

**12. CONTRACT COSTING****PROBLEM NO: 1**

Dr. Contract Account in the Books of SV Construction Ltd for the year ended 30.09.1989. Cr.

Particulars		Amount (Rs.)	Particulars	Amount (Rs.)
To Wages Paid	3,40,000		By Materials	4,000
(+) O/S	2,800	3,42,800	By WIP	
To Material Issued		3,36,000	Work Certified (6,00,000/80%)	7,50,000
To Direct expenses	8,000		Work Uncertified	14,000
(+) O/S	1,200	9,200		
To General Overheads		32,000		
To Depreciation (W.N.1)		12,000		
To Notional Profit		36,000		
		<b>7,68,000</b>		<b>7,68,000</b>
To Costing P&L A/c (W.N.2)		19,200		
To WIP Reserve		16,800	By Notional Profit b/d	36,000
		<b>36,000</b>		<b>36,000</b>

**WORKING NOTE 1: Calculation of Depreciation p.a.:**

Plant Cost = Rs.60,000

Life of Plant = 5years

$$\text{Depreciation for year} = \frac{\text{Rs.60,000}}{5\text{years}} = \text{Rs.12,000}$$
**WORKING NOTE 2: Calculation of profit to be Transferred to P & L A/c:**

$$\begin{aligned} \text{\% of Completion of contract} &= \frac{\text{Work Certified}}{\text{Contract Price}} \times 100 \\ &= \frac{\text{Rs.7,50,000}}{\text{Rs.12,00,000}} \times 100 = 62.5\% \end{aligned}$$

Therefore, Profit to be transferred to P & L A/c is =  $\frac{2}{3} \times \text{Notional Profit} \times \frac{\text{Cash Received}}{\text{Work Certified}}$

$$= \frac{2}{3} \times 36,000 \times 80\% = 19,200$$
**PROBLEM NO: 2**

Dr. Contract Account Cr.

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Material Issued	2,51,000	By Machine (See note 1)	2,46,000
To Labour Charges A/c	5,65,600	By Material (in hand)	35,400
To Foreman Salary A/c	81,300	By Works Cost c/d	10,49,000
To Machine A/c	2,60,000		
To Supervisor's Salary A/c (Rs.8,000 x 9) / 2	36,000		
To Administration Charges A/c	1,36,500		
	<b>13,30,400</b>		<b>13,30,400</b>

To Works Cost b/d	10,49,000	By Work Certified	10,00,000
To Notional Profit c/d	2,13,250	By Work Un certified (See Note 2)	2,62,250
	<b>12,62,250</b>		<b>12,62,250</b>
To Profit & Loss A/c (See Note 3)	1,06,625	By Notional Profit b/d	2,13,250
To Work-In- Progress (Reserve)	1,06,625		
	<b>2,13,250</b>		<b>2,13,250</b>

**Notes:**

$$1. \text{ Machine } [(Rs.2,60,000 - Rs.15,000) \div 7] \times \frac{146}{365} = Rs.14,000$$

Hence the value of Machine after the period of 146 Days is Rs. 2,60,000 – Rs. 14,000 = Rs.2,46,000

2. The Cost of 66.67 % of the Contract is Rs.10,49,000

$$\therefore \text{Cost of 100 \% of the Contract is } \frac{Rs.10,49,000}{66.67} \times 100 = Rs.15,73,500$$

\therefore \text{Cost of 50 \% of the contract which has been certified by the architect is Rs.7,86,750.}

Also the cost of 16.67 % of the Contract, which has been completed But not certified by the architect is Rs.2,62,250.

$$3. \frac{2}{3} \times \text{Notional Profit} \times \frac{\text{Cash received}}{\text{Work certified}} \text{ (OR)}$$

$$\frac{2}{3} \times 2,13,250 \times \frac{7,50,000}{10,00,000} = Rs.1,06,625$$

**PROBLEM NO: 3**

Dr. **Contract Account in the Books of Mr. Bhagwandas** Cr.

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
<b>2005</b>			
To Materials A/c	1,80,000	By WIP A/c	
To Wages A/c	1,70,000	By Work Certified	3,75,000
To Carriage A/c	6,000		
To Cartage A/c	1,000		
To Sundry expenses A/c	3,000		
To Notional Profit c/d	15,000		
	<b>3,75,000</b>		<b>3,75,000</b>
To Costing P & L A/c (W.N.1)	4,000	By Notional Profit b/d	15,000
To WIP Reserves c/d	11,000		
	<b>15,000</b>		<b>15,000</b>
<b>2006</b>			
To Opening WIP	3,75,000	By WIP Reserves b/d	11,000
To Materials A/c	2,20,000	By WIP A/c	
To Wages A/c	2,30,000	WC	11,25,000
To Carriage A/c	23,000	WUC	20,000
To Cartage A/c	2,000		
To Sundry expenses A/c	4,000		
To Notional Profit c/d	3,02,000		
	<b>11,56,000</b>		<b>11,56,000</b>
To Costing P & L A/c (W.N.2)	1,61,067	By Notional Profit b/d	3,02,000
To WIP Reserves c/d	1,40,933		
	<b>3,02,000</b>		<b>3,02,000</b>
<b>2007</b>			
To WIP	11,45,000	By WIP Reserves b/d	1,40,933

