CHAPTER 8

REVENUE BASED ACCOUNTING STANDARDS

UNIT 1 : ACCOUNTING STANDARD 7 CONSTRUCTION CONTRACTS

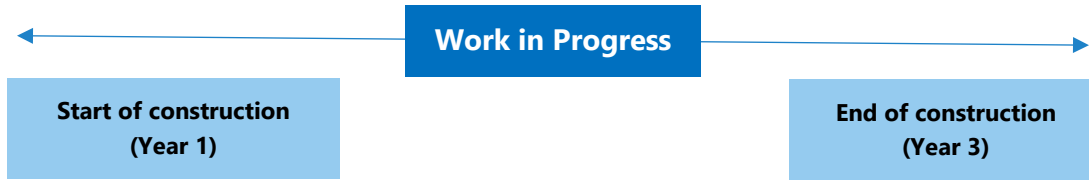
LEARNING OUTCOMES

After studying this unit, you will be able to comprehend the provisions of AS 7 related with:

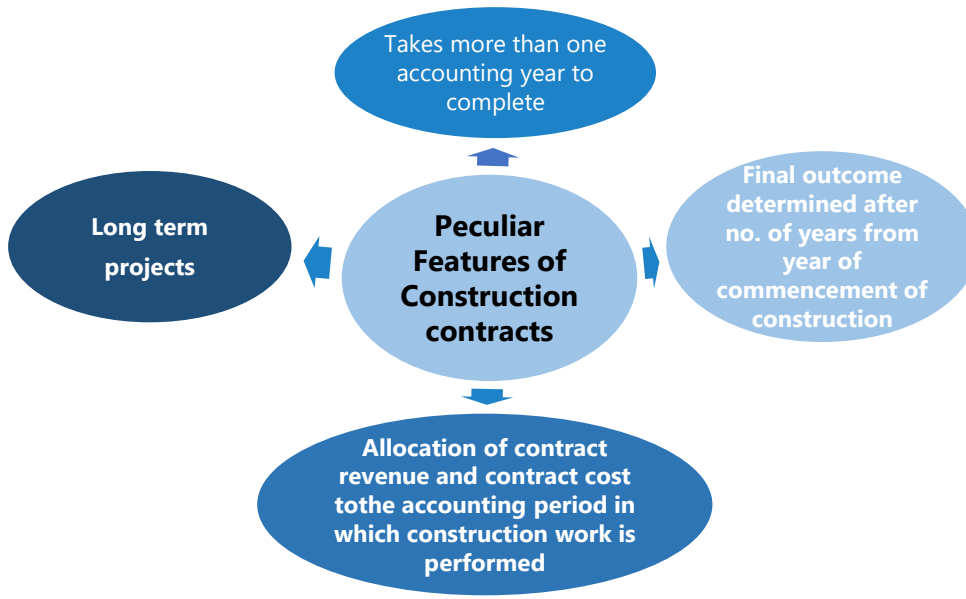
- Introduction and Scope of Construction Contract
- Combining and Segmenting Construction Contracts
- What is included in Contract Revenue
- What is included and excluded in Contract Costs
- Recognition of Contract Revenue and Expenses
- Recognition of Expected Losses
- Changes in Estimates
- Disclosures.

1.1 SIGNIFICANCE OF THE STANDARD

The need to have a standard for construction contracts and their accounting arises since the construction contracts generally cover more than one accounting period. Common examples of construction include construction of flyovers, dams, metro line, buildings etc. For example, if entity XY submits a tender to construct a flyover for a state government, the construction of that flyover might take 2 to 3 years of time, depending on the scope of the contract. This standard addresses the requirements for recognition & measurement (i.e., the timing and amount) of construction revenue and construction costs.



The entity that is required to complete the construction is referred to as **Contractor** and the customer who requires the construction to be completed is referred to as **Contractee/Customer**.



The above discussion clearly indicates that there are two parties to the construction contract. Thus, if there is an entity which requires its engineering division to construct a machine for the production division, this would not meet the scope of AS 7. It will be addressed by AS 10 (Property, plant and equipment) and will be accounted as a case of self-constructed asset.

1.2 INTRODUCTION

Accounting Standard 7 prescribes the principles of accounting for construction contracts in the financial statements of contractors. The focus of the standard is to determine when the contractor should recognise contract revenue and contract costs in the statement of profit and loss.

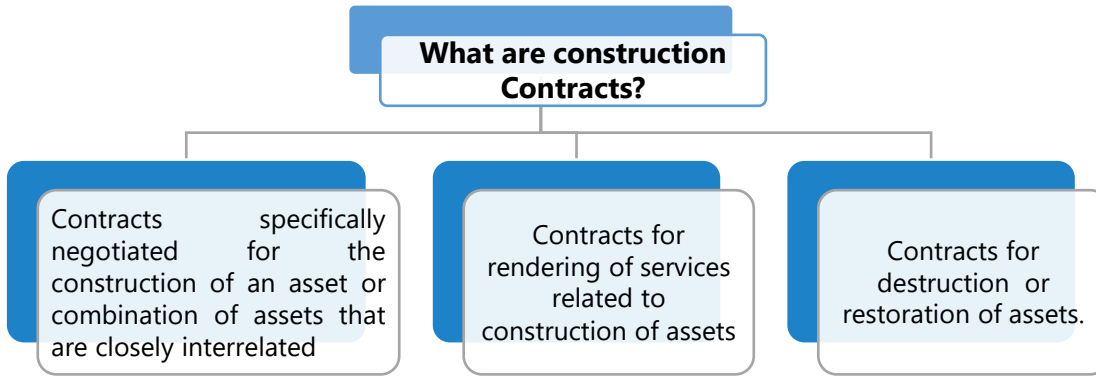
A **construction contract** is a contract specifically negotiated for the construction of an asset or a combination of assets that are closely interrelated or interdependent in terms of their design, technology and function or their ultimate purpose or use.

A construction contract may be negotiated for the construction of a single asset such as a bridge, building, dam, pipeline, road, ship or tunnel. A construction contract may also deal with the construction of a number of assets which are closely interrelated or interdependent in terms of their design, technology and function or their ultimate purpose or use; examples of such contracts include those for the construction of refineries and other complex pieces of plant or equipment.

For the purposes of this Standard, construction contracts also include:

(a) contracts for the rendering of services which are directly related to the construction of the asset, for example, those for the services of project managers and architects; and

(b) contracts for destruction or restoration of assets, and the restoration of the environment following the demolition of assets.



Example 1

Entity XY contracts with AB to construct 2 residential buildings in the same premises. The construction of both buildings will begin simultaneously. Building material, construction work, and other related activities will go on in parallel to provide cost savings to entity XY. This also helps AB achieve a timely completion of the two buildings and negotiate a consolidated price for the two buildings.

