

## 7. CONTRACT COSTING

## ASSIGNMENT SOLUTIONS

## PROBLEM NO: 1

Dr.	Contract A/c		Cr.
Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Material purchased	6,00,000	By Work-in-progress:	
" Stores issued	1,00,000	" Value of work certified	13,00,000
" Wages	2,25,000	" Cost of work uncertified	60,000
" Plant	75,000	" Material unused	40,000
" Chargeable expenses	75,000	" Plant less depreciation	30,000
" Indirect expenses	25,000		
" Costing P&L A/c (Notional profit) (bal. figure)	3,30,000		
	14,30,000		14,30,000
" Balance b/d : Work Certified	13,00,000		
Uncertified	60,000		
Material at site	40,000		
Plant at site	30,000		
	14,30,000		
<b>Less: Reserve</b>	<b>1,54,000</b>		
	<b>12,76,000</b>		

Computation of Profit:

Apparent profit	3,30,000
2/3rd of that since 65% of the work is complete	2,20,000
80% of that on cash basis	1,76,000

An alternative method of presentation may be to deduct the balance of profit to be carried down (Rs. 1,54,000 in the above case) from the work certified before it is entered in the contract account. It will be Rs. 11,46,000 in the illustration given above. Of course, the reserve to be so deducted from the work certified will have to be first ascertained by considering the value of the work certified.

## PROBLEM NO: 2

M/s ABID constructions

Dr.	Contract account		Cr.
Particulars	Amount (Rs.in 000)	Particulars	Amount (Rs.in 000)
To Material issued	7,700	By Material Returned	175
To Direct wages      3,300	3,400	By Profit & Loss A/c	130
<b>Add: Outstanding      (100)</b>		(Material destroyed by fire)	
To site office cost      550	500	By WIP:	12,875
<b>Less: prepaid      (50)</b>		- Work certified      12,650	
		- Work uncertified      225	
To Depreciation *	40	By Material at site	110
To Notional profit c/d	1,650		
	<b>13,290</b>		<b>13,290</b>
To Profit & loss A/c (W.N. 2)	880	By Notional profit b/d	1,650
To WIP (R-reserve)	770		
	<b>1,650</b>		<b>1,650</b>

\* Depreciation on plant = Rs. 8,00,000 x 15% x  $\frac{4 \text{ months}}{12 \text{ months}}$  = Rs.40,000

Dr. **Contractee's Account** Cr.

Particulars	Amount (Rs. In 000)	Particulars	Amount (Rs. In 000)
To balance c/d	10,120	By bank A/c	10,120
	<b>10,120</b>		<b>10,120</b>

**Relevant items of Profit & Loss Account**

Particulars	Amount (Rs. In 000)	Particulars	Amount (Rs. In 000)
To Contract A/c (Loss of material due to fire)	130	By contract A/c (Profit on contract)	880
To net profit	750		
	<b>880</b>		<b>880</b>

**Balance sheet (extracts) as on 31<sup>st</sup> March, 2014**

Liabilities	Amount (Rs.)	Amount (Rs.)	Assets	Amount (Rs.)	Amount (Rs.)
<b>Add: profit</b>	750		Plant at cost	800	760
			<b>Less: Depreciation</b>	40	
			Contract WIP:		
O/s wages		100	- Uncertified	225	1,985
			- Certified	12,650	
			- Reserve	(770)	
			- Advances	(10,120)	
			Materials at site		110
			Prepaid exp.		50

$$1. \text{ Percentage of completion} = \frac{\text{work certified}}{\text{value of contract}} \times 100 = \frac{\text{Rs. } 1,26,50,000}{\text{Rs. } 1,71,00,000} \times 100 = 73.98\%$$

$$2. \text{ Profit from Incomplete contract} = \frac{2}{3} \times \text{Notional profit} \times \frac{\text{Cash received}}{\text{Work certified}} = \frac{2}{3} \times 16,50,000 \times \frac{1,01,20,000}{1,26,50,000} = \text{Rs. } 8,80,000$$

(Note: the above figures calculated on traditional prudent basis following in contract costing.)

