CHAPTER 22

Contract Costing

Meaning

Contract Costing is a special type of job costing where the unit of cost is a single contract. Contract itself is a cost centre and is executed under the customer's specifications. Contract Costing is defined by the I C M A Terminology as "that form of specific order costing which applies where work is undertaken to customer's special requirements and each order is of long duration. The work is usually of constructional nature."

Contract Costing is also termed as "Terminal Costing." The principles of job costing are applicable to contract costing and is used by such concerns of builders, public works contractors, constructional and mechanical engineering firms and ship builders etc. who undertake work on a contract basis.

SPECIAL FEATURES OF CONTRACT COSTING

The following are the special features of Contract Costing:

(1) The cost unit is a specific contract.

(2) Each contract takes a long time to complete.

(3) The work being of a constructional nature, the same is executed at customer's site, as per his specifications.

(4) Bulk of the materials purchased and delivered direct to the contract site or obtained from the central stores through the requisition slips.

(5) Generally specific portions of the contract are given to sub-contractors.

(6) Most of costs which are normally treated as indirect can be identified specifically with a particular contract and are charged to it as direct costs.

(7) Overheads constitute only a very small proportion of the cost of the contract. However, indirect costs consist mainly of administrative cost of the central office.

(8) Scale of operations and cost control becomes difficult due to theft of materials, labour time utilization, pilferages etc.

(9) The pay roll is prepared either at the site or at a central administrative office.

Recording Cost on Contract or Costing Procedure

In contract costing, costs are allocated, collected and accumulated according to the contract works. Each contract is treated as a separate entity in which each contract account may be maintained separately or in general ledger itself for the purpose of costing and cost control. The following are the costing procedure for different costs relating to the important expenses :

(1) Materials:

(A) Contract Account is debited with the following transactions relating to materials :

(1) Bulk of materials are purchased for a specific contract from suppliers.

(2) Materials obtained from contractor's central stores through the requisition slips.

(3) Materials transferred from one contract to another contract.

(4) Value of materials remaining unutilized on site during the accounting year.

(B) Contract Account is credited with the following transactions relating to materials :

(1) Materials returned under Materials Return Note.

(2) Sale of materials at site on account of some extraneous reasons.

(3) Materials transferred to other contracts.

(4) Materials stolen or destroyed by fire.

(5) On completion, if a part of materials received from the stores are returned.

(C) Any profit or loss on materials account is transferred to the Profit and Loss Account :

(1) Sale price is different from the cost price.

(2) Resulting from the sale of materials at site.

(3) Resulting from the materials stolen or destroyed by fire.

(2) Labour : In the case of contract costing, all labours engaged at site and the salaries and wages paid to the labour and workers are treated as direct labour cost is debited to Contract Account.

(3) Direct Expenses : Most of the expenses like electricity, insurance telephone, postage, sub-contracts, Architect's fees etc. can also be treated as direct cost is debited to Contract Account.

(4) Overhead Cost : In the case of contract costing overheads incurred only an insignificant part of the total cost of contract account. The nature office and administrative expenses of a particular contract may be apportioned on suitable basis.

(5) Plant and Machinery : For use of plant and machinery in a particular contract, the treatment of plant costs in any of the two ways :

(a) Where a plant has been specially purchased for a particular contract and will be exhausted at site Contract Account should be debited with the cost of the plant. On completion of the contract the residual or written down value as shown by the Plant Ledger will be credited to the Contract Account.

(b) When the plant and machinery are required to the contract site only for a shorter period, the contract account should be debited with the notional amount of depreciation based on some estimates be charged to Contract Account.

(6) Sub-Contracts : Sub-Contracts refer to some portions of the specified work connected with the main contract, to be done by the sub-contractor. For example, the work of painting, special flooring, steel work etc. may be given to the sub-contractors. Usually sub-contract has been undertaken on cost-plus basis and the cost of such sub-contract should be treated as a direct charge and is debited to Contract Account.

(7) Work Certified : In the case of the small contracts which are completed within the shorter period, the contractor pays the contract price on the completion of the contract. In the case of contracts of long duration, the contract agreement provides interim payment to the contractor. It is done on the basis of certificates issued by the contractee's Surveyor, Architect or Engineer. At the same time Contractee usually does not pay to the full value of the work certified. A portion of amount say 20% or 30% thereof shall be retained by the Contractee. The money so retained is called as "Retention Money." This retention money is intented to ensure that the contractor to complete the work as scheduled and according to specifications. Money retained could also be used for imposing penalties for faulty or delayed work. This amount will be settled on completion of the contract.