To Materials A/c	1,26,000	By Contractee A/c	15,00,000
To Wages A/c	1,70,000		
To cartage A/c	6,000		
To Sundry expenses A/c	3,000		
To Costing P & L A/c	1,90,933		
	<b>16,40,933</b>		<b>16,40,933</b>

Dr. **Contractee Account** Cr.

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
<b>2005</b>			
To Balance C/d	3,00,000	By Bank (3,75,000 X 80 %)	3,00,000
	<b>3,00,000</b>		<b>3,00,000</b>
<b>2006</b>			
To Balance C/d	9,00,000	By Balance b/d	3,00,000
		By Bank [(11,25,000-3,75,000) X 80 %]	6,00,000
	<b>9,00,000</b>		<b>9,00,000</b>
<b>2007</b>			
		By Balance b/d	9,00,000
To Contract A/c	15,00,000	By Bank	6,00,000
	<b>15,00,000</b>		<b>15,00,000</b>

**WORKING NOTE:**

1. % of Completion of Contract by the end of 2005 =  $\frac{3,75,000}{15,00,000} \times 100 = 25\%$

∴ Profit to Costing P & L A/c is  $\frac{1}{3} \times \text{Notional Profit} \times \frac{\text{CR}}{\text{WC}} = \frac{1}{3} \times 15,00,000 \times 80\% = \text{Rs.} 4,00,000$

2. % of Completion of Contract by the end of year 2006 =  $\frac{11,25,000}{15,00,000} \times 100 = 75\%$

∴ Profit to Costing P & L A/c is  $\frac{2}{3} \times \text{Profit} \times \frac{\text{CR}}{\text{WC}} = \frac{2}{3} \times 3,02,000 \times 80\% = \text{Rs.} 1,61,067.$

**PROBLEM NO: 4**

Dr. **Contract Account for the year 2011 - 12** Cr.

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
<b>1.04.11</b>			
To Work-In-Progress (Not Certified) b/d	55,000	By Materials at site	4,000
<b>2011 - 12</b>			
To Materials at site b/d	2,000	By Cost of Contract c/d (to Date)	3,27,000
To Materials Issued	1,12,000		
To Wages Paid	1,08,000		
To Hire of Plant	20,000		
To Other expenses	34,000		
	<b>3,31,000</b>		<b>3,31,000</b>
<b>31.03.12</b>			
To Cost of Contract b/d (to Date)	3,27,000	By Work-Certified	4,05,000
To Profit & Loss A/c	66,273	By Work-not certified	8,000
To Profit in reserve	19,727		
	<b>4,13,000</b>		<b>4,13,000</b>

Profit for the year 2011 - 12 = Rs.4,13,000 - Rs.3,27,000 = Rs. 86,000

Estimated Profit (On the Completion of the Contract)	Amt (Rs.)
Cost of the Contract (to date)	3,27,000
Further Cost of Completing the Contract	23,000
Total Cost: (A)	3,50,000
Contract Price: (B)	4,40,000
Estimated Profit on the completion of Contract: [(A)-(B)]	90,000

Since,  $\left[ \frac{\text{Work Certified}}{\text{Contract Price}} \right] \times 100 = \frac{\text{Rs.4,05,000}}{\text{Rs.4,40,000}} \times 100 = 92.05\%$

Profit = Estimated Profit  $\times \frac{\text{Cash Received}}{\text{Contract Price}} = \text{Rs.90,000} \times \frac{3,24,000}{4,40,000} = \text{Rs.66,273}$

### **PROBLEM NO: 5**

#### a) Contract Statement (Amount in Rs.'000)

Particulars	Contract-I (Rs.)	Contract-II (Rs.)	Contract-III (Rs.)
Balance as on 01-04-2016:			
– Work completed and certified	--	4,100	8,150
– Materials at site	--	220	310
– Plant & Machinery	--	770	3,760
Transaction during the year:			
Materials issued	870	2,150	4,020
Wages paid to workers	450	1,160	2,180
Less: Outstanding at beginning	--	(48)	(104)
Add: Outstanding at closing	52	98	146
Salary to site staffs	90	85	135
Travelling and other expenses	18	24	32
Plant issued to sites	910	240	680
Apportionment of Head office expenses	110	90	126
Total (A)	2,500	8,889	19,435
Balance as on 31-03-2017			
– Materials at site	215	152	12
– Plant & Machinery	728	808	3,552
– Work in progress:			
– Value of work certified	2,000	8,600	24,000
– Cost of work not certified	800	452	560
Estimated additional cost	--	--	720
Total (B)	3,743	10,012	28,844
Notional/ estimated profit {(B) – (A)}	1,243	1,123	9,409