The above example suggests that there is a single contract negotiated to construct two buildings that are closely interrelated and interdependent in terms of their ultimate purpose and use. Therefore, this represents a Construction Contract.

Example 2

H, a sole-proprietor, contracts with M/s DM Construction, to dismantle his office premises and construct it from scratch.

In the given case, the construction contract includes both demolition as well as construction of a new building.

1.3 COMBINING AND SEGMENTING CONSTRUCTION CONTRACTS

A contractor may undertake a number of contracts.

The standard identifies certain cases where for the purposes of accounting, it is necessary to apply the Standard to the separately identifiable components of a single contract or to a group of contracts together in order to reflect the substance of a contract or a group of contracts.

(a) When a contract covers a number of assets, the construction of each asset should be treated as a separate construction contract when:

(i) separate proposals have been submitted for each asset;

(ii) each asset has been subject to separate negotiation and the contractor and customer have been able to accept or reject that part of the contract relating to each asset; and

(iii) the costs and revenues of each asset can be identified.

(b) A group of contracts, whether with a single customer or with several customers, should be treated as a single construction contract when:

(i) the group of contracts is negotiated as a single package;

(ii) the contracts are so closely interrelated that they are, in effect, part of a single project with an overall profit margin; and

(iii) the contracts are performed concurrently or in a continuous sequence.

(c) A contract may provide for the construction of an additional asset at the option of the customer or may be amended to include the construction of an additional asset. The construction of the additional asset should be treated as a separate construction contract when:

(i) the asset differs significantly in design, technology or function from the asset or assets covered by the original contract; or

(ii) the price of the asset is negotiated without regard to the original contract price.

Illustration 1

XYZ construction Ltd, a construction company undertakes the construction of an industrial complex. It has separate proposals raised for each unit to be constructed in the industrial complex. Since each unit is subject to separate negotiation, he is able to identify the costs and revenues attributable to each unit. Should XYZ Ltd, treat construction of each unit as a separate construction contract according to AS 7?

Solution

As per AS 7 'Construction Contracts', when a contract covers a number of assets, the construction of each asset should be treated as a separate construction contract when:

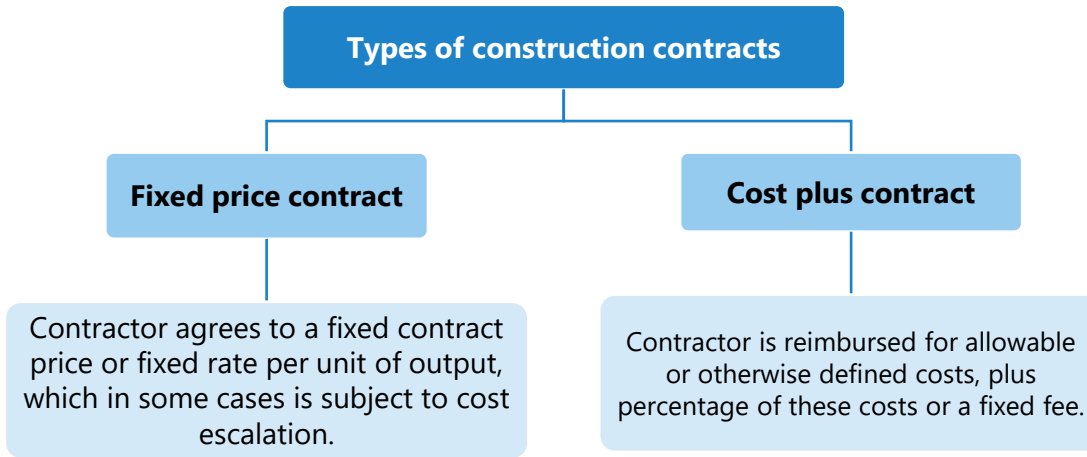
(a) separate proposals have been submitted for each asset;

(b) each asset has been subject to separate negotiation and the contractor and customer have been able to accept or reject that part of the contract relating to each asset; and

(c) the costs and revenues of each asset can be identified.

Therefore, XYZ Ltd. is required to treat construction of each unit as a separate construction contract.

1.4 TYPES OF CONSTRUCTION CONTRACTS



In a **fixed price contract**, the price is agreed as fixed sum or a fixed rate per unit of output. In some cases, the contract may require the customer to pay additional sums to compensate the contractor against cost escalations.

Fixed price contracts are common in case of public tenders (construction of roads, flyovers, office buildings). Such constructions usually have a budgeted costs and the public entity does not intend to spend more than the tender amount. At the same time, there can be various reasons where the cost of construction may increase. For example, a sudden increase in wage rates, construction material

costs, may require the contractor to add ***cost-escalation clauses*** and recover from the contractee. These cost escalations still meet the category of fixed price contracts.

A **cost-plus contract** is a construction contract in which the contractor is reimbursed for allowable or otherwise defined costs, plus percentage of these costs or a fixed fee.

Cost-plus contracts are common in case there is uncertainty of measurement of costs or time of completion. In such cases, a contractor does not expect to bear the loss due to those uncertainties. For example, if the scope of the contract cannot be fully assessed in the contract, both parties may agree to ***cost-plus contracts***.

Under such contracts, the contractor is compensated for the costs incurred by him plus agreed profit-margin.

1.5 CONTRACT REVENUE AND COSTS

(A) Contract revenue should comprise:

(i) the initial amount of revenue agreed in the contract; and

(ii) variations in contract work, claims and incentive payments to the extent that it is probable that they will result in revenue and they are capable of being reliably measured.

Contract revenue includes:

Agreed price (fixed / Cost-plus price)

Plus: Agreed Cost escalation

Plus: *Claims (reimbursement for costs not included in the contract price)

Plus: **Incentive payments (usually for early completion)

Less: Penalties (usually for late completion)

Adjusted for Variations

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* Claims are only included in contract revenue when it is probable that the customer will accept the claim and such claim amount can be measured reliably

** Incentives are only included in the contract revenue when it is probable that the specified performance standards will be met or exceeded, and such incentive payment can be measured reliably)