(8) Work Uncertified : If the progress of a work is unsatisfactory or the work has not reached the stipulated stage, though certain work is completed, such work does not qualify for a certificate by the Contractee's Architect or Surveyor is termed as "Work Uncertified." It is valued at cost and credited to Contract Account and debited to Work in Progress Account.

(9) Work in Progress : Work in progress includes the amount of work certified and the amount of work uncertified. The work in progress account will appear on the asset side of the balance sheet. The amount of cash received from the contractee and reserve for contingencies will be deducted out of this amount.

Treatment of Profits or Loss on Contracts A/c.

The accounting treatment of profits or loss of contracts in the following stages :

(A) Profit or Loss on incomplete contracts

(B) Profits or Loss on completed contracts

(A) Profit or Loss on Incomplete Contracts

To determine the profits to be taken to Profit and Loss Account, in the case of incomplete contracts, the following situations may arise :

(i) Completion of Contract is Less than 25% : In this case no profit should be taken to Profit and Loss Account.

(ii) Completion of Contract is upto 25% or more but Less than 50% : In this case one-third of the notional profit, reduced in the ratio of cash received to work certified, should be transferred to Profit and Loss Account. It can be expressed as :

$$\frac{1}{3} \text{ x Notional Profit x } \frac{\text{Cash Received}}{\text{Work Certified}}$$

(iii) Completion of Contract is upto 50% or more but Less than 90% : In this case two-third of the notional profit reduced by proportion of cash received to work certified is transferred to Profit and Loss Account. The equation is

$$\frac{2}{3} \times \text{Notional Profit} \times \frac{\text{Cash Received}}{\text{Work Certified}}$$

(iv) Completion of Contract is upto 90% or more than 90%, i.e., it is nearing completion : In this case the profit to be taken to Profit and Loss Account is determined by determining the estimated profit and using any one of the following formula :

(a) Estimated Profit $\times \dfrac{\text{Work Certified}}{\text{Contract Price}}$

(b) Estimated Profit $\times \dfrac{\text{Work Certified}}{\text{Contract Price}} \times \dfrac{\text{Cash Received}}{\text{Work Certified}}$

(or)

Estimated Profit $\times \dfrac{\text{Cash Received}}{\text{Contract Price}}$

(c) Estimated Profit $\times \dfrac{\text{Cost of Work to Date}}{\text{Estimated Total Cost}}$

(d) Estimated Profit $= \dfrac{\text{Cost of Work to Date}}{\text{Estimated Total Cost}} \times \dfrac{\text{Cash Received}}{\text{Work Certified}}$

(e) Normal Profit $= \dfrac{\text{Work Certified}}{\text{Contract Price}}$

Escalation Clause : This clause is often provided in contracts as safeguard against any likely changes in price or utilization of material and labour. Such a clause in a contract would provide that in the event of a specified contingency happening, the contract price would be suitably enhanced by an agreed formula or factor. This clause is particularly necessary where the prices of a certain raw material are likely to rise, where labour rates are anticipated to increase, or where the quantity of material and labour hours cannot be assessed properly or estimated unless the job has progressed sufficiently.

Cost-Plus Contract : These contracts provide for the payment by the contractee of the actual cost of manufacturing plus a stipulated profit. The profit to be added to the cost may be a fixed amount or it may be a stipulated percentage of cost. These contracts are generally entered into when at the time of undertaking of a work, it is not possible to estimate it's cost with reasonable accuracy due to unstable condition of material, labour etc. or when the work is spread over a long period of time and prices of materials, rates of labour etc. are liable to fluctuate.

(B) Profits or Loss on Completed Contracts

When a contract is completed, the overall profit or loss on the contract is transferred to the Profit and Loss Account.

Illustration: 1

The following are the expenses on a contract which commences on 1st Jan. 2003

Materials purchased	1,00,000
Materials on hand	5,000
Direct wages	1,50,000
Plant issued	50,000
Direct expenses	80,000

The contract price was Rs. 15,00,000 and the same was duly received when the contract was completed in August 2003. Charge indirect expenses at 15% on wages, provide Rs. 10,000 for depreciation on plant and prepare the contract account and the contractee's account.

Solution:

Contract Account

Particulars	*Amount Rs.*	*Particulars*	*Amount Rs.*
To Materials Purchased	1,00,000	By Materials on hand	5,000
To Direct Wages	1,50,000	By Plant on hand	
To Direct Expenses	80,000	(Rs.50,000 – 10,000)	40,000
To Indirect Expenses (15% on wages)	22,500	By Contractor's A/c (Contract Price)	15,00,000
To Depreciation on Plant	10,000		
To Profit & Loss A/c	11,82,500		
	15,45,000		15,45,000

Contractee's Account

Particulars	*Amount Rs.*	*Particulars*	*Amount Rs.*
To Contract A/c	15,00,000	By Bank	15,00,000
	15,00,000		15,00,000

Illustration: 2

How much profit, if any, you would allow to be considered in the following case?