#### b) Profit to be transferred to Costing Profit and Loss Account for internal purpose:

Particulars	Contract-I	Contract-II	Contract-III
Value of Contract	17,500	14,500	24,500
Value of work certified	2,000	8,600	24,000
Percentage of completion (%)			
$\frac{\text{Work certified}}{\text{Value of contract}} \times 100$	11.43	59.31	97.96
Notional/ Estimated profit	1,243	1,123	9,409
Profit to be transferred to Costing Profit & loss A/c	Nil	636.37 $\left( \frac{2}{3} \times \text{Rs.1,123} \times 85\% \right)$	7,484.50 $\{ (9,409 \times 97.96\% \times 85\%) - 350 \}$

**PROBLEM NO: 6**

## Books of Modern constructions Ltd

Dr Contract No B-37 Account for the Year ended 31-3-2008 Cr

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To WIP b/d (9,40,000 + 11,200)	9,51,200	By Materials returned to store	25,000
To Stock (Material) b/d	8,000	By Materials returned to suppliers	15,000
To Materials issued	4,00,000	By WIP C/d	
To Materials Purchased	1,50,000	Work certified	30,00,000
To Wages Paid 6,00,000		Work Uncertified	32,000
Less: Opening o/s 5,000		By Materials stock c/d	20,000
Add: Closing o/s 3,000	5,98,000		
To Architect's Fees	51,000		
To Plant Hire Charges	50,000		
To Indirect Expenses	10,000		
To General Overheads	18,000		
To Notional Profit C/d	8,55,800		
	<b>30,97,000</b>		30,97,000
To Profit and Loss A/c	4,56,427	By Notional Profit b/d	8,55,800
$\left[ \frac{2}{3} \times 8,55,800 \times \frac{80}{100} \right]$			
To WIP Reserve C/d	3,99,373		
	<b>8,55,800</b>		<b>8,55,800</b>

**Note:** Fines and Penalties are not shown in contract A/c

Dr. Contractee's A/c Cr.

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
		By Balance b/d (80% of 9,40,000)	7,52,000
To Balance c/d	24,00,000	By Bank	16,48,000
	<b>24,00,000</b>		<b>24,00,000</b>

## Balance Sheet (Extract) as on 31-3-2008

Liabilities	Rs.	Rs.	Assets	Rs.	Rs.
Profit and Loss A/c	4,56,427		Materials stock at site		20,000
Less: Fines	12,000	4,44,427	Materials stock in store		25,000
Outstanding wages		3,000	WIP:		
			Work certified	30,00,000	
			Work Un certified	32,000	
				30,32,000	
			Less: Advance	24,00,000	
				6,32,000	
			Less : WIP Reserve	3,99,373	2,32,627

**PROBLEM NO: 7**

Dr. Contract Account Cr.

Particulars	Amount (Rs.)	Amount (Rs.)	Particulars	Amount (Rs.)	Amount (Rs.)
To Materials		25,26,000	By material at site		50,000
To Direct wages	13,28,000		By Work in progress:		

Add: outstanding	2,24,000	15,52,000	- Work certified	1,00,00,000	
To Site expenses		9,60,000	- Work uncertified	12,00,000	1,12,00,000
To Office expenses	6,26,000				
To Postage and Stationery		29,600			
To Rates and taxes	25,600				
Less: Advance	(1,400)	24,200			
To Fuel and power		8,46,000			
To Depreciation*		9,80,300			
To Notional profit c/d		37,05,900			
		<b>1,12,50,000</b>			<b>1,12,50,000</b>

\* Depreciation

- i) On Machinery = {10% on (Rs.36,00,000 × 0.8)} = Rs. 2,88,000  
 ii) On Vehicles = 20% on Rs.32,20,000 = Rs. 6,44,000  
 iii) On Furniture = 15% on Rs.3,22,000 = Rs. 48,300  
 = Rs. 9,80,300

### PROBLEM NO: 8

Dr.

Contract Account for the year ended 31.03.2014

Cr.

