

CMA-I; SEMESTER-II

CONTRACT COSTING (C.U SUMS FOR REVISION)

1) The following particulars are available in respect of a contract as on 31st March, 2008 (all figures in rupees)

(i) Contract price	500000	(ii) Total cost of contract upto date	287500
(iii) Cost of uncertified work	12,500	(iv) cash received	265625
(v) Retention money	@ 15%		

Compute the amount of profit that may be credited to Profit and Loss Account and the value of work-in-progress

Solution

(a) Calculation of Notional Profit

Value of work certified (Note I)	3, 12,500
Add: Cost of work uncertified	12 500

	3, 25,000
Less: Total cost of contract upto date	2, 87,500

Notional Profit	37,500

(b) Calculation of Percentage of Completion

$$\text{Percentage of Completion} = \frac{100 \times (\text{Value of Work Certified} + \text{Cost of Work Uncertified})}{\text{Contract Price}}$$
$$\frac{(3, 12,500 + 12,500)}{5, 00,000} \times 100 = 65 \%$$

(c) Profits to be credited to Profit and Loss Account

2	Cash Received	2	2, 65,625
— x Notional Profit x	_____	=	_____ x 37,500 x = INR 21,250.
3	Work Certified	3	3, 12,500

(d) Value of Work in Progress

Cost of contract to date	287500
Add: Profit transferred to Profit and Loss Account	<u>21,250</u>
	3,08,750
Less: Cash received	<u>2,65 625</u>
Value of Work in Progress	<u>43,125</u>

Working Note :

$$(I) \text{ Value of Work Certified} = \frac{\text{cash received}}{\text{retention \%}} = \frac{265625}{(100\% - 15\%)} = \text{INR } 312500$$

2) Ambuja Construction Ltd. entered into a contract to construct a building. The contract value was INR 1300000 to be realised in instalment on the basis of value of work certified by the architect subject to retention of 10%. The work commenced on 1.4.2008 but it remained incomplete on 31.12.2008 when the final accounts are to be prepared. The facts and figures of the contract are:

Materials issued to contract	360000	Wages paid	174000
Expenses incurred on the contract	77,500	Plant sent to site on 1.4.2008	64000
Wages unpaid	6,300		

Total establishment expenses amounted to INR 82000 out of which 25% is attributable to the contract. Out of materials issued to the contract, materials Costing INR 8,000 were sold for INR 12000. A part of the plant (cost INR 4000) are damaged on 10, 2008 and scrap realised only INR 600. Plant costing INR 6000 was transferred to another contract on 11.12.2008. Plant is to depreciated @ 10%p.a. Material in hand on 31.12.2008 was INR 35000. Cash received from the contractee was INR 612000. Cost of work yet to be certified was INR 60000. PREPARE CONTRACT ACCOUNT AND CONTRACTEE ACCOUNT IN THE BOOKS OF AMBUJA CONSTRUCTION LTD.

Solution

In the books of Ambuja Construction Limited.

Contract Account
(Period 1.4.2008-31.12.2008)

Dr.

Cr

PARTICULARS			PARTICULARS		
TO DIRECT MATERIALS		360000		BY SALE OF MATERIALS	12000
TO DIRECT WAGES	174000			BY MATERIALS IN HAND	35000
ADD: WAGES UNPAID	6300	180300		COST OF CONTRACT c/d	600000
TO EXPENSES		77500			
TO ESTABLISHMENT EXPENSES (82000*25%)		20500			
TO PROFIT ON SALE OF MATERIALS		4000			
TO DEPRECIATION ON PLANT (NOTE 1)		4700			
		<u>600000</u>			<u>600000</u>
TO COST OF CONTRACT b/d		600000		BY CONTRACTEE A/C	680000

3)

A firm of building contractors undertook a contract for 350000. The following particulars are furnished for the year ended 31st December, 2011 :

