ 150 / 6 years).

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Journal Entry

Depreciation	Dr.	₹ 25 p.a.	
To Accumulated Depreciation			₹ 25 p.a.

3. To answer this question, one must make a materiality judgement.

A class of assets is defined as a grouping of assets of a similar nature and use in an entity's operations.

The nature of land without a building is different to the nature of land with a building.

Consequently, land without a building is a separate class of asset from land and buildings. Furthermore, the nature and use of land operated as a landfill site is different from vacant land. Hence, the entity should disclose Property A separately. The entity must apply judgement to determine whether the entity's retail outlets are sufficiently different in nature and use from its office buildings, and thus constitute a separate class of land and buildings.

The computer equipment is integrated across the organization and would probably be classified as a single separate class of asset.

Furniture and fittings used for administrative purposes could be sufficiently different to shop fixtures and fittings in retail outlets to be classified in two separate classes of assets.

4. **In the books of Heaven Ltd.**

Machinery A/c

Date	Particulars	Amount	Date	Particulars	Amount
1.4.2X01	To Bank/ Vendor	30,00,000	31.3.2X02	By Depreciation (W.N.1)	2,50,000
			31.3.2X02	By Balance c/d	27,50,000
		30,00,000			30,00,000
1.4.2X02	To Balance b/d	27,50,000	31.3.2X03	By Depreciation	2,50,000
			31.3.2X03	By Balance c/d	25,00,000
		27,50,000			27,50,000
1.4.2X03	To Balance b/d	25,00,000	31.3. 2X04	By Depreciation	2,50,000
			31.3.2X04	By Balance c/d	22,50,000
		25,00,000			25,00,000

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1.4.2X04	To Balance b/d	22,50,000	31.3.2X05	By Depreciation	2,50,000
			31.3.2X05	By Balance c/d	20,00,000
		22,50,000			22,50,000
1.4.2X05	To Balance b/d	20,00,000	31.3.2X06	By Depreciation	2,50,000
			31.3.2X06	By Balance c/d	17,50,000
		20,00,000			20,00,000
1.4.2X06	To Balance b/d	17,50,000	31.3.2X07	By Depreciation (W.N.2)	2,75,000
1.4.2X06	To Revaluation Reserve @ 10%	1,75,000	31.3.2X07	By Balance c/d	16,50,000
		19,25,000			19,25,000
1.4.2X07	To Balance b/d	16,50,000	31.3.2X08	By Depreciation	2,75,000
			31.3.2X08	By Balance c/d	13,75,000
		16,50,000			16,50,000
1.4.2X08	To Balance b/d	13,75,000	1.4.2X08	By Revaluation Reserve (W.N.4)	1,25,000
			31.3.2X09	By Profit and Loss A/c (W.N.5)	81,250
			31.3.2X09	By Depreciation (W.N.3)	1,46,094
			31.3.2X09	By Balance c/d	10,22,656
		13,75,000			13,75,000
1.4.2X09	To Balance b/d	10,22,656	31.3.2X10	By Depreciation	1,46,094
31.3.2X10	To Profit and Loss A/c (balancing figure)	58,438*	31.3.2X10	By Bank A/c	9,35,000
		10,81,094			10,81,094

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Working Notes:

1. Calculation of useful life of machinery on 1.4.2X01

Depreciation charge in 5 years = (30,00,000 – 17,50,000) = ₹ 12,50,000

Depreciation per year as per Straight Line method = 12,50,000 / 5 years

= ₹ 2,50,000

Remaining useful life = ₹ 17,50,000 / ₹ 2,50,000 = 7 years

Total useful life = 5 years + 7 years = 12 years

2. Depreciation after upward revaluation as on 1.4.2X06

	₹
Book value as on 1.4.2X06	17,50,000
Add: 10% upward revaluation	1,75,000
Revalued amount	19,25,000

Remaining useful life 7 years (Refer W.N.1)

Depreciation on revalued amount = 19,25,000 / 7 years = ₹ 2,75,000

3. Depreciation after downward revaluation as on 1.4.2X08

	₹
Book value as on 1.4.2X08	13,75,000
Less: 15% Downward revaluation	(2,06,250)
Revalued amount	11,68,750

Revised useful life 8 years

Depreciation on revalued amount = 11,68,750 / 8 years = ₹ 1,46,094

4. Amount transferred from revaluation reserve

Revaluation reserve on 1.4.2X06 (A)	₹ 1,75,000
Remaining useful life	7 years
Amount transferred every year (1,75,000 / 7)	₹ 25,000
Amount transferred in 2 years (25,000 x 2) (B)	₹ 50,000
Balance of revaluation reserve on 1.4.2X08 (A-B)	₹ 1,25,000

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5. Amount of downward revaluation to be charged to Profit and Loss Account

Downward revaluation as on 1.4.2X08 (W.N.3)	₹ 2,06,250
Less: Adjusted from Revaluation reserve (W.N.4)	(₹ 1,25,000)
Amount transferred to Profit and Loss Account	₹ 81,250

5.

Description	***Calculation or reason***	₹
Purchase price	₹ 600,000 purchase price minus ₹ 50,000 refundable purchase taxes	5,50,000
Loan raising fee	Offset against the measurement of the liability	-
Transport cost	Directly attributable expenditure	20,000
Installation costs	Directly attributable expenditure	1,00,000
Environmental restoration costs	The obligation to dismantle and restore the environment arose from the installation of the equipment	1,00,000
Preparation costs	₹ 55,000 materials + ₹ 65,000 labour + ₹ 15,000 depreciation	1,35,000
Training costs	Recognised as expenses in profit and loss account. The equipment was capable of operating in the manner intended by management without incurring the training costs.	-
Cost of testing	₹ 21,000 materials (ie net of the ₹ 3,000 recovered from the sale of the scrapped output) + ₹ 16,000 labour	37,000
Operating loss	Recognised as expenses in profit and loss account	-
Borrowing costs	Recognised as expenses in profit and loss account	-
Cost of equipment		**9,42,000**

6. Paragraph 16 of Ind AS 16, Property, Plant and Equipment, *inter alia* states that the cost of an item of property, plant and equipment comprises the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located, the

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obligation for which an entity incurs either when the item is acquired or as a consequence of having used the item during a particular period for purposes other than to produce inventories during that period.

Further, paragraph 18 of Ind AS 16 states that an entity applies Ind AS 2 to the costs of obligations for dismantling, removing and restoring the site on which an item is located that are incurred during a particular period as a consequence of having used the item to produce inventories during that period. The obligations for costs accounted for in accordance with Ind AS 2 or Ind AS 16 are recognised and measured in accordance with Ind AS 37, Provisions, Contingent Liabilities and Contingent Assets.

Paragraph 16 of Ind AS 16 clarifies that decommissioning costs that meet the recognition criteria under Ind AS 37, Provisions, Contingent Liabilities and Contingent Assets, for a provision are added to the cost of an item of property, plant and equipment if such costs are not incurred through the asset's use to produce inventories. Paragraph 18 fills the gap by clarifying where such costs are incurred through the asset's use to produce inventories, they are added to the cost of inventories.

Where the obligation to restore the asset arises due to the use of the asset to produce inventories but not due to the asset's installation, construction or acquisition, the costs are added to the costs of inventories.

Based on the above provisions and discussion, cost of restoring the site ₹ 20,000 incurred during the period of production as a consequence of having used the item to produce inventories during that period should be added to the cost of inventories. However, later the inventories are measured at the lower of cost and net realisable value in accordance with paragraph 9 of Ind AS 2.

7. Journal Entries in the books of Company X

for the year ending ended 31st March, 20X2

	₹ in lakh	₹ in lakh
Depreciation (profit or loss) Dr.	7.5	
To Accumulated depreciation (plant)		7.5
(Being depreciation on plant recognised under straight-line method (1,50,00,000 x 1/20))		
Interest expense (profit or loss) Dr.	1.0	
To Provision for decommissioning		1.0
(Being unwinding of decommissioning provision @ 10% recognised in the books)		

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Plant	Dr.	2.0	
To Provision for decommissioning			2.0
(Being increase in decommissioning provision recognised [13,00,000 – (10,00,000 +1,00,000)] at the end of the year)			

8. The facility is depreciated from the date it is ready for use, rather than when it actually starts being used. In this case, then, the facility is depreciated from 1st October, 20X1.

Although XY Ltd. has no legal obligation to restore the piece of land, it does have a constructive obligation, based on its past practice and policies.

The amount of the obligation will be 14,20,000 being the present value of the anticipated future restoration expenditure (1,00,00,000 x 0.142).

This will be recognised as a provision under non-current liabilities in the balance sheet of XY Ltd. at 31st March, 20X2.

As time passes the discounted amount unwinds. The unwinding of the discount for the year ended 31st March, 20X2 will be ₹ 35,500 (14,20,000 x 5% x 6/12).

The unwinding of the discount will be shown as a finance cost in the statement of profit and loss and the closing provision will be ₹ 14,55,500 (14,20,000 + 35,500).

The initial amount of the provision is included in the carrying amount of the non-current asset, which becomes 2,14,20,000 (2,00,00,000 + 14,20,000).

The depreciation charge in profit or loss for the year ended 31st March, 20X2 is ₹ 2,67,750 (2,14,20,000 x 1/40 x 6/12).

The closing balance included in non-current assets will be 2,11,52,250 (2,14,20,000 – 2,67,750).

9. Paragraph 24 of Ind AS 16, inter alia, provides that when an item of property, plant and equipment is acquired in exchange for a non-monetary asset or assets, or a combination of monetary and non-monetary assets, the cost of such an item of property, plant and equipment is measured at fair value unless (a) the exchange transaction lacks commercial substance or (b) the fair value of neither the asset received nor the asset given up is reliably measurable. If the acquired item is not measured at fair value, its cost is measured at the carrying amount of the asset given up.

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Further as per paragraph 25 of Ind AS 16, an entity determines whether an exchange transaction has commercial substance by considering the extent to which its future cash flows are expected to change as a result of the transaction. An exchange transaction has commercial substance if:

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

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

(c) the difference in (a) or (b) is significant relative to the fair value of the assets exchanged.

In the given case, the transaction lacks commercial substance as the company's cash flows are not expected to significantly change as a result of the exchange because the factories are located in the same vicinity i.e. it is in the same position as it was before the transaction. Hence, Entity X will have to recognise the assets received at the carrying amount of asset given up, i.e., ₹ 1,00,000 being carrying amount of existing warehouse of Entity X and ₹ 5,000 received will be deducted from the cost of property, plant and equipment. Therefore, the warehouse of Entity Y is recognised as property, plant and equipment with a carrying value of ₹ 95,000 in the books of Entity X.

10. Para 24 of Ind AS 16 *inter alia* states that in case of all exchange of item of property, plant and equipment, the cost of an item of property, plant and equipment is measured at fair value unless (a) the exchange transaction lacks commercial substance or (b) the fair value of neither the asset received nor the asset given up is reliably measurable. The acquired item is measured in this way even if an entity cannot immediately derecognise the asset given up. **If the acquired item is not measured at fair value, its cost is measured at the carrying amount of the asset given up.**

Further, para 25 of Ind AS 16 states that an entity determines whether an exchange transaction has commercial substance by considering the extent to which its future cash flows are expected to change as a result of the transaction. An exchange transaction has commercial substance if:

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

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

(c) the difference in (a) or (b) is significant relative to the fair value of the assets exchanged.

Since in the given case, there is no commercial substance, the entity recognizes the assets received at the book value of car X. Therefore, it recognizes cash of ₹ 150 and car Y as property, plant and equipment with a carrying value of ₹ 12,850.

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INDIAN ACCOUNTING STANDARD 23: BORROWING COSTS

Questions

1. Examine how will you capitalise the interest, when qualifying assets are funded by borrowings in the nature of bonds that are issued at discount.

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

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

2. Nikka Limited has obtained a term loan of ₹ 620 lacs for a complete renovation and modernisation of its Factory on 1st April, 20X1. Plant and Machinery was acquired under the modernisation scheme and installation was completed on 30th April, 20X2. An expenditure of ₹ 510 lacs was incurred on installation of Plant and Machinery, ₹ 54 lacs has been advanced to suppliers for additional assets (acquired on 25th April, 20X1) which were also installed on 30th April, 20X2 and the balance loan of ₹ 56 lacs has been used for working capital purposes. Management of Nikka Limited considers the 12 months period as substantial period of time to get the asset ready for its intended use.

   The company has paid total interest of ₹ 68.20 lacs during financial year 20X1-20X2 on the above loan. The accountant seeks your advice how to account for the interest paid in the books of accounts. Will your answer be different, if the whole process of renovation and modernization gets completed by 28th February, 20X2?

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

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

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

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

4. Harish Construction Company is constructing a huge building project consisting of four phases. It is expected that the full building will be constructed over several years but Phase I and Phase II of the building will be operational as soon as they are completed.

Following is the detail of the work done on different phases of the building during the current year: ***(₹ in lakh)***

	Phase I ₹	Phase II ₹	Phase III ₹	Phase IV ₹
Cash expenditure	10	30	25	30
Building purchased	24	34	30	38
Total expenditure	34	64	55	68
Total expenditure of all phases				221
Loan taken @ 15% at the beginning of the year				200

After taking substantial period of construction, at the mid of the current year, Phase I and Phase II have become operational.

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Find out the total amount to be capitalized and to be expensed during the year.

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

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

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

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

6. PQR Limited is engaged in Tourism business in India. The company has planned to construct a Holiday Resort (Qualifying Asset) at Shimla. The cost of the project has been met out of borrowed funds of ₹ 100 lakhs at the rate of 12% p.a. ₹ 40 lakhs were disbursed on 1st April 20X2 and the balance of ₹ 60 lakhs were disbursed on 1st June 20X2. The site planning work commenced on 1st June 20X2, since the Chief engineer of the project was on medical leave. The company commenced physical construction on 1st July 20X2 and the work of construction continued till 30th September 20X2 and thereafter the construction activities stopped due to landslide on the road which leads to construction site. The road blockages have been cleared by the government machinery by 31st December 20X2. Construction activities resumed on 1st January 20X3 and has completed on 28th February 20X3.

The date of opening has been scheduled for 1st March 20X3, but unfortunately, the District Administration gave permission for opening on 16th March 20X3, due to lack of safety measures like fire extinguishers which had not been installed by then.

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Determine the amount of borrowing cost to be capitalized towards construction of the resort when

(i) Landslide is not common in Shimla and delay in approval from District Administration Office is minor administrative work leftover.

(ii) Landslide is common in Shimla and delay in approval from District Administration Office is major administrative work leftover.

7. An entity has borrowed ₹ 10,00,000 specifically to finance the cost of constructing a new head office. The loan was availed on 1st May 20X8. Interest was payable at 12% per annum up to 1st February 20X9, after which the rate was revised to 13% owing to an increase in the Secured Overnight Financing Rate (SOFR). Construction of the building does not begin until 1st December 20X8 and continues, without interruption, until after the year end on 31st March 20X9. During the period of construction, the entity incurs directly attributable costs of ₹ 1,00,000 in December 20X8 and ₹ 250,000 in each month from January 20X9 to March 20X9 (for simplicity, it is assumed that these costs are incurred on the first day of each month). Each month, the borrowings (less any amount that is to be expended for the building works in that month) are re-invested and earn interest at a rate of 5% per annum.

   For the year ended 31st March, 20X9, the entity incurred interest expense of ₹ 1,11,667 on the ₹ 10,00,000 loan and earned ₹ 37,917 as interest on the re-invested portion.

   Determine the amount of borrowing cost to be capitalized to the qualifying asset for the year ended 31st March, 20X9.

8. S Ltd. financed the construction of a qualifying asset with an inter-company loan taken from its parent company P Ltd. with an interest rate of 7% p.a. P Ltd. in-turn has obtained the said loan from a Bank at the same rate of interest of 7% p.a. for the specific purpose of providing it to S Ltd.

   State how the same will be treated in the separate financial statements of S Ltd. and P Ltd. and consolidated financial statements of P Ltd. as per Ind AS 23?

Answers

1. Capitalisation Method

As per the Standard, borrowing costs may include interest expense calculated using the effective interest method. Further, capitalisation of borrowing cost should cease where

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substantially all the activities necessary to prepare the qualifying asset for its intended use or sale are complete.

Thus, only that portion of the amortized discount should be capitalised as part of the cost of a qualifying asset which relates to the period during which acquisition, construction or production of the asset takes place.

Capitalisation of Interest

Hence, based on the above explanation the amount of borrowing cost of year 1 & 2 are to be capitalised and the borrowing cost relating to year 3 & 4 should be expensed.

Quantum of Borrowing

The value of the bond to Y Ltd. is the transaction price ie ₹ 1,80,000 (2,00,000 – 20,000)

Therefore, Y Ltd will recognize the borrowing at ₹ 1,80,000.

Computation of the amount of Borrowing Cost to be Capitalised

Y Ltd will capitalise the interest (borrowing cost) using the effective interest rate of 13.39% for two years as the qualifying asset is ready for intended use at the end of the year 2, the details of which are as follows:

Year	*Opening Borrowing*	*Interest expense @ 13.39% to be capitalised*	*Total*	*Interest paid*	*Closing Borrowing*
	(1)	*(2)*	*(3)*	*(4)*	*(5) = (3) – (4)*
1	1,80,000	24,102	2,04,102	20,000	1,84,102
2	1,84,102	24,651	2,08,753	20,000	1,88,753
		48,753			

Accordingly, borrowing cost of ₹ 48,753 will be capitalized to the cost of qualifying asset.