Contract cost	Rs. 2,80,000
Contract value	Rs. 5,00,000
Cash received	Rs. 2,70,000
Uncertified work	Rs. 30,000

Deduction from bills by way of security deposit is 10%.

[MBA : Madras, 2001]

Solution:

Cash Received = 100 – 10% = 90% of work certified

Work Certified = Cash Received x $\frac{100}{90}$

$$= 2,70,000 \times \frac{100}{90} = \text{Rs. } 3,00,000$$

Value of work certified = Rs.3,00,000

Notional Profit = Work in progress – Contract cost

= (3,00,000 + 30,000) – 2,80,000

= Rs.50,000

Calculation of % of Work Certified

$$= \frac{3,00,000}{5,00,000} \times 100 = 60\%$$

60% of work certified is more than 50% of the contract value.

∴ Profit to be considered for crediting to P & L A/c

$$= \text{Notional Profit} \times \frac{2}{3} \times \frac{\text{Cash Received}}{\text{Work Certified}}$$

$$= 50,000 \times \frac{2}{3} \times \frac{90}{100} = \text{Rs. } 30,000$$

Alternatively

$$\text{Profit to be taken} = \text{Notional Profit} \times \frac{2}{3} \times \frac{\text{Cash Received}}{\text{Work Certified}}$$

$$= \text{Rs. } 50,000 \times \frac{2}{3} \times \frac{2,70,000}{3,00,000}$$

$$= \text{Rs. } 30,000$$

Illustration: 3

The following is the ledger balance of Himalayan Construction Company engaged on the execution of ABC Apartments for the year ending 31st March 2003.

Direct Wages	1,25,000
Bank Balances	66,500
Rates and Taxes	7,500
Direct Expenses incurred	2,500
General overhead allocated	6,000
Fuel and power expenses	62,500
Materials issued to contract	7,00,000
Furniture	30,000
Plant and Machinery (60% at site)	12,50,000
Land and Building	11,50,000

The ABC Apartments was commenced on 1st April 2002. Himalayan paid up capital of Rs. 25,00,000. The contract price was Rs. 30,00,000. Cash received on account of contract up to 31st March 2003 was Rs. 9,00,000 (being 90% of the work certified). Work completed but not certified was estimated at Rs. 50,000. As on 31st March 2003 materials at site was estimated at Rs. 15,000. Machinery at site costing Rs. 1,00,000 was returned to stores and wages outstanding were Rs. 2,500. Plant and machinery at site is to be depreciated at 5%.

Prepare the Contract Account and Balance sheet.

Solution:

Himalayan Construction Ltd.
Contract Account
(for the year ended 31st March 2003)

Particulars	*Amount Rs.*	*Particulars*	*Amount Rs.*
To Materials	7,00,000	By Materials at site	15,000
To Direct wages	1,25,000	By Machine returned (Rs.1,00,000 – 5 % of 1,00,000)	95,000
To Wages outstanding	2,500		
To Plant & Machinery as site (60%)	7,50,000	By Plant and Machinery at site (Rs. 6,50,000 – 5% of Rs. 6,50,000)	6,17,500
To Fuel and Power	62,500		
To Direct expenses	2,500		
To General overhead	6,000	By Work in Progress :	
To Rates & Taxes	7,500		
To Notional profit c/d	1,21,500	Rs. 9,00,000 x $\frac{100}{90}$ = 10,00,000	
		Uncertified 50,000	10,50,000
	17,77,500		17,77,500
To Profit and Loss A/c $\left[1,21,500 \times \frac{1}{3} \times \frac{90}{100}\right]$	36,450	By National Profit b/d	1,21,500
To Work in Progress (Reserve)	85,050		
	1,21,500		1,21,500

Balance Sheet

Liabilities	*Amount Rs.*	*Assets*		*Amount Rs.*
Share Capital	25,00,000	Land and Building		11,50,000
Profit and Loss A/c	36,450	Plant and Machinery at site		6,17,500
Wages Outstanding	2,500	Plant and Machinery (store)		5,95,000
		Furniture		30,000
		Bank Balances		66,500
		Work in Progress:		
		Work Certified	10,00,000	
		Work Uncertified	50,000	
			10,50,000	
		Less : Cash Received	9,00,000	
			1,50,000	
		Less : Reserve	85,050	64,950
		Materials at site		15,000
	25,38,950			25,38,950

Illustration: 4

M/s. Sidhu Associates commenced the work on a particular contract on 1st April 2003. They close their books of accounts for the year on 31st December of each year. The following information is available from their costing records on 31st Dec. 2003.