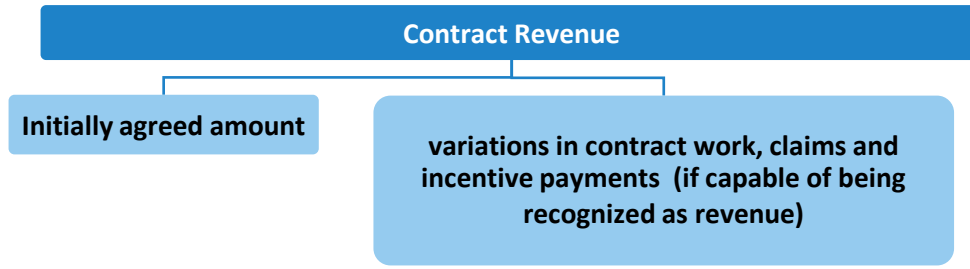


Illustration 2

AB contactors enters into a contract on 1st January 20X1 with XY to construct a 5-storied building. Under the contract, AB is required to complete the construction in 3 years (i.e., by 31st December 20X3). The following information is relevant:

Fixed price (agreed) *₹5 crore*

Material cost escalation (to the extent of 20% of increase in material cost)

Labour cost escalation (up to 30% of increase in minimum wages)

In case AB is able to complete the construction in less than 2 years and 10 months, it will be entitled for an additional incentive of ₹50 lakh. However, in case the construction is delayed beyond 3 years and 2 months, XY will charge a penalty of ₹20 lakh. At the start of the contract, AB has a reason to believe that construction will be completed in 2 years and 8 months. Assume that the construction was actually completed in 2 years 9 months.

Labour cost was originally estimated to be ₹1.20 crore (based on initial minimum wages). However, the costs have increased by 25% during the construction period.

Material costs have increased by 40% due to short-supply. The total increase in material cost due to the 40% escalation is ₹80 lakh.

You are required to suggest what should be the contract revenue in above case?

Assume that in year 20X2, XY has requested AB to increase the scope of the contract. An additional floor is required to be constructed and there is an increase in contract fee by ₹1 crore.

AB has incurred a cost of ₹20 lakh for getting the local authority approvals which it will be entitled to claim from XY in addition to the increase in the fixed fee.

Also measure the total contract revenue in this case.

Solution

Total Revenue after considering the escalation costs, claims and incentives:

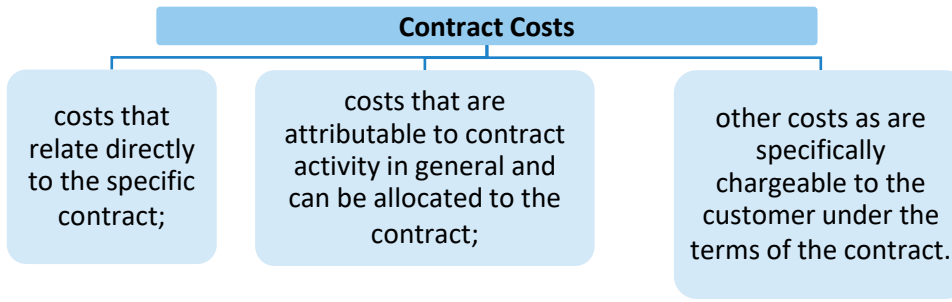
	₹
Fixed Price:	5.00 crore
Incentive for early completion	0.50 crore
Material costs recovery (to the extent of 20%)	0.40 crore
Labour costs recovery (Actual increase is less than 30%) [1.20 crore x 25%]	0.30 crore
Total Contract Revenue	6.20 crore
Add: Variation to the contract	1.00 crore
Add: Claims recoverable from XY	0.20 crore
Total Contract Revenue	7.40 crore

(B) **Contract costs** should comprise:

(i) costs that relate directly to the specific contract;

(ii) costs that are attributable to contract activity in general and can be allocated to the contract; and

(iii) such other costs as are specifically chargeable to the customer under the terms of the contract.



NOTE:

1. Examples of costs that relate directly to a specific contract include:

(a) site labour costs, including site supervision

(b) costs of materials used in construction

(c) depreciation of plant and equipment used on the contract

(d) costs of moving plant, equipment and materials to and from the contract site

(e) costs of hiring plant and equipment

(f) costs of design and technical assistance that is directly related to the contract

(g) the estimated costs of rectification and guarantee work, including expected warranty costs

(h) claims from third parties

Note: Direct costs can be reduced by incidental income that is not included in contract revenue, e.g., sale of surplus material and disposal of plant and equipment.

2. Example of costs that may be attributable to contract activity in general and can be allocated to specific contracts include:

(a) insurance

(b) costs of design and technical assistance that is not directly related to a specific contract

(c) construction overheads

The allocation of indirect costs should be based on normal levels of construction activity. The allocable costs may include borrowing costs as per AS 16.

3. Examples of costs that cannot be attributed to contract activity or cannot be allocated to a contract are excluded from the costs of a construction contract. Such costs include:

(a) general administration costs for which reimbursement is not specified in the contract

(b) selling costs

(c) research and development costs for which reimbursement is not specified in the contract

(d) depreciation of idle plant and equipment that is not used on a particular contract

Example 3: Cost-Plus contract

The language can be changed as under (Entire Question):

ABC Constructions has a contract to build an office building.

The terms and conditions are as under:

1. ABC's profit is agreed at:
   - 25% on expected contract's cost; For this purpose, the expected cost cannot exceed ₹ 22 crores.
2. The agreed price will be revised depending upon the actual cost incurred.
   - The cost for fixation will be taken actual cost or ₹ 22 crores whichever is less.

Price fixation based on expected cost:

Assume that the costs expected to be incurred by ABC are ₹16 crore. Thus, ABC can charge a profit of ₹ 4 crores (25% on actual cost).

The contract price will be ₹ 20 crores. (₹16 crores plus ₹ 4 crores)

Price fixation based on actual cost incurred – Scenario 1:

However, if cost incurred by ABC is ₹15 crore, in that case, it would be able to charge a profit of:

= 25% on ₹15 crore = 15 x 25% = ₹ 3.75 crore

Thus, Total Value of the contract will stand revised as follows:

= Actual Costs + Profit (25% of costs) = ₹ 15 crore + ₹ 3.75 crore = ₹ 18.75 crores.

Price fixation based on actual cost incurred – Scenario 2:

For any unavoidable reasons, if total cost incurred by ABC is ₹ 25 crore, it can only charge a profit on the expected costs of ₹22 crore as under:

Thus, Total Value of the contract will stand revised as follows:

= Expected Costs + Profit (20% of costs) = ₹ 22 crore + ₹ 5.50 crore = ₹ 27.50 crores.

Analysis of the above scenario:

Cost actually incurred by ABC = ₹ 25 crores.

Actual profit earned by ABC = Total Value of the contract – Actual costs incurred

= ₹ 27.50 Crores – ₹ 25 Crores = ₹ 2.50 Crores.