2. As per Ind AS 23, Borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset form part of the cost of that asset. Other borrowing costs are recognized as an expense.

Where, a qualifying asset is an asset that necessarily takes a substantial period of time to get ready for its intended use or sale.

Accordingly, the treatment of Interest of ₹ 68.20 lakh occurred during the year 20X1-20X2 would be as follows:

(i) When construction of asset completed on 30th April, 20X2

The treatment for total borrowing cost of ₹ 68.20 lakh will be as follows:

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Purpose	Nature	Interest to be capitalised	Interest to be charged to profit and loss account
		₹ in lakh	₹ in lakh
Modernisation and renovation of plant and machinery	Qualifying asset	[68.20 x (510/620)] = 56.10	**Nil**
Advance to suppliers for additional assets	Qualifying asset	[68.20 x (54/620)] = 5.94	**Nil**
Working Capital	Not a qualifying asset		[68.20x(56/620)] = 6.16
		62.04	6.16

(ii) When construction of assets is completed by 28th February, 20X2

When the process of renovation gets completed in less than 12 months, the plant and machinery and the additional assets will not be considered as qualifying assets (until and unless the entity specifically considers that the assets took substantial period for completing their construction). Accordingly, the whole of interest will be charged off / expensed off to Profit and Loss account.

3. Paragraph 14 of Ind AS 23, inter-alia, states that to the extent that an entity borrows funds generally and uses them for the purpose of obtaining a qualifying asset, the entity shall determine the amount of borrowing costs eligible for capitalisation by applying a capitalisation rate to the expenditures on that asset. The capitalisation rate shall be the weighted average of the borrowing costs applicable to all borrowings of the entity that are outstanding during the period. However, an entity shall exclude from this calculation borrowing costs applicable to borrowings made specifically for the purpose of obtaining a qualifying asset until substantially all the activities necessary to prepare that asset for its intended use or sale are complete. The amount of borrowing costs that an entity capitalises during a period shall not exceed the amount of borrowing costs it incurred during that period.

In this context, a question arises whether such expenditure should be based on costs accrued or actual cash outflows. To contrast these two alternatives, presented below is the computation of borrowing costs based on both the alternatives:

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Month	Cost of construction Accrued	Average capital expenditure	Cash outflows (paid in advance at the start of each month)	Average capital expenditure
September	1.50	1.50 x 7/12= 0.875	3.00	3.00 x 7/12 = 1.75
October	0.50	0.50 x 6/12= 0.25	1.70	1.70 x 6/12 = 0.85
November	1.50	1.50 x 5/12= 0.625	2.50	2.50 x 5/12 = 1.04
December	0.50	0.50 x 4/12 = 0.17	-	-
January	1.80	1.80 x 3/12 = 0.45	1.00	1 x 3/12 = 0.25
February	0.70	0.70 x 2/12 = 0.12	-	-
March	3.00	3.00 x 1/12 = 0.25	1.50	1.50 x 1/12= 0.125
	9.50	**2.74**	**9.70**	**4.02**

If the average capital expenditure on the basis of costs accrued is taken, the borrowing costs eligible to be capitalised would be ₹ 2.74 crore x 11% = 0.30 crore. Whereas, if average capital expenditure on the basis of cash flows is taken, the borrowing costs eligible to be capitalised would be ₹ 4.02 crore x 11% = 0.44 crore. Thus, there is a wide variance in the amount of borrowing cost to be capitalised, based on an accrual basis and on actual cash flows basis. This divergence is often experienced during the implementation of large projects, for example, an advance given to a supplier involves an upfront cash outflow while the actual expenditure accrues in later periods (with the receipt of goods and services).

As per paragraph 18 of Ind AS 23, expenditures on a qualifying asset include only those expenditures that have resulted in payments of cash, transfers of other assets or the assumption of interest-bearing liabilities. Expenditures are reduced by any progress payments received and grants received in connection with the asset (see Ind AS 20, Accounting for Government Grants and Disclosure of Government Assistance). The average carrying amount of the asset during a period, including borrowing costs previously capitalised, is normally a reasonable approximation of the expenditures to which the capitalization rate is applied in that period.

Where cash has been paid but the corresponding cost has not yet accrued interest becomes payable on payment of cash. Therefore, the amount so paid should be considered for determining the amount of interest eligible for capitalisation, subject to the fulfillment of

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other conditions prescribed in paragraph 16 of Ind AS 23. Accordingly, in the present case, interest should be computed on the basis of the cash flows rather than on the basis of costs accrued. Therefore, the amount of interest eligible for capitalisation would be ₹ 0.44 crore.

Another important factor to be noted is that paragraph 14 requires, inter alia, that the amount of borrowing costs that an entity capitalises during a period shall not exceed the amount of borrowing costs it incurred during that period. Thus, the amount of borrowing costs to be capitalised should not exceed the total borrowing costs incurred during the period, that is ₹ 0.5 crore.

4.

	Particulars	**₹**
1.	Interest expense on loan ₹ 2,00,00,000 at 15%	30,00,000
2	Total cost of Phases I and II (₹ 34,00,000 +64,00,000)	98,00,000
3.	Total cost of Phases III and IV (₹ 55,00,000 + ₹ 68,00,000)	1,23,00,000
4.	Total cost of all 4 phases	2,21,00,000
5.	Total loan	2,00,00,000
6.	Interest on loan used for Phases I & II, based on proportionate Loan amount = $\frac{30,00,000}{2,21,00,000} \times 98,00,000$	13,30,317 (approx.)
7.	Interest on loan used for Phases III & IV, based on proportionate Loan amount= $\frac{30,00,000}{2,21,00,000} \times 1,23,00,000$	16,69,683 (approx.)

Accounting treatment:

1. For Phase I and Phase II

Since Phase I and Phase II have become operational at mid of the year, half of the interest amount of ₹ 6,65,158.50 (i.e. ₹ 13,30,317/2) relating to Phase I and

Phase II should be capitalized (in the ratio of asset costs 34:64) and added to respective assets in Phase I and Phase II and remaining half of the interest amount of ₹ 6,65,158.50 (i.e. ₹ 13,30,317/2) relating to Phase I and Phase II should be expensed off during the year.

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2. For Phase III and Phase IV

Interest of ₹ 16,69,683 relating to Phase III and Phase IV should be held in Capital Work-in-Progress till assets construction work is completed, and thereafter capitalized in the ratio of cost of assets. No part of this interest amount should be charged/expensed off during the year since the work on these phases has not been completed yet.

5. Applying paragraph 17 of Ind AS 23 to the fact pattern, the entity would not begin capitalising borrowing costs until it incurs borrowing costs (i.e. from 1st July, 20X1)

In determining the expenditures on a qualifying asset to which an entity applies the capitalisation rate (paragraph 14 of Ind AS 23), the entity does not disregard expenditures on the qualifying asset incurred before the entity obtains the general borrowings. Once the entity incurs borrowing costs and therefore satisfies all three conditions in para 17 of Ind AS 23, it then applies paragraph 14 of Ind AS 23 to determine the expenditures on the qualifying asset to which it applies the capitalisation rate.

Calculation of borrowing cost for financial year 20X0-20X1

Expenditure		**Capitalization Period (current year)**	**Weighted average Accumulated Expenditure**
Date	**Amount**		
1st January 20X1	₹ 5 crore	0/3	Nil

Borrowing Costs eligible for capitalisation = NIL. LT Ltd. cannot capitalise borrowing costs before 1st July, 20X1 (the day it starts to incur borrowing costs).

Calculation of borrowing cost for financial year 20X1-20X2

Expenditure		**Capitalization Period (current year)**	**Weighted average Accumulated Expenditure**
Date	Amount		
1st January, 20X1	₹ 5 crore	9/12*	₹ 3.75 crore
30th June, 20X1	₹ 20 crore	9/12	₹ 15 crore
31st March, 20X2	₹ 20 crore	0/12	Nil
Total			₹ 18.75 crore

Borrowing Costs eligible for capitalisation = 18.75 cr. x 10% = ₹ 1.875 cr.

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*LT Ltd. cannot capitalise borrowing costs before 1st July, 20X1 (the day it starts to incur borrowing costs). Accordingly, this calculation uses a capitalization period from 1st July, 20X1 to 31st March, 20X2 for this expenditure.

Calculation of borrowing cost for financial year 20X2-20X3

Expenditure		Capitalization Period (current year)	Weighted average Accumulated Expenditure
Date	**Amount**		
1st January, 20X1	₹ 5 crore	3/12	₹ 1.25 crore
30th June, 20X1	₹ 20 crore	3/12	₹ 5 crore
31st March, 20X2	₹ 20 crore	3/12	₹ 5 crore
31st March, 20X2	₹ 1.875 crore	3/12	₹ 0.47 crore
30th June, 20X2	₹ 5 crore	0/12	Nil
Total			₹ 11.72 crore

Borrowing costs eligible for capitalisation = ₹ 11.72 cr. x 10% = ₹ 1.172 cr.

6. As per Ind AS 23 'Borrowing Costs', the commencement date for capitalisation of borrowing cost on qualifying asset is the date when the entity first meets all of the following conditions:

(a) it incurs expenditures for the asset;

(b) it incurs borrowing costs; and

(c) it undertakes activities that are necessary to prepare the asset for its intended use or sale.

Further, an entity also does not suspend capitalising borrowing costs when a temporary delay is a necessary part of the process of getting an asset ready for its intended use or sale. For example, capitalisation continues during the extended period that high water levels delay construction of a bridge, if such high-water levels are common during the construction period in the geographical region involved.

An entity shall cease capitalising borrowing costs when substantially all the activities necessary to prepare the qualifying asset for its intended use or sale are complete.

Further, paragraph 23 explains that an asset is normally ready for its intended use or sale when the physical construction of the asset is complete even though routine administrative work might still continue. If minor modifications, such as the decoration of a property to the purchaser's or user's specification, are all that are outstanding, this indicates that substantially all the activities are complete.

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In the given case since the site planning work started for the project on 1st June, 20X2, the commencement of capitalisation of borrowing cost will begin from 1st June, 20X2.

(i) When landslide is not common in Shimla and delay in approval from District Administration Office is minor administrative work leftover

In such a situation, suspension of capitalisation of borrowing cost on construction work will be considered for 3 months i.e. from October, 20X2 to December, 20X2 and cessation of capitalisation of borrowing cost shall stop at the time of completion of physical activities.

Accordingly, the borrowing cost to be capitalized will be effectively for 6 months i.e. from 1st June, 20X2 to 30th September, 20X2 and then from 1st January, 20X3 to 28th February, 20X3 i.e. total 6 months. The amount of borrowing cost will be ₹ 6,00,000 (1,00,00,000 x 6/12 x 12%).

(ii) When landslide is common in Shimla and delay in approval from District Administration Office is major administrative work leftover

Since landslides are common in Shimla during the monsoon period, there shall be no suspension of capitalisation of borrowing cost during that period.

Further, an asset can be considered to be ready for its intended use only on receipt of approvals and after compliance with regulatory requirements such as "Fire Clearances" etc. These are very important to declare the asset as ready for its scheduled operation.

In the given case, obtaining the safety approval is a necessary condition that needs to be complied with strictly and before obtaining the same the entity will not be able to use the building. Accordingly, it is appropriate to continue capitalisation until the said approvals are obtained.

Hence, the capitalisation of the borrowing cost will be for 9.5 months i.e. from 1st June, 20X2 till 15th March, 20X3. The amount of borrowing cost will be ₹ 9,50,000 (1,00,00,000 x 9.5/12 x 12%).

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7. Statement showing the interest paid and received during the period of construction

	₹
Interest payable for December 20X8 at 12% (10,00,000 x 12% x 1/12)	10,000
Interest payable for January 20X9 at 12% (10,00,000 x 12% x 1/12)	10,000
Interest for February 20X9 at 13% (10,00,000 x 13% x 1/12)	10,833
Interest payable for March 20X9 at 13% (10,00,000 x 13% x 1/12)	10,834
Total interest payable during the construction period till March 20X9 (A)	41,667
Interest receivable on re-invested funds of ₹ 9,00,000 in September 20X9 [(10,00,000 – 1,00,000) x 5% x 1/12]	3,750
Interest receivable on re-invested funds of ₹ 6,50,000 in October 20X9 [(9,00,000 – 2,50,000) x 5% x 1/12]	2,708
Interest receivable on re-invested funds of ₹ 4,00,000 in November 20X9 [(6,50,000 – 2,50,000) x 5% x 1/12]	1,667
Interest receivable on re-invested funds of ₹ 1,50,000 in December 20X9 [(4,00,000 – 2,50,000) x 5% x 1/12]	625
Total interest receivable till March, 20X9 (B)	8,750
Net interest cost (A) - (B)	32,917

The borrowing is specific to the qualifying asset and the borrowing costs eligible for captialisation are the actual cost incurred during the construction period less any investment income on the temporary investment of the borrowings. The amount of borrowing costs that can be capitalised is ₹ 32,917.

Commencement of capitalization of borrowing costs will be said from the period when all the three criteria as mentioned in para 17 of Ind AS 23 are met. Although the funds were drawn down under the borrowings on 1st May 20X8, the construction started from 1st December, 20X8. Hence, the borrowing costs incurred prior to 1st December, 20X8 cannot be said to be directly attributable to the asset's construction, as no expenditure on the asset is being incurred.

8. In the separate financial statements of:

- the subsidiary S Ltd., the borrowing costs are capitalised to the extent of the actual costs incurred by the subsidiary.

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- the parent P Ltd., the parent recognises only the inter company loan given to the subsidiary. There is no qualifying asset in the separate financial statements of P Ltd., so the borrowing costs cannot be capitalised in the separate financial statements of the parent P Ltd.

In the consolidated financial statements of the parent P Ltd., capitalisation of borrowing costs is required. However, the amount of the borrowing costs incurred by the subsidiary in the case of inter-company loans should be adjusted to reflect how the qualifying asset was financed from the perspective of the group as a whole:

- if the group uses external general borrowings, the borrowing costs capitalised by the subsidiary are adjusted if the capitalisation rate at the group level is different from the rate used by the subsidiary.
- if the group uses specific external borrowings, the borrowing costs are adjusted if the borrowing costs on the external borrowings vary from the amount of borrowing costs capitalised by a subsidiary.

Borrowing costs calculated and capitalised in accordance with Ind AS 23 cannot exceed the amount of borrowing costs incurred by the group.

In the given case, since the parent has taken specific borrowing for the purpose of lending it to subsidiary at the same rate of interest, hence the borrowing cost will not be required to be adjusted and will be the same as incurred by P Ltd.

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INDIAN ACCOUNTING STANDARD 36: IMPAIRMENT OF ASSETS

Questions

1. Cash flow is ₹ 100, ₹ 200 or ₹ 300 with probabilities of 10%, 60% and 30%, respectively. Calculate expected cash flows.

2. Cash flow of ₹ 1,000 may be received in one year, two years or three years with probabilities of 10%, 60% and 30%, respectively. Calculate expected cash flows assuming applicable discount rate of 5%, 5.25% and 5.5% in year 1, 2 and 3, respectively.

3. Calculate expected cash flows in each of the following cases:

   (a) the estimated amount falls somewhere between ₹ 50 and ₹ 250, but no amount in the range is more likely than any other amount.

   (b) the estimated amount falls somewhere between ₹ 50 and ₹ 250, and the most likely amount is ₹ 100. However, the probabilities attached to each amount are unknown.

   (c) the estimated amount will be ₹ 50 (10 per cent probability), ₹ 250 (30 per cent probability), or ₹ 100 (60 per cent probability).

4. Elia limited is a manufacturing company which deals in to manufacturing of cold drinks and beverages. It is having various plants across India. There is Machinery A in the Baroda plant which is used for the purpose of bottling. There is one more machinery which is Machinery B clubbed with Machinery A. Machinery A can individually have an output and also sold independently in the open market. Machinery B cannot be sold in isolation and without clubbing with Machine A it cannot produce output as well. The Company considers this group of assets as a Cash Generating Unit and an Inventory amounting to ₹ 2 lakh and Goodwill amounting to ₹ 1.50 lakhs is included in such CGU.

   Machinery A was purchased on 1st April 20X3 for ₹ 10 lakhs and residual value is ₹ 50 thousand. Machinery B was purchased on 1st April, 20X5 for ₹ 5 lakhs with no residual value. The useful life of both Machine A and B is 10 years. The Company expects following cash flows in the next 5 years pertaining to Machinery A. The incremental borrowing rate of the company is 10%.

Year	Cash Flows from Machinery A
1	1,50,000

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2	1,00,000
3	1,00,000
4	1,50,000
5	1,00,000 (excluding Residual Value)
Total	**6,00,000**

On 31st March, 20X8, the professional valuers estimated that the current market value of Machinery A is ₹ 7 lakhs. The valuation fee was ₹ 1 lakh. There is a need to dismantle the machinery before delivering it to the buyer. The dismantling cost is ₹ 1.50 lakhs. Specialised packaging costs would be ₹ 25 thousand and legal fees would be ₹ 75 thousand.