Particulars	HP-1 (Rs.)	HP-2 (Rs.)	Particulars	HP-1 (Rs.)	HP-2 (Rs.)
To Balance b/d (W-I-P)	7,80,000	2,80,000	By Closing Material at site	47,000	52,000
To Material Purchased	6,20,000	8,10,000	By WIP		
To Wages: (Rs. 85,000+Rs. 12,000) (Rs. 62,000 + Rs. 8,400)	97,000	70,400	Value of work certified	20,50,000	16,10,000
To Donation to local club	5,000	2,500	Cost of work un certified	1,90,000	1,40,000
To Plant hire charges: (Rs.72,000 × $\frac{1}{3}$ ) (Rs.57,000 × $\frac{1}{3}$ )	24,000	19,000			
To Depreciation on Concrete mixture (Rs.8,20,000 X 15 % x $\frac{180}{365}$ ) (Rs.8,20,000 X 15 % x $\frac{100}{365}$ )	60,658	33,699			
To Notional Profit (Balance C/d)	7,00,342	5,86,401			
	<b>22,87,000</b>	<b>18,02,000</b>		<b>22,87,000</b>	<b>18,02,000</b>
To Costing P & L A/c (W.N-2)	1,86,758	1,56,374	By Notional Profit (Balance b/d)	7,00,342	5,86,401
To Costing P & L Reserve A/c	5,13,584	4,30,027			
	<b>7,00,342</b>	<b>5,86,401</b>		<b>7,00,342</b>	<b>5,86,401</b>

- Assuming donation paid to local club was exclusively for the above Projects, hence included in the contract Account.
- Depreciation on concrete Mixture Machine is charged on the basis of number of Days used For the Projects, as it is clearly mentioned in the question that this machine can be used for other projects also.

**WORKING NOTES:**

1. Computation of stage of completion of the projects :  $\frac{\text{value of work certified}}{\text{value of contract}} \times 100$

$$\text{HP-1} = \frac{\text{Rs.20,50,000}}{\text{Rs.48,00,000}} \times 100 = 42.71\%$$

$$\text{HP-2} = \frac{\text{Rs.16,10,000}}{\text{Rs.36,00,000}} \times 100 = 44.72\%$$

2. Computation of profit to be Recognized in the costing Profit & Loss A/c

$$\frac{1}{3} \times \text{Notional Profit} \times \frac{\text{Cash Received}}{\text{Value of work certified}}$$

$$\text{HP-1} = \frac{1}{3} \times \text{Rs.7,00,342} \times 80\% = \text{Rs.1,86,758}$$

$$\text{HP-2} = \frac{1}{3} \times \text{Rs.5,86,401} \times 80\% = \text{Rs.1,56,374}$$

(Land Purchased and Brokerage and Registration Fee paid for this purpose cannot be charged to contract Account, hence not included in the contract Account)

**PROBLEM NO: 9**

i) Value of work in progress certified:

Since, Cash Received of Rs. 2,50,000 is 80% of work certified

Therefore, Value of work in progress certified =  $\frac{\text{Rs. 2,50,000}}{80\%} = \text{Rs. 3,12,500}$

ii) Degree of completion of contract: =  $\frac{\text{Value of work certified}}{\text{Value of contract}} \times 100 = \frac{\text{Rs.3,12,500}}{\text{Rs.5,00,000}} \times 100 = 62.5\%$

iii) Notional Profit:

Profit transferred to Costing Profit & Loss A/c =  $\frac{2}{3} \times \text{Notional Profit} \times \frac{\text{Cash received}}{\text{Value of work certified}}$

(Since contract completion is 62.5% i.e. more than 50%)

$$\text{Or, Rs. 80,000} = \frac{2}{3} \times \text{Notional Profit} \times \frac{\text{Rs.2,50,000}}{\text{Rs.3,12,500}}$$

Notional Profit = Rs. 1,50,000

iv) Cost of contract as on 31-03-2017:

= Value of Work certified + Cost of work uncertified – Notional profit

$$= \text{Rs. 3,12,500} + \text{Rs.1,20,000} - \text{Rs. 1,50,000} = \text{Rs. 2,82,500}$$

**PROBLEM NO: 10****Computation of National Profit**

Particulars	Amount (Rs.)	Amount (Rs.)
Value of work certified		5,50,800
Less : Cost of work certified (Rs.4,50,000 – Rs.34,000)		4,16,000
Notional Profit		<b>1,34,800</b>
<b>Computation of estimated Profit</b>		
Contract Price		6,12,000
Less : Cost of work to date	4,50,000	

Estimated Further expenditure to Complete the Contract	25,000	
Estimated total Cost		4,75,000
Estimated Profit		1,37,000