1.6 PERCENTAGE COMPLETION METHOD

As discussed in the beginning, Construction contracts are mostly long term, i.e., they take more than one accounting year to complete. This means, the final outcome (profit/ loss) of a construction contract can be determined only after a number of years from the year of commencement of construction are over. It is nevertheless possible to recognise revenue annually in proportion of progress of work to be matched with corresponding construction costs incurred in that year. This method of accounting, called the stage of completion method (percentage completion method), provides useful information on the extent of contract activity and performance during an accounting period.

The method is consistent with Accrual and Matching concepts of accounting.

AS 7 prescribes that the percentage completion method should not be used unless it is possible to make a reasonable estimate of the final outcome of the contract.

In reality, the actual profit or loss that is expected to be earned in such contracts is not possible. Therefore, companies make use of different estimates to arrive at the possible costs they are likely to incur for the construction. Large infra-structure companies, builders expect to carry the required industry-experience. On that basis, the pricing quoted by these companies for tenders take care of all possible costs and expected profit. Therefore, in substance, a reasonable estimate of the final outcome is possible in many such cases.

As per AS 7, the outcome of fixed price contracts can be estimated reliably when all the following conditions are satisfied:

(i) total contract revenue can be measured reliably;

(ii) it is probable that the economic benefits associated with the contract will flow to the enterprise;

(iii) both the contract costs to complete the contract and the stage of contract completion at the reporting date can be measured reliably; and

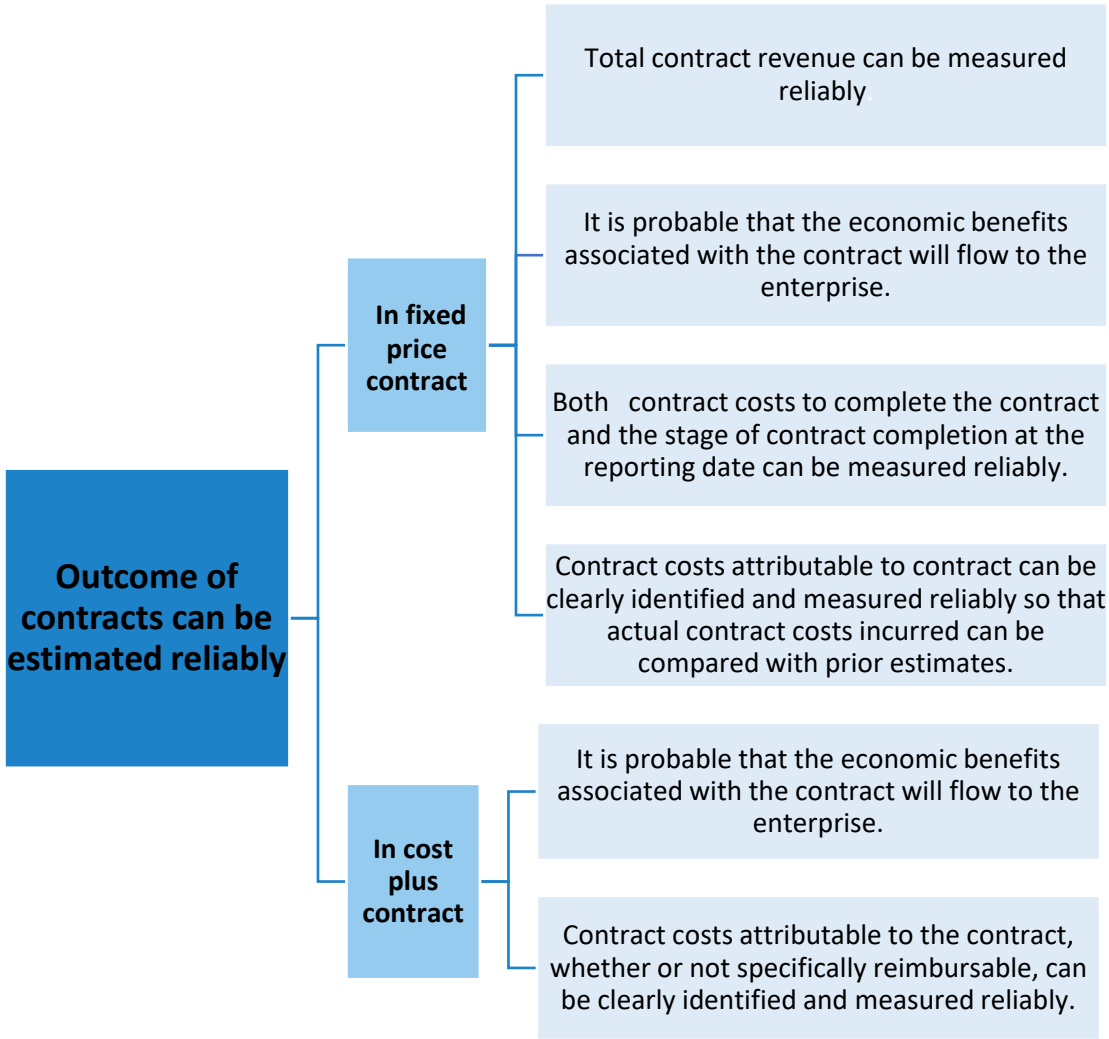
(iv) the contract costs attributable to the contract can be clearly identified and measured reliably so that actual contract costs incurred can be compared with prior estimates.

The outcome of a cost-plus contract can be estimated reliably when all the following conditions are satisfied:

(i) it is probable that the economic benefits associated with the contract will flow to the enterprise; and

(ii) the contract costs attributable to the contract, whether or not specifically reimbursable, can be clearly identified and measured reliably.

Flowchart depicting the conditions under which the outcome of a construction contract can be reliably estimated:



Also, AS 7 provides that whenever total contract cost is expected to exceed the total contract revenue, the loss should be recognised as an expense immediately.

We may argue that why would an entity enter into a loss-making contract. It can happen that after having entered into the construction contract, there is a sudden rise in the costs which was not expected, nor are these covered under the ***cost-escalation clause***. Another reason, is that, an entity may enter into a loss-making contract is to penetrate the market. Therefore, it is not uncommon for companies to sometimes enter into loss-making contracts.

Under the prudence concept, we must always make a provision for all expected losses.