The Inventory has been valued in accordance with Ind AS 2. The recoverable value of CGU is ₹ 10 Lakh as on 31st March, 20X8. In the next year, the company has done the assessment of recoverability of the CGU and found that the value of such CGU is ₹ 11 Lakhs ie on 31st March, 20X9. The recoverable value of Machine A is ₹ 4,50,000 and combined Machine A and B is ₹ 7,60,000 as on 31st March, 20X9.

Required:

(a) Compute the impairment loss on CGU and carrying value of each asset after charging impairment loss for the year ending 31st March, 20X8 by providing all the relevant working notes to arrive at such calculation.

(b) Compute the prospective depreciation for the year 20X8-20X9 on the above assets.

(c) Compute the carrying value of CGU as at 31st March, 20X9.

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

- The machine was purchased on 1st April, 20X1 at a cost of ₹ 5,00,000 through a vendor financing arrangement on which interest is being charged at the rate of 10% per annum.
- During the year ended 31st March, 20X3, E Ltd. sold 10,000 steering wheels at a selling price of ₹ 190 per wheel.
- The most recent financial budget approved by E Ltd.'s management, covering the period 1st April, 20X3 – 31st March, 20X8, including that the company expects to sell each steering wheel for ₹ 200 during 20X3-20X4, the price rising in later years in line with a forecast inflation of 3% per annum.

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

Assume a tax rate of 30%.

Determine the value in use of the machine in accordance with Ind AS 36?

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

	₹ '000
Year ended 31st March 20X7	276
Year ended 31st March 20X8	192

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Year ended 31st March 20X9	120
Year ended 31st March 20Y0	114

The above cash inflows should be assumed to occur on the last day of each financial year. The pre-tax discount rate is 9%. The machine could have been sold at 31st March 20X6 for ₹ 6,00,000 and related selling expenses in this regard could have been ₹ 96,000. The machine had been revalued previously, and at 31st March 20X6 an amount of ₹ 36,000 was held in revaluation surplus in respect of the asset. The carrying value of the asset at 31st March 20X6 was ₹ 6,60,000. The Indian government has indicated that it may compensate the company for any loss in value of the assets up to its recoverable amount.

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

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

   Calculate:

   (a) The carrying amount of the machine on 31st December Year 2 and the revaluation surplus arising on 1 January Year 3.

   (b) The carrying amount of the machine on 31st December Year 3 (immediately before the impairment).

   (c) The impairment loss recognised in the year to 31st December Year 4 and its treatment thereon

   (d) The depreciation charge in the year to 31st December Year 4.

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

8. On 31 March 20X1, Vision Ltd acquired 80% of the equity shares of Mission Ltd for ₹ 190 million. The fair values of the net assets of Mission Ltd that were included in the consolidated balance sheet of Vision Ltd at 31 March 20X1 were ₹ 200 million. It is the

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Group's policy to value the non-controlling interest in subsidiaries at the date of acquisition at its proportionate share of the fair value of the subsidiaries' identifiable net assets.

On 31st March 20X4, Vision Ltd carried out its annual review of the goodwill on consolidation of Mission Ltd and found evidence of impairment. No impairment had been evident when the reviews were carried out at 31st March 20X2 and 31st March 20X3. The review involved allocating the assets of Mission Ltd into three cash-generating units and computing the value in use of each unit. The carrying values of the individual units before any impairment adjustments are given below:

	Unit A ₹ in million	Unit B ₹ in million	Unit C ₹ in million
Intangible assets	30	10	-
Property, Plant and Equipment	80	50	60
Current Assets	60	30	40
Total	170	90	100
Value in use of unit	180	66	104

It was not possible to meaningfully allocate the goodwill on consolidation to the individual cash generating units but all the other net assets of Mission Ltd are allocated in the table shown above.

The intangible assets of Mission Ltd have no ascertainable market value but all the current assets have a market value that is at least equal to their carrying value. The value in use of Mission Ltd as a single cash-generating unit on 31st March 20X4 is ₹ 350 million.

Discuss and compute the accounting treatment of impairment of goodwill as per Ind AS 36?

9. On 31st March, 20X1, Jackson Ltd. purchased 80% of the equity of Kaplan Ltd. for ₹ 190 million. The fair values of the net assets of Kaplan Ltd. that were included in the consolidated balance sheet of Jackson Ltd. at 31st March, 20X1 were measured at ₹ 200 million (their fair values at that date). It is the group policy to value the non-controlling interest in subsidiaries at the date of acquisition at its proportionate share of the fair value of the subsidiaries' identifiable net assets.

On 31st March, 20X4, Jackson Ltd. carried out its annual review of the goodwill on consolidation of Kaplan Ltd. for evidence of impairment. No impairment had been evident when the reviews were carried out on 31st March, 20X2 and 31st March, 20X3. The review

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involved allocating the assets of Kaplan Ltd. into three cash-generating units and computing the value in use of each unit. The carrying values of the individual units before any impairment adjustments are given below:

	Unit A ₹ in million	Unit B ₹ in million	Unit C ₹ in million
Intangible assets	30	10	-
Property, Plant and Equipment	80	50	60
Current Assets	60	30	40
Total	170	90	100
Value in use of unit	180	66	104

It was not possible to meaningfully allocate the goodwill on consolidation to the individual cash generating unit but all the other net assets of Kaplan Ltd. are allocated in the table shown above.

The intangible assets of Kaplan Ltd. have no ascertainable market value but all the current assets have a market value that is at least equal to their carrying value. The value in use of Kaplan Ltd. as a single cash-generating unit on 31st March, 20X4 is ₹ 350 million.

Recommend the treatment for impairment of goodwill.

10. At 31st March, 20X1, the assets of a CGU are being reviewed for impairment. The carrying value of the CGU's net assets is ₹ 65 lakhs (excluding any restructuring provision) and remaining useful economic life of recognised asset is eight years.

Management's approved budgets at 31st March, 20X1 include restructuring costs of ₹ 3,50,000 to be incurred in 20X2; the restructuring is expected to generate cost savings of ₹ 1,00,000 per annum from 20X3 onwards. Formal budgets have been prepared for the three years to 31st March, 20X4. A zero-growth rate is assumed, because market conditions are extremely competitive, and this is expected to continue for the foreseeable future. The future cash flow estimates are as follows:

Year	**With restructuring consideration**	**Without restructuring consideration**
	₹	₹
20X1-20X2	5,20,000	8,70,000
20X2-20X3	10,00,000	9,00,000
20X3-20X4	10,50,000	9,50,000

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20X4-20X5	10,50,000	9,50,000
20X5-20X6	10,50,000	9,50,000
20X6-20X7	10,50,000	9,50,000
20X7-20X8	10,50,000	9,50,000
20X8-20X9	10,50,000	9,50,000

In 20X2, the net cash flows without restructuring (₹ 8,70,000) exceed the net cash flows with restructuring (₹ 5,20,000) by the amount of the restructuring costs (₹ 3,50,000).

The future cash flows (which exclude inflation) have been discounted at a rate of 4%. For simplicity, it has been assumed that the cash flows arise at the end of each year.

Compute Impairment Loss at 31st March, 20X1 when-

(i) Restructuring costs is recognised in the financial statements at 31st March, 20X1

(ii) Restructuring costs is not recognised in the financial statements at 31st March, 20X1.

11. The UK entity with a sterling functional currency has a property located in US, which was acquired at a cost of US$ 1.8 million when the exchange rate was £1 = US$ 1.60. The property is carried at cost. At the balance sheet date, the recoverable amount of the property (as a result of an impairment review) amounted to US$ 1.62 million, when the exchange rate £1 = US$ 1.80. Compute the amount which is to be reported in Profit & Loss of UK entity as a result of impairment, if any. Ignore depreciation. Also analyse the total impairment loss on account of change in value due to impairment component and exchange component.

Answers

1.

Cash flows	Probability	Expected cash flow
100	10%	10
200	60%	120
300	30%	90
Total		220

The expected cash flow is ₹ 220.

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2.

Year	Cash flows	P.V.F.	Present value	Probability	Expected cash flows
1	1,000	0.95238	952.38	10%	95.24
2	1,000	0.90273	902.73	60%	541.64
3	1,000	0.85161	851.61	30%	255.48
Total					892.36

The expected present value is ₹ 892.36.

3. (a) the estimated expected cash flow is ₹ 150 [(50 + 250)/2].

(b) the estimated expected cash flow is ₹ 133.33 [(50 + 100 + 250)/3].

(c) the estimated expected cash flow is ₹ 140 [(50 × 0.10) + (250 × 0.30) + (100 × 0.60)].

4. (a) Computation of impairment loss and carrying value of each of the asset in CGU after impairment loss

(i) Calculation of carrying value of Machinery A and B before impairment

Machinery A		
Cost	(A)	₹ 10,00,000
Residual Value		₹ 50,000
Useful life		10 years
Useful life already elapsed		5 years
Yearly depreciation	(B)	₹ 95,000
WDV as at 31st March, 20X8 [A- (B x 5)]		**₹ 5,25,000**
Machinery B		
Cost	(C)	₹ 5,00,000
Residual Value		-
Useful life		10 years
Useful life already elapsed		3 years
Yearly depreciation	(D)	₹ 50,000
WDV as at 31st March, 20X8 [C- (D x 3)]		**₹ 3,50,000**

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(ii) Calculation of Value-in-use of Machinery A

Period	Cash Flows (₹)	PVF	PV
1	1,50,000	0.909	1,36,350
2	1,00,000	0.826	82,600
3	1,00,000	0.751	75,100
4	1,50,000	0.683	1,02,450
5	1,00,000	0.621	62,100
5	50,000	0.621	31,050
Value in use			**4,89,650**

(iii) Calculation of Fair Value less cost of disposal of Machinery A

	₹
Fair Value	7,00,000
Less: Dismantling cost	(1,50,000)
Packaging cost	(25,000)
Legal Fees	(75,000)
Fair value less cost of disposal	**4,50,000**

(iv) Calculation of Impairment loss on Machinery A

	₹
Carrying Value	5,25,000
Less: Recoverable Value ie higher of Value-in-use and Fair value less cost of disposal	4,89,650
Impairment Loss	**35,350**

(v) Calculation of Impairment loss of CGU

1. First goodwill will be impaired fully and then the remaining impairment loss of ₹ 75,000 will be allocated to Machinery A and B.

2. If we allocate remaining impairment loss to Machinery A and B on pro-rata basis, it would come to ₹ 45,000 on Machinery A. However, the impairment loss of Machinery A cannot exceed ₹ 35,350. Hence, impairment to CGU will be as follows:

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	Carrying value before impairment loss	Impairment loss	Carrying value after impairment loss
	₹	₹	₹
Machinery A	5,25,000	35,350	4,89,650
Machinery B	3,50,000	39,650*	3,10,350
Inventory	2,00,000	-	2,00,000
Goodwill	1,50,000	1,50,000	-
Total	**12,25,000**	**2,25,000**	**10,00,000**

* Balancing figure.

(b) Carrying value after adjustment of depreciation

	₹
Machinery A [4,89,650 – {(4,89,650 - 50,000) / 5}]	4,01,720
Machinery B [3,10,350 – (3,10,350 / 7)]	2,66,014
Inventory	2,00,000
Goodwill	-
Total	**8,67,734**

(c) Calculation of carrying value of CGU as on 31st March, 20X9

The revised value of CGU is ₹ 11 Lakh. However, impaired goodwill cannot be reversed. Further, the individual assets cannot be increased above the lower of recoverable value or Carrying Value as if the assets were never impaired.

Accordingly, the carrying value as on 31st March, 20X9 assuming that the impairment loss had never incurred, will be:

	Carrying Value	Recoverable Value	Final CV as at 31st Mar 20X9
Machinery A	4,30,000	4,50,000	4,30,000
Machinery B	3,00,000	(7,60,000 – 4,50,000) 3,10,000	3,00,000
Inventory	2,00,000	2,00,000	2,00,000
Goodwill	-		
Total	**9,30,000**	**9,60,000**	**9,30,000**

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Hence, the impairment loss to be reversed will be limited to ₹ 62,266 only (₹ 9,30,000 – ₹ 8,67,734).

Note: It is assumed that value of inventory is same in 20X9 as it was in 20X8.

5. Calculation of the value in use of the machine owned by E Ltd. includes the projected cash inflow (i.e. sales income) from the continued use of the machine and projected cash outflows that are necessarily incurred to generate those cash inflows (i.e cost of goods sold). Additionally, projected cash inflows include ₹ 80,000 from the disposal of the asset in March, 20X8. Cash outflows include routing capital expenditures of ₹ 50,000 in 20X5-20X6

As per Ind AS 36, estimates of future cash flows shall not include:

- Cash inflows from receivables
- Cash outflows from payables
- Cash inflows or outflows expected to arise from future restructuring to which an entity is not yet committed
- Cash inflows or outflows expected to arise from improving or enhancing the asset's performance
- Cash inflows or outflows from financing activities
- Income tax receipts or payments.

Hence in this case, cash flows do not include financing interest (i.e. 10%), tax (i.e. 30%) and capital expenditures to which E Ltd. has not yet committed (i.e. ₹ 1,00,000). They also do not include any savings in cash outflows from these capital expenditures, as required by Ind AS 36.

The cash flows (inflows and outflows) are presented below in nominal terms. They include an increase of 3% per annum to the forecast price per unit (B), in line with forecast inflation. The cash flows are discounted by applying a discount rate (8%) that is also adjusted for inflation.

Note: Figures are calculated on full scale and then rounded off to the nearest absolute value.

Year ended	20X3-20X4	20X4-20X5	20X5-20X6	20X6-20X7	20X7-20X8	Value in use
Quantity (A)	10,000	10,500	11,025	11,576	12,155	
Price per unit (B)	₹ 200	₹ 206	₹ 212	₹ 219	₹ 225	

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Estimated cash inflows (C=A x B)	₹ 20,00,000	₹ 21,63,000	₹ 23,37,300	₹ 25,35,144	₹ 27,34,875	
Misc. cash inflow disposal proceeds (D)					₹ 80 000	
Total estimated cash inflows (E=C+D)	₹ 20,00,000	₹ 21,63,000	₹ 23,37,300	₹ 25,35,144	₹ 28,14,875	
Cost per unit (F)	₹ 160	₹ 162	₹ 165	₹ 168	₹ 171	
Estimated cash outflows (G = A x F)	(₹16,00,000)	(₹17,01,000)	(₹18,19,125)	(₹19,44,768)	(₹20,78,505)	
Misc. cash outflow: maintenance costs (H)			(₹ 50,000)			
Total estimated cash outflows (I=G+H)	(₹16,00,000)	(₹17,01,000)	(₹18,69,125)	(₹19,44,768)	(₹20,78,505)	
Net cash flows (J=E-I)	₹ 4,00,000	₹ 4,62,000	₹ 4,68,175	₹ 5,90,376	₹ 7,36,370	
Discount factor 8%* (K)	0.9259	0.8573	0.7938	0.7350	0.6806	
Discounted future cash flows (L=J x K)	₹ 3,70,360	₹ 3,96,073	₹ 3,71,637	₹ 4,33,926	₹ 5,01,173	₹20,73,169

* Since the future cash flows are estimated on a pre-tax basis, the discount rate is also determined on a pre-tax basis.

6. Carrying amount of asset on 31st March 20X6 = ₹ 6,60,000

Calculation of Value in Use:

Year ended	Cash flow ₹	Discount factor @ 9%	Amount ₹
31st March, 20X7	2,76,000	0.9174	2,53,202
31st March, 20X8	1,92,000	0.8417	1,61,606
31st March, 20X9	1,20,000	0.7722	92,664
31st March, 20Y0	1,14,000	0.7084	80,758
		Total (Value in Use)	**5,88,230**

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Calculation of Recoverable amount:

Particulars	Amount (₹)
Value in use	5,88,230
Fair value less costs of disposal (6,00,000 – 96,000)	5,04,000
Recoverable amount (Higher of value in use and fair value less costs of disposal)	5,88,230

Calculation of Impairment loss:

Particulars	Amount (₹)
Carrying amount	6,60,000
Less: Recoverable amount	(5,88,230)
Impairment loss	71,770

Calculation of Revised carrying amount:

Particulars	Amount (₹)
Carrying amount	6,60,000
Less: Impairment loss	(71,770)
Revised carrying amount	5,88,230

Calculation of Revised Depreciation:

Revised carrying amount – Residual value

Remaining life = (5,88,230 - 0) / 4 = ₹ 1,47,058 per annum

Set off of Impairment loss:

The impairment loss of ₹ 71,770 must first be set off against any revaluation surplus in relation to the same asset. Therefore, the revaluation surplus of ₹ 36,000 is eliminated against impairment loss, and the remainder of the impairment loss ₹ 35,770 (₹ 71,770 – ₹ 36,000) is charged to profit and loss.

Treatment of Government compensation:

Any compensation by the government would be accounted for as such when it becomes receivable. At this time, the government has only stated that it may reimburse the company and therefore credit should not be taken for any potential government receipt.

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7. (a) Calculation of Carrying amount of machine at the end of Year 2

	₹
Cost of machine	2,40,000
Accumulated depreciation for 2 years [2 years × (2,40,000 ÷ 20)]	(24,000)
Carrying amount of the machine at the end of Year 2	2,16,000

(b) Calculation of carrying amount of the machine on 31 December Year 3

	₹
Carrying amount at the beginning of Year 3	2,16,000
Revaluation done at the beginning of Year 3	2,50,000
Revaluation surplus	34,000

(c) Calculation of Impairment loss at the end of Year 4

When machine is revalued on 1 January Year 3, depreciation is charged on the revalued amount over its remaining expected useful life.