**Profit to be transferred under various methods**

$$(i) \text{ Notional Profit} \times \frac{\text{Work certified}}{\text{Contract Price}} = \text{Rs. } 1,34,800 \times \frac{\text{Rs. } 5,50,800}{\text{Rs. } 6,12,000} = \text{Rs. } 1,21,320$$

$$(ii) \text{ Estimated Profit} \times \frac{\text{Work Certified}}{\text{Contract Price}} = \text{Rs. } 1,37,000 \times \frac{\text{Rs. } 5,50,800}{\text{Rs. } 6,12,000} = \text{Rs. } 1,23,300$$

$$(iii) \text{ Estimated Profit} \times \frac{\text{Work certified}}{\text{Contract Price}} \times \frac{\text{Cash Received}}{\text{work certified}} = \text{Rs. } 1,37,000 \times \frac{\text{Rs. } 5,50,800}{\text{Rs. } 6,12,000} \times \frac{\text{Rs. } 4,40,640}{\text{Rs. } 5,50,800} = \text{Rs. } 98,640$$

$$(iv) \text{ Estimated Profit} \times \frac{\text{Cost of work Date}}{\text{Estimated total Cost}} = \text{Rs. } 1,37,000 \times \frac{\text{Rs. } 4,50,000}{\text{Rs. } 4,75,000} = \text{Rs. } 1,29,790$$

$$(v) \text{ Estimated Profit} \times \frac{\text{Cost Of work Date}}{\text{Estimated total cost}} \times \frac{\text{Cash Received}}{\text{work certified}}$$

$$= \text{Rs. } 1,37,000 \times \frac{\text{Rs. } 4,50,000}{\text{Rs. } 4,75,000} \times \frac{\text{Rs. } 4,40,640}{\text{Rs. } 5,50,800} = \text{Rs. } 1,03,832$$

**Recommendation:** It is recommended that a sum of Rs. 98,640 may be transferred to the Costing Profit and Loss Account. This amount is the least and has been arrived by using the formula (iii) above. According to this formula, profit transferred to the Costing Profit and Loss Account is generally kept the minimum and allows withholding in reserve a larger portion of notional profit to meet future unforeseen expenses and contingencies.

**PROBLEM NO: 11****Working Notes:****1. Calculation of Notional Profit:**

Particulars	(Rs.)
Value of work certified	21,07,500
Cost of work not certified	3,11,075
	24,18,575
Less: Total expenditure to date	17,64,525
Notional Profit	6,54,050

**2. Calculation of total Contract Price:**

Particulars	(Rs.)
Total expenditure to date	17,64,525
Estimated further expenditure	8,38,645
Total estimated cost	26,03,170
Add: Margin @ 40%	10,41,268
Total contract Price	36,44,438

**3. Calculation of percentage (%) of contract completion:**

$$= \frac{\text{Value of work certified}}{\text{Total Contract Price}} \times 100 = \frac{\text{Rs. } 21,07,500}{\text{Rs. } 36,44,438} \times 100 = 57.83\%$$

**i) Conservative estimate of profit for the management**

$$= 2/3 \times \text{Notional Profit} \times \frac{\text{Cash received}}{\text{Value of work certified}} = 2/3 \times \text{Rs. } 6,54,050 \times \frac{\text{Rs. } 14,75,250}{\text{Rs. } 21,07,500} = \text{Rs. } 3,05,223$$

- ii) When the management of Hut-to-Palace appreciates the fact that the contractee is having liquidity crunch and it may not be able to pay further cash Payment. In this situation, following the concept of conservatism it has to recognise loss if any immediately i.e.

Cash Received – Expenditure to date = Profit/ (Loss)

Rs. 14,75,250 - Rs. 17,64,525 = (Rs. 2,89,275)

### **PROBLEM NO: 12**

#### **Working Notes:**

- i) Calculation of Notional Profit

= (Work certified + work not certified) – Total expenditure to date

= (Rs. 10,00,000 + Rs. 85,000) – Rs. 8,50,000 = Rs. 2,35,000

- ii) Calculation of Estimated Profit

Contract Price – (Expenditure to date + Further expenditure to be incurred)

= Rs.15,30,000 – Rs. (8,50,000 + 1,70,000) = Rs. 5,10,000

Computation of Conservative Estimate of Profit by following methods:

- Notional Profit  $\times \frac{2}{3} \times \frac{\text{Work certified}}{\text{Contract Price}} = \text{Rs.} 2,35,000 \times \frac{2}{3} \times \frac{\text{Rs.} 8,16,000}{\text{Rs.} 10,00,000} = \text{Rs.} 1,27,840$
- Estimated Profit  $\times \frac{\text{Cost of work done}}{\text{Estimated Total cost}} \times \frac{\text{Cash Received}}{\text{Work Certified}}$   
 $= \text{Rs.} 5,10,000 \times \frac{\text{Rs.} 8,50,000}{\text{Rs.} 8,50,000 + \text{Rs.} 1,70,000} \times \frac{8,16,000}{10,00,000} = \text{Rs.} 3,46,800$
- Estimated Profit  $\times \frac{\text{Cash received}}{\text{Contract price}} = \text{Rs.} 2,35,000 \times \frac{8,16,000}{15,30,000} = \text{Rs.} 2,72,000$
- Notional Profit  $\times \frac{\text{work certified}}{\text{contract price}} \times \frac{\text{Cash Received}}{\text{Work Certified}} = \text{Rs.} 2,35,000 \times \frac{10,00,000}{15,30,000} \times \frac{8,16,000}{10,00,000} = \text{Rs.} 1,25,333$
- Estimated Profit  $\times \frac{\text{work certified}}{\text{contract price}} = \text{Rs.} 5,10,000 \times \frac{10,00,000}{15,30,000} = \text{Rs.} 3,33,333$
- Estimated Profit  $\times \frac{\text{Cost of work done}}{\text{Estimated Total cost}} = \text{Rs.} 5,10,000 \times \frac{8,50,000}{10,20,000} = \text{Rs.} 4,25,000$
- Notional Profit  $\times \frac{\text{work certified}}{\text{contract price}} = \text{Rs.} 2,35,000 \times \frac{10,00,000}{15,30,000} = \text{Rs.} 1,53,595$