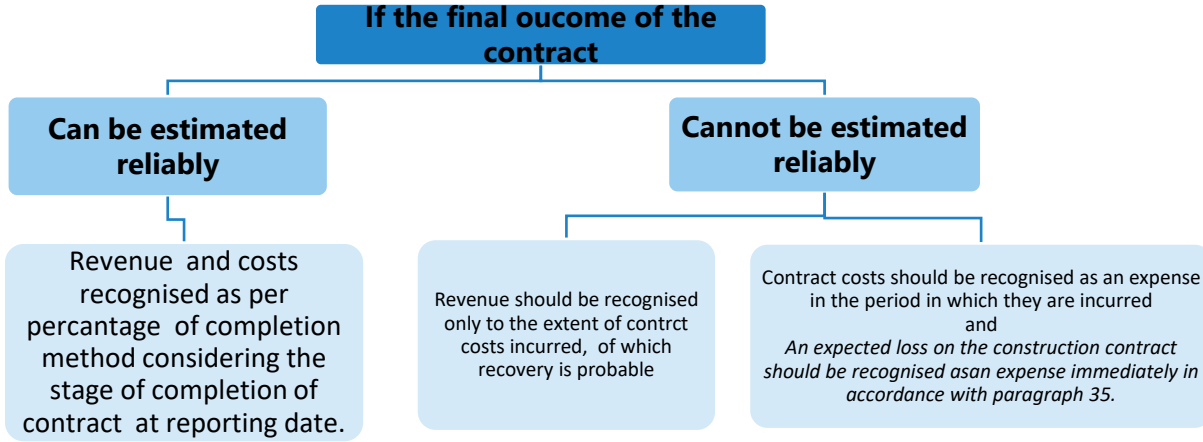


Illustration 3 (Percentage completion method)

X Ltd. commenced a construction contract on 01-04-20X1. The fixed contract price agreed was ₹2,00,000. The company incurred ₹81,000 in 20X1-X2 for 45% work and received ₹79,000 as progress payment from the customer. The cost incurred in 20X2-X3 was ₹89,000 to complete the rest of work. Show the extract of the Profit and Loss Account and Customer's Account for the related years.

Solution

Profit & Loss Account

Year		₹ 000	Year		₹ 000
20X1-X2	To Construction Costs (for 45% work)	81	20X1-X2	By Contract Price (45% of Contract Price)	90
	To Net profit (for 45% work)	9			
		90			90
20X2-X3	To Construction costs (for 55% work)	89	20X2-X3	By Contract Price (55% of Contract Price)	110
	To Net Profit (for 55% work)	21			
		110			110

Customer's Account

Year		*₹ 000*	*Year*		*₹ 000*
20X1-X2	To Contract Price	90	20X1-X2	By Bank	79
				By Balance c/d	11
		90			90
20X2-X3	To Balance b/d	11	20X2-X3		
	To Contract Price	110		By Bank	121
		121			121

AS 7 provides that the percentage completion method should not be applied if the outcome of a construction contract cannot be estimated reliably. In such cases:

(a) revenue should be recognised only to the extent of contract costs incurred of which recovery is probable; and

(b) contract costs should be recognised as an expense in the period in which they are incurred.

An expected loss on the construction contract should be recognised as an expense immediately in accordance with paragraph 35.

Illustration 4

PQ & Associates undertakes a construction contract the details of which are provided below:

Total Contract Value	*₹40 lakh*
Costs incurred to date	*₹3 lakh*
Estimated future costs of completion	*₹30 lakh*
Work completed	*10%*

The work has started some time ago and there is an uncertainty with respect to the outcome of the contract due to expected changes in regulations. PQ is certain that it would be able to recover the costs incurred to date.

Solution

In the given case, revenue and costs can only be recognised to the extent of the costs incurred and those which are expected to be recovered. Therefore, the profit & loss statement would appear as under:

Contract Revenue	₹3 lakh
Contract Costs	₹3 lakh
Contract Profit	Nil

When the uncertainties that prevented the outcome of the contract being estimated reliably cease to exist, revenue and expenses associated with the construction contract should be recognised by the percentage completion method.

Example 4

X Ltd. commenced a construction contract on 01/04/X1. The contract price agreed was reimbursable cost plus 10%. The company incurred ₹1,00,000 in 20X1-X2, of which cost of ₹90,000 is reimbursable. The further non-reimbursable costs to be incurred to complete the contract are estimated at ₹5,000. The other costs to complete the contract could not be estimated reliably. The Profit & Loss A/c extract of X Ltd. for 20X1-X2 is shown below:

Solution

Profit & Loss Account

	₹ 000		₹ 000
To Construction Costs	*100*	*By Contract Price (90+9)*	*99*
To Provision for loss	*5*	*Net loss*	*6*
	105		*105*

1.7 TREATMENT OF COSTS RELATING TO FUTURE ACTIVITY

Under the percentage of completion method, contract revenue is recognised as revenue in the statement of profit and loss in the accounting periods in which the work is performed. Contract costs are usually recognised as an expense in the statement of profit and loss in the accounting periods in which the work to which they relate is performed. The contract costs that relate to future activity on the contract are however recognised as an asset provided it is probable that they will be recovered. Such costs represent an amount due from the customer and are often classified as contract work in progress.

1.8 UNCOLLECTABLE CONTRACT REVENUE

When an uncertainty arises about the collectability of an amount already included in contract revenue, and already recognised in the statement of profit and loss, the uncollectable amount or the amount in respect of which recovery has ceased

to be probable is recognised as an expense rather than as an adjustment of the amount of contract revenue.

1.9 STAGE OF COMPLETION

The stage of completion of a contract may be determined in a variety of ways. The enterprise uses the method that measures reliably the work performed. Depending on the nature of the contract, the methods may include:

(a) the proportion that contract costs incurred for work performed up to the reporting date bear to the estimated total contract costs; or

(b) surveys of work performed; or

(c) completion of a physical proportion of the contract work.

Progress payments and advances received from customers may not necessarily reflect the work performed.

Calculation of Stage of completion under proportion of costs incurred method.

This method may be useful in case of contracts where cost is closely monitored by the contractor. This method could be more commonly used in case of private contracts to construct office buildings, machinery or equipment.

$$= \frac{\text{Actual cost incurred}}{\text{Estimated total cost}} \times 100$$

$$= \frac{\text{Actual cost incurred}}{\text{Actual cost incurred + Estimated future costs}} \times 100$$

Calculation of Stage of completion under Surveyor of work performed method

Generally, in case of government projects, a surveyor is appointed to oversee various parameters like quality of work, material used, etc. Based on these parameters, the surveyor would assess the percentage of work completed. The certification done by the appointed surveyor is used as the percentage of work completed.

Calculation of Stage of completion of a physical proportion of the contract work method

This method is commonly used in case of construction work which is not very complicated. For example, a contract to place tiles can be regarded as complete on the basis of area covered as a proportion of total area expected to be covered. Thus, for example If the area to be covered is 1,000 sq. ft., and the total area already covered is 300 sq.ft., this implies that 30% of the work is completed.

Illustration 5 (Stage of completion for a loss-making contract)

Show Profit & Loss A/c (Extract) in books of a contractor in respect of the following data for Year 1.

