

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

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

Dr.			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		
		7,68,000		7,68,000
To Costing P&L A/c (W.N.2)		19,200		
To WIP Reserve		16,800	By Notional Profit b/d	36,000
		36,000		36,000

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

$$\begin{aligned} &= \frac{2}{3} \times \text{Notional Profit} \times \frac{\text{Cash Received}}{\text{Work Certified}} \\ &= \frac{2}{3} \times 36,000 \times 80\% = 19,200 \end{aligned}$$
PROBLEM NO: 2

Contract Account

Dr.		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		
	13,30,400		13,30,400
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
	12,62,250		12,62,250
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		
	2,13,250		2,13,250

Notes:

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

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

\therefore 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. $\frac{2}{3} \times \text{Notional Profit} \times \frac{\text{Cash received}}{\text{Work certified}}$
(OR)
 $\frac{2}{3} \times 2,13,250 \times \frac{7,50,000}{10,00,000} = \text{Rs. } 1,06,625$

PROBLEM NO: 3**Contract Account in the Books Of Mr. Bhagwandas**

Dr.	Particulars	Amount (Rs.)	Cr.	Particulars	Amount (Rs.)
2005					
	To Materials A/c	1,80,000		By WIP A/c	
	To Wages A/c	1,70,000		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			
		3,75,000			3,75,000
	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			
		15,000			15,000
2006					
	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			
		11,56,000			11,56,000
	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			
		3,02,000			3,02,000
2007					
	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		
	16,40,933		16,40,933

CONTRACTEE ACCOUNT

Dr.

Cr.

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

WORKING NOTE:

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

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

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

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

PROBLEM NO: 4

Dr.

Contract Account for the year 2011 - 12

Cr.

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
1.04.11			
To Work-In-Progress (Not Certified) b/d	55,000	By Materials at site	4,000
2011 - 12			
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		
	3,31,000		3,31,000
31.03.12			
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		
	4,13,000		4,13,000

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

Contract Account for the year ended 31.03.2014

Dr.			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 not certified	1,90,000	1,40,000
To Plant hire charges : (Rs.72,000 $\times \frac{1}{3}$) (Rs.57,000 $\times \frac{1}{3}$)	24,000	19,000			
To Depreciation on Concrete mixture (Rs.8,20,000 $\times 15\% \times \frac{180}{365}$) (Rs.8,20,000 $\times 15\% \times \frac{100}{365}$)	60,658	33,699			
To Notional Profit (Balance C/d)	7,00,342	5,86,401			
	22,87,000	18,02,000		22,87,000	18,02,000
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			
	7,00,342	5,86,401		7,00,342	5,86,401

- 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:

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

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: 6 & 7

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		1,34,800
Computation of estimated Profit		
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: 8

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

Particulars	Amount (Rs.)
Plant Purchased on 1/4/2011	4,00,000
Less: 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
	3,00,000
Less: 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

Contract A/c (1-4-2011 to 31-3-2012)

Dr.			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			
		26,70,000			26,70,000
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			
		7,66,250			7,66,250

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

Dr.		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 Plan 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		
	52,48,750		52,48,750

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

$$\text{Estimated Profit} \times \frac{\text{CashReceived}}{\text{contractPrice}} = 10,21,125 \times \frac{18,75,000}{49,21,875} = \text{Rs. } 3,89,000$$

PROBLEM NO: 9

MNP Construction Ltd

Contract Account (1st April, 2010 to 31st March, 2011)

Dr.

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)	
	9,57,500		9,57,500
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)			
	2,27,500		2,27,500

MNP construction Ltd Contract Account (1/4/2010 to 31/12/2011)

(For Computing Estimated Profit)

Dr.

Cr.

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Materials issued	8,50,000	By Materials at site	50,000
(Rs. 3,00,000+Rs. 5,50,000)		By Plant Returned to store On 31 st march, 2011	37,500
To Labour (Paid & outstanding)	4,80,000	(Refer to (w.n.1))	
(Rs. 2,20,000+Rs. 2,30,000+Rs. 30,000)		By Plant Returned to store on (31-12-2011) (Refer W.N.3)	60,938
To Plant Purchased	1,50,000		
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		
	18,98,438		18,98,438

WORKING NOTES:

(Amt Rs.)