Materials:		Wages for Labour	40000	
Direct Purchased	30,000	General Plant in use :		
Issued from Stores	10,000	Wdv	90000	
Direct Expenses	2500	dep thereon	10000	
Subcontract Charges	6,000	Share of General Overhead		2000
Materials in Hand on 31.12.2011	2,000	Material Lost by Fire		500
Outstanding Wages on 31.12.2011	6,000	Direct Expenses Accrued on 31.12.2011		1000
Cash Received (90% of work certified)	1,62,000	Cost of uncertified work		5,000

contract account (Jan 1- Dec 31,2011)

Dr.			Cr.
particulars		particulars	
To Direct Materials : Direct Purchase 30000 issued from stores 10000	40000	By Materials in Hand	2000
To Direct Wages 40,000 Add outstanding 6000	46000	By Materials lost by Fire	500
To Direct Expenses 2,500 Add: Direct Expenses Accrued 1.000	3500	By Cost of Contract cid	105000
To Share of General Overhead	2000		
To Depreciation	10000		
To Sub-contract Charges	6000		
	<u>107500</u>		<u>107500</u>
To Cost of Contract b/d	105000	By Contractee A/c (Note 1)	18000
To Notional Profit c/d (Note 2)	80000	By Cost of Work Uncertified	5000
	185000		185000
To Profit and Loss A/c (Note 4)	48000	By Notional Profit b/d (Note 2)	80000
To Reserve Profit c/d	32000		
	<u>80000</u>		<u>80000</u>
To Materials in Hand	2000	By Reserve Profit b/d	32000
To Cost of Work Uncertified	5000	By Outstanding Wages	6000
		By Direct Expenses Accrued	1000

Working note

Calculation of work certified= $162000/90*100=$ INR 180000

calculation of notional profit: value of work certified 180000 + cost of work uncertified 5000 – cost of contract = 80000

calculation of percentage of completion= $(180000+5000)/ 350000*100=$ 52.86%

Since the contract is 52.86 % complete, profit to be transferred to profit and loss account is calculated as follows= $2/3*80000*162000/180000=$ INR 48000

4) S Co. (2013) Ltd., a firm of building contractors, undertook a contract for 6,50,000 to realize on the basis of certified by the architect subject to a retention of 10%. The work commenced on 1.04.2012 but it remained incomplete on 31.12.2012 when the final accounts are to be prepared. The facts and figures of the contract are:

Materials charged to contract	180000
Wages paid for Labour	87000
Plant charged to contract at the commencement	32000
Expenses incurred on contract	38,750

Total establishment expenses amounted to 41000 out of which 25% is, attributable to this contract. Out of the materials issued to the contract, materials costing 4,000 were sold for 5,000. A part of the plant cost (2,000) was damaged on 01.10.2012 and the scrap was realized 300 only. Plant costing 3,000 was transferred to another contract site on 31.12.2012. Plant is to be depreciated @ 10%p.a. Materials on hand on 31.12.2011 was 17,500. Cash received from the contractee 3, 06,000. Cost of work not yet certified 30000.

Prepare Contract Account showing therein the amount of profit or loss to be transferred to Profit and Loss Account.

Solution

In the books of S & Co. (2013) Ltd.			
Contract Account			
(Period: April 1, 2012 to December 31, 2012)			
Particulars	INR	particulars	INR
To Direct Materials	180000	By Bank - Sale of Materials	5000
To Direct Wages	87000	By Direct Materials in Hand c/d	17500
To Direct Expenses	38750	By Plant (damaged 1900+ returned 2775+ at site 24975) note 1,2,3	29650
To Establishment Expenses (25% of 41,000)	10250	By Cost of Contract c/d	296850
To Plant at Cost	32000		
In Profit on Sale of Materials (5,000 - 4,000)	1000		
	349000		349000
To Cost of Contract b/d	296850	By Contractee A/c (Note 4)	340000
To National Profit c/d	73150	By Cost of Work. Uncertified	30000
	370000		370000
To Profit and Loss Nc (Note 7)	43890	By Notional Profit b/d	73150
To Reserve Profit c/d	29260		