Most conservative Profit is Rs. 1,25,333, therefore profit to be transferred to Profit and Loss a/c is Rs. 1,25,333.

### **PROBLEM NO: 13**

Calculation of written down value of plant an on 30-9-2012

Particulars	Amount (Rs.)
Plant Purchased on 1/4/2011	4,00,000
<b>Less:</b> Plant Returned to store on 30/09/2011 (Depreciating on it Rs. 1,00,000 x 25/100 x 6/12 = Rs. 12500)	1,00,000
	<b>3,00,000</b>
<b>Less:</b> Depreciation on balance Plant (3,00,000 x 25/100)	75,000

WDV of Plant on 1/4/2012	2,25,000
Less: Depreciation (2,25,000 x 25/100 x 6/12)	28,125
WDV of Plant Returned to store on 30/09/2012	1,96,875

Dr. **Contract A/c (1-4-2011 to 31-3-2012)** Cr.

Particulars	Amount (Rs.)	Amount (Rs.)	Particulars	Amount (Rs.)	Amount (Rs.)
To Materials issued		7,76,250	By Plant Returned to Store on 30-09-2011	1,00,000	
To Labour	5,17,500		Less: Depreciation (1/2)	12,500	87,500
Less: Pre Paid	37,500		By Plant at Site on 31.3.12	3,00,000	
	4,80,000				
Add: Outstanding	12,500	4,92,500	Less: Depreciation	75,000	2,25,000
To Plant Purchased		4,00,000	By Material at Site		82,500
To Expenses	2,25,000		By work-in-Progress		
Less: Pre Paid	15,000		Work certified		22,50,000
	2,10,000		Work Uncertified		25,000
Add: Outstanding	25,000	2,35,000			
To Notional Profit C/d		7,66,250			
		<b>26,70,000</b>			<b>26,70,000</b>
To Profit & Loss A/c (trf)		3,89,000	By Notional Profit b/d		7,66,250
To Work-in Progress (Res)		3,77,250			
		<b>7,66,250</b>			<b>7,66,250</b>

Dr. **Computation of Estimated Profit Contract A/c (1-4-2011 to 30-9-2012)** Cr.

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Materials issued (7,76,250 + 12,99,375)	20,75,625	By Materials at site	42,500
To Labour (5,17,500-37,500 + 12,500 + 6,18,750 + 37,500-12,500 + 5,750)	11,42,000	By plant Returned to store on 30.9.2011 (1,00,000-12,500)	87,500
To Plant Purchased	4,00,000	By Plant Returned to Store on 30.9.12 (4,00,000 - 1,00,000 - 1,03,125)	1,96,875
To Expenses (2,25,000 + 25,000 - 15,000 + 3,75,000 - 25,000 + 15,000 + 10,000)	6,10,000	By Contractee A/c	49,21,875
To Estimated Profit	10,21,125		
	<b>52,48,750</b>		<b>52,48,750</b>

Since the contract is Nearing Completion, the Following Formula is used for transfer of Profit to Profit and Loss Account.

$$\text{Estimated Profit} \times \frac{\text{Cash Received}}{\text{contract Price}} = 10,21,125 \times \frac{18,75,000}{49,21,875} = \text{Rs. } 3,89,000$$

### PROBLEM NO: 14

MNP Construction Ltd

Dr. **Contract Account (1<sup>st</sup> April, 2010 to 31<sup>st</sup> March, 2011)** Cr.

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
Material issued	3,00,000	By Plant Returned To store	37,500

Labour: Paid 2,00,000		(refer to working note1)	
Outstanding 20,000	2,20,000	By materials at Site	20,000
To Plant Purchased	1,50,000	By Work Certified	8,00,000
To Expenses (Refer to (W.N.4))	60,000	By Work on Certified	25,000
To Notional Profit c/d	2,27,500	By Plant at Site	75,000
		(Refer to working note 2)	
	<b>9,57,500</b>		<b>9,57,500</b>
To Profit and Loss A/c (Refer to (W.N.S))	66,322	By Notional Profit b/d	2,27,500
To Work-in-Progress A/c (Profit in Reserve)	1,61,178		
	<b>2,27,500</b>		<b>2,27,500</b>

Dr. MNP construction Ltd Contract Account (1/4/10 to 31/12/11) (For Computing Estimated Profit) Cr.