1. Value of the Plant returned to Store on 31-03-2011	
Historical cost of the Plant Returned	50,000
Less: Depreciation@25% of WDV cost for 1 year	12,500
Value of the Plant Returned to store on 31-3-2011	37,500
2. Value of Plant at site:	
Historical Cost of the Plant at Site	1,00,000
Less: Depreciation@25% of WDV Cost for 1 year	25,000
Value of the Plant at Site on 31-3-2011	75,000
3. Value of the Plant Returned to Store on 31-12-2011	
Value of the plant on 31-3-2011	75,00,00
Less: Depreciation@25% of WDV For a Period of 9Months	14,062.50
Value of the plant on 31-12-2011	60,937.50
4. Expenses paid:	
Total expenses paid	75,000
Less: 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: 10

In the Books of Contractor Contract A/c For the year ended 31/12/2006

Dr.

Cr.

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Materials	40,000	By work in Progress	
To Direct wages (55,000+200)	55,200	WC	1,50,000
To Expenses	2,000	WUC	1,000
To fuel & power	2,500	By Materials at site	5,000
To Depreciation on machinery (40,000 x 75% x 10%)	3,000		
To Notional profit c/d	53,300		
	1,56,000		1,56,000
To Profit & loss A/c	28,427	By Notional Profit b/d	53,300
To Work in Progress (Reserve)	24,873		
	53,300		53,300

$$\% \text{ of work certified} = \frac{\text{W.C}}{\text{C.P}} \times 100 = \frac{1.5\text{L}}{3\text{L}} \times 100 = 50\%$$

$$\text{Profit} = \frac{2}{3} \times 53,300 \times \frac{1.2\text{L}}{1.5\text{L}} = 28,427$$

P&L A/c

Dr.

Cr.

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Postage	500	By Contract A/c	28,427
To Office Expenses	2,000		
To Rates	3,000		
To Depreciation (40,000 x 25% x 10%)	1,000		
To balance c/d / Net profit	21,927		
	28,427		28,427

Balance Sheet

Liabilities	Amount (Rs.)	Assets	Amount (Rs.)
Paid up share capital	1,00,000	Land & Buildings	30,000
Profit & loss A/c	21,927	Machinery (40,000-4,000)	36,000
Outstanding wages	200	Lorries & vehicles	30,000
		Furniture	1,000
		Office & Equipment	10,000
		WIP	
		WC	1,50,000
		WUC	1,000
		Cash receivables (1,20,000)	
		WIP Reserve (24,873)	6,127
		Bank	4,000
		Material at site	5,000
	1,22,127		1,22,127

Assumption;

1. Power and fuel is treated as specific cost, charged to contract account.
2. Postage & telegrams, office expenses and R & T are treated as common cost, items charged to profit & loss account

PROBLEM NO: 11

Books of Modern constructions Ltd

Contract No B-37 Account For the Year ended 31-3-2008

Dr

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 30,00,000	
To Wages Paid 6,00,000		Certified	
Less: Opening o/s 5,000		Uncertified	
Add: Closing o/s 3,000	5,98,000	Work 32,000	30,32,000
To Architect's Fees	51,000	By Materials stock c/d	20,000
To Plant Hire Charges	50,000		
To Indirect Expenses	10,000		
To General Overheads	18,000		
To Notional Profit C/d	8,55,800		
	30,97,000		30,97,000
To Profit and Loss A/C		By Notional Profit b/d	8,55,800
$\left[\frac{2}{3} \times 8,55,800 \times \frac{80}{100} \right]$	4,56,427		
To WIP Reserve C/d	3,99,373		
	8,55,800		8,55,800

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

Dr.

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
	24,00,000		24,00,000

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

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To **MASTER MINDS**, Guntur

PROBLEM NO: 12**AKP Builder Ltd. Contract Account (2012-13)**

Dr.

Cr.