Information for Year 1	*₹ 000*
Contract price (Fixed)	*600*
Cost incurred to date	*390*
Estimated cost to complete	*260*

Assume that the contract period is 2 years. The contract is 100% completed by Year 2. Actual costs incurred is the same as total estimated costs to complete (Cost incurred to date plus estimated cost to complete).

Solution

		Amount INR ₹000	
	Year (1)	***Total up to Year2 (2)***	***Year 2 (2) – (1)***
A. Cost incurred to date	*(390)*	*(650)*	*(260)*
B. Estimate of cost to completion	*(260)*	*-*	*-*
C. Estimated total cost	*(650)*	*650*	*650*
D. Degree of completion (A/C)	*60%*	*100%*	*40%*
E. Revenue Recognised			
(60% of 600)	*360*		
(100% of 600)		*600*	*240*

Total foreseeable loss (650 – 600)	*50*		
Less: Loss for current year (E – A)	*(30)*		
Expected loss to be recognised immediately	*(20)*		
Reversal of Loss provision in Year 2			*20*

Profit & Loss A/c (Year 1)

	₹		₹
To Construction costs	*390*	*By Contract Price*	*360*
To Provision for loss	*20*	*By Net Loss*	*50*
	410		*410*

Profit & Loss A/c (Year 2)

	₹		₹
To Construction costs	*260*	*By Contract Price*	*240*
		By Reversal of Provision for loss	*20*
	260		*260*

1.10 CHANGES IN ESTIMATES

The percentage of completion method is applied on a cumulative basis in each accounting period to the current estimates of contract revenue and contract costs. Therefore, the effect of a change in the estimate of contract revenue or contract costs, or the effect of a change in the estimate of the outcome of a contract, is accounted for as a change in accounting estimate in accordance with AS 5. The changed estimates are used in determination of the amount of revenue and expenses recognised in the statement of profit and loss in the period in which the change is made and in subsequent periods.

1.11 DISCLOSURE

(a) An enterprise should disclose:

(i) the amount of contract revenue recognised as revenue in the period;

(ii) the methods used to determine the contract revenue recognised in the period; and

(iii) the methods used to determine the stage of completion of contracts in progress.

(b) An enterprise should disclose following in respect of contracts in progress at the reporting date:

(i) the aggregate amount of costs incurred and recognised profits (less recognised losses) upto the reporting date;

(ii) the amount of advances received; and

(iii) the amount of retentions.

- **Retentions** are amounts of progress billings which are not paid until the satisfaction of conditions specified in the contract for the payment of such amounts or until defects have been rectified.
- **Progress billings** are amounts billed for work performed on a contract whether or not they have been paid by the customer.
- **Advances** are amounts received by the contractor before the related work is performed.

(c) An enterprise should present:

(i) the gross amount due from customers for contract work as an asset; and

(ii) the gross amount due to customers for contract work as a liability.

Particulars	**₹**
Costs incurred	xxx
Plus: Recognised profits	xxx
Less: Recognised losses	xxx
Less: Progress billings	xxx
Amount	xxx
If above amount is **positive**- Gross amount due from customers If above amount is **negative**- Gross amount due to	

customers

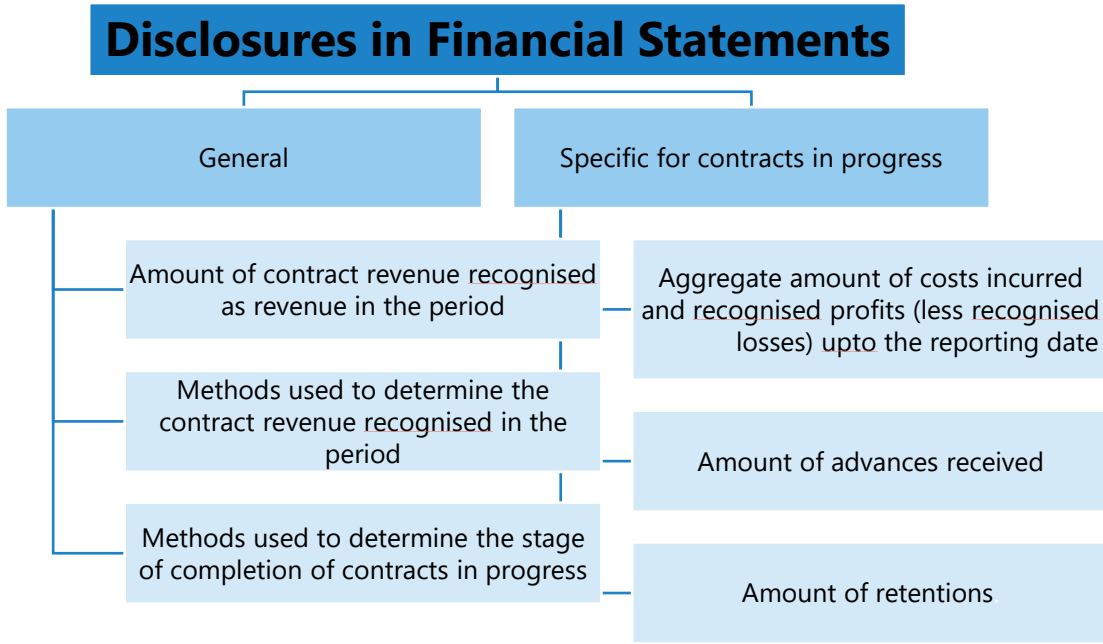


Illustration 6

A firm of contractors obtained a contract for construction of bridges across river Revathi. The following details are available in the records kept for the year ended 31st March, 20X1.

	(₹ in lakhs)
Total Contract Price	*1,000*
Work Certified for the cost incurred	*500*
Work yet not Certified for the cost incurred	*105*
Estimated further Cost to Completion	*495*
Progress Payment Received	*400*
To be Received	*140*

The firm seeks your advice and assistance in the presentation of accounts keeping in view the requirements of AS 7 issued by your institute.

Solution

(a)		**(₹ in lakhs)**
	Amount of foreseeable loss:	
	Total cost of construction (500 + 105 + 495)	1,100
	Less: Total contract price	(1,000)
	Total foreseeable loss to be recognized as expense	100

According AS 7, when it is probable that total contract costs will exceed total contract revenue, the expected loss should be recognized as an expense immediately.

(b)		**(₹ in lakhs)**
	Contract work-in-progress i.e. cost incurred to date are ₹ 605 lakhs	
	Work certified	500
	Work not certified	105
		605
	This is 55% (605/1,100 × 100) of total costs of construction.	