	Rs.
Materials sent to site	43,000
Foremen's Salary	12,620
Wages paid	1,00,220

A machine costing Rs. 30,000 remained in use on site for 1/5th of year. Its working life was estimated at 5 years and scrap value at Rs. 2,000.

A supervisor is paid Rs. 2,000 per month and had devoted one-half of his time on the contract.

All other expenses were Rs. 14,000. The materials on site were Rs. 2,500. The contract price was Rs. 4,00,000. On 31st December 2003, 2/3rd of the contract was completed; however, the Architect gave certificate only for Rs. 2,00,000, on which 80% was paid. Prepare Contract Account.

Solution:

Contract Account

Particulars	*Amount Rs.*	*Particulars*	*Amount Rs.*
To Materials	43,000.00	By Plant	28,880.00
To Direct	1,00,220.00	By Material in hand	2,500.00
To Foremen's Salary	12,620.00	By Work in progress	2,13,143.20
To Plant	30,000.00	(Balance figure)	
To Supervisor	9,000.00		
To Other Expenses	14,000.00		
To Profit & Loss A/c	35,683.20		
	2,44,523.20		2,44,523.20

Working Notes :

(1) **Plant A/c :**

	Rs.
Plant	30,000
Less : Scrap Value	2,000
	28,000

Depreciation $= \frac{28,000}{5} \times \frac{1}{5} =$ Rs. 1,120

Net Plant Value = 30,000 – 1,120 = Rs. 28,800

(2) **Calculation of Profit :**

	Rs.
Expenditure till 31. 12. 2003	2,08,840
Less : Materials and Plant	31,380
	1,77,460
Less : Cost of uncertified work	44,365
	1,33,095
Less : Work Certified	2,00,000
Profit up to date	66,905

Profit on 80%

$$= \frac{66,905}{1} \times \frac{2}{3} \times \frac{80}{100} = \text{Rs. } 35,683.20$$

Cost of Uncertified Work : As the 2/3rd of the work was completed for a cost of Rs. 1,77,460 therefore the estimate for the total cost would be Rs. 2,66,190. Architect's certificate represents ½ of the contract price and therefore cover expenditure of ½ of Rs. 2,66,190, i.e., Rs. 1,33,095. Hence, the cost of work uncertified Rs. 1,77,460 – Rs. 1,33,095 = Rs. 44,365.

Illustration: 5

William Construction Company Ltd. obtained a contract for the erection of a multi-story building. Building operations started in July 2002. The contract price was Rs. 9,00,000. On 30th June 2003, the end of the financial year, the cash received on account was Rs. 3,60,000 being 80% of the amount on the surveyor's certificate.

The following additional information is given below :

	Rs.
Materials issued to contract	1,80,000
Materials on hand 30. 6. 2003	7,500
Wages	2,46,600
Plant purchased specially for contract and to be depreciated at 10% per annum	30,000
Direct expenses incurred	12,900
General overhead allocated to contract	7,600
Work finished but not yet certified : cost	15,000

You are required to prepare the contract account and statement showing the profit on the contract to 30th June 2003, indicating what proportion of the profit the company would be justified in taking to the credit of the profit and loss account, and to show what entries in respect of the contact would appear in the balance sheet.

Solution:

William Construction Co Ltd.,

Contract A/c for the year ended 30th June 2003

Particulars	*Amount Rs.*	*Particulars*	*Amount Rs.*
To Materials	1,80,000	By Plant at site	27,000
To Plant	30,000	By Material in hand	7,500
To Wages	2,46,600	By Cost of Contract c/d	4,42,600
To Direct Wages	12,900		
To Overheads	7,600		
	4,77,100		4,77,100
To Cost of Contract b/d	4,42,600	By Work in Progress:	
To Profit & Loss A/c	11,946	Work Certified	4,50,000
To Work in Progress (Reserve)	10,454	Work Uncertified	15,000
	4,65,000		4,65,000

Statement showing computation of Profit taken to Profit and Loss A/c :

Profit made to date	Rs. 22,400
Profit taken to P & L A/c $\left[22{,}400 \times \frac{2}{3} \times \frac{80}{100}\right]$ Since half the contact is complete 2/3rd profit as reduced on cash basis may safely be taken to P & L A/c	Rs. 11,946
Profit taken back to WIP being Reserved carried forward	Rs. 10,454

Extract from the Balance Sheet as on 31st June 2003 :

Assets	*Rs.*	*Rs.*
Plant at site : cost	30,000	
Less : Depreciation provided	3,000	27,000
Current Assets :		
Work in progress : Work Certified	4,50,000	
Work Uncertified	15,000	
	4,65,000	
Less : Balance of profit not taken to P & L A/c	10,454	
	4,54,546	
Less : Cash received from contractee's	3,60,000	
	93,546	
Add : Materials at site	7,500	1,02,046

Illustration: 6

Paramount Engineers are engaged in construction and erection of a bridge under a long-term contract. The cost incurred up to 31. 03. 2003 was as under :

Fabrication	*Rs. in lakhs*
Direct Materials	280
Direct Labour	100
Overheads	60
	440
Erection cost to date	110
	550

The contract price is Rs. 11 crores and the cash received on account till 31.03.2003 was Rs. 6 crores.