Valuation at 1 January (re-valued amount)	2,50,000
Accumulated depreciation in Year 3 (2,50,000 / 18)	(13,889)
Carrying amount of the asset at the end of Year 3	2,36,111
On 1 January Year 4, recoverable amount of the machine	1,00,000
Impairment loss (2,36,111 – 1,00,000)	1,36,111

An impairment loss of ₹ 34,000 will be taken to other comprehensive income (reducing the revaluation surplus for the asset to zero)

The remaining impairment loss of ₹ 1,02,111 (1,36,111 – 34,000) is recognised in the Statement of Profit and Loss for the Year 4.

(d) Calculation of depreciation charge in the Year 4

Carrying value of the machine at the beginning of Year 4	₹ 1,00,000
Estimated remaining useful life	10 years
Depreciation charge is (₹ 1,00,000 / 10 years)	₹ 10,000

8. The goodwill on consolidation of Mission Ltd that is recognized in the consolidated balance sheet of Vision Ltd is ₹ 30 million (₹ 190 million – 80% x ₹ 200 million). This can only be reviewed for impairment as part of the cash generating units to which it relates. Since here

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the goodwill cannot be meaningfully allocated to the units, the impairment review is in two parts.

Units A and C have values in use that are more than their carrying values. However, the value in use of Unit B is less than its carrying amount. This means that the assets of unit B are impaired by ₹ 24 million (₹ 90 million – ₹ 66 million). This impairment loss will be charged to the statement of profit and loss.

Assets of Unit B will be written down on a pro-rata basis as shown in the table below:

(₹ in million)

Asset	Impact on carrying value		
	Existing	Impairment	Revised
Intangible assets	10	(4)	6
Property, plant and equipment	50	(20)	30
Current assets	30	Nil*	30
Total	90	(24)	66

* The current assets are not impaired because they are expected to realize at least their carrying value when disposed of.

Following this review, the three units plus the goodwill are reviewed together i.e. treating Mission Limited as single cash generating Unit. The impact of this is shown in the following table, given that the recoverable amount of the business as a whole is ₹ 350 million:

(₹ in million)

Component	Impact of impairment review on carrying value		
	Existing	Impairment	Revised
Goodwill (see note below)	37.50	(23.50)	14.00
Unit A	170.00	Nil	170.00
Unit B (revised)	66.00	Nil	66.00
Unit C	100.00	Nil	100.00
Total	373.50	(23.50)	350.00

Note: As per Appendix C of Ind AS 36, given that the subsidiary is 80% owned the goodwill must first be grossed up to reflect a notional 100% investment. Therefore, the goodwill will be grossed up to ₹ 37.50 million (₹ 30 million x 100/80).

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The impairment loss of ₹ 23.50 million is all allocated to goodwill, leaving the carrying values of the individual units of the business as shown in the table immediately above.

The table shows that the notional goodwill that relates to a 100% interest is written down by ₹ 23.50 million to ₹ 14.00 million. However, in the consolidated financial statements the goodwill that is recognized is based on an 80% interest so the loss that is actually recognized is ₹ 18.80 million (₹ 23.50 million x 80%) and the closing consolidated goodwill figure is ₹ 11.20 million (₹ 14.00 million x 80%) or (₹ 30 million – ₹ 18.80 million).

9. The goodwill on consolidation of Kaplan Ltd. that is recognized in the consolidated balance sheet of Jackson Ltd. is ₹ 30 million (₹ 190 million – 80% x ₹ 200 million). This can only be reviewed for impairment as part of the cash generating units to which it relates. Since here the goodwill cannot be meaningfully allocated to the units, the impairment review is in two parts.

Units A and C have values in use that are more than their carrying values. However, the value in use of Unit B is less than its carrying amount. This means that the assets of unit B are impaired by ₹ 24 million (₹ 90 million – ₹ 66 million). This impairment loss will be charged to the Statement of Profit and Loss.

Assets will be written down on a pro-rata basis as shown in the table below: **₹ in million**

Asset	**Impact on carrying value**		
	Existing	**Impairment**	**Revised**
Intangible assets	10	(4)	6
Property, plant and equipment	50	(20)	30
Current assets	30	Nil*	30
Total	90	(24)	66

*The current assets are not impaired because they are expected to realize at least their carrying value when disposed of.

Following this review, the three units plus the goodwill are reviewed together. The impact of this is shown in the following table, given that the recoverable amount of the business as a whole is ₹ 350 million. **₹ in million**

Component	**Impact of impairment review on carrying value**		
	Existing	**Impairment**	**Revised**
Goodwill (see below)	37.50	(23.50)	14.00

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Unit A	170.00	Nil	170.00
Unit B (revised)	66.00	Nil	66.00
Unit C	100.00	Nil	100.00
Total	373.50	(23.50)	350.00

As per Appendix C of Ind AS 36, given that the subsidiary is 80% owned the goodwill must first be grossed up to reflect a notional 100% investment. Therefore, the goodwill will be grossed up to ₹ 37.50 million (₹ 30 million x 100/80). The impairment loss of ₹ 23.50 million is all allocated to goodwill, leaving the carrying values of the individual units of the business as shown in the table immediately above.

The table shows that the notional goodwill that relates to a 100% interest is written down by ₹ 23.50 million to ₹ 14.00 million. However, in the consolidated financial statements the goodwill that is recognized is based on an 80% interest so the loss that is actually recognized is ₹ 18.80 million (₹ 23.50 million x 80%) and the closing consolidated goodwill figure is ₹ 11.20 million (₹ 14.00 million x 80%) or (₹ 30 million – ₹ 18.80 million).

10. Computation of present value of cash flows under both the following conditions:

(Amount in ₹)

Year	Discount factor	With restructuring consideration		Without restructuring coordination	
		Future net cash flows	Present value	Future net cash flows	Present value
	(a)	(b)	(c)=(a)x(b)	(d)	(e)=(a)x(d)
20X1-20X2	0.962	5,20,000	5,00,000	8,70,000	8,36,000
20X2-20X3	0.925	10,00,000	9,25,000	9,00,000	8,32,000
20X3-20X4	0.889	10,50,000	9,33,000	9,50,000	8,45,000
20X4-20X5	0.855	10,50,000	8,98,000	9,50,000	8,12,000
20X5-20X6	0.822	10,50,000	8,63,000	9,50,000	7,81,000
20X6-20X7	0.790	10,50,000	8,30,000	9,50,000	7,51,000
20X7-20X8	0.760	10,50,000	7,98,000	9,50,000	7,22,000
20X8-20X9	0.730	10,50,000	7,67,000	9,50,000	6,94,000
Value in use			65,14,000		62,73,000

The impairment calculations at 31st March, 20X1 differ according to whether or not provision for the restructuring costs is recognised in the financial statements. This will depend on whether the requirements of Ind AS 37 have been met for recognition.

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(i) Provision for restructuring costs recognised at 31st March, 20X1

If provision has been made for restructuring costs, the costs and benefits of the restructuring are taken into account in determining the CGU's value in use. Here, the post – restructuring value in use (C6,514,000) exceeds the CGU's carrying value (₹ 6,500,000 less restructuring provision of ₹ 350,000). Hence, there is no impairment of the CGU's assets.

In the year to 31st March, 20X1, the financial statements reflect the following charges.

Restructuring provision	₹ 350,000
Impairment loss	Nil

(ii) No provision for restructuring costs recognised at 31st March, 20X1

If no provision for restructuring costs is permitted by Ind AS 37, the costs and benefits of the restructuring have to be stripped out of the projections in determining the CGU's value in use. Here, the CGU's carrying value (₹ 65,00,000) exceeds its pre-restructuring value in use (₹ 62,73,000). Therefore, there is an impairment loss of ₹ 2,27,000.

In the year to 31st March, 20X1, the financial statements reflect the following charges:

Restructuring provisions	Nil
Impairment loss	₹ 2,27,000

11. Ignoring depreciation, the loss that would be reported in the Profit and Loss as a result of the impairment is as follows:

	£
*Carrying value at balance sheet date-US$ 16,20,000 @ £ 1.8 =	9,00,000
Historical cost- US$ 18,00,000 @ £ 1.6 =	11,25,000
Impairment loss recognised in profit and loss	(2,25,000)
The components of the impairment loss can be analysed as follows:	
Change in value due to impairment = US$ 1,80,000 @ £ 1.8 =	(1,00,000)
Exchange component of change =	
US$ 18,00,000 @ 1.8 – US$ 18,00,000 @ £ 1.6	(1,25,000)

**Recoverable amount being less than cost becomes the carrying value.*

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INDIAN ACCOUNTING STANDARD 38: INTANGIBLE ASSETS

Questions

1. X Ltd. acquired Y Ltd. on 30th April, 20X1. The purchase consideration is ₹ 50,00,000. The fair value of the tangible assets is ₹ 45,00,000. The company estimates the fair value of "in-process research and development projects" at ₹ 10,00,000. No other Intangible asset is acquired by X Ltd. in the transaction. Further, cost incurred by X Ltd. in relation to that research and development project is as follows:

   (a) ₹ 5,00,000 – as research expenses

   (b) ₹ 2,00,000 – to establish technological feasibility

   (c) ₹ 7,00,000 – for further development cost after technological feasibility is established.

   Determine at what amount the intangible asset be measured under Ind AS 38.

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

   Compute the value of patent right for initial recognition in the books of X Ltd. in following two situations:

   (a) X Ltd. did not pay any cash to Y Ltd.

   (b) X Ltd. pays ₹ 2,00,000 to Y Ltd.

3. X Garments Ltd. spent ₹ 1,00,00,000 towards promotions for a fashion show by way of various on-road shows, contests etc.

   After that event, it realised that the brand name of the entity got popular and resultantly, subsequent sales have shown a significant improvement. It is further expected that this hike will have an effect over the next 2-3 years.

   Advise how the entity should account for the above cost incurred on promoting such show.

4. An entity is developing a new production process. During 20X1-20X2, expenditure incurred was ₹ 1,000, of which ₹ 900 was incurred before 1st March, 20X2 and ₹ 100 was incurred

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between 1st March, 20X2 and 31st March, 20X2. The entity is able to demonstrate that at 1st March, 20X2, the production process met the criteria for recognition as an intangible asset. The recoverable amount of the know-how embodied in the process (including future cash outflows to complete the process before it is available for use) is estimated to be ₹ 500.

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

Tabulate the accounting treatment of expenditure incurred in 20X1-20X2 and 20X2-20X3 as per relevant Ind AS. Ignore effects of amortisation.

5. X Ltd. is engaged in developing computer software. The expenditures incurred by X Ltd. in pursuance of its development of software is given below:

   (a) Paid ₹ 2,00,000 towards salaries of the program designers.

   (b) Incurred ₹ 5,00,000 towards other cost of completion of program design.

   (c) Incurred ₹ 2,00,000 towards cost of coding and establishing technical feasibility.

   (d) Paid ₹ 7,00,000 for other direct cost after establishment of technical feasibility.

   (e) Incurred ₹ 2,00,000 towards other testing costs.

   (f) A focus group of other software developers was invited to a conference for the introduction of this new software. Cost of the conference aggregated to ₹ 70,000.

   On 15th March, 20X1, the development phase was complete, and a cash flow budget was prepared. Net profit for the year was estimated to be equal ₹ 40,00,000.

   Interpret how X Ltd. should account for the above-mentioned cost.

6. X Ltd. has started developing a new production process in financial year 20X1-20X2. Total expenditure incurred till 30th September, 20X1, was ₹ 1,00,00,000. The expenditure on the development of the production process meets the recognition criteria on 1st July, 20X1. The records of X Ltd. show that, out of total ₹ 1,00,00,000, ₹ 70,00,000 were incurred during July to September, 20X1. X Ltd. publishes its financial results quarterly.

   Determine how X Ltd. should account for the development expenditure.

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7. X Ltd. decides to revalue its intangible assets on 1st April, 20X1. On the date of revaluation, the intangible assets stand at a cost of ₹ 1,00,00,000 and accumulated amortisation is ₹ 40,00,000. The intangible assets are revalued at ₹ 1,50,00,000.

   Analyse how should X Ltd. account for the revalued intangible assets in its books of account.

8. One of the senior engineers at XYZ has been working on a process to improve manufacturing efficiency and, consequently, reduce manufacturing costs since 1st April 20X5. This is a major project and has the full support of XYZ's board of directors. The senior engineer believes that the cost reductions will exceed the project costs within twenty-four months of their implementation. Regulatory testing and health and safety approval was obtained on 1st June 20X5. This removed uncertainties concerning the project, which was finally completed on 20th April 20X6. Costs of ₹ 18,00,000, incurred evenly during the year till 31st March 20X6, have been recognized as an intangible asset. An offer of ₹ 7,80,000 for the new developed technology has been received by potential buyer but it has been rejected by XYZ. Utkarsh believes that the project will be a major success and has the potential to save the company ₹ 12,00,000 in perpetuity. Director of research at XYZ, Neha, who is a qualified electronic engineer, is seriously concerned about the long-term prospects of the new process and she is of the opinion that competitors would have developed new technology at some time which would require to replace the new process within four years. She estimates that the present value of future cost savings will be ₹ 9,60,000 over this period. After that, she thinks that there is no certainty about its future.

   Advise the appropriate accounting treatment for the aforesaid issue for the year ended 31st March, 20X6.

9. PQR Ltd. is a gaming developer company. Few years back, it developed a new game called 'Cloud9'. This game sold over 10,00,000 copies around the world and was extremely profitable. Due to its popularity, PQR Ltd. released a new game in the 'Cloud9' series every year. The games continue to be the bestseller. Based on Management's expectations, estimates of cash flow projections for the 'cloud9 videogame series' over the next five years have been prepared. Based on these projections, PQR Ltd. believes that cloud9 series brand should be recognised at INR 20,00,000 in its financial statement. PQR Ltd. has also paid INR 10,00,000 to MNC Ltd. to acquire rights of another video game series called the 'Headspace' videogame series. The said series have huge demand in the market.

   Discuss the accounting treatment of the above in the financial statements of PQR Ltd.

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10. D Ltd. a leading publishing house, purchased copyright of a book from its author for publishing the same. As per the terms of the contract, if D Ltd. chooses to make the payment upfront then, copyright consideration of ₹ 80,00,000 is to be paid (which is in line with general practice in such arrangements). However, the contract also provided that, if D Ltd. chooses to pay the consideration after 2 years, then it will be required to pay ₹ 1,00,00,000. At what value should the intangible asset be recognised as per Ind AS 38?

11. A company engaged in the provision of Information Technology Products and Services incurred following expenditure during the development phase of its software product that is to be offered to its customers. The entity also purchases software from third parties for incorporating into its end software product offered to its customers. The company is in the process of launching it in the market for licensing to customers. The company also takes services of external professional software developers for such software development purpose. Costs incurred in relation to the development of its software product for the year ended 31st March, 20X2 are as follows:

Particulars	Amount (₹ thousands)
Purchase price of imported software	600
Employment costs (Note 1)	1,200
Testing costs	1,800
Other costs directly related to customization (Note 2)	450
Professional fees paid for external software developers	220
Costs of training provided to staff to operate the asset	195
Costs of advertising in market	1,560
Administrative and general overheads	825

Note 1: The software was developed in nine months ended 31st December, 20X1 and was capable of operating in the manner intended by the entity. It was brought into use on 31st March, 20X2. The employment costs are for the period of twelve months (i.e. up to 31st March, 20X2). The employees were engaged in developing the software and related activities.

Note 2: Other costs directly related to development include an abnormal cost of ₹ 50,000 in respect of repairing the damage which resulted from a security breach.

What will be the amount of the software development costs that can be capitalized by explaining the reason for each element of cost?

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12. SS Limited had the following transactions during the Financial Year 20X1-20X2.

(i) On 1st April 20X1, SS Limited purchased the net assets of M Limited for ₹ 13,20,000. The fair value of M Limited's identifiable net assets was ₹ 10,00,000. SS Limited is of the view that due to popularity of M Limited's product, the life of goodwill is 10 years.

(ii) On 4th May 20X1, SS Limited purchased a Franchisee to organize musical shows from A TV for ₹ 80,00,000 and at an annual fee of 2% of musical shows revenue. The Franchisee expires after 5 years. Musical shows revenue were ₹ 10,00,000 for financial year 20X1-20X2. The projected future revenues for financial year 20X2-20X3 is ₹ 25,00,000 and ₹ 30,00,000 p.a. for remaining 3 years thereafter.

(iii) On 4th July 20X1, SS Limited was granted a Copyright that had been applied for by M Limited. During the financial year 20X1-20X2, SS Limited incurred ₹ 2,50,000 on legal cost to register the Patent and ₹ 7,00,000 additional cost to successfully prosecute a copyright infringement suit against a competitor. The life of the Copyright is for 10 years.

SS Limited follows an accounting policy to amortize all intangible on SLM (Straight Line Method) basis or any appropriate basis over a maximum period permitted by relevant Ind AS, taking a full year amortization in the year of acquisition.

You are required to prepare:

(i) A Schedule showing the intangible section in SS Limited Balance Sheet as on 31st March 20X2, and

(ii) A Schedule showing the related expenses that would appear in the Statement of Profit and Loss of SS Limited for the year ended 20X1-20X2.