Illustration 45

31.12.2015 :

		73150	-	73150
	To Direct Materials in Hand	17500		
	To Plant at Valuation (Note 3)	24975	By Reserve Profit b/d	29260
	16,00,000	Materials sent to site	3,00,000	
	3,60,000	Wages unpaid	32,000	
	52,000	Plant sent to site	10,0(X)	
	7,20,000		20,000	
	16,000	Materials returned to stores	22,000	
	To Cost of Work Uncertified b/d	30000		

Working note

- i) Cost of damaged plant= 2000 Dep. Upto date if damage: $(2000 \times 10\%) \times (6/12) = 100$ wdv of the damaged plant: cost- dep= 2000-100=1900
- ii) cost of plant transferred= 3000 dep. For 9 months= $3000 \times (10/100) \times (9/12) = 225$
wdv of plant transferred= 3000-225=2775
- iii) cost of plant at site: 32000-2000-3000=27000
dep. Of plant at site = 10% of 27000* (9/12)=2025
wdv of plant at site=27000-2025=24975
- iv) value of work certified= retention is 10% so, cash received= 90% of the work certified
cash received=306000 so, work certified= $(306000/90) \times 100 = 340000$
- v) notional profit= 340000+30000-296850=73150
- vi) percentage of completion= $(340000+30000)/650000 \times 100 = 56.92\%$
 $2/3 \times 73150 \times 306000/340000 = 43800$

5) Sinha & Co. undertook a contract to construct a building for which the following information are supplied on 31.12.2015. Construction started on 1st January, 2015.

Contract price 1600000

Wages paid 360000

Other expenses 52000

Cash received 720000

Materials lying unconsumed 16000

Insurance claim admitted for materials stolen 14000

Materials sent to site Wages unpaid

3,00,000 32,000

Plant sent to site 400000

Materials returned to stores 10000

Materials stolen from site 20000

work uncertified 22000

Plant is subject to depreciation @ 7.5% p.a. and cash has been received for 90% of work certified. Prepare Contract account.

IN THE BOOKS OF SINHA & CO.			
Dr. CONTRACT ACCOUNT (JAN 1 TO DEC 31, 2015)		Cr.	
PARTICULARS	INR	PARTICULARS	INR
To Direct Materials	300000	By Direct Materials : returned to store 10000+in hand 16000+stolen 20000	46000
To Direct Wages 360000 Add: Outstanding Wages To Other Expenses 2000	362000	By Cost of Contract c/d	698000
To other expenses	52000		
To Depreciation on Plant (Note 1)	30000		
	744000		744000
To Cost of Contract b/d	698000	By Contractee A/c (Note 2)	800000
To Notional Profit c/d	124000	By Cost of Work Uncertified c/d	22000
	822000		822000
To Profit and Loss A/c	74400		
To Reserve Profit c/d	49600	By Notional Profit b/d	124000
	124000		124000
To Direct Materials in Hand	16000	By Reserve Profit b/d	49600
To Cost of Work Uncertified	22000	By outstanding wages	2000

Working note

- i) Dep. On plant= $400000 * (7.5/100) = 30000$ ii) cal. Of work certified= $720000/90 * 100 = 800000$ iii) percentage of completion= $(800000 + 22000) / 1600000 * 100 = 51.38\%$ iv) profit to be transferred to profit and loss a/c= $2/3 * 124000 * 720000 / 800000 = 74400$

TRY IT OUT YOURSELF

1) From the following particulars relating to a contract, prepare (a) the Contract Account, (b) Contractee's Account:

	Rs.
Materials sent to site	85,349
Labour engaged on site	74,375
Plant installed at cost	15,000
Direct expenditure	4,126
Establishment charges	3,167
Materials returned to stores	549
Work certified	1,95,000
Cost of work not certified	4,500
Materials on hand, Dec. 31	1,883
Wages accrued on December, 31	2,400
Direct expenditure accrued on Dec. 31	240
Value of plant, Dec. 31	11,000

The contract price has been agreed at Rs.2,50,000. Cash has been received from the contractee amounting to Rs.1,80,000.