A technical estimate of the contract indicates the following degree of completion of work :

Fabrication – Direct Materials – 70%, Direct labour and overheads 60%; Erection – 40%.

You are required to estimate the profit that could be taken to profit and loss account against this partly completed contract as at 31.03.2003.

Solution:

Estimated Cost and Profit on Completion of the Contract

Particulars	*Cost incurred up to 31.3.03 Rs. in lakhs*	*Completion %*	*Estimated cost on completion of 100% Rs. lakhs*
Direct Materials	280.00	70%	400.00
Direct Labour	100.00	60%	166.67
Overheads	60.00	60%	100.00
Erection	110.00	40%	275.00
Total	550.00		941.67
Contract Price	—		1,100.00
Profit on completion (1,100 – 941.67)			158.33

Profit on cost of Rs.941.67 lakhs is Rs.158.33 lakhs. Therefore, profit on cost to date of Rs.550 lakhs.

$$= \frac{550 \times 158.33}{941.67} = \text{Rs. } 92.48 \text{ lakhs}$$

Work Certified = Cost + Profit

= Rs. 550 + Rs. 92.48 = Rs. 642.48 lakhs

Degree of completion of contract is :

$$= \frac{642.48 \times 100}{1{,}100} = 58.41\ \%$$

The contract is more than half complete.

Profit to be taken to Profit and Loss Account of the year is :

$$= \frac{2}{3} \times \text{Notional Profit} \quad \times \frac{\text{Cash Received}}{\text{Work Certified}}$$

$$= \frac{2 \times 92.48 \times 600}{3 \times 642.48} = \text{Rs. } 57.58 \text{ lakhs.}$$

Illustration: 7

The following information relates to a building contract for Rs. 1,00,00,000

	2002 Rs.	*2003 Rs.*
Materials issued	30,00,000	8,40,000
Direct Wages	2,20,000	10,50,000
Indirect Expenses	60,000	14,000
Work Certified	75,00,000	1,00,00,000
Work Uncertified	80,000	-
Materials at site	50,000	70,000
Plant issued	1,40,000	20,000
Cash received from contractor	60,00,000	10,00,0000

The value of plant at the end of 2002 and 2003 was Rs. 70,000 and Rs. 50,000 respectively.

Solution:

Contract Account for 2002

Particulars	Amount Rs.	Particulars		Amount Rs.
To materials issued	30,00,000	By Materials at site		50,000
To Direct wages	23,00,000	By Plant at site		70,000
To Direct Expenses	2,20,000	By work in progress :		
To Indirect Expenses	60,000	Work certified	75,00,000	
		Work uncertified	80,000	
				75,80,000
To Plant Issued	1,40,000			
To profit c/d	19,80,000			
	77,00,000			77,00,000
To profit & Loss A/c	10,56,000	By profit b/d		19,80,000
To work in progress	9,24,000			
	19,80,000			19,80,000

Profit taken to profit & Loss A/c :

$$= \text{Total profit} \times 2/3 \times \frac{\text{Cash Received}}{\text{Work Certified}}$$

$$= \text{Rs. } 19{,}80{,}000 \times 2/3 \times \frac{50{,}00{,}000}{75{,}00{,}000} = \text{Rs. } 10{,}56{,}000$$

Contractee's Account

Particulars	Amount Rs.	Particulars	Amount Rs.
2002 To Balance c/d	60,00,000	2002 By cash	60,00,000
	60,00,000		60,00,000
2003 To Contract A/c	1,00,00,000	2003 By Balance b/d	60,00,000
		By cash	40,00,000
	1,00,00,000		1,00,00,000

Contract Account for 2003

Particulars	Amount Rs.	Particulars	Amount Rs.
To materials at site b/d	50,000	By Material at site	70,000
To Plant at site b/d	70,000	By Plant at site	50,000
To work in progress:			
(75,80,000-9,24,000)	66,56,000	By Contract A/c	1,00,00,000
To Materials issued	8,40,000		
To Direct wages	10,50,000		
To Direct Expenses	1,00,000		
To Indirect Expenses	14,000		
To Plant Issued	20,000		
To Profit & Loss A/c	13,20,000		
	1,01,20,000		1,01,20,000