**PROBLEM NO: 3**Dr. **Contract Account (For the period 01.07.13 to 31.03.14)** Cr.

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Material Issued	7,74,300	By Material (Sold)	10,000
To Labour	10,79,000	By Costing P&L A/c (Loss) (Rs. 13,500 - Rs.10,000)	3,500
<b>Add: Outstanding</b>	1,02,500	By Material in hand	75,800
To Salary to engineer (Rs.20,500 x 9 months)	1,84,500	By Cost of Contract c/d	26,39,600
To Salary to Supervisor (Rs. 9,000 x $\frac{3}{4}$ x 9 months)	60,750		
To Admin. & other expenses	4,60,600		
<b>Less: Prepaid</b>	(10,000)		
To Depreciation on Plant (WN 1)	77,250		
	27,28,900		27,28,900
To Cost of Contract b/d	26,39,600	By Work-in Progress:	
To Notional Profit c/d	2,70,300	- Work certified (50% of Rs.45,00,000)	22,50,000
		- Work uncertified (WN 2)	6,59,900
	29,09,900		29,09,900
To Costing P&L A/c (Working Note 3)	1,60,178	By Notional Profit b/d	2,70,300
To Work-in-progress (transferred to Reserve)	1,10,122		
	2,70,300		2,70,300

**Notes:**

1. Calculation of depreciation on Plant

$$\frac{\text{Cost of the plant - Residual value}}{7 \text{ years}} \times \frac{9 \text{ months}}{12 \text{ months}} = \frac{7,71,000 - 50,000}{7 \text{ years}} \times \frac{9 \text{ months}}{12 \text{ months}} = \text{Rs. } 77,250$$

2. Cost of the Work uncertified = (Cost incurred to date) - (50% of the total cost of contract)

$$= \text{Rs. } 26,39,600 - \left( \text{Rs. } 26,39,600 \times \frac{3}{2} \times \frac{1}{2} \right) = \text{Rs. } 6,59,900$$

3. Calculation of Profit to be transferred =
- $\frac{2}{3} \times \text{Rs. } 2,70,000 \times \frac{\text{Rs. } 20,00,000}{\text{Rs. } 22,50,000} = 1,60,178$

**PROBLEM NO: 4**

- i) Works cost of the contract:

Dr.		Contract A/c		Cr.	
Particulars	Amount (Rs.)	Particulars	Amount (Rs.)		
To Materials	8,52,000	By Closing Stock	38,000		
To Wages	10,48,000	By cost incurred (Works cost)	22,60,000		
To Indirect Expenses	92,000				
To Depreciation (WN-1)	1,08,000				
To Supervisor salary (10,000 x 12 x 2/3)	80,000				
	22,98,000				22,98,000

- ii) Value of work uncertified

Percentage (%) of total work done = 66.67% (2/3)

Less: work certified = 50%

Percentage (%) of work uncertified = 16.67%

Cost of work uncertified = 5,65,085

- iii) Notional Profit

Notional Profit = Work Certified + Work Uncertified - Cost Incurred to Date

= (45,00,000 x 50%) + 5,65,085 - 22,60,000 = Rs. 5,55,085

- iv) Amount to be carried forward to Profit and loss account

Percentage (%) of degree of completion =  $\frac{\text{Work Certified}}{\text{Contract Price}} = \frac{22,50,000}{45,00,000} = 50\%$

Amount to be transferred to Profit and loss A/c =  $\frac{2}{3} \text{ Notional Profit} \times \frac{\text{Cash Received}}{\text{Work Certified}}$

=  $\frac{2}{3} \times 5,55,085 \times \frac{22,50,000 \times 90\%}{22,50,000} = 3,33,051$

**PROBLEM NO: 5**

Dr.		Contract Account		Cr.	
Particulars	(Rs.)	Particulars	(Rs.)		
To Material issued	2,51,000	By Machine (Working note 1)	2,46,000		
" Wages	5,65,600	" Material (in hand)	35,400		
" Foreman's salary	81,300	" Works cost (balancing figure)	10,49,000		
" Machine	2,60,000				
" Supervisor's salary (8,000 x 9)/2	36,000				
" Administrative charges	1,36,500				
	13,30,400				13,30,400
" Works cost	10,49,000	" Value of work certified	10,00,000		
" Costing P&L A/c (Notional profit)	2,13,250	" Cost of work uncertified (WN 2)	2,62,250		
	12,62,250				12,62,250

**Working Notes:**

$$1. \text{ Written down value of Machine: } \frac{2,60,000 - 15,000}{7\text{years}} \times \frac{146\text{days}}{365\text{days}} = 14,000$$

Hence the value of machine after the period of 146 days = 2,60,000 - 14,000 = 2,46,000

$$2. \text{ The cost of } 2/3\text{rd of the contract is } 10,49,000$$

$$\text{Cost of 100\% of the contract is } \frac{\text{Rs. } 10,49,000}{2} \times 3 = 15,73,500$$

Cost of 50% of the contract which has been certified by the architect is 7,86,750.