2) Calculate profit on work certified, cost of work in progress at the year end from the following:

- (a) Materials sent to site Rs.86,000;
- (b) Labour on site Rs.70,000;
- (c) Plant at site Rs.80,000;
- (d) Direct Expenses Rs.3,000;
- (e) Office expenses Rs.4,000;
- (f) Materials returned to stores Rs.600;
- (g) Work certified Rs.1,90,000;

- (h) Work not certified Rs.7,700;
- (i) Materials in stock at end Rs:2,000;
- (j) Outstanding wages Rs.300;
- (k) Cash received against bill Rs.1,61,500;
- (l) Depreciation on plant Rs. 7,000.

3) **Calcutta Construction Ltd. undertook a contract for construction of a bridge on 1st July, 1991. The contract price was Rs.5,00,000. The Company incurred the following expenses up to December, 1991:**

	Rs.
Materials consumed	1,10,000
Wages	40,000
Direct expenses	20,000
Plant purchased on 1. 1. 1991	1,00,000
Materials in hand	5,000

Depreciation 10% p.a. on plant

Charge other works expenses @ 20% of wages and office expenses @ 10% of works cost.

The amount certified by the engineer was Rs.3,00,000, retention money being 20% of the certified value.

Prepare the Contract Account showing therein the amount of profit that the company can reasonably take to its Profit and Loss Account.

CHECK YOUR ANSWER AND GET CONFIDENT

Q 1.

Solution

Contract Account

Dr.		Rs.	Cr.		Rs.
To	Materials sent to site	85,349	By	Materials returned to store	549
"	Wages	74,375	"	Materials on hand	1,883
"	Add Accrued	2,400	"	Plant	11,000
"	Plant	15,000			13,432
"	Direct Exp	4,126	"	Work-in-Progress :	
"	Add Accrued	240	Work certified	1,95,000	
		4,366	Cost of work not certified	4,500	1,99,500
"	Establishment charges	3,167			
"	Profit c/d	28,275			2,12,932
		2,12,932			
"	Profit & Loss a/c	17,400	By	Profit b/d	28,275
"	Work-in-Progress	10,875			
		28,275			28,275

Contractee's Account

Dr.		Rs.	Cr.		Rs.
To	Contract A/c	1,95,000	By	Bank	1,80,000
			"	Balanced c/d	15,000
		1,95,000			1,95,000

Balance Sheet

as on Dec. 31

Dr.		Rs.	Cr.		Rs.
Outstanding wages		2,400	Work-in-Progress :		
Outstanding expenditure		240	Value of work certified	1,95,000	
			Cost of work uncertified	4,500	
				1,99,500	
			Less : Profit in suspense	10,875	
				1,88,625	
			Less : Cash received	1,80,000	
					8,625
			Materials on hand		1,883
			Plant at site		11,000

Note : Calculation of Profit taken to the credit of Profit and Loss Account :

$$\frac{2}{3} \times 28,275 \times (1,80,000 + 1,95,000) = \text{Rs. } 17,400$$

Solution**Contract Account**

<i>Dr.</i>				<i>Cr.</i>	
	Rs.	Rs.		Rs.	Rs.
To Materials		86,000	By Materials		
- Wages	70,000		returned to store		600
Add Outstanding	300	70,300	- Stock of materials		2,000
To Direct Expenses		3,000	- Plant		73,000
- Plant		80,000	- Cost of contract		
- Office Expenses		4,000	(Balancing figure)		1,67,700
		2,43,300			2,43,300
To Cost of contract b/d		1,67,700	By Contractee's A/c		
- Profit & Loss a/c		8,500	Value of work		
- Profit in suspense		21,500	certified		1,90,000
			Cost of work not		
			certified		7,700
		1,97,700			1,97,700