(c) Proportion of total contract value recognized as revenue:

55% of ₹ 1,000 lakhs = ₹ 550 lakhs

(d) Gross Amount due from/to customers = (Contract costs + Recognized profits – Recognized Losses) – (Progress payments received + Progress payments to be received)

= (605 + Nil – 100) – (400 + 140) ₹ in lakhs

= [505 – 540] ₹ in lakhs

Amount due to customers = ₹ 35 lakhs

The amount of ₹ 35 lakhs will be shown in the balance sheet as liability.

(e) The relevant disclosures under AS 7 are given below:

	₹ in lakhs
Contract revenue	550
Contract expenses	605
Recognised profits less recognised losses	(100)
Progress billings ₹ (400 + 140)	540
Retentions (billed but not received from contractee)	140
Gross amount due to customers	35
Method of revenue recognition (use of percentage completion method)	
Method of determining state of completion (based on proportionate cost	

Illustration 7

On 1st December, 20X1, Vishwakarma Construction Co. Ltd. undertook a contract to construct a building for ₹ 85 lakhs. On 31st March, 20X2, the company found that it had already spent ₹ 64,99,000 on the construction. Prudent estimate of additional cost for completion was ₹ 32,01,000. What amount should be recognized in the statement of profit and loss for the year ended 31st March, 20X2 as per provisions of Accounting Standard 7 (Revised)?

Solution

	₹
Cost incurred till 31st March, 20X2	64,99,000
Prudent estimate of additional cost for completion	32,01,000
Total cost of construction	97,00,000
Less: Contract price	(85,00,000)
Total foreseeable loss	12,00,000

According to AS 7, the amount of ₹ 12,00,000 is required to be recognised as an expense.

Contract work in progress = $\frac{₹\,64,99,000 \times 100}{97,00,000}$ = 67%

Proportion of total contract value recognised as turnover:

= 67% of ₹ 85,00,000 = ₹ 56,95,000.

The amount of expected loss will be split as under:

Particulars	Workings	Amount
Expected Loss	97,00,000– 85,00,000	12,00,000
Contract revenue	67% of 85,00,000	56,95,000
Contract cost	Given	64,99,000
Actual loss	56,95,000– 64,99,000	8,04,000
Amount of provision required [As per Para 35]	12,00,000– 8,04,000	3,96,000

TEST YOUR KNOWLEDGE

Multiple Choice Questions

The below information relates to Questions 1 – 3:

XY Ltd. agrees to construct a building on behalf of its client GH Ltd. on 1st April 20X1. The expected completion time is 3 years. XY Ltd. incurred a cost of ₹ 30 lakh up to 31st March 20X2. It is expected that additional costs of ₹ 90 lakh. Total contract value is ₹ 112 lakh. As at 31st March 20X2, XY Ltd. has billed GH Ltd. for ₹ 42 lakh as per the agreement. Assume that the work is completed to the extent of 75% by the end of Year 2.

1. *Revenue to be recognized by XY Ltd. for the year ended 31st March 20X2 is*

   (a) ₹ 28 lakh

   (b) ₹ 42 lakh

   (c) ₹ 30 lakh

   (d) ₹ 32 lakh

2. *Total expense to be recognised in Year 1 is*

   (a) ₹ 30 lakh

   (b) ₹ 120 lakh

   (c) ₹ 38 lakh

   (d) ₹ 36 lakh

3. *Revenue to be recognised for year 2 is*

   (a) ₹ 84 lakh

   (b) ₹ 42 lakh

   (c) ₹ 56 lakh

   (d) ₹ 28 lakh

Below information relates to Questions 4 – 5

M/s AV has presented the information for Contract No. XY123:

Total contract value	*₹ 370 lakh*

Certified work completed	*₹ 320 lakh*
Costs incurred to date	*₹ 360 lakh*
Progress Payments received	*₹ 300 lakh*

Expected future costs to be incurred ₹ 50 lakh. The revenue to be recognised based on the certified work completed.

4. *Revenue to be recognised by M/s AV is*

   (a) ₹ 320 lakh

   (b) ₹ 370 lakh

   (c) ₹ 360 lakh

   (d) ₹ 400 lakh

5. *Total expense to be recognised by M/s AV is*

   (a) ₹ 380 lakh

   (b) ₹ 400 lakh

   (c) ₹ 320 lakh

   (d) ₹ 360 lakh

6. *LP Contractors undertakes a fixed price contract of ₹ 200 lakh. Transactions related to the contract include:*

   Material purchased: ₹ 80 lakh

   Unused material: ₹ 30 lakh

   Labour charges: ₹ 60 lakh

   Machine used for 3 years for the contract. Original cost of the machine is ₹ 100 lakh. Expected useful life is 15 years.

   Estimated future costs to be incurred to complete the contract: ₹ 80 lakh.

   Loss on contract to be recognised is:

   (a) ₹ 40 lakh

   (b) ₹ 10 lakh

   (c) ₹ 90 lakh

   (d) ₹ 50 lakh

Theoretical Questions

7. *It is argued that profit on construction contracts should not be recognised until the contract is completed. Please explain whether you believe that this suggestion would improve the quality of financial reporting for long-term construction contracts.*

8. *A contractor has entered into a contract with a municipal body for construction of a flyover. As per the contract terms, the contractor will receive an additional ₹ 2 Crore as incentive if the construction of the flyover were to be finished within a period of two years from the start of the contract. The contractor wants to recognize this revenue since in the past he has been able to meet similar targets very easily.*

   Explain whether the contractor's view-point is correct?

Scenario based Questions

9. *A construction contractor has a fixed price contract for ₹ 9,000 lakhs to build a bridge in 3 years time frame. A summary of some of the financial data is as under:*

	(Amount ₹ in lakhs)		
	Year 1	***Year 2***	***Year 3***
Initial Amount for revenue agreed in contract	*9,000*	*9,000*	*9,000*
Variation in Revenue (+)	*-*	*200*	*200*
Contracts costs incurred up to the reporting date	*2,093*	*6,168**	*8,100***
Estimated profit for whole contract	*950*	*1,000*	*1,000*

**Includes ₹ 100 lakhs for standard materials stored at the site to be used in year 3 to complete the work.*

***Excludes ₹ 100 lakhs for standard material brought forward from year 2.*

The variation in cost and revenue in year 2 has been approved by customer.

Compute year wise amount of revenue, expenses, contract cost to complete and profit or loss to be recognized in the Statement of Profit and Loss as per AS-7 (revised).