Particulars	Rs.	Rs.	Particulars	Rs.	Rs.
To Material issued		90,000	By Material Sold		18,125
To Labour A/c	75,000		By Plant Sold		2,875
Add: Out standing	6,250	81,250	By Plant at Site		7,750
To Plant A/c		25,000	By Material at Site		4,250
To Sundry Expenses A/c	7,250		By work-in-Progress		
Len: Prepaid	625	6,625	Work Certified	2,18,750	
To Establishment A/c charges		14,625	Work Un Certified	27,375	2,46,125
To Profit & Loss A/c (Profit on sale of Material)		3,125			
To Notional Profit C/d		58,500			
		2,79,125			2,79,125
To Profit & Loss A/c (Transfer)		29,960	By Notional Profit b/d		58,500
To Work-in-Progress A/c (Reserve)		28,540			
		58,500			58,500

Profit to be transferred to profit and Loss Account

$$= \text{Estimated Profit} \times \frac{\text{Work certified}}{\text{Contract Price}} = \text{Rs. } 68,481 \times \frac{2,81,750}{5,00,000} = \text{Rs. } 29,960$$

Calculation of Estimated Profit

Particulars	Rs.	Rs.
1. Material Consumed (90,000+3,125-18,125)	75,000	
Add: Further Consumption	85,750	1,60,750
2. Plant used (25,000-2,875)	22,125	
Add: Further Plant introduced	31,250	
Less: Closing balance of Plant	3,750	49,625
3. Establishment charges	14,625	
Add : Further charges For nine Months (14,625x9/12)	10,969	25,594
4. Sundry expenses	6,625	
Add: Further Expenses	6,875	
Add: Prepaid Expenses	625	14,125
5. Labour cost	81,250	
Add: Further Cost (87,325-6,250)	81,075	
Add: Outstanding	8,300	1,70,625
6. Reserve for Contingencies		10,800
Estimated Profit (Balancing Figure)		68,481
Contract Price		5,00,000

WORKING NOTE: Computation of Work Certified

Cash received = Rs.1,75,000

80% of work Certified = Rs.1,75,000

$$\text{Work Certified} = \text{Rs. } 1,75,000 \times \frac{100}{80}$$

$$= \text{Rs. } 2,18,750$$

PROBLEM NO: 13**School Contract Account**

Dr.

Cr.

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Plant A/c	2,40,000	By Material Returned A/c	47,000
To Hire of Plant A/c	77,000	By Plant C/d	1,65,000
To Material A/c	6,62,000	By Materials C/d	50,000
To Direct wages 9,60,000 A/c		By WIP C/d:	
Add: Accrual 40,000 A/c	10,00,000	Value of work certified	24,00,000
To wages related costs A/c	1,32,000	Cost work not certified	1,80,000
To Direct Expenses A/c	34,000		
To Supervisory Staff: A/c			
Dried 90,000			
Indirect 20,000	1,10,000		
To Regional office expenses A/c	50,000		
To Head Office Expenses A/c	30,000		
To Surveyors' Fees A/c	27,000		
To Notional Profit c/d	4,80,000		
	28,42,000		28,42,000
To Cost P & L A/c	2,40,000	By Notional Profit b/d	4,80,000
To WIP (Reserve) c/d	2,40,000		
	4,80,000		4,80,000

WORKING NOTE:

- i. Calculation of Percentage of work completion:

$$\frac{\text{Rs. 24,00,000}}{\text{Rs. 30,00,000}} \times 100 = 80\%$$

- ii. Calculation of Profit attributable to the Contract:

$$\frac{2}{3} \times \text{Rs. 4,80,000} \times \frac{\text{Rs. 18,00,000}}{\text{Rs. 24,00,000}}$$

PROBLEM NO: 14**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% 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		12,21,000

- 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 of estimated profit.

Particulars	Amount (Rs.)
Value of work certified	Rs. 57,20,000
Add: cost of work not certified	Rs. 1,20,000
	58,40,000
Less: cost of work up to the end of year	47,07,000
Notional Profit	Rs. 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-15

Contract A/c

Dr.	Particulars	Amount Rs.	Cr.	Particulars	Amount Rs.
	To materials A/c	1,00,000		By closing stock	25,000
	To Wages 45,000 A/c			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)	
		2,45,000			2,45,000
	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

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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: 16

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		Rs. 1,75,000
Agreed escalation:		
Material Cost	Rs. 150	
Labour Cost	Rs. 700	Rs. 850
Final price Payable		Rs. 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			
	Qty/hrs (a)	Rate(Rs.) (b)	Amount (Rs.) (c)=(a)x(b)	Qty/hrs (d)	Rate(Rs.) (e)	Amount (Rs.) (f)=(d)x(e)	Increase/ (Decrease) (g)=(f)-(c)
i. Material							
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

ii. Labour							
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
Total (i+ii)							2,360

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

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.

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THE END

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