13. ABC Pvt. Ltd. recruited a player. As per the terms of the contract, the player is prohibited from playing for any other entity for coming 5 years and have to in the employment with the company and cannot leave the entity without mutual agreement. The price the entity paid to acquire this right is derived from the skills and fame of the said player. The entity uses and develops the player through participation in matches. State whether the cost incurred to obtain the right regarding the player can be recognised as an intangible asset as per Ind AS 38?

14. A Ltd. has incurred ₹ 1,00,000 of research expenditure on a project to develop a new type of fuel and has expensed these costs. B Ltd. purchases the research project, including

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certain patents that have been registered by A Ltd., for ₹ 1,50,000 and recognises an intangible asset.

Subsequently, B Ltd. incurs ₹ 2,00,000 of expenditure on completing the research phase and decides to develop the product commercially. It incurs a further ₹ 3,00,000 of costs in bringing the product to a stage where the conditions for recognising development costs as an internally generated intangible asset are met. Further costs of ₹ 1 million are incurred in bringing the product into a condition where it is ready for use in the manner that management intends. Marketing costs and initial losses of ₹ 2,00,000 are incurred before the product reaches widespread distribution.

What costs can B Ltd. capitalise?

Answers

1. X Ltd. should initially recognize the acquired "in house research and development project'' at its fair value i.e., ₹ 10,00,000. Research cost of ₹ 5,00,000 and cost of ₹ 2,00,000 for establishing technical feasibility should be charged to profit & loss. Costs incurred from the point of technological feasibility/asset recognition criteria until the time when development costs are incurred are capitalised. So the intangible asset should be recognized at ₹ 17,00,000 (₹ 10,00,000 + ₹ 7,00,000).

2. If an entity is able to determine reliably the fair value of either the asset received or the asset given up, then the fair value of the asset given up is used to measure cost unless the fair value of the asset received is more clearly evident.

The transaction at the fair value of the asset received adjusted for any cash received or paid. Therefore, in case (a) patent is measured at ₹ 18,00,000, in case (b) it is measured at ₹ 20,00,000 (18,00,000 + 2,00,000).

3. Expenditure of ₹ 1,00,00,000 though increased future economic benefits, but it does not result in creation of an intangible asset.

Such promotional cost should be expensed off.

4. At the end of the financial year 20X2, the production process is recognized as an intangible asset at a cost of ₹ 100 (expenditure incurred since the date when the recognition criteria were met, i.e., 1st March, 20X2). ₹ 900 expenditure incurred before 1st March, 20X2 is recognized as an expense because the recognition criteria were not met until 1st March, 20X2. This expenditure does not form part of the cost of the production process recognized in the balance sheet.

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At the end of 20X3, the cost of the production process is ₹ 2,100 (₹ 100 expenditure recognized at the end of 20X2 plus ₹ 2,000 expenditure recognized in 20X3). The entity recognizes an impairment loss of ₹ 200 to adjust the carrying amount of the process before impairment loss (₹ 2,100) to its recoverable amount (₹ 1,900). This impairment loss will be reversed in a subsequent period if the requirements for the reversal of an impairment loss in Ind AS 36 are met.

5. Costs incurred in creating computer software, should be charged to research & development expenses when incurred until technical feasibility/asset recognition criteria have been established for the product. Here, technical feasibility is established after completion of detailed program design.

In this case, ₹ 9,00,000 (salary cost of ₹ 2,00,000, program design cost of ₹ 5,00,000 and coding and technical feasibility cost of ₹ 2,00,000) would be recorded as expense in Profit and Loss since it belongs to research phase.

Cost incurred from the point of technical feasibility are capitalised as software costs. But the conference cost of ₹ 70,000 would be expensed off.

In this situation, direct cost after establishment of technical feasibility of ₹ 7,00,000 and testing cost of ₹ 2,00,000 will be capitalised.

The cost of software capitalised is = ₹ (7,00,000 + 2,00,000) = ₹ 9,00,000.

6. X Ltd. should recognize the intangible asset at ₹ 70,00,000 and ₹ 30,00,000 which was already recognized as an expense in first quarter should not be capitalised.

7. The intangible assets are revalued to ₹ 1,50,00,000 on an amortised replacement cost basis, which is a 2.5 times increase from its net value. Thereby applying the existing ratio of accumulated depreciation to the cost the revalued gross amount would be ₹ 2,50,00,000 gross and ₹ 1,00,00,000 on amortisation.

Alternatively, the net block can be increased by ₹ 90,00,000.

8. Ind AS 38 'Intangible Assets' requires an intangible asset to be recognized if, and only if, certain criteria are met. Regulatory approval on 1st June 20X5 was the last criterion to be met, the other criteria have been met as follows:

- Intention to complete the asset is apparent as it is a major project with full support from board
- Finance is available as resources are focused on project

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- Costs can be reliably measured
- Benefits are expected to exceed costs – (in 2 years)

Since the project was completed on 20th April, 20X6, on 31st March, 20X6, the amount of ₹ 15,00,000 (₹ 18,00,000 x 10/12) should be capitalised in the balance sheet of year ending 20X5-20X6 representing expenditure since 1st June 20X5.

The expenditure incurred prior to 1st June 20X5 which is ₹ 3,00,000 (2/12 x ₹ 18,00,000) should be recognized as an expense, retrospective recognition of expense as an asset is not allowed.

Ind AS 36 'Impairment of assets' requires an intangible asset not yet available for use to be tested for impairment annually.

Cash flow of ₹ 12,00,000 in perpetuity would clearly have a present value in excess of ₹ 12,00,000 and hence there would be no impairment. However, the research director is technically qualified, so impairment tests should be based on her estimate of a four-year remaining life and so present value of the future cost savings of ₹ 9,60,000 should be considered in that case.

₹ 9,60,000 is greater than the offer received (fair value less costs to sell) of ₹ 7,80,000 and so ₹ 9,60,000 should be used as the recoverable amount.

So, the carrying amount should be consequently reduced to ₹ 9,60,000.

Calculation of Impairment loss of intangible asset under development:

Particulars	**₹**
Carrying amount	15,00,000
Less: Recoverable amount	9,60,000
Impairment loss	5,40,000

Impairment loss of ₹ 5,40,000 is to be recognised in the profit and loss for the year 20X5-20X6.

Necessary adjusting entry to correct books of account will be:

		₹	**₹**
Operating expenses- Development expenditure	Dr.	3,00,000	
Operating expenses–Impairment loss	Dr.	5,40,000	
To Intangible asset under development			8,40,000

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9. In order to determine the accounting treatment of 'cloud9 videogame series' and 'Headspace', definition of asset and intangible asset given in Ind AS 38 may be noted:

"An asset is a resource:

(a) controlled by an entity as a result of past events; and

(b) from which future economic benefits are expected to flow to the entity."

"An intangible asset is an identifiable non-monetary asset without physical substance."

In accordance with the above, for recognising an intangible asset, an entity must be able to demonstrate that the item satisfies the criteria of identifiability, control and existence of future economic benefits.

In order to determine whether 'cloud9 videogame series' meet the aforesaid conditions, following provisions of Ind AS 38 regarding Internally Generated Intangible Assets may be noted:

As per paragraph 63 and 64 of Ind AS 38, internally generated brands, mastheads, publishing titles, customer lists and items similar in substance should not be recognised as intangible assets. Expenditure on such items cannot be distinguished from the cost of developing the business as a whole. Therefore, such items are not recognised as intangible assets.

Accordingly, though the cash flow projections suggest that the cloud9 brand will lead to future economic benefits, yet the asset has been internally generated; therefore, the Cloud9 brand cannot be recognised as intangible asset in the financial statements.

In order to determine whether 'Headspace' meet the aforesaid conditions, following provisions of Ind AS 38 regarding 'Separately acquired Intangible Assets' should be analused.

As per paragraphs 25 and 26 of Ind AS 38, normally, the price an entity pays to acquire separately an intangible asset will reflect expectations about the probability that the expected future economic benefits embodied in the asset will flow to the entity. In other words, the entity expects there to be an inflow of economic benefits, even if there is uncertainty about the timing or the amount of the inflow. Therefore, the probability recognition criterion in paragraph 21(a) is always considered to be satisfied for separately acquired intangible assets. In addition, the cost of a separately acquired intangible asset can usually be measured reliably. This is particularly so when the purchase consideration is in the form of cash or other monetary assets.

The Headspace game has been purchased for INR 10,00,000 and it is expected to generate future economic benefits to the entity. Since Headspace game is a separately acquired

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asset and the future benefits are expected to flow to the entity, therefore, an intangible asset should be recognised in respect of the 'Headspace' asset at its cost of ₹ 10,00,000. After initial recognition, either cost model or revaluation model can be used to measure headspace intangible asset as per guidance given in paragraphs 74-87 of Ind AS 38. In accordance with this, Headspace intangible asset should be carried at its cost/revalued amount (as the case may be) less any accumulated amortisation and any accumulated impairment losses.

10. As per paragraph 32 of Ind AS 38, "If payment for an intangible asset is deferred beyond normal credit terms, its cost is the cash price equivalent. The difference between this amount and the total payments is recognized as interest expense over the period of credit unless it is capitalized in accordance with Ind AS 23, Borrowing Costs."

In the given case, if the payment for an intangible asset i.e. copyright is deferred beyond normal credit terms, the cash price equivalent ₹ 80,00,000 should be considered as its cost and the intangible asset will be recorded initially at this value.

The difference of ₹ 20,00,000 between cash price equivalent (i.e. ₹ 80,00,000) and the total payment (i.e. ₹ 1,00,00,000) should be recognised as interest expense over the period of credit (i.e. 2 years in this case), unless it is eligible for capitalisation in accordance with Ind AS 23, Borrowing Costs.

11. In the given fact pattern, the entity should apply the recognition and measurement principles relevant for an internally generated intangible asset. The entity has to ensure compliance with additional requirements relating to internally generated intangible assets in addition to general recognition criteria and initial measurement of intangible asset. In the instant case, for the measurement of software development cost, entity must evaluate the costs incurred for recognition of an intangible asset arising from development phase with reference to paragraphs 65 to 67 of Ind AS 38.

According to the said paragraphs, the initial carrying amount of the software will be computed as follows:

Particulars	Amount (₹ in thousands)	Amount to be capitalised as Intangible Assets (₹ in thousands)	Remarks
Purchase price of imported software	600	600	The cost of materials or / and services used or consumed in generating the intangible asset and any directly

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			attributable cost of preparing the asset for its intended use.
Employment costs (Note 1)	1,200	900	Employment costs for the period of nine months are directly attributable costs. Therefore, the cost to be capitalized is ₹ 900 thousand (i.e., 9/12 x ₹ 1,200 thousand) for nine months as the asset was ready for its intended use by that time. It is assumed that ₹ 100 thousand is equally incurred each month. Capitalisation of eligible costs should cease when the asset is capable of operating in the manner intended by management.
Testing costs	1,800	1,800	The cost of testing whether the asset is functioning properly is a directly attributable cost. (Refer paragraph 59 of Ind AS 38)
Other costs directly related to development (Note 2)	450	400	Cost of identified inefficiencies deducted, i.e., ₹ 450 thousand – ₹ 50 thousand.
Professional fees paid for bringing the software to its working condition	220	220	The cost of materials or/and services used or consumed in generating the intangible asset
Costs of training provided to staff	195	Nil	Expenditure on training staff to operate the asset cannot be capitalised. (Refer paragraph 67 of Ind AS 38)
Costs of advertising in market	1,560	Nil	Selling, administrative and other general overhead expenditure cannot be capitalised. (Refer paragraph 67 of Ind AS 38)
Administrative and general overheads	825	Nil	
Total	6,850	3,920	

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Accordingly, the initial carrying value of the software is ₹ 39,20,000. The remaining costs will be charged to profit or loss.

12. (i) **SS Limited**

Balance Sheet (Extract relating to intangible asset)

as at 31st March 20X2

	Note No.	₹
Assets		
(1) Non- current asset		
Intangible assets	1	69,45,000

(ii) **SS Limited**

Statement of Profit and Loss (Extract)

for the year ended 31st March 20X2

	Note No.	₹
Revenue from Operations		10,00,000
Total Revenue		
Expenses:		
Amortization expenses	2	16,25,000
Other expenses	3	7,20,000
Total Expenses		

Notes to Accounts (Extract)

1. Intangible Assets

		Gross Block (Cost)			*Accumulated amortisation*			*Net block*	
		Opening balance	*Additions*	*Closing Balance*	*Opening balance*	*Additions*	*Closing Balance*	*Opening balance*	*Closing Balance*
		₹	₹	₹	₹	₹	₹	₹	₹
1.	Goodwill* (W.N.1)	-	3,20,000	3,20,000	-	-	-	-	3,20,000
2.	Franchise ** (W.N.2)	-	80,00,000	80,00,000	-	16,00,000	16,00,000	-	64,00,000
3.	Copyright (W.N.3)	-	2,50,000	2,50,000	-	25,000	25,000	-	2,25,000
		-	85,70,000	85,70,000	-	16,25,000	16,25,000	-	69,45,000

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*As per Ind AS 36, irrespective of whether there is any indication of impairment, an entity shall test goodwill acquired in a business combination for impairment annually. This implies that goodwill is not amortised annually but is subject to annual impairment, if any.

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

2.	**Amortization expenses**		
	Franchise (W.N.2)	16,00,000	
	Copyright (W.N.3)	25,000	16,25,000
3.	**Other expenses**		
	Legal cost on copyright	7,00,000	
	Fee for Franchise (10,00,000 x 2%)	20,000	7,20,000

Working Notes:

		₹
(1)	**Goodwill on acquisition of business**	
	Cash paid for acquiring the business	13,20,000
	Less: Fair value of net assets acquired	(10,00,000)
	Goodwill	**3,20,000**
(2)	**Franchise**	80,00,000
	Less: Amortisation (over 5 years)	(16,00,000)
	Balance to be shown in the balance sheet	**64,00,000**
(3)	**Copyright**	2,50,000
	Less: Amortisation (over 10 years as per SLM)	(25,000)
	Balance to be shown in the balance sheet	**2,25,000**

13. As per Ind AS 38, for an item to be recognised as an intangible asset, it must meet the definition of an intangible asset, i.e., identifiability, control over a resource and existence of future economic benefits and also recognition criteria.

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With regard to establishment of control, paragraph 13 of Ind AS 38 states that an entity controls an asset if the entity has the power to obtain the future economic benefits flowing from the underlying resource and to restrict the access of others to those benefits. The capacity of an entity to control the future economic benefits from an intangible asset would normally stem from legal rights that are enforceable in a court of law. In the absence of legal rights, it is more difficult to demonstrate control. However, legal enforceability of a right is not a necessary condition for control because an entity may be able to control the future economic benefits in some other way.

Further, paragraph 15 of Ind AS 38 provides that an entity may have a team of skilled staff and may be able to identify incremental staff skills leading to future economic benefits from training. The entity may also expect that the staff will continue to make their skills available to the entity. However, an entity usually has insufficient control over the expected future economic benefits arising from a team of skilled staff and from training for these items to meet the definition of an intangible asset. For a similar reason, specific management or technical talent is unlikely to meet the definition of an intangible asset, unless it is protected by legal rights to use it and to obtain the future economic benefits expected from it, and it also meets the other parts of the definition.

Since the right in the instant case is contractual, identifiability criterion is satisfied. Based on the facts provided in the given case, the player is prohibited from playing in other teams by the terms of the contract which legally binds the player to stay with ABC Ltd for 5 years.

Accordingly, in the given case, the company would be able to demonstrate control. Future economic benefits are expected to arise from use of the player in matches. Further, cost of obtaining rights is also reliably measurable. Hence, it can recognise the costs incurred to obtain the right regarding the player as an intangible asset. However, careful assessment of relevant facts and circumstances of each case is required to be made.

14. As per para 24 of Ind AS 38, an intangible asset shall be measured initially at cost. Furthermore, para 25 states that normally, the price an entity pays to acquire separately an intangible asset will reflect expectations about the probability that the expected future economic benefits embodied in the asset will flow to the entity. In other words, the entity expects there to be an inflow of economic benefits, even if there is uncertainty about the timing or the amount of the inflow. Therefore, the probability recognition criterion is always considered to be satisfied for separately acquired intangible assets.

Accordingly, B Ltd. recognises ₹ 1,50,000 as the cost of the acquired research project.

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Further, as per para 42 of the standard, research or development expenditure that:

(a) relates to an in-process research or development project acquired separately and recognised as an intangible asset; and

(b) is incurred after the acquisition of that project

shall be accounted for.

However, as per para 54 of the standard, expenditure on research phase of an internal project shall be recognised as an expense when it is incurred.

Hence, the subsequent research costs of ₹ 2,00,000 are expensed as incurred.

Further, an intangible asset arising from development phase of an internal project shall be recognised if, and only if, an entity can demonstrate all of the conditions stated therein under point a to f of para 57. Since, the subsequent development costs incurred of ₹ 3,00,000 do not meet the conditions for recognition and are expensed as incurred.

Further development costs of ₹ 1 million must be recognised, because they meet the conditions for recognition as an intangible asset.

It may be noted that as per para 71 of the standard, the previously written-off development costs are not reinstated.

The marketing costs and initial losses of ₹ 2,00,000 are expensed as incurred as per paras 67 and 69 of the standard.

Accordingly. the intangible asset's carrying amount, when production and sale of the product commences, is ₹ 11,50,000.