Illustration: 8

The following figures were in respect of contract No: 999 of L & T Construction Ltd. for the year 2003:

	Rs.
Materials purchased and delivered to work site	4,50,000
Materials issued from site stores	45,000
Materials returned to stores	5,000
Site wages	1,50,000
Site office expenses	20,000
Plant transferred to site	50,000
Plant returned from site	15,000
Consulting and design fees	13,000
Sub contract work	52,000

Central Office Overhead @ 10% Site Wages

The year end figures were in respect of Contract No. 999 of L & T Construction Ltd.

	Rs.
Plant at site	18,000
Material at site	10,000
Prepayments	2,000
Accruals	3,000
Cost of work done but not certified	35,000
Value of work certified by Architect	8,63,000

On account payment received by L & T Construction Ltd. less 10% retention money; prepare : (a) Contract Account (b) Profit and Loss on Contract Account and (c) Customer's Account.

I. Contract Account

Particulars		*Amount Rs.*	*Particulars*	*Amount Rs.*
To Materials purchased and delivered to work at site		4,50,000	By Materials at site	10,000
To Materials issued		45,000	By Materials returned to stores	5,000
To Site wages		1,50,000	By cost of contract c/d	7,48,000
To Site office expenses	Rs. 20,000			
Add : Accruals :	3,000			
	23,000			
Less : Prepayments	2,000	21,000		
To Plant	Rs. 50,000			
Less : Returned	15,000			
	35,000			
Less : Plant at site	18,000			
Depreciation on plant		17,000		
To Consulting & Design fees		13,000		
To Sub-contract work		52,000		
To Central office overhead 10% of site wages		15,000		
		7,63,000		7,63,000

II. Profit and Loss on Contract Account

Particulars	*Amount Rs.*	*Particulars*	*Amount Rs.*
To Cost of Contract b/d	7,48,000	By contractee A/c Value of work certified	8,63,000
To P& L A/c Profit taken	90,000	By cost of work not certified	35,000
To Profit in Reserve	60,000		
	8,98,000		8,98,000

Note: In the absence of total contract value, it has been presumed that the work has been reasonably advanced. Hence the following formula is to be applied in order to arrive at the profit to be taken to P & L A/c :

$$2/3 \times \text{National Profit} \times \frac{\text{Cash Received}}{\text{Work Certified}}$$

Notional Profit

		Rs.
Value of work certified		8,63,000
Cost of contract	Rs. 7,48,000	
Less : Cost of work not certified	Rs. 35,000	7,13,000
Notional Profit		1,50,000

Cash Received = Rs. 8,63,000 – 10% retention money

= Rs. 8,63,000 – 86,300 = Rs. 7,76,700

Profit to be taken to P & L A/c $= \frac{2}{3} \times 1{,}50{,}000 \times \frac{7{,}76{,}700}{8{,}63{,}000}$

= Rs. 90,000

III. Contractee Accountant

Particulars	*Amount Rs.*	*Particulars*	*Amount Rs.*
To contract A/c	8,63,000	By Cash A/c	7,76,700
		By Balance c/d	86,300
	8,63,000		8,63,000
To Balance b/d	86,300		

QUESTIONS

1. What do you understand by Contract Costing?
2. Explain the essential features of Contract Costing?
3. Explain the important costing procedure of Contract Costing?
4. Write short notes on :
   (a) Sub-Contracts

(b) Work Certified
(c) Cost-Plus Contract
(d) Escalation Clause
(e) Work Uncertified

5. Explain and determine the profit to be taken to profit and loss account in case of incomplete contract.

Choose the correct answer :

1. Contract costing is a basic method of
   (a) Historical costing (b) Specific order costing
   (c) Process costing (d) Standard costing
2. Contract costing usually applicable in
   (a) Constructional Works (b) Textile Mills
   (c) Cement Industries (d) Chemical Industries
3. In contract costing, determination of work in progress include :
   (a) Work Certified (b) Work Uncertified
   (c) Retention Money (d) Both a and b
4. Work Certified is valued at
   (a) Cost price (b) Market price
   (c) Cost or market price whichever is less (d) Estimate price
5. The degree of completion of work is determined by comparing the work certified with
   (a) Contract price (b) Work in progress
   (c) Cash received on contract (d) Retention money
6. In contract costing credit is taken only for a part of the profit on
   (a) Completed contract (b) In complete contract
   (c) Cost-plus contract (d) Work Certified
7. Escalation Clause in a contract to prefect the interest of
   (a) Contractor (b) Contractee
   (c) Surveyor (d) Contractee's Architect
8. In contract costing payment of cash to the contractor is made on the basis of
   (a) Uncertified work (b) Certified work
   (c) Work in progress (d) Estimated value
9. Materials returned under material return note credited to
   (a) Contract account (b) Work in progress account
   (c) Plant and machinery account (d) Profit and loss A/c
10. Cash received on contract is credited to
    (a) Contract Account (b) Plant Account
    (c) Work in Progress Account (d) Contractee's Account