Also the cost of 1/3rd of the contract, which has been completed but not certified by the architect is 2,62,250.

$$3. \frac{2}{3} \times \text{Notional Profit} \times \frac{\text{Cash Received}}{\text{Work Certified}} \quad \text{or, } \frac{2}{3} \times 2,13,250 \times \frac{7,50,000}{10,00,000} = 1,06,625$$

**PROBLEM NO: 6**

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:**

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

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

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

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

**PROBLEM NO: 7**

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)	Amount (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

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

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

**PROBLEM NO: 8**

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
<b>Less:</b> Opening o/s 5,000		By Materials stock c/d	20,000
<b>Add:</b> 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
<b>Less:</b> 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	
			<b>Less:</b> Advance	24,00,000	
				6,32,000	
			<b>Less:</b> WIP Reserve	3,99,373	2,32,627

**PROBLEM NO: 9**

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:		
<b>Add:</b> 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			
<b>Less: Advance</b>	(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: 10

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
<b>Less: Outstanding at beginning</b>	--	(48)	(104)
<b>Add: Outstanding at closing</b>	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
<b>Total (A)</b>	<b>2,500</b>	<b>8,889</b>	<b>19,435</b>
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
<b>Total (B)</b>	<b>3,743</b>	<b>10,012</b>	<b>28,844</b>
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 (%)			
Work certified Value of contract × 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 × 97.96% × 85%) - 350}

**PROBLEM NO: 11**

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 Cost of work uncertified	20,50,000 1,90,000	16,10,000 1,40,000
To Donation to local club	5,000	2,500			
To Plant hire charges: (Rs.72,000 x $\frac{1}{3}$ ) (Rs.57,000 x $\frac{1}{3}$ )	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:12****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%)

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

= Rs. 3,12,500 + Rs. 1,20,000 - Rs. 1,50,000 = Rs. 2,82,500

**PROBLEM NO:13****Computation of Notional Profit**

Particulars	Amount (Rs.)	Amount (Rs.)
Value of work certified		5,50,800
<b>Less:</b> 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
<b>Less:</b> 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		<b>1,37,000</b>

**Profit to be transferred under various methods:**

i) 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) 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) Estimated Profit  $\times \frac{\text{Work certified}}{\text{Contract Price}} \times \frac{\text{Cash Received}}{\text{work certified}}$   
 = 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) 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) Estimated Profit  $\times \frac{\text{Cost of work Date}}{\text{Estimated total cost}} \times \frac{\text{Cash Received}}{\text{work certified}}$   
 = 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: 14**

**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
<b>Less: Total expenditure to date</b>	<b>17,64,525</b>
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
<b>Add: Margin @ 40%</b>	<b>10,41,268</b>
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**

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

**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.**

$$\text{Cash Received} - \text{Expenditure to date} = \text{Profit/ (Loss)}$$

$$\text{Rs. } 14,75,250 - \text{Rs. } 17,64,525 = (\text{Rs. } 2,89,275)$$

### **PROBLEM NO: 15**

**Working Notes:**

**i) Calculation of Notional Profit**

$$= (\text{Work certified} + \text{work not certified}) - \text{Total expenditure to date}$$

$$= (\text{Rs. } 10,00,000 + \text{Rs. } 85,000) - \text{Rs. } 8,50,000 = \text{Rs. } 2,35,000$$

**ii) Calculation of Estimated Profit**

$$\text{Contract Price} - (\text{Expenditure to date} + \text{Further expenditure to be incurred})$$

$$= \text{Rs.}15,30,000 - \text{Rs. } (8,50,000 + 1,70,000) = \text{Rs. } 5,10,000$$