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INDIAN ACCOUNTING STANDARD 40: INVESTMENT PROPERTY

Questions

1. X Ltd owned a land property whose future use was not determined as at 31st March 20X1. How should the property be classified in the books of X Ltd as at 31st March 20X1?

   During June 20X1, X Ltd commenced construction of office building on it for own use. Presuming that the construction of the office building will still be in progress as at 31st March 20X2

   (a) How should the land property be classified by X Ltd in its financial statements as at 31st March 20X2?

   (b) Will there be a change in the carrying amount of the property resulting from any change in use of the investment property?

   (c) Whether the change in classification to, or from, investment properties is a change in accounting policy to be accounted for in accordance with Ind AS 8, Accounting Policies, Changes in Accounting Estimates and Errors?

   (d) Would your answer to (a) above be different if there were to be a management intention to commence construction of an office building for own use; however, no construction activity was planned by 31st March 20X2?

2. An entity owns a two-storey building. Floor 1 is rented out to independent third parties under operating leases. Floor 2 is occupied by the entity's administration and maintenance staff. The entity can measure reliably the fair value of each floor of the building without undue cost or effort. How the same will be classified / presented in the balance sheet as per relevant Ind AS. What will be the accounting treatment as per relevant Ind AS on initial and subsequent date?

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

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The details of these assets are as under:

Property	Details
A Ltd.'s office building (registered office)	A Ltd.'s registered office in Delhi, is a 15 storey building, of which only 3 floors are occupied by A Ltd., whereas remaining floors are given on rent to other companies. These agreements are usually for a period of 3 years. According to A Ltd., such excess office space will continue to be let out on lease to external parties and have no plans to occupy it, at least in near future.
Flats in Township located in location 1	As regards township in Location 1, there are approximately 2,000 flats in the said township. It was built primarily for A Ltd.'s employees, hence, approximately 80% of the flats are allotted to employees and remaining flats are either kept vacant or given on rent to other external parties. A lease agreement is signed between A Ltd. and an individual party for every 12 months being 1st April to 31st March. The lease entered is a cancellable lease (cancellable at the option of any of the parties). Also, besides monthly rent, additional charges are levied by A Ltd. on account of electricity, water, cable connection, etc. According to A Ltd., there is no intention of selling such excess flats or allotting it to its employees.
Flats in township located in location 2	There are 1,000 flats in location 2 township, of which: • 400 flats are given to employees for their own accommodation. • 350 flats are given on rent to Central Government and State Government for accommodation of their employees. Average lease period being 12 months with cancellable clause in lease agreements. • 250 flats are kept vacant.
Hostel located in location 1	60 rooms in the hostel have been let out to G Ltd., to give accommodation to their personnel. Lease agreement is prepared for every 11 months and renewed thereafter. Besides the monthly rent amount, some charges are levied towards water, electricity and other amenities, e.g., cable connection, etc.
Land in location 1	In 20X4, A Ltd. purchased a plot of land on the outskirts of a major city. The area has mainly low-cost public housing and very limited public transport facilities. The government has plans to develop the area as an industrial park in 5 years' time and the land is expected

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	to greatly appreciate in value if the government proceeds with the plan. A Ltd. has not decided what to do with the property.
Land in location 1	A portion of land has been leased out to C Ltd. for its manufacturing operations. Land has been given on lease on a lease rental of ₹ 10 lacs p.a. with a lease term of 25 years.
Land in location 2	A portion of the land has been given on rent to D Ltd. which has constructed a petrol pump on such land. It has been leased for a period of 40 years and renewed for a further period of 40 years.

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

Answers

1. As per paragraph 8(b) of Ind AS 40, any land held for currently undetermined future use, should be classified as an investment property. Hence, in this case, the land would be regarded as held for capital appreciation. Hence the land property should be classified by X Ltd as investment property in the financial statements as at 31st March 20X1.

As per Para 57 of the Standard, an entity can change the classification of any property to, and from, an investment property when and only when evidenced by a change in use. A change occurs when the property meets or ceases to meet the definition of investment property and there is evidence of the change in use. Mere management's intention for use of the property does not provide evidence of a change in use.

(a) Since X Ltd has commenced construction of office building on it for own use, the property should be reclassified from investment property to owner occupied as at 31st March 20X2.

(b) As per Para 59, transfers between investment property, owner occupied and inventories do not change the carrying amount of the property transferred and they do not change the cost of the property for measurement or disclosure purposes.

(c) No. The change in classification to, or from, investment properties is due to change in use of the property. No retrospective application is required and prior period's financial statements need not be re-stated.

(d) Mere management intentions for use of the property do not evidence change in use. Since X Ltd. has no plans to commence construction of the office building during

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20X1-20X2, the property should continue to be classified as an investment property by X Ltd. in its financial statements as at 31st March 20X2.

2. 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.

Property mentioned in (a) above would be covered under Ind AS 16 'Property, Plant and Equipment'.

On applying the above provisions, Floor 1 of the building is classified as an item of investment property by the entity (lessor) because it is held to earn rentals. Ind AS 40 is applicable in this case. An investment property should be measured initially at its cost. After initial recognition, an entity shall measure all of its investment properties in accordance with Ind AS 16's requirements for cost model. However, entities are required to measure the fair value of investment property, for the purpose of disclosure even though they are required to follow the cost model.

Floor 2 of the building will be classified as property, plant and equipment because it is held by administrative staff i.e. it is held for use for administrative purposes. Ind AS 16 is applicable in this case. An item of property, plant and equipment that qualifies for recognition as an asset should be initially measured at its cost. After recognition, an entity shall choose either the cost model or the revaluation model as its accounting policy and shall apply that policy to an entire class of property, plant and equipment.

3.

Property	Classification of properties not held for operational purpose
A Ltd.'s office building (registered office)	Excess portion of office space has been given on lease to earn rental income. Out of 15 storey building, only 3 floors are occupied by A Ltd. Such excess office space was constructed for the purpose of letting it out. According to A Ltd., such excess office space will continue to be let out on lease to external parties and have no plans to occupy it, at least in near future. Further, office space given on rent, although in same building, is separately

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	identifiable from another owner-occupied portion and hence can be sold separately (if required). Hence, the excess space will qualify to be an investment property.
Flats in Township located in location 1	Excess flats have been given on lease to earn rental income. According to A Ltd., there is no intention of selling such excess flats or allotting it to its employees. Further, flats given on rent, can be sold separately from flats occupied by A Ltd.'s employees as they are separately identifiable. A Ltd. also charges its lessees on account of ancillary services, i.e., water, electricity, cable connection, etc., but the monthly charges in such cases are generally not significant as compared to rental payments. Hence, flats given on rent should qualify to be an 'investment property'. With regards to the flats kept vacant, A Ltd. has to evaluate the purpose of holding these flats, i.e., whether these would be kept for earning rentals or will it be allotted to its future employees. In case they are held for earning rentals, it would be classified as an investment property; and if they are held for allotment to future employees, it would form part of property, plant and equipment.
Flats in township located in location 2	350 flats are given on lease to earn rental income and assuming that management intends to let out these flats on rent in future, such flats should be classified as an 'investment property. With regards to the flats kept vacant, A Ltd. has to evaluate the purpose of holding these flats, i.e., whether these would be kept for earning rentals or will it be allotted to its future employees. In case they are held for earning rentals, it would be classified as an investment property; and if they are held for allotment to future employees, it would form part of property, plant and equipment.
Hostel located in location 1	Rooms in a hostel have been let out to G Ltd. to be used by its personnel. A Ltd. also charges G Ltd. on account of ancillary services, i.e., water, electricity, cable connection, etc., but the monthly charges in such cases are generally not significant as compared to rental payments. Hence, it should be classified as an 'Investment property'.
Land in location 1	Although management has not determined use for property after the development of park, yet in the medium-term the land is held for capital appreciation. As per Ind AS 40, if an entity has not

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	determined that it will use the land either as owner-occupied property or for short term sale in the ordinary course of business, then it will be considered as land held for capital appreciation. Therefore, management should classify the property as an investment property.
Land in location 1	Since the land is held with an intention of giving it on lease and earning capital appreciation over a period, it should be classified as an 'Investment property'.
Land in location 2	Since the land is held with an intention of giving it on lease and earning capital appreciation over a period, it should be classified as 'Investment property'.

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INDIAN ACCOUNTING STANDARD 105: NON-CURRENT ASSETS HELD FOR SALE AND DISCONTINUED OPERATIONS

Questions

1. Identify which of the following is a disposal group at 31st March 20X1:

   (1) On 21st March 20X1, XYZ announced the Board's intention to sell its shares in a subsidiary company, Alpha, contingent upon the approval of Alpha's shareholders. It seems unlikely that approval will be granted in the near future and no specific potential buyer has been identified.

   (2) PQR has entered into a contract to sell the entire delivery fleet of vehicles operated from its warehouse to a competitor, ABC, on 14th March 20X1. The assets will be transferred on 28th April 20X1 from which date the Group will outsource its delivery activities to another company, LMN.

   (3) On 16th January 20X1, DEF's management and shareholders approved a plan to sell its retail business in Mumbai and a consultant is hired to manage the sale. As at 31st March 20X1 agreement had been signed although due diligence and the negotiation of final terms are still in process. The transaction is expected to be completed in April 20X1.

2. X Ltd. acquires B Ltd. exclusively with a view to sale and it meets the criteria to be classified as discontinued operation as per Ind AS 105. Further, following information is available about B Ltd.:

   - Fair value of total assets excluding liabilities on acquisition – ₹ 360
   - Costs to sell as on acquisition and on reporting date – ₹ 10
   - Fair value of liabilities on acquisition and reporting date – ₹ 80
   - Fair value of total assets excluding liabilities on the reporting date – ₹ 340

   How discontinued operation pertaining to B Ltd. should be measured in consolidated financial statements of X Ltd. on acquisition date and reporting date?

3. Company A has financial year ending 31st March, 20X0. On 1st June, 20X0, the Company has classified its Division B as held for sale in accordance with Ind AS 105. How property,

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plant and equipment (PPE) for which the company has adopted cost model shall be measured immediately before the classification as held for sale on 1st June, 20X0?

4. Company X has identified one of its division (disposal group) to be sold to a prospective buyer and the Board has approved the plan to sell the division on 30th September, 20X1. The sale is expected to complete after one year but it still qualifies to be held for sale under Appendix B of Ind AS 105. Costs to sell the division is estimated to be ₹ 10 crores (to be incurred in March, 20X3). The fair value of the division is ₹ 400 crores (on 30th September, 20X1 and 31st March, 20X2) and carrying value is ₹ 500 crores.

   How shall such a division (disposal group) be measured under Ind AS 105 on following reporting dates:

   A. 30th September, 20X1

   B. 31st March, 20X2

   Consider the discounting factor @ 10% for 1 year to 0.909 and for 1.5 years to be 0.867.

5. A Ltd. has a wholly owned subsidiary B Ltd. A Ltd. sells subsidiary B Ltd. to C Ltd. a listed entity, for shares in C Ltd. and ends up owning 75% of C Ltd.'s shares.

   The net assets of B Ltd. prior to the disposal are ₹ 10,00,000 (fair value ₹ 13,00,000) and goodwill previously capitalised and not impaired is ₹ 6,00,000; the carrying value of B Ltd. in A Ltd.'s books is ₹ 15,00,000.

   At the date A Ltd. acquired B Ltd., B Ltd.'s profit and loss reserve was ₹ 400,000 and B has since made ₹ 100,000 post acquisition profits.

   The position prior to the transaction was as follows: (Amount in ₹)

Consolidation of A Ltd. and B Ltd. before transaction	**A Ltd.**	**B Ltd.**	**Elim**	**Consol**
Goodwill	-	-	600,000	600,000
Investment in subsidiary	1,500,000	-	(1,500,000)	-
Net assets	10,000,000	1,000,000	-	11,000,000
Total assets	**11,500,000**	**1,000,000**	**(900,000)**	**11,600,000**
Share capital	2,000,000	500,000	(500,000)	2,000,000
Retained earnings	9,500,000	100,000	-	9,600,000
Pre-acquisition reserves	-	400,000	(400,000)	-
Total equity	**11,500,000**	**1,000,000**	**(900,000)**	**11,600,000**

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The net assets of C Ltd. prior to its acquisition of B Ltd. were ₹ 380,000 (fair value ₹ 500,000). C Ltd. then issued shares worth ₹ 17,50,000 (which is the fair value of the consideration given for the acquisition of 100% of B), being ₹ 600,000 nominal value and ₹ 11,50,000 premium. The balance sheets of the three companies directly after the issue of shares by C Ltd. were as follows: (Amount in ₹)

Summarized balance sheets	A Ltd.	B Ltd.	C Ltd.
Investment in subsidiary	1,750,000	-	1,750,000
Net assets	10,000,000	1000,000	380,000
	11,750,000	1000,000	2,130,000
Share capital	2000,000	500,000	800,000
Additional paid in capital	-	-	1,150,000
Retained earnings	9,750,000	500,000	180,000
Total equity	11,750,000	1,000,000	2,130,000

The parent A Ltd., had an interest in B Ltd. that cost ₹ 15,00,000 and has in effect swapped this for an interest in C Ltd.'s group. In its separate financial statements, A Ltd. states its investment in C Ltd. group at the fair value of the consideration given ₹ 17,50,000.

The non-controlling interest is determined with reference to the proportionate share of the acquired C Ltd.'s net identifiable assets.

Required:

(i) Compute gain or loss on effective disposal of B Ltd.

(ii) Compute goodwill on acquisition of C Ltd.

Note:

a. C Ltd. is not required to prepare consolidated financial statements.

b. Ignore the possibility that the transaction could be classified as a reverse acquisition of C Ltd. by B Ltd.

Answers

1. Presented as held for sale

(2) PQR's fleet is classified as held for sale because it constitutes a group of assets to be sold in their present condition and the sale is highly probable at the reporting date (as a contract has been entered into).

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(3) DEF's sale of its retail business will not be completed until the final terms (e.g. of purchase price) are agreed. However, the business is ready for immediate sale and the sale is highly probable unless other evidence after the reporting date but before the financial statements are approved for issue, comes to light to indicate the contrary.

Not presented as held for sale

(1) XYZ's shares in Alpha are not available for an immediate sale as shareholders' approval is required. Also no specific potential buyer has been identified. In taking these facts into consideration for the assessment of whether the sale is highly probable, it is clearly not highly probable.

2. Ind AS 105 defines a disposal group as a group of assets to be disposed of, by sale or otherwise, together as a group in a single transaction, and liabilities directly associated with those assets that will be transferred in the transaction. The group includes goodwill acquired in a business combination if the group is a cash-generating unit to which goodwill has been allocated in accordance with the requirements of paragraphs 80–87 of Ind AS 36, Impairment of Assets, or if it is an operation within such a cash- generating unit.

In the given case, B Ltd. is acquired exclusively with a view to sell and meets the criteria to be classified as discontinued operation.

The discontinued operation would be measured in accordance with paragraphs 15 and 16 of Ind AS 105

As per para 15, an entity shall measure a non-current asset (or disposal group) classified as held for sale at the lower of its carrying amount and fair value less costs to sell.

As per para 16, if a newly acquired asset (or disposal group) meets the criteria to be classified as held for sale (see paragraph 11), applying paragraph 15 will result in the asset (or disposal group) being measured on initial recognition at the lower of its carrying amount had it not been so classified (for example, cost) and fair value less costs to sell. Hence, if the asset (or disposal group) is acquired as part of a business combination, it shall be measured at fair value less costs to sell.

Therefore, on acquisition date, in line with paragraph 16, X Ltd. will measure B Ltd. as a disposal group at fair value less costs to sell which will be calculated as Fair value of total assets excluding liabilities on acquisition – Costs to sell = ₹ 360 – ₹ 10 = ₹ 350.

Fair value of liabilities on acquisition = ₹ 80.

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At the reporting date, in line with paragraph 15, X Ltd. will remeasure the disposal group at the lower of its cost and fair value less costs to sell which will be calculated as:

Fair value of total assets excluding liabilities on subsequent reporting date – Costs to sell

= ₹ 340 – ₹ 10 = ₹ 330

Fair value of liabilities on reporting date = ₹ 80.

At the reporting date, X Ltd. shall present these assets and liabilities separately from other assets and liabilities in its consolidated financial statements.

In the statement of profit and loss, X Ltd. shall recognise loss on subsequent measurement (of net assets at fair value) of B Ltd. which equals to ₹ 20 (₹ 270 – ₹ 250).

3. Paragraph 18 of Ind AS 105 provides that immediately before the initial classification of the asset (or disposal group) as held for sale, the carrying amounts of the asset (or all the assets and liabilities in the group) shall be measured in accordance with applicable Ind AS.

In the instant case, Company A should measure the property, plant and equipment (for which it has adopted cost model), in accordance with Ind AS 16, Property, Plant and Equipment. Hence, depreciation should be provided upto 31st May, 20X0.

4. Paragraph 15 of Ind AS 105 states that an entity shall measure a non-current asset (or disposal group) classified as held for sale at the lower of its carrying amount and fair value less costs to sell.

Further, paragraph 17 of Ind AS 105 states that when the sale is expected to occur beyond one year, the entity shall measure the costs to sell at their present value. Any increase in the present value of the costs to sell that arises from the passage of time shall be presented in profit or loss as a financing cost.