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Materials issued (Rs. 3,00,000+Rs. 5,50,000)	8,50,000	By Materials at site	50,000
To Labour (Paid & outstanding) (Rs. 2,20,000+Rs. 2,30,000+Rs. 30,000)	4,80,000	By Plant Returned to store on (31-03-2011) (Refer to (w.n.1))	37,500
To Plant Purchased	1,50,000	By Plant Returned to store on (31-12-2011) (Refer W.N.3)	60,938
To Expenses (Rs.60,000 + Rs.1,65,000)	2,25,000	By Contractor's A/c	17,50,000
Estimated Profit	1,93,438		
	<b>18,98,438</b>		<b>18,98,438</b>

**WORKING NOTES:**

(Amt Rs.)

<b>1.</b> Value of the Plant returned to Store on 31-03-2011	
Historical cost of the Plant Returned	50,000
<b>Less:</b> Depreciation@25% of WDV cost for 1 year	12,500
Value of the Plant Returned to store on 31-3-2011	37,500
<b>2.</b> Value of Plant at site:	
Historical Cost of the Plant at Site	1,00,000
<b>Less:</b> Depreciation@25% of WDV Cost for 1 year	25,000
Value of the Plant at Site on 31-3-2011	75,000
<b>3.</b> Value of the Plant Returned to Store on 31-12-2011	
Value of the plant on 31-3-2011	75,00,00
<b>Less:</b> Depreciation@25% of WDV For a Period of 9Months	14,062.50
Value of the plant on 31-12-2011	60,937.50
<b>4.</b> Expenses paid:	
Total expenses paid	75,000
<b>Less:</b> Prepaid expenses at end	15,000
Expenses Paid For the year 2010-2011	60,000

**5.** Profit to be credited to P/L A/C on 31-3-2011 for the contract likely to be completed on 31-12-2011

$$\text{Estimated Profit} \times \frac{\text{Cash received}}{\text{Work Certified}} \times \frac{\text{Work Certified}}{\text{Total contract Price}}$$

$$= \text{Rs. } 1,93,438 \times \frac{6,00,000}{8,00,000} \times \frac{8,00,000}{17,50,000} = \text{Rs. } 66,322$$

**PROBLEM NO: 15**

Dr.

Cr.

Particulars	Amount (in '000)	Particulars	Amount (in '000)
To Materials issued to site	6,500	By Materials returned to store	90
To Direct wages 3,820		By Materials at site	1,400
Add: Outstanding 98	3,918	By Cost of contract	11,628
To Machine hire charges	780		
To Site Administration exp.	570		
To Other direct expenses	850		
To Depreciation on crane	500		
	<b>13,118</b>		<b>13,118</b>
To Cost of contract	11,628	By Work certified	12,000
To Notional Profit	372		
	<b>12,000</b>		<b>12,000</b>

**PROBLEM NO: 16**

## Schedule of Costs

Particulars	Amount (Rs.)	Amount (Rs.)
Cost incurred Opening Balance		8,00,000
During the year Material Consumed:		
Opening stock	80,000	
Add: Material delivered during the year	15,90,000	
	16,70,000	
Less: Closing Stock	40,000	16,30,000
Wages		14,95,000
Hire of plant		2,86,000
Other expenses		2,30,000
Material discrepancy (Actual)		15,000
General overheads 5% of Rs. 57,20,000	2,86,000	
Less: Absorbed at the beginning of the year	35,000	2,51,000
		47,07,000
Estimated Further cost to complete		5,72,000
Estimated total cost		52,79,000
Contract Price		65,00,000
Estimated total Profit		<b>12,21,000</b>

i. Profit to be transferred to Profit and loss Account:

$$\text{Estimated profit} \times \frac{\text{Value of work certified}}{\text{Contract Price}} \times \frac{12 \text{ Months}}{15 \text{ Months}}$$

$$= \text{Rs. } 12,21,000 \times \frac{57,20,000}{65,00,000} \times \frac{12}{15} = \text{Rs. } 8,59,584$$

ii. If Contract Price was Rs. 80 lakhs and if No estimate has been Made of costs to completion value of work certified at the end of year = Rs. 57,20,000 i.e. 71.5% of contract value. In such a case notional Profit has to be calculated instead to estimated profit.