Working Notes :

- Assuming that 50% of contract has been completed and hence $\frac{1}{3}$ of notional profit has been considered.
- $\frac{1}{3} \times 30,000 \times 1,61,500 + 1,90,000 = \text{Rs. } 8,500$ credited to Profit and Loss A/c.
- Value of Work-in-Progress :

	Rs.
Cost of work not certified -	7,700
Add Contractee's balance $1,90,000 - 1,61,500 =$	<u>28,500</u>
	36,200
- Less Profit in Suspense 21,500
- Cost of Work-in-progress 14,700

Solution

**In the Books of
CALCUTTA CONSTRUCTION LTD.
Contract Account
for the half-year ended 31st Dec. 1984**

Dr.	Rs.	Cr.	Rs.
To Materials purchased	1,15,000	By Materials in hand	5,000
" Wages	40,000	" Cost of Contract	2,01,800
" Direct Expenses	20,000		
" Works Expenses 20% of wages	8,000		
" Depreciation on Plant (for 6 months @ 10%)	5,000		
Works Cost	1,88,000		
" Office Expenses @ 10% of works cost	18,800		
	2,06,800		2,06,800
" Cost of Contract	2,01,800	By Work-in-Progress :	
" Profit & Loss A/c	52,373	Work certified	3,00,000
" Profit in Reserve	45,827		
	3,00,000		3,00,000
" Materials b/d	5,000	By Profit in Reserve	45,827
" Plant	95,000		

Note :

- Depreciation has been charged for 6 months as the same has been used from 1st July, 1991 to 31st Dec. 1991.
- In the problem the amount of materials consumed is given, so, no adjustment is required for closing stock of materials. Alternatively, materials sent to site, can be determined as :

Materials consumed	1,10,000
Add : Materials in hand	5,000
	1,15,000

In this case, materials in hand will appear on the credit side of Contract Account.

- Profit transferred to P & L A/c

$$\frac{2}{3} \times 98,200 \times \frac{80}{100} = \text{Rs. } 52,373$$

or, $\frac{2}{3}$ of Notional Profit \times (Cash received + work certified)

$$\frac{2}{3} \times 98,200 \times (2,40,000 + 3,00,000) = \text{Rs. } 52,373.$$

HARDER PROBLEMS

- A contractor commenced a contract on 1-7-2013. The costing records concerning the said contract reveal the following information as on 31-3-2014. Material sent to site 7,74,300 Labour paid 10,79,000 Labour outstanding as on 31-3-2014 1,02,500 Salary to Engineer 20,500 per month Cost of plant sent to site (1-7-2013) 7,71,000 Salary to Supervisor (3/4 time devoted to contract) 9,000 per month Administration & other expenses 4,60,600 Prepaid Administration expenses 10,000 Material in hand at site as on 31-3-2014 -75,800 Plant used for the contract has an estimated life of 7 years with residual value at the end of life Rs.50,000. Some of material costing Rs.13,500 was found unsuitable and sold for Rs.10,000. Contract price was Rs.45,00,000. On 31-3-2014 two third of the contract was completed. The architect issued certificate covering

50% of the contract price and contractor has been paid Rs.20,00,000 on account. Depreciation on plant is charged on straight line basis. Prepare Contract Account. (Ans.: P & L A/c = 1,60,178, WIP (reserve): 1,10,122)

- 2) Compute a conservative estimate of profit on a contract (which has been 90% complete) from the following particulars. Calculate the proportion of profit to be taken to Costing Profit & Loss Account under various methods and give your recommendation. Total expenditure to date 4,50,000 Estimated further expenditure to complete the contract (including contingencies) 25,000 Contract price 6,12,000 Work certified 5,50,800 Work uncertified 34,000 Cash received 4,40,640.

(Ans.: amount to be transferred to P&LA/c- 98,640)