Company X has identified a disposal group and is committed to sell the same. The sale is expected to be completed after a period of one year hence, it will measure the costs to sell such disposal group at present value as per paragraph 17 of Ind AS 105.

A. On 30th September, 20X1

The disposal group will be measured at fair value less costs to sell which will be as follows:

Fair value:	₹ 400.00 crores	
PV of costs to sell:	(₹ 8.67 crores)	(₹ 10 crores x 0.867)
Total:	₹ 391.33 crores	

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B. On 31st March, 20X1

The disposal group will be measured at fair value less costs to sell which will be as follows:

Fair value:	₹ 400.00 crores	
PV of costs to sell:	(₹ 9.09 crores)	(10 x 0.909)
Total:	₹ 390.91 crores	

The increase in costs to sell the division by ₹ 0.42 crore (₹ 9.09 crores – ₹ 8.67 crores) will be recognised in profit and loss as financing cost in accordance with paragraph 17 of Ind AS 105.

5. Effective disposal of stake in B Ltd. [100%- (75% of 100%)] = 25% which will be considered as non-controlling interest in B Ltd.

With regard to A Ltd.'s consolidated financial statements, it is necessary to calculate the 'gain or loss' (on the disposal of 25% of B Ltd.) that is recognised in equity and the goodwill arising (on the acquisition of C Ltd.).

When control is retained, it should be noted that goodwill attributed to the portion sold remains unchanged and is allocated to the non-controlling interest. In addition, if control is retained, the gain or loss should be recognised in equity.

Gain or loss on disposal of 25% of B Ltd.	**₹**
Calculation of non-controlling interest B Ltd. in A's consolidated financial statement: Book value of assets and liabilities given up plus attributable goodwill [(₹ 10,00,000 + ₹ 6,00,000) x 25%]	4,00,000
Less: Fair value of business received in consideration (W.N.1)	(4,37,500)
Gain on disposal recognized in equity	37,500

The net assets compared should include an appropriate portion of any cumulative exchange differences and any reserve on FVOCI debt investments previously recognised in other comprehensive income and accumulated in equity.

Goodwill on acquisition of 75% of C Ltd.	**₹**
Fair value of business given in consideration (₹ 17,50,000 x 25%)	4,37,500

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Non-controlling interest C Ltd. measured at the proportionate share of the acquired net-asset (₹ 5,00,000 x 25%)	1,25,000
	5,62,500
Less: Fair value of assets and liabilities acquired	(5,00,000)
Goodwill	62,500

The consolidated entry recognised is:

		₹	₹
Fair value of net identifiable assets -C Ltd.	Dr.	5,00,000	
Goodwill – C Ltd.	Dr.	62,500	
To Non-controlling interest B Ltd. (16,00,000 x 25%)			4,00,000
To Non-controlling interest – C Ltd. (500,000 x 25%)			1,25,000
To Equity			37,500

Consolidation of A Ltd., B Ltd. and C Ltd. after the transaction

(Amount in ₹)

	A Ltd.	B Ltd.	C Ltd.	Elim	Consolidated
Goodwill (W.N.2)	-	-	-	662,500	662,500
Investment in subsidiary (W.N.3)	1,750,000	-	1,750,000	(3,500,000)	-
Net assets	10,000,000	1,000,000	380,000	120,000	11,500,000
	11,750,000	1,000,000	2,130,000	(2,717,500)	12,162,500
Equity share capital	2,000,000	500,000	800,000	(1,300,000)	2,000,000
Additional paid in capital	-	-	1,150,000	(1,150,000)	-
Retained earnings (W.N.4)	9,750,000	500,000	180,000	(792,500)	9,637,500
Non-controlling interest	-	-	-	525,000	525,000
Total equity	11,750,000	1,000,000	2,130,000	(2,717,500)	12,162,500

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Note:

C Ltd.'s net assets are adjusted to fair value for the purpose of the consolidation as A Ltd. has acquired 75% of C Ltd. and gained control of C Ltd.

Working Notes:

1. A Ltd. receives consideration (that is, shares in C Ltd.) with a fair value of ₹ 17,50,000. However, the amount included in the calculation is the amount attributable to the interest in B Ltd. that has been disposed of, that is 25% of ₹ 17,50,000 = ₹ 4,37,500.

   The fair value of the part of the subsidiary B that is effectively disposed of is derived from the price paid by C Ltd. for the whole of B Ltd. which is ₹ 17,50,000.

2. The goodwill balance of ₹ 6,62,500 represents the previous balance of the goodwill of ₹ 6,00,000 arising on the acquisition of B Ltd., plus the goodwill of ₹ 62,500 arising on the acquisition of C Ltd. The original goodwill arising on the acquisition of B Ltd. is retained and a portion (25%) is allocated to the non-controlling interest.

3. On consolidation the net assets of C Ltd. are increased from ₹ 3,80,000 to their fair value of ₹ 5,00,000.

4. **Computation of consolidated retained earnings**

	₹
Retained earnings of A Ltd. (excluding the investment revaluation gain of ₹ 2,50,000, which is reversed)	95,00,000
Add: Post-acquisition profits of B Ltd.	1,00,000
Add: Gain on disposal (recognised directly in equity)	37,500
	96,37,500

5. **Computation of non-controlling interest**

	₹
25% of C Ltd.'s fair value of net assets (₹ 5,00,000 x 25%)	1,25,000
Add: 25% of B Ltd.'s net assets (incl. goodwill) (₹ 16,00,000 x 25%)	4,00,000
	5,25,000

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INDIAN ACCOUNTING STANDARD 116: LEASES

Questions

1. Entity X (lessee) entered into a lease agreement ('lease agreement') with Entity Y (lessor) to lease an entire floor of a shopping mall for a period of 9 years. The annual lease rent of ₹ 70,000 is payable at year end. To carry out its operations smoothly, Entity X simultaneously entered into another agreement ('facilities agreement') with Entity Y for using certain other facilities owned by Entity Y such as passenger lifts, DG sets, power supply infrastructure, parking space etc., which are specifically mentioned in the agreement, for annual service charges amounting to ₹ 1,00,000. As per the agreement, the ownership of the facilities shall remain with Entity Y. Lessee's incremental borrowing rate is 10%.

   The facilities agreement clearly specifies that it shall be co-existent and coterminous with 'lease agreement'. The facility agreement shall stand terminated automatically on termination or expiry of 'lease agreement'.

   Entity X has assessed that the stand-alone price of 'lease agreement' is ₹ 1,20,000 per year and stand-alone price of the 'facilities agreement' is ₹ 80,000 per year. Entity X has not elected to apply the practical expedient in paragraph 15 of Ind AS 116 of not to separate non-lease component(s) from lease component(s) and accordingly it separates non-lease components from lease components.

   How will Entity X account for lease liability as at the commencement date?

2. Entity X is an Indian entity whose functional currency is Indian Rupee. It has taken a plant on lease from Entity Y for 5 years to use in its manufacturing process for which it has to pay annual rentals in arrears of USD 10,000 every year. On the commencement date, exchange rate was USD = ₹ 68. The average rate for Year 1 was ₹ 69 and at the end of year 1, the exchange rate was ₹ 70. The incremental borrowing rate of Entity X on commencement of the lease for a USD borrowing was 5% p.a.

   How will entity X measure the right of use (ROU) asset and lease liability initially and at the end of Year 1?

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3. The Company has entered into a lease agreement for its retail store as on 1st April, 20X1 for a period of 10 years. A lease rental of ₹ 56,000 per annum is payable in arrears. The Company recognized a lease liability of ₹ 3,51,613 at inception using an incremental borrowing rate of 9.5% p.a. as at 1st April 20X1. As per the terms of lease agreement, the lease rental shall be adjusted every 2 years to give effect of inflation. Inflation cost index as notified by the Income tax department shall be used to derive the lease payments. Inflation cost index was 280 for financial year 20X1-20X2 and 301 for financial year 20X3-20X4. The current incremental borrowing rate is 8% p.a.

   Show the Journal entry at the beginning of year 3, to account for change in lease.

4. **Case I**

   Scenario 1: The 'last mile' is a dedicated cable that connects Entity Y's network with the end customer's device. The use of this cable is at the discretion of the customer. Entity Y decides the location of end points and has right to replace the lines (dedicated cable), however it is not practical to replace the lines, since replacement would require additional costs to be incurred without any corresponding benefit. Whether the arrangement would be within the scope of Ind AS 116?

   Scenario 2: If it is practical for the Entity Y to replace the lines and Entity Y would benefit from this replacement, would the answer be different?

   Case II

   Customer X enters into a 10-year contract with a utility company, Entity Y, for the right to use three specified, physically distinct fibers within a larger cable connecting Mumbai to Delhi. Customer makes the decisions about the use of the fibers by connecting each end of the fibers to its electronic equipment. Entity Y owns extra fibers but can substitute those for Customer's fibers only for reasons of repairs, maintenance or malfunction. The useful life of the fiber is 15 years. Whether this arrangement is covered under Ind AS 116?

   Case III

   Customer X enters into a 10-year contract with Entity Y for the right to use a specified amount of capacity within a cable connecting Mumbai to Delhi. The specified amount is equivalent to Customer X having the use of the full capacity of three fiber strands within the cable (the cable contains multiple fibers with similar capacities). Entity Y makes decisions about the transmission of data (i.e., Entity Y lights the fibers, makes decisions about which fibers are used to transmit Customer's traffic). The useful life of the fiber is 15 years. Whether this arrangement is covered under Ind AS 116?

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5. A company manufactures specialised machinery. The company offers customers the choice of either buying or leasing the machinery. A customer chooses to lease the machinery. Details of the arrangement are as follows:

(i) The lease commences on 1st April, 20X1 and lasts for three years.

(ii) The lessee is required to make three annual rentals payable in arrears of ₹ 57,500.

(iii) The leased machinery is returned to the lessor at the end of the lease.

(iv) The fair value of the machinery is ₹ 1,50,000, which is equivalent to the selling price of the machinery

(v) The machinery cost ₹ 1,00,000 to manufacture. The lessor incurred costs of ₹ 2,500 to negotiate and arrange the lease.

(vi) The expected useful life of the machinery is 3 years. The machinery has an expected residual value of ₹ 10,000 at the end of year three. The estimated residual value does not change over the term of the lease.

(vii) The interest rate implicit in the lease is 10.19%.

The lessor classifies the lease as a finance lease.

How should the Lessor account for the same in its books of accounts? Pass necessary journal entries.

6. How will Entity Y account for the incentive in the following scenarios:

Scenario A:

Entity Y (lessor) enters into an operating lease of property with Entity X (lessee) for a five-year term at a monthly rental of ₹ 1,10,000. In order to induce Entity X to enter into the lease, Entity Y provides ₹ 6,00,000 to Entity X at lease commencement for lessee improvements (i.e., lessee's assets).

Scenario B:

Entity Y (lessor) enters into an operating lease of property with Entity X (lessee) for a five-year term at a monthly rental of ₹ 1,10,000. At lease commencement, Entity Y provides ₹ 6,00,000 to Entity X for leasehold improvements which will be owned by Entity Y (i.e., lessor's assets). The estimated useful life of leasehold improvements is 5 years

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7. Entity X, a utility company enters into a contract for twenty years with Entity Y, a power company, to purchase all of the electricity produced by a new solar power station. The solar power station is explicitly specified in the contract and Entity Y has no substitution rights. Entity Y owns the solar power station and will receive tax credits relating to the construction and ownership of the solar power station, and Entity X will receive renewable energy credits that accrue from use of the solar power station.

   Whether Entity X has the right to obtain substantially all of the economic benefits from the solar power station during the period of arrangement?

8. Wealth Ltd. has entered into lease agreement with a lessor for a period of 5 years at the annual lease rental of ₹ 8 lakhs. There is an option at the end of the said period that lease can be owned by lessee. Other factors to be noted are discount rate of 8% per annum and interest rate implicit in the lease of 10% per annum.

   Wealth Ltd. is reasonably certain to exercise the option to purchase the leased asset at the end of lease term and ₹ 56,00,000 is the exercise price agreed in the lease term for purchasing of land at the end of the 5th year. Therefore, the same has been considered in computing the present value of the lease liability.

   At the end of the year 3, Wealth Ltd. exercised the option to purchase the land at value of ₹ 56 lakhs, whereas the market value on that date was ₹ 75 lakhs.

   For revised discount rate, consider the interest rate implicit in the lease.
   Required

   (i) Calculate the lease liability and right of use asset for the lease with the lessor. RoU is depreciated on SLM basis.

   (ii) Provide the amounts reflecting in the balance sheet, profit and loss and statement of cash flows at the end of year 1.

   (iii) What are the accounting entries if Wealth Ltd. decides to purchase the leased property at the end of year 3?

9. Lessee enters into an agreement with Lessor for a period of five years to lease a floor of a building. Lessee is required to make a fixed annual lease payment of ₹ 4,20,000 (i.e., total payment of ₹ 21,00,000 over the five-year term). As per the terms of the contract, the ₹ 4,20,000 annual payment comprises:

	₹
Building rent	2,40,000

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Common area maintenance services	84,000
Property taxes (pro-rata)	60,000
Building insurance (pro-rata)	36,000

From Lessee's perspective, the estimated standalone price of the building rent is ₹ 2,64,000 and the estimated standalone price of the common area maintenance service is ₹ 96,000. Lessee has not elected to apply the practical expedient in paragraph 15 of Ind AS 116 of not to separate non-lease component(s) from lease component(s). Hence, it has to separate non-lease components from lease components.

How are the above payments allocated and accounted for by Lessee?

Answers

1. Entity X identifies that the contract contains lease of premises and non-lease component of facilities availed. As Entity X has not elected to apply the practical expedient as provided in paragraph 15, it will separate the lease and non-lease components and allocate the total consideration of ₹ 1,70,000 to the lease and non-lease components in the ratio of their relative stand-alone selling prices as follows:

Particulars	Stand-alone Prices	% of total Stand-alone Price	Allocation of consideration
	₹		₹
Building rent	1,20,000	60%	1,02,000
Service charge	80,000	40%	68,000
Total	**2,00,000**	**100%**	**1,70,000**

As Entity X's incremental borrowing rate is 10%, it discounts lease payments using this rate and the lease liability at the commencement date is calculated as follows:

Year	Lease Payment (A)	Present value factor @ 10% (B)	Present value of lease payments (A x B = C)
Year 1	1,02,000	0.909	92,718
Year 2	1,02,000	0.826	84,252
Year 3	1,02,000	0.751	76,602
Year 4	1,02,000	0.683	69,666

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Year 5	1,02,000	0.621	63,342
Year 6	1,02,000	0.564	57,528
Year 7	1,02,000	0.513	52,326
Year 8	1,02,000	0.467	47,634
Year 9	1,02,000	0.424	43,248
Lease Liability at commencement date			**5,87,316**

Further, ₹ 68,000 allocated to the non-lease component of facility used will be recognised in profit or loss as and when incurred.

2. On initial measurement, Entity X will measure the lease liability and ROU asset as under:

Year	Lease Payments (USD)	Present Value factor @ 5%	Present Value of Lease Payment	Conversion rate (spot rate)	INR value
1	10,000	0.952	9,520	68	6,47,360
2	10,000	0.907	9,070	68	6,16,760
3	10,000	0.864	8,640	68	5,87,520
4	10,000	0.823	8,230	68	5,59,640
5	10,000	0.784	7,840	68	5,33,120
Total			**43,300**		**29,44,400**

As per Ind AS 21 *The Effects of Changes in Foreign Exchange Rates*, monetary assets and liabilities are restated at each reporting date at the closing rate and the difference due to foreign exchange movement is recognised in profit and loss whereas non-monetary assets and liabilities carried measured in terms of historical cost in foreign currency are not restated.

Accordingly, the ROU asset in the given case being a non-monetary asset measured in terms of historical cost in foreign currency will not be restated but the lease liability being a monetary liability will be restated at each reporting date with the resultant difference being taken to profit and loss.

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At the end of Year 1, the lease liability will be measured in terms of USD as under:

Lease Liability:

Year	Initial Value (USD) (a)	Lease Payment (b)	Interest @ 5% (c) = (a x 5%)	Closing Value (USD) (d = a + c - b)
1	43,300	10,000	2,165	35,465

Interest at the rate of 5% will be accounted for in profit and loss at average rate of ₹ 69 (i.e., USD 2,165 x 69) = ₹ 1,49,385.

Particulars		Dr. (₹)	Cr. (₹)
Interest Expense	Dr.	1,49,385	
To Lease liability			1,49,385

Lease payment would be accounted for at the reporting date exchange rate, i.e. ₹ 70 at the end of year 1

Particulars		Dr. (₹)	Cr. (₹)
Lease liability	Dr.	7,00,000	
To Cash			7,00,000

As per the guidance above under Ind AS 21, the lease liability will be restated using the reporting date exchange rate i.e., ₹ 70 at the end of Year 1. Accordingly, the lease liability will be measured at ₹ 24,82,550 (35,465 x ₹ 70) with the corresponding impact due to exchange rate movement of ₹ 88,765 (24,82,550 – (29,44,400 + 1,49,385 – 700,000) taken to profit and loss.

At the end of year 1, the ROU asset will be measured as under:

Year	Opening Balance (₹)	Depreciation (₹)	Closing Balance (₹)
1	29,44,400	5,88,880	23,55,520

3. As per para 27 (b) of Ind AS 116, variable lease payments that depend on an index or a rate, are initially measured using the index or rate as at the commencement date.