[**Ans :** (1) b – Specific order costing (2) a – Constructional works (3) d – Both a and b (4) a – Cost price (5) a – Contract price (6) b– Incomplete Contract (7) b – Contractee Account (8) b – Certified Work (9) a – Contract Account (10) d – Contractee's account.]

PRACTICAL PROBLEMS

(1) Kishore undertook a contract for the construction of houses on 1st Jan. 2003. The contract price was Rs. 22,50,000. The following details are available for 2003

Materials purchased	3,60,000
Materials issued from stores	45,000
Labour	1,35,000
Plant installed at site	1,80,000
Direct expenses	90,000
Establishment charges	22,500
Materials returned to stores	22,500
Materials on hand at the end	9,000
Plant in hand at the end	1,35,000
Wages outstanding	27,000
Direct expenses outstanding	36,000
Work uncertified	2,25,000
Cash received (80% of work certified)	9,00,000

Prepare the Contract Account. Show the relevant items in the balance sheet.

[**Ans :** Profit taken Rs. 3,31,200 ; WIP Rs. 1,60,200 ; Asset side Rs. 3,26,700]

(2) A Contractor's firms, having undertaken construction work at a contract price of Rs. 2,50,000, began the execution of the work on 1st July 2003. The following are the particulars of the contract up to 31st December 2003 :

Machinery installed at site	15,000
Materials sent to site	85,349
Labour at site	74,375
Chargeable expenses	3,167
Overhead allocated	4,126
Materials returned from site	550
Work certified by the Architect	1,95,000
Cash received	1,50,000
Cost of work not yet certified	4,500
Materials on hand 31.12.2003	1,883
Wages occurred due on 31.12.2003	2,690
Value of machinery as on 31.12.2003	11,000

Draw up the contract account showing therein the profit that should be taken to the credit of the profit and loss account for the year ended 31st December 2003. Give reasons for your treatment of the profit on the uncompleted contract.

[**Ans** : Gross profit Rs. 28,226 ; Amount credited to profit and loss A/c Rs. 14,475]

(3) M/s Kishore and Company commence work on a particular contract on 1st April 1997. They close their books of accounts for the year on 31st December each year. The following information is available from their closing records on 31.12.2003 :

Materials sent to site	50,000
Foreman's salary	12,000
Wages paid	1,00,000

A machine costing Rs.32,000 remained in use on site for 1/5th of the year. Its working life was estimated at 5 years and scrap value at Rs. 2000. A supervisor is paid Rs. 2000 per month and had devoted one-half of his time on the contract. All other expenses were Rs.15,000. The material on site was Rs.9000. The contract price was Rs.4,00,000 on 31st December, 2/3rd of the contract was completed. However, the Architect gave certificate only for Rs. 2,00,000 on which 75% was paid .

Prepare the Contract Account in the Company's book.

[**Ans** : Notional profit Rs. 66,350, WIP Rs. 33,175]

(4) A Contractor obtained a contract for Rs. 6,00,000 on 1st January 2003. The expenses incurred during the year ended 31st December, 2003 were as under :

Materials	1,80,000
Wages paid	1,60,000
Wages occurred	10,000
Other expenses	25,000

The plant specially installed for the contract worth Rs. 45,000 was returned to the stores subject to the depreciation of 20% materials on 31st December 2003, were valued at Rs. 24,000.

Upto 31st December, the contractor had received Rs.3,60,000 in cash representing 80% of the Work Certified. Work uncertified was estimated at Rs.4000. Prepare the Contract Account, showing the profit for the year. Also how the value of work in progress would appear in the Balance Sheet as on 31st December 2003.

[**Ans** : Profit to P & L A/c Rs. 50,133.33; Profit to reserve Rs. 43,866.67]

(5) Write up a contact account from the following particulars :

Direct materials	39,600
Wages	26,400
Special plant	17,600
Stores issued	7,040
Loose tools	3,300
Cost of Tractor :	
Running materials	2,200
Wages of driver	3,520
Other direct charges	2,640

The contract was completed in 13 weeks at the end of which period the plant was returned subject to a depreciation of 15% on the original cost. The values of loose tools and stores returned were Rs. 2,200 and Rs. 890 respectively. The value of the factor was Rs. 20,000 and a depreciation was to be charged to this contract at the rate of 15% per annum. You are required to provide administration expenses at the rate of 10% on the total works cost.