10. *Akar Ltd. Signed on 01/04/X1, a construction contract for ₹ 1,50,00,000. Following particulars are extracted in respect of contract, for the year ended 31/03/X2.*

- *Materials used ₹ 71,00,000*
- *Labour charges paid ₹ 36,00,000*
- *Hire charges of plant ₹ 10,00,000*
- *Other contract cost incurred ₹ 15,00,000*
- *Labour charges of ₹ 2,00,000 are still outstanding on 31.3.X2.*
- *It is estimated that by spending further ₹ 33,50,000 the work can be completed in all respect.*

You are required to compute profit/loss for the year to be taken to Profit & Loss Account and any provision for foreseeable loss to be recognized as per AS 7.

11. *RT Enterprises has entered into a fixed price contract for construction of a tower with its customer. Initial tender price agreed is ₹ 220 crore. At the start of the contract, it is estimated that total costs to be incurred will be ₹ 200 crore. At the end of year 1, this estimate stands revised to ₹ 202 crore. Assume that the construction is expected to be completed in 3 years.*

During year 2, the customer has requested for a variation in the contract. As a result of that, the total contract value will increase by ₹ 5 crore and the costs will increase by ₹ 3 crore.

RT has decided to measure the stage of completion on the basis of the proportion of contract costs incurred to the total estimated contract costs. Contract costs incurred at the end of each year is:

Year 1: ₹ 52.52 crore

Year 2: ₹ 154.20 crore (including unused material of 2.5 crore)

Year 3: ₹ 205 crore.

You are required to calculate:

(a) Stage of completion for each year.

(b) Profit to be recognised for each year.

12. *On 1st December, 20X1, GR Construction Co. Ltd. undertook a contract to construct a building for ₹ 45 lakhs. On 31st March, 20X2, the company found that it had already spent ₹ 32.50 lakhs on the construction. Additional cost of completion is estimated at ₹ 15.10 lakhs. What amount should be charged to revenue in the final accounts for the year ended 31st March, 20X2 as per provisions of AS-7?*

ANSWERS/SOLUTIONS

Answer to the Multiple Choice Questions

1.	(a)	**2.**	(c)	**3.**	(c)	**4.**	(a)	**5.**	(d)	**6.**	(b)

Answer to the Theoretical Questions

7. Usually, construction contracts are long term nature i.e., the contracts are entered in one accounting period, however, the work performed will flow into more than one accounting year. If the profit on construction contracts is not recognised over the construction period, then the costs incurred during the earlier years of the contract would be recognised without any corresponding revenue. This will result in losses for initial years followed high profits in future years.

The current treatment under AS 7 results in matching of revenue and associated costs as they are recognised during the same period. Also, the current accounting incorporates the prudence concept as any foreseeable losses are accounted for immediately.

Therefore, AS 7 results in a fair representation of the underlying financial substance of the transaction.

8. The contractor's view is not entirely correct in considering the variation as a part of contract revenue. There is an argument that he has been able to complete similar contracts within stipulated time. However, each contract needs to be assessed in isolation with respect to the specific challenges associated with the timing and uncertainty in completion.

Accordingly, the contractor needs to validate the assumptions with respect to the specific contract. Only after that assessment is done, the incentive of ₹ 2 crore may be included within the contract revenue.

Answer to the Scenario based Questions

9. The amounts of revenue, expenses and profit recognized in the statement of profit and loss in three years are computed below:

(Amount in ₹ lakhs)

	Up to the reporting date	***Recognized in previous years***	***Recognized in current year***
Year 1			
Revenue (9,000 x 26%)	2,340	-	2,340
Expenses (8,050 x 26%)	2,093	-	2,093
Profit	247	-	247
Year 2			
Revenue (9,200 x 74%)	6,808	2,340	4,468
Expenses (8,200 x 74%)	6,068	2,093	3,975
Profit	740	247	493
Year 3			
Revenue (9,200 x 100%)	9,200	6,808	2,392
Expenses (8,200 x 100%)	8,200	6,068	2,132
Profit	1,000	740	260

Working Note:

	Year 1	***Year 2***	***Year 3***
Revenue after considering variations	9,000 950	9,200 1,000	9,200 1,000
Less: Estimated profit for whole contract			
Estimated total cost of the contract (A)	8,050	8,200	8,200

Actual cost incurred upto the reporting date (B)	2,093	6,068 (6,168-100)	8,200 (8,100+100)
Degree of completion (B/A)	26%	74%	100%

10. Statement showing the amount of profit/loss to be taken to Profit and Loss Account and additional provision for the foreseeable loss as per AS 7

	Cost of Construction	₹	₹
	Material used		71,00,000
	Labour Charges paid	36,00,000	
Add:	Outstanding on 31.03.20X2		38,00,000
		2,00,000	
	Hire Charges of Plant		10,00,000
	Other Contract cost incurred		15,00,000
	Cost incurred upto 31.03.20X2		1,34,00,000
Add:	Estimated future cost		33,50,000
	Total Estimated cost of construction		1,67,50,000
	Degree of completion (1,34,00,000/1,67,50,000 x 100)		80%
	Revenue recognized (80% of 1,50,00,000)		1,20,00,000
	Total foreseeable loss (1,67,50,000 - 1,50,00,000)		17,50,000
Less:	Loss for the current year (1,34,00,000 - 1,20,00,000)		14,00,000
	Loss to be provided for		3,50,000

11. (a) Stage of completion = Costs incurred to date / Total estimated costs

Year 1: 52.52 crore / 202 crore = 26%

Year 2: (154.20 crore – 2.50 crore) / 205 crore = 74%

Year 3: 205 crore / 205 crore = 100%

(b) Profit for the year

	Year 1	**Year 2**	**Year 3**
Contract Revenue (1)	57.20 crore	109.30 crore	58.50 crore

	(220 crore x 26%)	(225 crore x 74% - 57.20 crore)	(225 crore x 100% - 109.30 crore – 57.20 crore)
Contract Cost (2)	52.52 crore	99.18 crore	53.30 crore
	(202 crore x 26%)	(205 crore x 74% - 52.52 crore)	(205 crore x 100% - 99.18 crore – 52.52 crore)
Contract Profit (1) – (2)	4.68 crore	10.12 crore	5.20 crore

12.

	₹ in lakhs
Cost of construction incurred till date	32.50
Add: Estimated future cost	15.10
Total estimated cost of construction	47.60

Percentage of completion till date to total estimated cost of construction

= (32.50/47.60) × 100 = 68.28%

Proportion of total contract value recognised as revenue for the year ended 31st March, 20X2 per AS 7 (Revised)

= Contract price x percentage of completion

= ₹ 45 lakh x 68.28% = ₹ 30.73 lakhs.

	(₹ in lakhs)
Total cost of construction	**47.60**
Less: Total contract price	**(45.00)**
Total foreseeable loss to be recognized as expense	**2.60**

According to of AS 7, when it is probable that total contract costs will exceed total contract revenue, the expected loss should be recognized as an expense immediately.