At the beginning of the third year, Lessee remeasures the lease liability at the present value of eight payments of ₹ 60,200 discounted at an original discount rate of 9.5% per annum as per para 43 of Ind AS 116.

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Year	Revised lease rental	Discount factor @ 9.5%	Present value
3	[(56,000 / 280) x 301] = 60,200	0.913	54,963
4	60,200	0.834	50,207
5	60,200	0.762	45,872
6	60,200	0.696	41,899
7	60,200	0.635	38,277
8	60,200	0.580	34,916
9	60,200	0.530	31,906
10	60,200	0.484	29,137
			3,27,127

Table showing amortised cost of lease liability

Year	Opening balance	Interest @ 9.5%	Rental paid	Closing balance
1	3,51,613	33,403	56,000	3,29,016
2	3,29,016	31,257	56,000	3,04,273

Difference of ₹ 22,854 (3,27,127 – 3,04,273) will increase the lease liability with corresponding increase in ROU Asset as per para 39 of Ind AS 116.

Journal entry at the beginning of year 3 would be:

Right-of-use asset	Dr.	₹ 22,854	
To Lease liability			₹ 22,854

4. Paragraph 9, B9, B13 and B14 of Ind AS 116 state the following:

"9 At inception of a contract, an entity shall assess whether the contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration."

"B9 To assess whether a contract conveys the right to control the use of an identified asset for a period of time, an entity shall assess whether, throughout the period of use, the customer has both of the following:

(a) the right to obtain substantially all of the economic benefits from use of the identified asset; and

(b) the right to direct the use of the identified asset."

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"B13 An asset is typically identified by being explicitly specified in a contract. However, an asset can also be identified by being implicitly specified at the time that the asset is made available for use by the customer."

"B14 Even if an asset is specified, a customer does not have the right to use an identified asset if the supplier has the substantive right to substitute the asset throughout the period of use. A supplier's right to substitute an asset is substantive only if both of the following conditions exist:

(a) the supplier has the practical ability to substitute alternative assets throughout the period of use (for example, the customer cannot prevent the supplier from substituting the asset and alternative assets are readily available to the supplier or could be sourced by the supplier within a reasonable period of time); and

(b) the supplier would benefit economically from the exercise of its right to substitute the asset (i.e., the economic benefits associated with substituting the asset are expected to exceed the costs associated with substituting the asset)."

Paragraph B20 of Ind AS 116 which provides guidance regarding identified asset in case of portion of assets states that a capacity portion of an asset is an identified asset if it is physically distinct (for example, a floor of a building). A capacity or other portion of an asset that is not physically distinct (for example, a capacity portion of a fibre optic cable) is not an identified asset, unless it represents substantially all of the capacity of the asset and thereby provides the customer with the right to obtain substantially all of the economic benefits from use of the asset.

Paragraph B21 of Ind AS 116, inter alia, states that to control the use of an identified asset, a customer is required to have the right to obtain substantially all of the economic benefits from use of the asset throughout the period of use (for example, by having exclusive use of the asset throughout that period). A customer can obtain economic benefits from use of an asset directly or indirectly in many ways, such as by using, holding or subleasing the asset.

Further, paragraph B24 of Ind AS 116 provides that a customer has the right to direct the use of an identified asset throughout the period of use if the customer has the right to direct how and for what purpose the asset is used throughout the period of use.

Paragraph B25 of Ind AS 116 states that a customer has the right to direct how and for what purpose the asset is used if, within the scope of its right of use defined in the contract, it can change how and for what purpose the asset is used throughout the period of use. In

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making this assessment, an entity considers the decision-making rights that are most relevant to changing how and for what purpose the asset is used throughout the period of use. Decision-making rights are relevant when they affect the economic benefits to be derived from use. The decision-making rights that are most relevant are likely to be different for different contracts, depending on the nature of the asset and the terms and conditions of the contract.

Case I

Scenario 1:

(i) As per paragraph B13 of Ind AS 116, 'Last mile' which is a dedicated cable is an identified asset since it is physically distinct.

(ii) There are no substantive substitution rights with Entity Y, as it does not have the practical ability to substitute alternative assets throughout the period of use.

Thus, this arrangement is within the scope of Ind AS 116.

Scenario 2:

If Entity Y has the practical ability to replace the lines and it would benefit from such replacement, Entity Y has substantive substitution rights. In such case, this arrangement for the 'last mile cable' will not be within the scope of Ind AS 116.

Case II

The fibers are specified in the contract and are physically distinct. Hence, in accordance with paragraph B13 and B20, the said three fibers are identified asset.

Paragraph B18, inter alia, states that the supplier's right or obligation to substitute the asset for repairs and maintenance, if the asset is not operating properly or if a technical upgrade becomes available does not preclude the customer from having the right to use an identified asset.

Further, paragraph B27 provides that although rights such as those to operate or maintain an asset are often essential to the efficient use of an asset, they are not rights to direct how and for what purpose the asset is used and can actually be dependent on the decisions about how and for what purpose the asset is used.

In accordance with the above, as Entity Y can substitute these three distinct fibers only for reasons of repairs, maintenance or malfunction, it does not preclude them from being an identified asset.

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Further, the Customer X has right to control the use of the identified fibers for 10 year since it has –

(a) the right to obtain substantially all of the economic benefits from use of the identified fibers throughout the period of use, i.e., 10 years; and

(b) the right to direct the use of the fibers as it makes the decisions about the use of the fibers, i.e., it has right to direct how and for what purpose the fibers are used throughout the period of use.

Hence, this arrangement is within the scope of Ind AS 116.

Case III

Paragraph B20 specifically provides that a capacity or other portion of an asset that is not physically distinct (for example, a capacity portion of a fiber optic cable) is not an identified asset, unless it represents substantially all of the capacity of the asset and thereby provides the customer with the right to obtain substantially all of the economic benefits from use of the asset. In the given case, the capacity portion that will be provided to Customer X is not physically distinct from the remaining capacity of the cable and does not represent substantially all of the capacity of the cable, thus, it is not an identified asset. Further, Entity Y makes all decisions about the transmission of data, (i.e., supplier lights the fibers, makes decisions about which fibers are used to transmit customer's traffic).

Thus, the contract does not contain a lease and is therefore not within the scope of Ind AS 116.

5. The cost to the lessor for providing the machinery on lease consists of the book value of the machinery (₹ 1,00,000), plus the initial direct costs associated with entering into the lease (₹ 2,500), less the future income expected from disposing of the machinery at the end of the lease (the present value of the unguaranteed residual value of ₹ 10,000 discounted @ 10.19%, being ₹ 7,470). This gives a cost of sale of ₹ 95,030.

The lessor records the following entries at the commencement of the lease:

		₹	₹
Lease receivable	Dr.	1,50,000	
Cost of sales	Dr.	95,030	
To Inventory			1,00,000
To Revenue			1,42,530
To Creditors/Cash			2,500

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The sales profit recognised by the lessor at the commencement of the lease is therefore ₹ 47,500 (₹ 1,42,530 - ₹ 95,030). This is equal to the fair value of the machinery of ₹ 1,50,000, less the book value of the machinery (₹ 1,00,000) and the initial direct costs of entering into the lease (₹ 2,500). Revenue is equal to the lease receivable (₹ 1,50,000), less the present value of the unguaranteed residual value (₹ 7,470).

Year	Lease receivable at the beginning of year (₹) (a)	Lease payments (₹) (b)	Interest Income (10.19% per annum) (₹) (c)	Decrease In lease receivable (₹) (d)=(b)-(c)	Lease receivable at the end of year (₹) (e)=(a)-(d)
1	1,50,000	57,500	15,285	42,215	1,07,785
2	1,07,785	57,500	10,983	46,517	61,268
3	61,268	57,500	6,232*	51,268	10,000

**Difference is due to approximation*

The lessor will record the following entries:

			₹	₹
Year 1	Cash/Bank	Dr.	57,500	
	To Lease receivable			42,215
	To Interest income			15,285
Year 2	Cash/Bank	Dr.	57,500	
	To Lease receivable			46,517
	To Interest income			10,983
Year 3	Cash/Bank	Dr.	57,500	
	To Lease receivable			51,268
	To Interest income			6,232

At the end of the three-year lease term, the leased machinery will be returned to the lessor, who will record the following entries:

		₹	₹
Inventory	Dr.	10,000	
To Lease receivable			10,000

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6. Para 70 of Ind AS 116 state that at the commencement date, the lease payments included in the measurement of the net investment in the lease comprise the following payments for the right to use the underlying asset during the lease term that are not received at the commencement date:

(a) fixed payments (including in-substance fixed payments as described in para B42), less any lease incentives payable;

(b) variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date;

(c) any residual value guarantees provided to the lessor by the lessee, a party related to the lessee or a third party unrelated to the lessor that is financially capable of discharging the obligations under the guarantee;

(d) the exercise price of a purchase option if the lessee is reasonably certain to exercise that option (assessed considering the factors described in para B37); and

(e) payments of penalties for terminating the lease, if the lease term reflects the lessee exercising an option to terminate the lease.

Further para 71 of the standard states that a lessor shall recognise lease payments from operating leases as income on either a straight-line basis or another systematic basis. The lessor shall apply another systematic basis if that basis is more representative of the pattern in which benefit from the use of the underlying asset is diminished."

Scenario A

In accordance with above, in the given case, **at lease commencement**, Entity Y accounts for the incentive as follows:

To account for the lease incentive

Deferred lease incentive	Dr.	₹ 6,00,000	
To Cash			₹ 6,00,000

Recurring monthly journal entries in Years 1 – 5

To record cash received on account of lease rental and amortisation of lease incentive over the lease term

Cash	Dr.	₹ 1,10,000	
To Lease income			₹ 1,00,000
To Deferred lease incentive			₹ 10,000*

* This is calculated as ₹ 6,00,000 ÷ 60 months.

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Scenario B

Entity Y has provided lease incentive amounting to ₹ 6,00,000 to Entity X for leasehold improvements in the premises. As Entity Y has the ownership of the leasehold improvements carried out by the lessee, it shall account for the same as property, plant and equipment and shall depreciate the same over its useful life.

In accordance with above, in the given case, **at lease commencement**, Entity Y accounts for the incentive as follows:

To record the lease incentive

Property, plant & Equipment	Dr.	₹ 6,00,000	
To Cash			₹ 6,00,000

Recurring monthly journal entries in Years 1 – 5

To record cash received on account of lease rental over the lease term

Cash	Dr.	₹ 1,10,000	
To Lease income			₹ 1,10,000

To record depreciation on PPE over the lease term using straight line method

Depreciation	Dr.	₹ 10,000	
To Accumulated Depreciation			₹ 10,000

7. Paragraphs B21 of Ind AS 116 states that to control the use of an identified asset, a customer is required to have the right to obtain substantially all of the economic benefits from use of the asset throughout the period of use (for example, by having exclusive use of the asset throughout that period). A customer can obtain economic benefits from use of an asset directly or indirectly in many ways, such as by using, holding or subleasing the asset. The economic benefits from use of an asset include its primary output and by-products (including potential cash flows derived from these items), and other economic benefits from using the asset that could be realised from a commercial transaction with third party.

In the given case, Entity X has the right to obtain substantially all of the economic benefits from the use of the solar power station over the 20-year period because it obtains:

– electricity produced by the power station i.e. the primary product from use of the asset over the lease term and

– renewable energy credits – i.e. the by-product from use of the asset.

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Although Entity Y will receive economic benefits from the solar power station in the form of tax credits, those economic benefits relate to the ownership of the solar power station rather than the use of the power station. Thus, these credits are not considered in this assessment.

8. (i) Calculation of ROU Asset and Lease Liability:

Year	Lease Payments / Purchase Price	PVF @ 10%	PV of Lease payments
1	8,00,000	0.909	7,27,200
2	8,00,000	0.826	6,60,800
3	8,00,000	0.751	6,00,800
4	8,00,000	0.683	5,46,400
5	64,00,000 (8,00,000 + 56,00,000)	0.621	39,74,400
			65,09,600

Entity would amortise the right-of-use asset over the useful life of the underlying asset (5 years). Annual amortisation expense would be ₹ 13,01,920 (₹ 65,09,600 / 5 years). Accordingly, ROU Asset balance at the end of Year 1 is ₹ 52,07,680 (₹ 65,09,600 - ₹ 13,01,920).

(ii) Presentation at the end of Year 1:

In Balance Sheet	In Profit and Loss	In Statement of Cash Flows
ROU Asset: ₹ 52,07,680 (W.N.2)	Depreciation = ₹ 13,01,920 (W.N.2)	Cash flow from financing activities: Lease payment = ₹ 8,00,000
Lease Liability: ₹ 63,60,560 (W.N.1)	Interest expense (Finance cost) = ₹ 6,50,960 (W.N.1)	

(iii) In the above part (i), it was considered that lessee was reasonably certain that he will exercise the option at the end of 5th year that's why the same has been considered in determination of lease payment. Now, lessee is exercising the option at the end of 3rd year which implies that there is **change in the assessment of an option** to purchase the underlying asset. Hence, paras 39 and 40(b) of IFRS 16 will come into the picture which are as follows *(only relevant part have been reproduced here):*

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39 After the commencement date, a lessee shall apply paragraphs 40–43 to remeasure the lease liability to reflect changes to the lease payments. A lessee shall recognise the amount of the remeasurement of the lease liability as an adjustment to the right-of-use asset.

40 A lessee shall remeasure the lease liability by discounting the revised lease payments using a revised discount rate,

if either:

(a)

(b) **there is a change in the assessment of an option to purchase the underlying asset**, assessed considering the events and circumstances described in paragraphs 20–21 in the context of a purchase option. A lessee shall determine the revised lease payments to reflect the change in amounts payable under the purchase option.

Therefore, the lease liability has to be remeasured on change in the assessment of exercising the option.

Original lease liability is ₹ 60,16,278 (Working Note 1). Since at the end of the 3rd year, the lease has been terminated due to exercise of option to purchase the asset, the revised lease liability is the amount paid on exercising the option i.e. ₹ 56,00,000. The difference of original lease liability and revised lease liability will decrease the carrying amount of the right-of-use asset.

Accordingly, the adjustment to ROU Asset would be = ₹ 60,16,278–₹ 56,00,000
= ₹ 4,16,278.

Journal Entry

		(₹)	(₹)
Lease liability	Dr.	4,16,278	
To ROU Asset			4,16,278
(Adjustment of difference in original lease liability and revised lease liability to ROU Asset)			
PPE	Dr.	21,87,562	
To ROU Asset			21,87,562
(₹ 26,03,840 (Refer W.N.2) - ₹ 4,16,278)			
(ROU Asset balance transferred to PPE on exercising of lease option)			

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Lease Liability	Dr.	56,00,000	
To Bank/Lease payable			56,00,000
(Extinguishment of lease liability)			

Note: We have stopped till the entry to exercise the option to purchase the leased asset (as per the requirement of the question). Treatment for change in the value of PPE due to its fair value has not been considered here.

Working Notes:

1. Calculation of outstanding Lease Liability at the end of 3rd year

Year	Opening balance (A)	Interest @ 10% (B)	Lease payments (C)	Closing balance (A) + (B) - (C)
	₹	₹	₹	₹
1	65,09,600	6,50,960	8,00,000	63,60,560
2	63,60,560	6,36,056	8,00,000	61,96,616
3	61,96,616	6,19,662	8,00,000	60,16,278

2. Calculation of ROU Asset balance at the end of 3rd year

Year	Opening balance (A)	Depreciation (B)	Closing balance (A-B)
	₹	₹	₹
1	65,09,600	13,01,920	52,07,680
2	63,60,560	13,01,920	39,05,760
3	61,96,616	13,01,920	26,03,840

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9. Paragraph B33 of Ind AS 116 states that a contract may include an amount payable by the lessee for activities and costs that do not transfer a good or service to the lessee. For example, a lessor may include in the total amount payable a charge for administrative tasks or other costs it incurs associated with the lease, that do not transfer a good or service to the lessee. Such amounts payable, do not give rise to a separate component of the contract, but are considered to be part of the total consideration that is allocated to the separately identified components of the contract.

The payments to be made by Lessee for common area maintenance represents payment for non-lease components as it is a payment for a service provided to it by Lessor.

The property taxes are required to be paid by Lessor irrespective of whether it leased the building and to which party. Likewise, the building insurance paid by Lessee also protects the Lessor's property and only Lessor will be entitled to receive the claim if received. Accordingly, these are not separate components of the contract because they do not represent payments for goods or services and are considered to be part of the total consideration that is allocated to the separately identified components of the contract (i.e., the lease and non-lease components).

As Lessee has not elected the practical expedient as provided in paragraph 15 of the standard, it will separate the lease and the non-lease components, even though the agreement specified payments for four separately identified matters, the arrangement will comprise only two components for accounting purposes.

The total annual payment would be allocated between the two identified goods and services representing the lease component and non-lease component as follows:

Particulars	Standalone prices	% of Total Standalone Price	Allocation of annual payment* (calculation on full scale)
Building rent	2,64,000	73.333%	3,07,860
Maintenance services	96,000	26.666%	1,12,140
Total	**3,60,000**	**100.00%**	**4,20,000**

*The portion of consideration that is allocated to the lease components includes, apart from rent, those amounts that are not considered a separate component (e.g., ₹ 60,000 on account of property taxes and ₹ 36,000 on account of building insurance).

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