Computation of Conservative Estimate of Profit by following methods:

$$1. \text{ Notional Profit} \times \frac{2}{3} \times \frac{\text{Work certified}}{\text{Contract Price}} = \text{Rs.}2,35,000 \times \frac{2}{3} \times \frac{\text{Rs.}8,16,000}{\text{Rs.}10,00,000} = \text{Rs. } 1,27,840$$

$$2. \text{ Estimated Profit} \times \frac{\text{Cost of work done}}{\text{Estimated Total cost}} \times \frac{\text{Cash Received}}{\text{Work Certified}}$$

$$= \text{Rs.}5,10,000 \times \frac{\text{Rs.}8,50,000}{\text{Rs.}8,50,000 + \text{Rs.}1,70,000} \times \frac{8,16,000}{10,00,000} = \text{Rs. } 3,46,800$$

3. Estimated Profit  $\times \frac{\text{Cashreceived}}{\text{Contractprice}} = \text{Rs. } 5,10,000 \times \frac{8,16,000}{15,30,000} = \text{Rs. } 2,72,000$
4. Notional Profit  $\times \frac{\text{work certified}}{\text{contract price}} \times \frac{\text{Cash Received}}{\text{Work Certified}} = \text{Rs. } 2,35,000 \times \frac{10,00,000}{15,30,000} \times \frac{8,16,000}{10,00,000} = \text{Rs. } 1,25,333$
5. Estimated Profit  $\times \frac{\text{work certified}}{\text{contract price}} = \text{Rs. } 5,10,000 \times \frac{10,00,000}{15,30,000} = \text{Rs. } 3,33,333$
6. Estimated Profit  $\times \frac{\text{Cost of work done}}{\text{EstimatedTotal cost}} = \text{Rs. } 5,10,000 \times \frac{8,50,000}{10,20,000} = \text{Rs. } 4,25,000$
7. 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: 16

PQR Construction Ltd.

Dr. Contract A/c (April 1, 2013 to March 31, 2014) Cr.

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Materials Issued	4,56,000	By Plant returned to Stores (Working Note 1)	60,000
To Labour 3,05,000		By Materials at Site	30,000
<b>Add:</b> Outstanding 24,000	3,29,000	By W.I.P	
To Plant Purchased	2,25,000	Certified 12,75,000	
To Expenses 1,00,000		Uncertified 40,000	13,15,000
<b>Less:</b> Prepaid 22,500	77,500	By Plant at Site (Working Note 2)	1,20,000
To Notional Profit c/d	4,37,500		
	15,25,000		15,25,000
To Costing Profit & Loss A/c (Refer to Working Note 5)	1,59,263	By Notional Profit b/d	4,37,500
To Work-in-Progress A/c (Profit-in-reserve)	1,78,237		
	4,37,500		4,37,500

PQR Construction Ltd.

Dr. Contract A/c (April 1, 2013 to December 31, 2014) (For Computing estimated profit) Cr.

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Materials Issued (Rs. 4,56,000 + Rs. 8,14,000)	12,70,000	By Material at Site	75,000
To Labour Cost (Rs. 3,05,000 + Rs. 24,000 + Rs. 3,56,000* + Rs. 37,500)	7,22,500	By Plant returned to Stores on 31.3.2014.	60,000
To Plant purchased	2,25,000	By Plant returned to Stores on 31.12.2014 (Working Note 3)	1,02,000
To Expenses (Rs. 77,500 + Rs. 1,97,500 + Rs.25,000)	3,00,000	By Contractee A/c	27,12,500
To Estimated profit	4,32,000		
	29,49,500		29,49,500

\* Labour paid in 2014-15: Rs. 3,80,000 - Rs. 24,000 = Rs. 3,56,000

Working Notes:

Particulars	Amount (Rs.)
<b>1. Value of the Plant returned to Stores on 31.03.2014</b>	
Historical Cost of the Plant returned	75,000
<b>Less:</b> Depreciation @ 20% of WDV for one year	(15,000)
	60,000