Particulars	Amount (Rs.)
Value of work certified	57,20,000
Add: cost of work not certified	1,20,000
	58,40,000
Less: cost of work up to the end of year	47,07,000
Notional Profit	11,33,000

Recommendation in (i) above would be affected as Follows: Profit to be Credited to Profit and loss A/c. For the year just ended

$$= \frac{2}{3} \times \text{Notional Profit} \times \frac{12 \text{ Months}}{15 \text{ Months}}$$

$$= \frac{2}{3} \times \text{Rs. } 11,33,000 \times \frac{12}{15} = \text{Rs. } 6,04,267$$

[It has been assumed that cash received is equals to value of work certified]

### PROBLEM NO: 17

Dr.		Contract A/c		Cr.	
Particulars	Amount Rs.	Particulars	Amount Rs.		
To materials A/c	1,00,000	By closing stock	25,000		
To Wages A/c	45,000	By WIP A/c			
(+) O/S	5,000	WC	2,00,000		
To General Expenses A/c	10,000	WUC	15,000	2,15,000	
To Depreciation A/c	5,000	By Contractee (W.N.1) A/c	5,000		
To Notional Profit	80,000	(Escalation claim)			
	<b>2,45,000</b>			<b>2,45,000</b>	
To P&L a/c (W.N.2)	20,000	By Notional Profit	80,000		
To Reserve	60,000				
	80,000			80,000	

#### WORKING NOTES 1:

Calculation of Escalation claim:

Increase in Prices = 25%

Less: Normal Increase = (5%)

Add: Price Increase = 20%

% eligible for Escalation claim = 20 x 25% = 5%

Escalation claim = 1,25,000 x  $\frac{5}{125}$  = 5,000

Material cost 1,00,000 – 25,000 = 75,000

Wage cost 45,000 + 5,000 = 50,000

**1,25,000**

**WORKING NOTES 2:** amount to be transferred to P&L a/c

% of completion of contract =  $\frac{\text{work certified}}{\text{contract price}} \times 100 = \frac{2,00,000}{5,00,000} \times 100$

∴ Profit to P & L A/c =  $\frac{1}{3} \times \text{Notional profit} \times \frac{\text{cash received}}{\text{work certified}}$

=  $\frac{1}{3} \times 80,000 \times \frac{1,50,000}{2,00,000} = \text{Rs. } 20,000$

**PROBLEM NO: 18**

## Statement Showing Final claim

Materials	Standard Qty/hrs (a)	Standard Rate (Rs.) (b)	Actual Rate (Rs.) (c)	variation in Rate (Rs.) (d)=(c)-(b)	Escalation Claim (Rs.) (e)=(a) x (d)
A	5,000	5.00	4.80	(-)0.20	(-)1,000
B	3,500	8.00	7.90	(-)0.10	(-)350
C	2,500	6.00	6.60	(+)0.60	1,500
Materials escalation claim : (P)					150
labour					
X	2,000	7.00	7.20	(+) 0.20	400
Y	2,500	7.50	7.50	-	-
Z	3,000	6.50	6.60	(+) 0.10	300
Wages escalation claim : (Q)					700
Final Claim: (P) + (Q)					850

## Statement showing Final Price Payable

Particulars	Amount (Rs.)	Amount (Rs.)
Agreed Price		1,75,000
Agreed escalation:		
Material Cost	150	
Labour Cost	700	850
Final price Payable		1,75,850

The claim of Rs.1,77,360 is based on the total increase in Cost. This can be verified as shown below.

## Statement showing total increase in cost

	Standard Cost			Actual cost			Increase/ (Decrease) (g)=(f)-(c)
	Qty/hrs (a)	Rate(Rs.) (b)	Amount (Rs.) (c)=(a)x(b)	Qty/hrs (d)	Rate(Rs.) (e)	Amount (Rs.) (f)=(d)x(e)	
<b>i. Material</b>							
A	5,000	5.00	25,000	5,050	4.80	24,240	(760)
B	3,500	8.00	28,000	3,450	7.90	27,255	(745)
C	2,500	6.00	15,000	2,600	6.60	17,160	2,160
			68,000			68,655	655
<b>ii. Labour</b>							
X	2,000	7.00	14,000	2,100	7.20	15,120	1,120
Y	2,500	7.50	18,750	2,450	7.50	18,375	(375)
Z	3,000	6.50	19,500	3,100	6.60	20,460	960
			52,250			53,955	1,705
<b>Total (i + ii)</b>							<b>2,360</b>

Particulars	Amount Rs.
The Final Price claimed by the company is contract price	1,75,000
Add: Increase in cost	2,360
	<b>1,77,360</b>

This claim is not admissible because escalation clause covers only that part of increase in cost, which has been caused by inflation.

**Note:** It is Fundamental Principle that the contractee would compensate the contractor for the increase in costs which are caused by factors beyond the control of contractor and not for increase in costs which are caused due to inefficiency or wrong estimation.

**THE END**