[**Ans** : Administration cost Rs. 8,500; works cost Rs. 85,000]

(6) Gupta & Co. Ltd. commenced the work on a particular contract on I[st] April 2003. They close their books of accounts for the year on 31[st] December each year. The following information is available from their costing records on 31[st] December 2003.

	Rs.
Material sent to site	5,00,000
Furemen's Salary	1,20,000
Wages paid	10,00,000

A machine costing Rs. 3,20,000 remained in use on site for 1/5[th] of the year. Its working life was estimated at 5 years and scrap value at Rs. 20,000. The supervisor is paid Rs. 20,000 per month an had devoted one-half of his time on the contract.

All other expenses were Rs. 1,50,000. The materials on site were Rs. 90,000. The contract price was Rs. 40,000. On 31[st] December 2003, 2/3 of the contract was completed; however the Architect gave certificate only for Rs. 20,00,000 on which 75% was paid. Prepare the contract Account.

[**Ans:** Contract A/c: National profit Rs. 6,63,500; Estimated total cost of contract Rs. 26,73,000; Cost of work certified Rs. 4,45,500]

(7) Pandey & Co. Ltd. undertook a contract for erecting a sewerage treatement plant for a city for a total value of Rs. 2.4 crores. It was expected that the contract would be completed by 31[st] March 2003. You are required to prepare a contract account for the year ending 31[st] March 2002 from the following particulars :

	Rs.
(a) Materials	30 lakhs
(b) Wages	60 lakhs
(c) Overheads	12 lakhs
(d) Special plant	20 lakhs

(e) Depreciation @ 10% to be provided on plant.
(f) Materials laying at site on 31.12.2002 Rs. 4 lakhs
(g) Work certified was to the extent of Rs. 1.6 crores and 80% of the same was received in cash.
(h) 5% of the value of material issued and 6% of wages may be taken to have been incurred for the portion of the work completed but not yet certified.
(i) Overheads are charged as a percentage of direct wages.
(j) Ignore depreciation on plant for use on uncertified portion of the work.
(k) Ascertain the amount to be transferred to Profit & Loss A/c on the basis of realized profit.

[**Ans:** Work uncertified Rs. 58,02,000; Amount transferred to P&L A/c Rs. 35,10,400; National Profit Rs. 65,82,000]

(8) Gupta & Co. Ltd. Civil Engineering Contractor propose to tender for the construction of a Seminar Hall in a Educational Institution and estimate their direct costs as Rs. 15,00,000.

	Rs.
Direct Materials	6,00,000
Direct Labour (2100 man days of various categories)	6,30,000
Cost of transport of men and materials to work site	1,70,000
Other direct expenses	1,00,000

Existing commitments of modern construction for the year necessitate an overhead expense of Rs. 85,05,000 against execution of works, the direct labour cost of which amount to 56,70,000. Assuming that whole of the overhead expense is variable (for the sake of simplicity and tendering calculate the estimated value of tendering duly providing for (a) necessary overheads (b) Interest at 5% on the average of capital outlay and (c) 10% margin.

[**Ans:** Price to be quoted Rs. 27,56,740]

(9) From the following information of Nigma & Co. Ltd. prepare the contract account for 2003. Also show what part of the Profit on the contract should be taken credit of 2003?. The contract price for Rs. 80,00,000.

	Rs.
Materials issued from stores	15,00,000
Wages paid	22,00,000
General charges	80,000
Plant installed at Site on I[st] July 2003	4,00,000
Materials on hand at close	80,000
Wages accurred due	80,000
Work certified	40,00,000
Work compled but not certified	1,20,000
Cash received	30,00,000

Materials transferred to other contracts	80,000
Materials received from other contracts	20,000

Depreciation on plant is to be provided at 10% P.A.

[**Ans:** National profit Rs. 3,80,000; Work uncertified Rs. 1,20,000; Transfer to P&L A/c Rs. 1,90,000]

(10) The following is the information relating to contract No. 555

	Rs.
Contract price	6,00,000
Wages	1,64,000
General Expenses	8,600
Raw materials	1,20,000
Plant	20,000

As on date, cash received was Rs. 2,40,000 being 80% of work certified. The value of materials remaining was Rs. 10,000. Depreciate plant by 10%. Prepare contract Account showing profit to be credited to Profit and Loss A/c.

[**Ans:** National profit c/d Rs.. 3,00,000; Transfer to P&L A/c Rs. 8,213]

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