<b>2. Value of Plant at Site 31.03.2014</b>	
Historical Cost of Plant at Site (Rs. 2,25,000 - Rs. 75,000)	1,50,000
<b>Less:</b> Depreciation @ 20% on WDV for one year	(30,000)
	1,20,000
<b>3. Value of Plant returned to Stores on 31.12.2014</b>	
Value of Plant (WDV) on 31.3.2014	1,20,000
<b>Less:</b> Depreciation @ 20% of WDV for a period of 9 months	(18,000)
	1,02,000
<b>4. Expenses Paid for the year 2013-14</b>	
Total expenses paid	1,00,000
<b>Less:</b> Pre-paid at the end	(22,500)
	77,500
<b>5. Profit to be credited to Costing Profit &amp; Loss A/c on March 31, 2014 for the Contract likely to be completed on December 31, 2014.</b>	
Estimated Profit $\times \frac{\text{Work Certified}}{\text{Total Contract Price}} \times \frac{\text{Cash Received}}{\text{Work Certified}}$	
= Rs.4,32,000 $\times \frac{\text{Rs. 12,75,000}}{\text{Rs. 27,12,500}} \times \frac{\text{Rs. 10,00,000}}{\text{Rs. 12,75,000}}$	1,59,263

**PROBLEM NO: 17****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 note 1)			
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	66,322	By Notional Profit b/d	2,27,500		
(Refer to (W.N.S))					
To Work-in-Progress A/c	1,61,178				
(Profit in Reserve)					
	<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 Contractee'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. Value of the Plant returned to Store on 31-03-2011</b>	
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. Value of Plant at site:</b>	
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. Value of the Plant Returned to Store on 31-12-2011</b>	
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. Expenses paid:</b>	
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: 18

#### Schedule of Costs

Particulars	Amount (Rs.)	Amount (Rs.)
Cost incurred Opening Balance		8,00,000
During the year Material Consumed:		
Opening stock	80,000	
<b>Add:</b> Material delivered during the year	15,90,000	
	16,70,000	
<b>Less:</b> 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	
<b>Less:</b> 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
<b>Add:</b> cost of work not certified	1,20,000
	58,40,000
<b>Less:</b> 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: 19**

Dr.		Contract A/c		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		
<b>Add: Outstanding 98</b>	<b>3,918</b>	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: 20**

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	50,000	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%

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

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

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

$$\therefore \text{Profit to P \& L A/c} = \frac{1}{3} \times \text{Notional profit} \times \frac{\text{cash received}}{\text{work certified}} = \frac{1}{3} \times 80,000 \times \frac{1,50,000}{2,00,000} = \text{Rs. } 20,000$$

**PROBLEM NO: 21**

In case of escalation clause in a contract, a contractor is paid for the any increase in price of materials and rate of labours which are beyond the control of the contractor. Any increase in the cost due to inefficiencies in usage of the materials and labours are not admissible. Thus any increase in cost due to usage in excess of standard quantity or hours are not paid.

a) **Statement showing Additional claim due to Escalation clause.**

	Standard Qty / Hours	Std. Rate (Rs.)	Actual Rate (Rs.)	Variation in Rate (Rs.)	Escalation claim (Rs.)
	(a)	(b)	(c)	(d) = (c - b)	(e) = (a × d)
<b>Material:</b>					
A	3,000	1,000	1,100	100	3,00,000
B	2,400	800	700	(100)	(2,40,000)
C	500	4,000	3,900	(100)	(50,000)
D	100	30,000	31,500	1,500	1,50,000
Material escalation claim					1,60,000
<b>Labour:</b>					
L <sub>1</sub>	60,000	15	18	3	1,80,000
L <sub>2</sub>	40,000	30	35	5	2,00,000
Labour escalation claim					3,80,000

**Statement showing Final Contract Price**

	Amount (Rs.)	Amount (Rs.)
Agreed contract price		1,50,00,000
<b>Add:</b> Agreed escalation claim:		
Material Cost	1,60,000	
Labour Cost	3,80,000	5,40,000
Final Contract Price		1,55,40,000

b) Dr.

Contract Account

Cr.

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Material:		By Contractee's A/c	1,55,40,000
A - (3,400 × Rs. 1,100) 37,40,000			
B - (2,300 × Rs. 700) 16,10,000			
C - (600 × Rs. 3,900) 23,40,000			
D - (90 × Rs. 31,500) 28,35,000	1,05,25,000		
To Labour:			
L <sub>1</sub> - (56,000 × Rs.18) 10,08,000			
L <sub>2</sub> - (38,000 × Rs.35) 13,30,000	23,38,000		
To Other expenses	13,45,000		
To Estimated Profit	13,32,000		
	1,55,40,000		1,55,40,000

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To **MASTER MINDS**, Guntur

**THE END**